

Bally/MIDWAY

SPECIAL FORCE

Fuse List

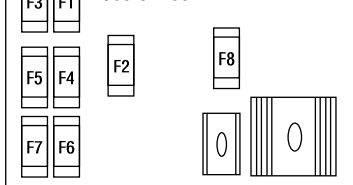
Power Module A080-91785		
F1	43V Solenoids (2 flippers)	5A, 250V
F2	230V Display Power input	0.75A, 250V
F3	5V & 12V Logic Power Input	6A, 250V
F4	20V Controlled lamps	8A, 250V
F5	20V Controlled lamps	8A, 250V
F6	6.3V General Illumination	15A, 250V
F7	6.3V General Illumination	15A, 250V
F8	190V Display Power output	0.25A, 250V
Under the Playfield Solenoids		
F1	Playfield Solenoids	1.5A, 250V, SB
F2	Bright Lights	0.75A, 250V
Transformer Module		
F1	Main fuse	3A, 250V, SB



Sound Deluxe Module A084-91864

6803 Controller Module A-084-91786

Power Module A080-91785



Coil Table

Sol. No	Solenoid description	Solenoid Type	Wire Code	Wire Color	Connector	Driver Transistor	Sol. Exp. Wire Color	Solenoid Coil Type
1	Left Thumper Bumper	Momentary	31	Yel-Red	J6-1, J8-5	Q11	Red-Blk	A-26-1200
2	Right Thumper Bumper	Momentary	32	Yel-Blu	J6-2, J8-4	Q12	Red-Blk	A-26-1200
3	Middle Thumper Bumper	Momentary	34	Yel-Grn	J6-3	Q13	Red-Blk	A-26-1200
4	Left Slingshot	Momentary	35	Yel-Wht	J6-4	Q14	Red-Blk	A-26-1200
5	Right Slingshot	Momentary	27	Blu-Orn	J8-7, J7-1	Q16	Red-Blk	A-26-1200
6	Bright Lights 1	Momentary	25	Blu-Wht	J8-6	Q15	Yel-Red	#912 (3 in series)
7	Bright Lights 2	Momentary	36	Yel-Brn	J6-5	Q17	Yel-Red	#912 (3 in series)
8	Bright Lights 3	Momentary	51	Wht-Red	J9-1	Q18	Yel-Red	#912 (3 in series)
9	Bright Lights 4	Momentary	52	Wht-Blu	J9-2	Q19	Yel-Red	#912 (3 in series)
10	Bright Lights 5	Momentary	53	Wht-Yel	J9-3	Q20	Yel-Red	#912 (3 in series)
11	Not Used	Momentary	311	Yel-Vio	J6-7, J7-4	Q10		--
12	(German games)	Momentary	57	Wht-Orn	J9-7	Q38		--
13	Outhole	Momentary	58	Wht-Blk	J9-8	Q39	Yel-Red	A-26-1200
14	Knocker	Momentary	59	Wht-Gry	J7-2, J8-2, J9-11	Q40	Yel-Red	A-26-1200
15	Inline D.T. Up (Reset)	Momentary	25	Blu-Wht	J8-6	Q15	Blk-Blu	N-26-1900
16	Inline D.T. Bottom	Momentary	36	Yel-Brn	J6-5	Q17	Blk-Blu	C29-1500
17	Inline D.T. Middle	Momentary	51	Wht-Red	J9-1	Q18	Blk-Blu	C29-1500
18	Inline D.T. Top	Momentary	52	Wht-Blu	J9-2	Q19	Blk-Blu	C29-1500
19	Saucer	Momentary	53	Wht-Yel	J9-3	Q20	Blk-Blu	A27-1300
20	Weapon D.T. Up	Momentary	54	Wht-Grn	J9-4	Q21	Blk-Blu	A27-1300
21	Weapon D.T. Down	Momentary	56	Wht-Brn	J9-6	Q22	Blk-Blu	C31-2000
22	Capture Drop Target	Momentary	58	Wht-Blk	J8-2, J9-8	Q39	Blk-Blu	A27-1300
23	Kicker to Playfield	Momentary	59	Wht-Gry	J7-2, J8-2, J9-11	Q40	Blk-Blu	A-27-1300
24	Flipper enabling relay	Continuous	--	--	--	Q7		48V Relay
	Not Used	Continuous	24	Blu-Grn	J7-3, J8-1, J9-10	Q8		--
	Not Used	Continuous	511	Wht-Vio	J9-9	Q9		--
Flipper Circuits	Power Wire	Return Wire	Connector	Coil				
Left Flipper	Brn (60)	90 Gry	J6-9	A24-570 / 34-3600				
Right Flipper	Brn (60)	95 Gry-Wht	J6-8	A24-570 / 34-3600				

Controlled Lamps Chart

SCR	connector	lamp description	code	wire color	phase	tr type
Q45	J10-10	Bomb "B" (first)	28	Blu-Blk	A	2N5060
Q60	J10-13	Bomb "O"	36	Yel-Brn	A	2N5060
Q29	J11-8	Bomb "M"	64	Brn-Grn	A	2N5060
Q46	J11-16	Bomb "B" (last)	78	Orn-Blk	A	2N5060
Q31	J11-13/J12-13	Bomb Load "1"	73	Orn-Yel	B	2N5060
Q48	J11-10/J12-7	Bomb Load "2"	68	Brn-Blk	B	2N5060
Q63	J11-3/J12-2	Bomb Load "3"	59	Wht-Gry	B	2N5060
Q57	J10-18	Bombs 1	43	Grn-Yel	A	2N5060
Q26	J10-4	Bombs 2	15	Red-Wht	A	2N5060
Q43	J10-11	Bombs 4	31	Yel-Red	A	2N5060
Q58	J10-19	Bombs 8	45	Grn-Wht	A	2N5060
Q23	J10-1	Bonus 1	12	Red-Blu	B	2N5060
Q70	J10-7	Bonus 2	24	Blu-Grn	B	2N5060
Q55	J10-16	Bonus 4	38	Yel-Blk	B	2N5060
Q24	J10-2	Bonus 8	13	Red-Yel	B	2N5060
Q41	J10-8	Bonus 16	25	Blu-Wht	B	2N5060
Q56	J10-17	Bonus 32	41	Grn-Red	B	2N5060
Q61	J11-6/J12-10	Bonus 2X	62	Brn-Blu	A	2N5060
Q30	J11-12/J12-14	Bonus 3X	72	Orn-Blu	A	2N5060
Q47	J11-11/J12-6	Bonus 4X	71	Orn-Red	A	2N5060
Q62	J11-4/J12-1	Bonus 5X	61	Brn-Red	A	2N5060
Q42	J10-9	Bonus X	26	Blu-Brn	B	2N5060
Q53	J13-12	Bumper Left	96	Gry-Brn	A	MCR-106
Q37	J13-4	Bumper Middle	85	Blk-Wht	A	2N5060
Q68	J13-10	Bumper Right	94	Gry-Grn	A	MCR-106
Q54	J13-11	Collect Bonus	95	Gry-Wht	A	2N5060
Q32	J11-14/J12-12	Escape	74	Orn-Grn	B	2N5060
Q25	J10-3	Expander Board	14	Red-Grn	A	2N5060
Q25	J10-3	Expander Board	14	Red-Grn	B	2N5060
Q33	J11-15/J12-11	Extra Ball Lamp	75	Orn-Wht	A	2N5060
Q65	J11-1/J12-4	Fire Bottom Left	48	Grn-Blk	A	MCR-106
Q31	J11-13/J12-13	Fire Bottom Right	73	Orn-Yel	A	2N5060
Q36	J13-3	Fire Top Left	84	Blk-Grn	A	MCR-106
Q50	J11-7/J12-9	Fire Top Right	63	Brn-Yel	A	2N5060
Q65	J11-1/J12-4	G.L. #1	48	Grn-Blk	B	MCR-106
Q34	J12-17/J13-1	G.L. #2	81	Blk-Red	B	MCR-106
Q51	J12-15/J13-8	G.L. #3	81	Gry-Yel	B	MCR-106
Q66	J12-16/J13-6	G.L. #4	97	Blk-Orn	B	MCR-106
Q35	J13-2	G.L. #5	83	Blk-Yel	B	MCR-106
Q52	J13-13	G.L. #6	97	Gry-Orn	B	MCR-106
Q67	J13-5	G.L. #7	86	Blk-Brn	B	MCR-106
Q36	J13-3	G.L. #8	84	Blk-Grn	B	MCR-106
Q53	J13-12	G.L. #9	96	Gry-Brn	B	MCR-106
Q68	J13-10	G.L. #10	94	Gry-Grn	B	MCR-106
Q37	J13-4	G.L. #11	85	Blk-Wht	B	2N5060
Q54	J13-11	G.L. #12	95	Gry-Wht	B	2N5060
Q56	J10-17	Hostage Left	41	Grn-Red	A	2N5060
Q41	J10-8	Hostage Right	25	Blu-Wht	A	2N5060
Q34	J12-17/J13-1	L1	81	Blk-Red	A	MCR-106
Q51	J12-15/J13-8	L2	93	Gry-Yel	A	MCR-106
Q66	J12-16/J13-6	L3	87	Blk-Orn	A	MCR-106
Q35	J13-2	L4	83	Blk-Yel	A	MCR-106
Q52	J13-13	L5	97	Gry-Orn	A	MCR-106
Q67	J13-5	L6	86	Blk-Brn	A	MCR-106
Q44	J10-12	Left Bonus X	32	Yel-Blu	B	2N5060
Q59	J10-14	Left Extra Ball	37	Yel-Orn	B	2N5060
Q28	J10-6	Left Release Hostage	21	Blu-Red	B	2N5060
Q49	J11-9/J12-8	Load Bomb	67	Brn-Orn	B	2N5060
Q48	J11-10/J12-7	R1	68	Brn-Blk	A	2N5060
Q63	J11-3/J12-2	R2	59	Wht-Gry	A	2N5060
Q32	J11-14/J12-12	R3	74	Orn-Grn	A	2N5060
Q49	J11-9/J12-8	R4	67	Brn-Orn	A	2N5060
Q27	J10-5	Release Hostage	18	Red-Blk	B	2N5060
Q57	J10-18	Road 10,000	43	Grn-Yel	B	2N5060
Q26	J10-4	Road 20,000	15	Red-Wht	B	2N5060
Q43	J10-11	Road 40,000	31	Yel-Red	B	2N5060
Q45	J10-10	Road 100,000	28	Blu-Blk	B	2N5060
Q60	J10-13	Rocket "O"	36	Yel-Brn	B	2N5060
Q29	J11-8	Rocket "C"	64	Brn-Grn	B	2N5060
Q46	J11-16	Rocket "K"	78	Orn-Blk	B	2N5060
Q61	J11-6/J12-10	Rocket "E"	62	Brn-Blu	B	2N5060
Q30	J11-12/J12-14	Rocket "T"	72	Orn-Blu	B	2N5060
Q27	J10-5	Rockets 1	18	Red-Blk	A	2N5060
Q44	J10-12	Rockets 2	32	Yel-Blu	A	2N5060
Q59	J10-14	Rockets 4	37	Yel-Orn	A	2N5060
Q28	J10-6	Rockets 8	21	Blu-Red	A	2N5060
Q69	J13-7	Set Explosives	91	Gry-Red	A	2N5060
Q42	J10-9	Shoot Again	26	Blu-Brn	A	2N5060
Q33	J11-15/J12-11	Special Left	75	Orn-Wht	B	2N5060
Q50	J11-7/J12-9	Special Right	63	Brn-Yel	B	2N5060
Q23	J10-1	Weapon 25,000	12	Red-Blu	A	2N5060
Q70	J10-7	Weapon 50,000	24	Blu-Grn	A	2N5060
Q55	J10-16	Weapon 75,000	38	Yel-Blk	A	2N5060
Q24	J10-2	Weapon 100,000	13	Red-Yel	A	2N5060
Q58	J10-19	Weapon Bonus	45	Grn-Wht	B	2N5060
Q64	J11-2/J12-3	Weapon Lamp	58	Wht-Blk	A	2N5060
Q47	J11-11/J12-6		71	Orn-Red	B	2N5060
Q62	J11-4/J12-1		61	Brn-Red	B	2N5060
Q64	J11-2/J12-3		58	Wht-Blk	B	2N5060
Q69	J13-7		91	Gry-Red	B	2N5060



Switch Matrix

Column	STROBE 0 J4-15 Wht-Red (51) J3-15 Red-Yel (13)	STROBE 1 J4-14 Wht-Blu (52) J3-14 Red-Grn (14)	STROBE 2 J4-13 Wht-Yel (53) J3-13 Orn-Grn (74)	STROBE 3 J4-12 Wht-Grn (54) J3-12 Yel-Wht (35)	STROBE 4 J4-11 Wht-Brn (56) J3-11 (not used)	STROBE 5 J4-1 Wht-Vio (511)
RETURN 10 CJ4-10 Red (10) CJ3-10 Red-Wht (15)	Collect Weapon 01	Coin Chute III (Right) 09	Rocket R 17	Left Thumper Bumper 25	Bomb B 33	Auxiliary Captive (near saucer) 41
RETURN 11 CJ4-9 Blu (20) CJ3-9 Brn-Wht (65)	Chopper Top 02	Coin Chute I (Left) 10	Rocket O 18	Right Thumper Bumper 26	Bomb O 34	Return Lanes 42
RETURN 12 CJ4-8 Yel (30) CJ3-8 Blu (20)	Chopper Bottom 03	Coin Chute II (Middle) 11	Rocket C 19	Middle Thumper Bumper 27	Bomb M 35	Bonus Multiplier 43
RETURN 13 CJ4-7 Grn (40) CJ3-7 Blu-Red (21)	Rebound 04	Left Outlane 12	Rocket K 20	Left Slingshot 28	Bomb B 36	Load Bombs 44
RETURN 14 CJ4-6 Wht (50) CJ3-6 Gry-Orn (97)	Left Launch Button 05	Right Outlane 13	Rocket E 21	Right Slingshot 29	Not Used 37	Bottom In-Line Drop Target 45
RETURN 15 CJ4-4 Brn (60) CJ3-5 Yel (30)	Credit Button 06	Slam 14	Rocket T 22	Right Trough 30	Collect Bonus 38	Middle In-Line Drop Target 46
RETURN 16 CJ4-3 Orn (70) CJ3-4 Blu-Orn (27)	Right Launch Button 07	Tilt 15	Saucer Capture 1 23	Middle Trough 31	Not Used 39	Top In-Line Drop Target 47
RETURN 17 CJ4-2 Blk (80) CJ3-2 (not used)	Outhole 08	Release Left 16	Saucer Capture 2 24	Left Trough 32	Weapon Drop Target 40	Road Switch 48

Lamps #555 are used in phase A (10) Red wire and phase B (80) Black wire.