

FIREPOWER

Driver Board Assembly Drawing (System 6)

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BOARD CONNECTIONS:

1	CPU BOARD
2	DRIVER BOARD
3	POWER SUPPLY BOARD
4	MASTER DISPLAY BOARD
5	SLAVE DISPLAY BOARD
6	BACKBOX
7	CABINET
8	PLAYFIELD
9	INSERT BOARD
10	SOUND BOARD
11	NOT ASSIGNED
12	SPEECH MODULE

SPECIAL SWITCH INPUTS

Orange/Blue (Sol. 22Sp. Sw. 9)	1
Orange/Green (Sol. 21Sp. Sw. 5)	2
Orange/Red (Sol. 20Sp. Sw. 4)	3
Orange/Black (Sol. 19Sp. Sw. 2)	4
Orange/Brown (Sol. 17Sp. Sw. 1)	5
Grey/Black (Sol. 15Sp. Sw. 1)	6
Grey/Red (Sol. 14Sp. Sw. 1)	7
Grey/Blue (Sol. 13Sp. Sw. 1)	8
Grey/Green (Sol. 12Sp. Sw. 1)	9
Grey/Yellow (Sol. 11Sp. Sw. 1)	10
Grey/Violet (Sol. 10Sp. Sw. 1)	11
Grey/White (Sol. 9Sp. Sw. 1)	12

SPECIAL SOLENOID DRIVERS

Blue/Black (Solenoid 22)Special Solenoid 5 Left Kicker (Q122) 9	1
Blue/Green (Solenoid 21)Special Solenoid 5 Right Kicker (Q102) 11	2
Blue/Brown (Solenoid 17)Special Solenoid 1 Top Left Jet Bumper (Q217) 16	3
Blue/Red (Solenoid 20)Special Solenoid 4 Bottom Right Jet Bumper (Q820) 19	4
Blue/Red (Solenoid 18)Special Solenoid 2 Bottom Left Jet Bumper (Q419) 4	5
Blue/Orange (Solenoid 15)Special Solenoid 3 Top Right Jet Bumper (Q619) 2	6
Orange/Grey (Left Flipper Enable) 2	7
Orange/Black (Right Flipper Enable) 1	8

SOLENOID DRIVE

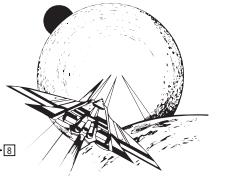
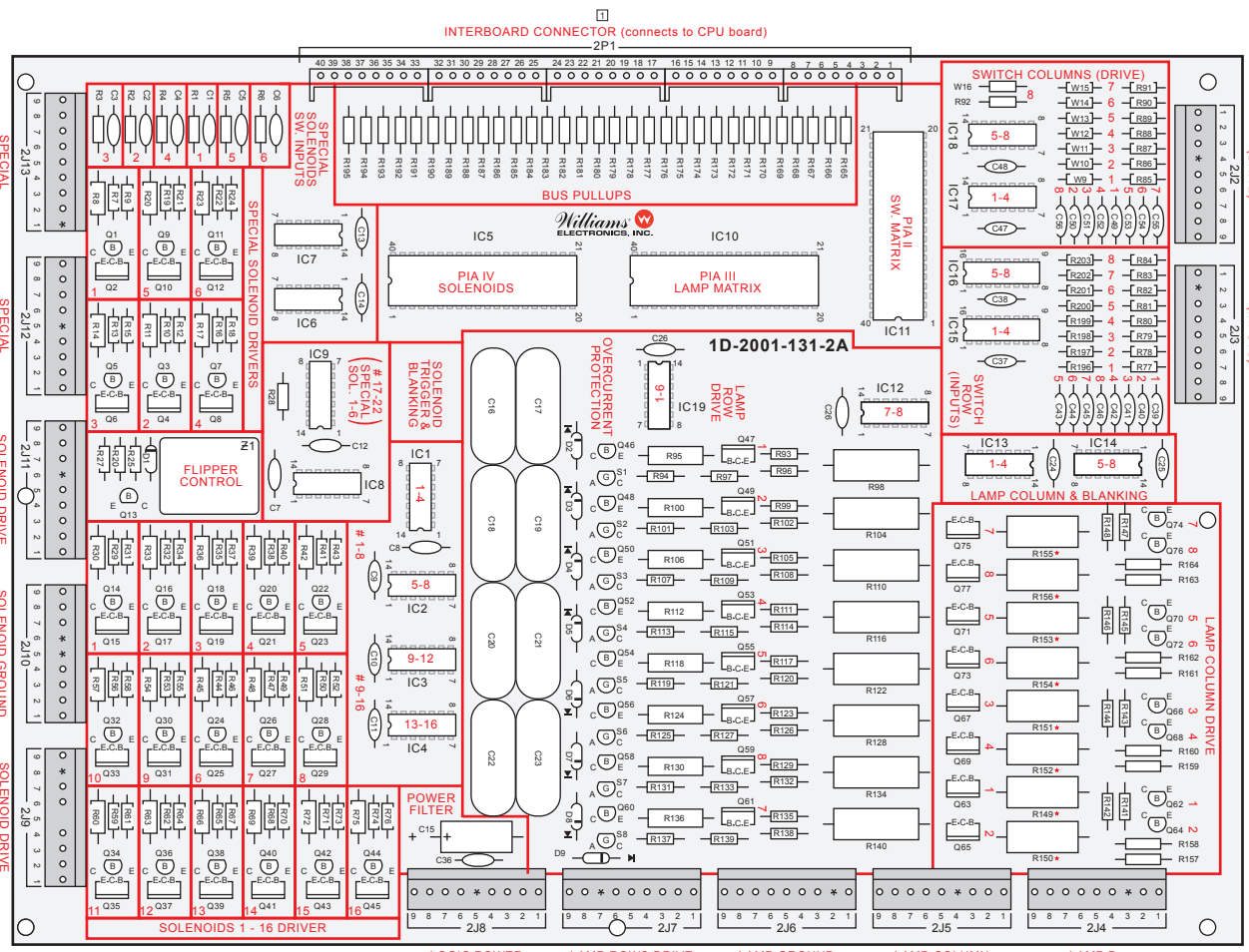
Grey/Green (Solenoid 5 Right Eject Hole Q235) 9	1
Grey/Yellow (Solenoid 4 Left Eject Hole Q214) 8	2
Grey/Orange (Solenoid 3 Not Used Q193) 3	3
Grey/Red (Solenoid 2 Not Used Q172) 2	4
Grey/Blue (Solenoid 1 Ball Release Q151) 1	5
Grey/Violet (Solenoid 8 Upper Right Eject Hole Q295) 3	6
Grey/Violet (Solenoid 7 Left Ball Saver Kicker Q277) 2	7
Grey/Black (Solenoid 8 Ball Ramp Transducer Q279) 1	8

SOLENOID GROUND

Black (Solenoid Ground) 9	1
Black (Solenoid Ground) 8	2
Black (Solenoid Ground) 7	3
Black (Solenoid Ground) 6	4
Black (Solenoid Ground) 5	5
Black (Solenoid Ground) 4	6
Black (Solenoid Ground) 3	7
Black (Solenoid Ground) 2	8
Black (Solenoid Ground) 1	9

SOLENOID DRIVE

Brown/Black (Solenoid 9 Sound Q319) 9	1
Brown/Red (Solenoid 10 Sound Q331) 10	2
Brown/Grey (Solenoid 16 Coin Lockout Q451) 6	3
Brown/Violet (Solenoid 15 Flash Lamps Q431) 5	4
Brown/Blue (Solenoid 14 Credit Knocker Q414) 4	5
Brown/Green (Solenoid 13 Sound Q391) 3	6
Green/Violet (Solenoid 12 Sound Q371) 2	7
Brown/Orange (Solenoid 11 Sound Q351) 1	8



SWITCH COLUMN (DRIVE)

1 Green/Grey (Switch Column #8)	1
2 Green/Violet (Switch Column #7)	2
3 Green/Blue (Switch Column #6)	3
4 KEY	4
5 Green/Black (Switch Column #5)	5
6 Green/Yellow (Switch Column #4)	6
7 Green/Orange (Switch Column #3)	7
8 Green/Red (Switch Column #2)	8
9 Green/Brown (Switch Column #1)	9

SWITCH ROW (INPUTS)

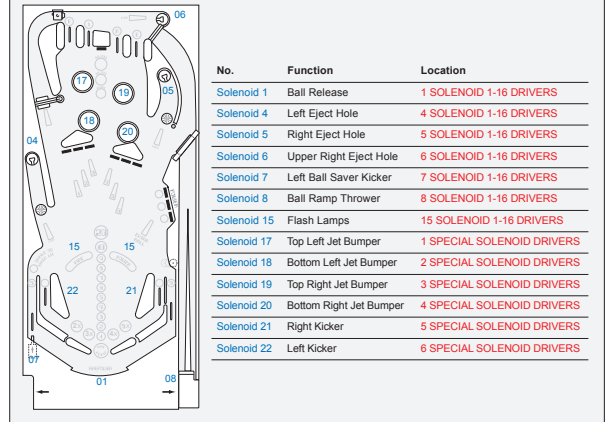
1 White/Grey (Switch Row #8)	1
2 KEY	2
3 White/Violet (Switch Row #7)	3
4 White/Blue (Switch Row #6)	4
5 White/Green (Switch Row #5)	5
6 White/Yellow (Switch Row #4)	6
7 White/Orange (Switch Row #3)	7
8 White/Red (Switch Row #2)	8
9 White/Brown (Switch Row #1)	9

★ R149 THRU R156 MUST BE MOUNTED ABOVE SURFACE OF BOARD

BILL OF MATERIALS

ITEM NO.	PART NO.	PART DESCRIPTION	DESCRIPTION	QTY
1	1-B-2001-131		BARE P.C. BOARD	1
2	5A-8948	IC8, IC9	N7402 QUADRUPLE 2 INPUT POSITIVE NOR GATE	2
3	5A-8974	IC12, IC17, IC18, IC19	N7405 HEX INVERTER BUFFER DRIVERS W/OPEN COLLECTOR HIGH VOLTAGE OUTPUTS	4
4	5A-8973	IC1 THRU IC4, IC6, IC7, IC13, IC14	N7408 QUADRUPLE 2 INPUT POSITIVE-AND GATE	8
5	5A-8975	IC15, IC16	MM14049 INVERT. HEX BUFFER	2
6	5A-8972	IC5, IC10, IC11	MC8800 PERIPHERAL INTERFACE ADAPTER	3
7	5A-9338		2M4401 NPN TRANSISTOR	23
8	5A-8976	Q48, Q49, Q50, Q52, Q54, Q55, Q56, Q58, Q60, Q62, Q64, Q66, Q68, Q70, Q72, Q74, Q76	2M6427 DARLINGTON NPN TRANSISTOR	16
9	5A-8977	Q2, Q4, Q6, Q8, Q10, Q12, Q14, Q16, Q18, Q20, Q22, Q24, Q26, Q28, Q30, Q32, Q34, Q36, Q38, Q40, Q42, Q44	TIP122 DARLINGTON NPN POWER TRANSISTOR	22
10	5A-8978	Q63, Q65, Q67, Q69, Q71, Q73, Q75, Q77	TIP42 PNP POWER TRANSISTOR	8
11	5A-8979	Q47, Q49, Q51, Q53, Q55, Q57, Q59, Q61	2N6122 NPN POWER TRANSISTOR	8
12	5A-6258	D1	1N4001 DIODE	1
13	5A-8919	D2 THRU D9	1N4148 DIODE	8
14	5A-9014	S1 THRU S8	2M6600 SCR	8
15	5A-8980	C1 THRU C4, C14, C24 THRU C28, C30, C32, C34, C36, C38, C40, C42, C44	CAPACITOR, CERAMIC, .01 MFD +80 -20 % 50V	22
16	5A-8995	C16 THRU C23	CAPACITOR, POLYESTER FILM, 1 MFD 10 V	7
17	5A-9065	C37 THRU C46	CAPACITOR, CERAMIC, 470 PFD, 20 % 50 V	16
18	5A-8986	C15	CAPACITOR, ELECT, 100 MFD, 10 V	1
19	5A-8996	C36	CAPACITOR, CERAMIC, 1 MFD, +80 -20 % 50 V	1
20	5A-8991	R1 THRU R6, R27, R77 THRU R92, R157 THRU R195	RESISTOR, FC, 4.7 OHM 10 % W	62
21	5A-8983	R27	RESISTOR, FC, 3.3 K OHM 10 % W	1
22	5A-8984	R96, R97, R102, R103, R108, R109, R114, R115, R121, R122, R126, R127, R132, R133, R138, R139, R186 THRU R203	RESISTOR, FC, 1 OHM 10 % W	24
23	5A-8992	R7, R10, R13, R16, R19, R22, R26, R29, R33, R35, R38, R41, R44, R47, R50, R53, R55, R59, R62, R65, R68, R71, R74	RESISTOR, FC, 560 OHM 10 % W	22
24	5A-8993	R8, R11, R14, R17, R20, R23, R23, R26, R29, R42, R45, R46, R51, R54, R57, R60, R63, R66, R68, R72, R75	RESISTOR, FC, 68 OHM 10 % W	22
25	5A-8997	R9, R12, R15, R18, R21, R24, R25, R31, R34, R37, R40, R43, R46, R49, R52, R55, R58, R61, R64, R67, R70, R73, R76	RESISTOR, FC, 2.7 K OHM 10 % W	23
26	5A-8917	R28	RESISTOR, FC, 10 K OHM 10 % W	1
27	5A-8998	R141 THRU R148	RESISTOR, FC, 2.2 K OHM 10 % W	8
★ 28	5A-8999-1	R149 THRU R156	RESISTOR, FC, 27 OHM 10 % W	8
29	5A-9084	R95, R100, R102, R112, R118, R124, R130, R136	RESISTOR, FC, 100 OHM 10 % W	8
30	5A-9085	R93, R99, R105, R111, R117, R123, R129, R135	RESISTOR, FC, 1.5 K OHM 10 % W	8
31	5A-9086	R94, R101, R107, R113, R119, R125, R131, R137	RESISTOR, FC, 6.8 K OHM 10 % W	8
32	5A-9037	R98, R104, R110, R116, R122, R128, R134, R140	RESISTOR, WIREWOUND, 4 OHM 10 % 3 W	8
33	5A-9037	Z1	RELAY - 4 POLE - 5 AMP CONTACTS 4 OHM COIL 5 V D.C	1
34	5A-9066	2P1	SAME PLAYER SHOOTERS	6
35	5A-9027	2/2 THRU 2/13	9 PIN HEADER	12
36	5A-9534	W9 THRU W16	RESISTOR, FC, 0 OHM, 1/4 W	8

PLAYFIELD SOLENOID LOCATOR



SWITCH MATRIX

COL	1	2	3	4	5	6	7	8
ROW	GRN-BRN (Z29-8)	GRN-RED (Z24-1)	GRN-ORNG (Z27-7)	GRN-YEL (Z24-6)	GRN-BLK (Z24-9)	GRN-BLU (Z23-9)	GRN-VIO (Z23-2)	GRN-GRY (Z23-4)
1	PLUMB BOB	OUTHOLE	"**" TARGET	"*" BOTTOM TARGET	"*" BOTTOM TARGET	"*" BOTTOM TARGET	"*" BOTTOM TARGET	"*" BOTTOM TARGET
2	BALL ROLL TLT.	LEFT OUTSIDE ROLLER	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET
3	CREDIT BUTTON	LEFT INSIDE ROLLER	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET
4	RIGHT COIN SWITCH	LEFT KICKER	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED
5	CENTRE COIN SWITCH	EJECT HOLE	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET
6	LEFT COIN SWITCH	UPPER MIDDLE TLT.	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET
7	SLAM TILT	SPINNER	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET
8	HIGH SCORE RESET	TOP LEFT STANDUP	NOT USED	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET	"*" TARGET

LAMP MATRIX

COL	1	2	3	4	5	6	7	8
ROW	YEL-BRN (Z27-9)	YEL-RED (Z24-8)	YEL-ORNG (Z27-7)	YEL-BLK (Z24-6)	YEL-GRN (Z24-9)	YEL-BLU (Z23-9)	YEL-VIO (Z23-2)	YEL-GRY (Z23-4)
1	SHOOT AGAIN	TOP POWER TARGET	4000 BONUS	20000 BONUS	LEFT EJECT HOLE	10000 FIREPOWER BONUS	RIGHT SPECIAL	#1 PLAYER UP
2	BALL SAVER	CENTRE POWER TARGET	5000 BONUS	**" TARGET	RIGHT EJECT HOLE	30000 FIREPOWER BONUS	1 CAN PLAY	#2 PLAYER UP
3	FIRE (K2)	BOTTOM POWER TARGET	6000 BONUS	**" TARGET	UPPER RIGHT	60000 FIREPOWER BONUS	2 CAN PLAY	#3 PLAYER UP
4	POWER (K2)	RIGHT INSIDE ROLLER	7000 BONUS	**" TARGET	LEFT EJECT HOLE	30000 FIREPOWER BONUS	3 CAN PLAY	#4 PLAYER UP
5	"*	LEFT INSIDE ROLLER	8000 BONUS	**" TARGET	ARROW	3X	TOP RIGHT DET BUMP	4 CAN PLAY
6	"*	1000 BONUS	9000 BONUS	**" TARGET	ARROW	4X	BOTTOM RIGHT DET BUMP	MATCH GAME OVER
7	"R"	2000 BONUS	NOT USED	**" TARGET	ARROW	5X	BOTTOM LEFT DET BUMP	SAME PLAYER SHOOTERS
8	"E"	3000 BONUS	10000 BONUS	SPINNER WHEN LIT	LEFT SPECIAL	CREDITS (PLAYFIELD)	HIGH SCORE TO DATE	9 PIN HEADER