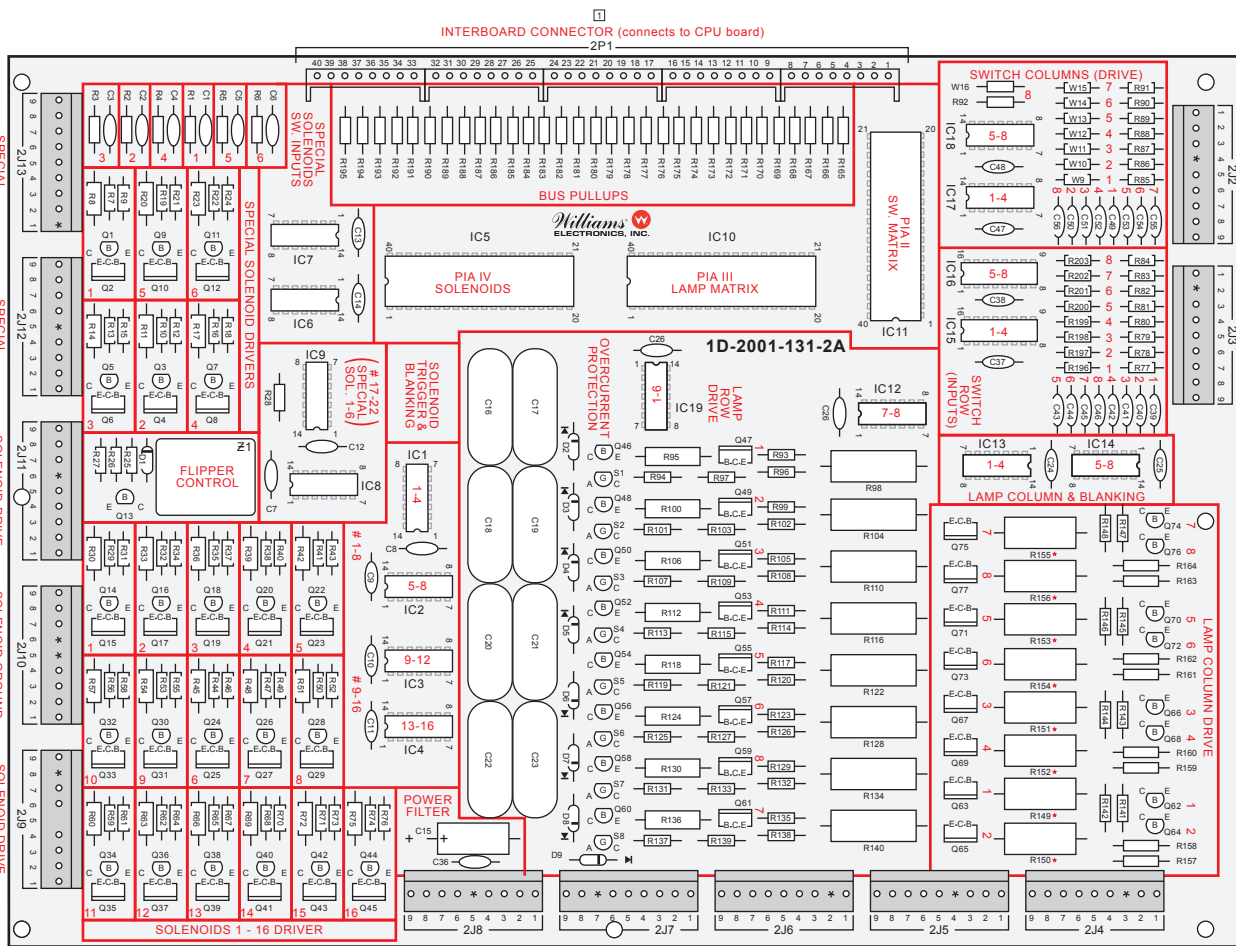


FIREPOWER

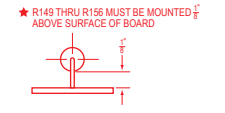
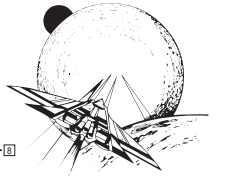
Driver Board Assembly Drawing (System 6)

- 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

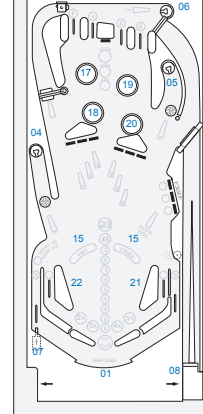
- SPECIAL SWITCH INPUTS**
- Orange/Blue (Sol. 22Sp. Sw. 6) 9
 - Orange/Green (Sol. 21Sp. Sw. 5) 8
 - NIC (Not Used) 7
 - NIC (Not Used) 6
 - Orange/Brown (Sol. 17Sp. Sw. 1) 5
 - Orange/Red (Sol. 20Sp. Sw. 4) 4
 - Orange/Red (Sol. 18Sp. Sw. 2) 3
 - Orange/Black (Sol. 19Sp. Sw. 3) 2
 - KEY 1
- SPECIAL SOLENOID DRIVERS**
- Blue/Black (Solenoid 22/Special Solenoid 5 Left Kicker Q12/22) 9
 - Blue/Green (Solenoid 21/Special Solenoid 5 Right Kicker Q10/21) 8
 - Blue/Brown (Solenoid 17/Special Solenoid 1 Top Left Jet Bumper Q21/17) 6
 - Blue/Red (Solenoid 20/Special Solenoid 4 Bottom Right Jet Bumper Q8/20) 5
 - Blue/Red (Solenoid 18/Special Solenoid 2 Bottom Left Jet Bumper Q4/18) 4
 - Blue/Orange (Solenoid 19/Special Solenoid 3 Top Right Jet Bumper Q6/19) 3
 - Orange/Grey (Left Flipper Enable) 2
 - Orange/Grey (Right Flipper Enable) 1
 - KEY 5
- SOLENOID DRIVE**
- Grey/Green (Solenoid 5 Right Eject Hole Q23/5) 9
 - Grey/Yellow (Solenoid 4 Left Eject Hole Q21/4) 8
 - Grey/Orange (Solenoid 3 Not Used Q19/3) 7
 - Grey/Red (Solenoid 2 Not Used Q17/2) 6
 - Grey/Brown (Solenoid 1 Ball Release Q15/1) 5
 - Grey/Blue (Solenoid 6 Upper Right Eject Hole Q25/6) 4
 - Grey/Violet (Solenoid 7 Left Ball Saver Kicker Q27/7) 3
 - Grey/Black (Solenoid 8 Ball Ramp Thru/27) 2
 - KEY 6
- SOLENOID GROUND**
- Black (Solenoid Ground) 9
 - Black (Solenoid Ground) 8
 - Black (Solenoid Ground) 7
 - Black (Solenoid Ground) 6
 - Black (Solenoid Ground) 5
 - Black (Solenoid Ground) 4
 - Black (Solenoid Ground) 3
 - Black (Solenoid Ground) 2
 - KEY 5
- SOLENOID DRIVE**
- Brown/Black (Solenoid 9 Sound 0 Q31/9) 9
 - KEY 8
 - Brown/Red (Solenoid 10 Sound 1 Q33/10) 8
 - Brown/Grey (Solenoid 16 Coin Lockout Q45/16) 7
 - Brown/Violet (Solenoid 15 Flash Lamps Q43/15) 6
 - Brown/Blue (Solenoid 14 Credit Knocker Q41/14) 5
 - Brown/Green (Solenoid 13 Sound 3 Q39/13) 4
 - Brown/Yellow (Solenoid 12 Sound 3 Q37/12) 3
 - Brown/Orange (Solenoid 11 Sound 2 Q35/11) 2
 - KEY 9



- SWITCH COLUMNS (DRIVE)**
- 1 Green/Grey (Switch Column #8)
 - 2 Green/Violet (Switch Column #7)
 - 3 Green/Blue (Switch Column #6)
 - 4 KEY
 - 5 Green/Black (Switch Column #5)
 - 6 Green/Yellow (Switch Column #4)
 - 7 Green/Orange (Switch Column #3)
 - 8 Green/Red (Switch Column #2)
 - 9 Green/Brown (Switch Column #1)
- SWITCH ROW (INPUTS)**
- 1 White/Grey (Switch Row #8)
 - 2 KEY
 - 3 White/Violet (Switch Row #7)
 - 4 White/Blue (Switch Row #5)
 - 5 White/Green (Switch Row #4)
 - 6 White/Yellow (Switch Row #3)
 - 7 White/Orange (Switch Row #2)
 - 8 White/Red (Switch Row #1)
 - 9 White/Brown (Switch Row #1)



PLAYFIELD SOLENOID LOCATOR



No.	Function	Location
Solenoid 1	Ball Release	1 SOLENOID 1-16 DRIVERS
Solenoid 4	Left Eject Hole	4 SOLENOID 1-16 DRIVERS
Solenoid 5	Right Eject Hole	5 SOLENOID 1-16 DRIVERS
Solenoid 6	Upper Right Eject Hole	6 SOLENOID 1-16 DRIVERS
Solenoid 7	Left Ball Saver Kicker	7 SOLENOID 1-16 DRIVERS
Solenoid 8	Ball Ramp Thruer	8 SOLENOID 1-16 DRIVERS
Solenoid 15	Flash Lamps	15 SOLENOID 1-16 DRIVERS
Solenoid 17	Top Left Jet Bumper	1 SPECIAL SOLENOID DRIVERS
Solenoid 18	Bottom Left Jet Bumper	2 SPECIAL SOLENOID DRIVERS
Solenoid 19	Top Right Jet Bumper	3 SPECIAL SOLENOID DRIVERS
Solenoid 20	Bottom Right Jet Bumper	4 SPECIAL SOLENOID DRIVERS
Solenoid 21	Right Kicker	5 SPECIAL SOLENOID DRIVERS
Solenoid 22	Left Kicker	6 SPECIAL SOLENOID DRIVERS

SWITCH MATRIX

COL	ROW	1	2	3	4	5	6	7	8
1	WHT-BRN (23-7)	PLUMB BOB	OUTHOLE	** TARGET	BOTTOM MIDDLE LEFT BUMPER	** ROLLER	BOTTOM "POWER" TARGET	CENTRE MIDDLE LEFT STANDUP	RIGHT BALL FIELD
2	WHT-RED (23-8)	BALL ROLL TLT.	LEFT OUTSIDE ROLLER	** TARGET	** TOP LEFT JET BUMPER	** ROLLER	RIGHT KICKER	LOWER MIDDLE LEFT STANDUP	CENTRE BALL RAMP
3	WHT-CRN (23-9)	CREDIT BUTTON	LEFT INSIDE ROLLER	** TARGET	** TOP RIGHT JET BUMPER	** ROLLER	RIGHT INSIDE ROLLER	LEFT BALL RAMP	NOT USED
4	WHT-YEL (23-4)	RIGHT COIN SWITCH	LEFT KICKER	NOT USED	RIGHT JET BUMPER	UPPER RIGHT ROLLER	RIGHT OUTSIDE ROLLER	NOT USED	NOT USED
5	WHT-CRN (23-9)	CENTRE COIN SWITCH	LEFT HOLE	** TARGET	** TOP CENTRE TARGET	** ROLLER	LOWER TOP RIGHT STANDUP	LEFT EJECT ROLLER	NOT USED
6	WHT-BLU (23-4)	LEFT COIN SWITCH	UPPER MIDDLE TLT.	** TARGET	RIGHT EJECT HOLE	RIGHT HOLE	MIDDLE RIGHT STANDUP	BALL SHOOTER	RIGHT EJECT ROLLER
7	WHT-VIO (23-7)	SLAM TLT.	SPINNER	** TARGET	UPPER TOP RIGHT STANDUP	** TARGET	TOP "POWER" TARGET	PLAYFIELD TILT	NOT USED
8	WHT-GRY (23-7)	HIGH SCORE RESET	TOP LEFT STANDUP	NOT USED	** ROLLER	** ROLLER	MIDDLE "POWER" TARGET	LOWER RIGHT STANDUP	NOT USED

LAMP MATRIX

COL	ROW	1	2	3	4	5	6	7	8
1	RED-BRN (23-4)	SHOOT AGAIN	TOP POWER TARGET	4000 BONUS	20000 BONUS	LEFT EJECT HOLE ARROW	10000 FIREPOWER BONUS	RIGHT SPECIAL	#1 PLAYER UP
2	RED-BLK (23-4)	BALL SAVER	CENTRE POWER TARGET	5000 BONUS	** TARGET ARROW	RIGHT EJECT HOLE ARROW	30000 FIREPOWER BONUS	1 CAN PLAY	#2 PLAYER UP
3	RED-CRN (23-9)	FIRE (K2)	BOTTOM POWER TARGET	6000 BONUS	** TARGET ARROW	UPPER RIGHT ARROW	60000 FIREPOWER BONUS	2 CAN PLAY	#3 PLAYER UP
4	RED-YEL (23-4)	POWER (K2)	RIGHT INSIDE ROLLER	7000 BONUS	** TARGET ARROW	2X	** TOP LEFT JET BUMPER	3 CAN PLAY	#4 PLAYER UP
5	RED-BRN (23-9)	"	LEFT INSIDE ROLLER	8000 BONUS	** TARGET ARROW	3X	** TOP RIGHT JET BUMPER	4 CAN PLAY	TILT
6	RED-BLU (23-4)	"	1000 BONUS	9000 BONUS	** TARGET ARROW	4X	** BOTTOM RIGHT JET BUMPER	MATCH	GAME OVER
7	RED-VIO (23-7)	"	2000 BONUS	NOT USED	** TARGET ARROW	5X	** BOTTOM LEFT JET BUMPER	BALL IN PLAY	SAME PLAYER SHOOT'S AGAIN
8	RED-GRY (23-7)	"	3000 BONUS	10000 BONUS	SPINNER WHEN LIT	LEFT SPECIAL	CREDITS (PLAYFIELD)	HIGH SCORE TO DATE	

BILL OF MATERIALS

ITEM NO.	PART NO.	PART DESCRIPTION	DESCRIPTION	REQD. NO.
1	1-B-2001-131		BARE P.C. BOARD	1
2	5A-8948	IC8, IC9	N7402 QUADRI-LEVEL 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 QUADRI-LEVEL 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	Q1, Q3, Q5, Q7, Q8, Q11, Q13, Q14, Q16, Q18, Q20, Q22, Q24, Q26, Q28, Q30, Q32, Q34, Q36, Q38, Q40, Q42, Q44	2M4011 NPN TRANSISTOR	23
8	5A-8976	Q46, Q48, Q50, Q52, Q54, 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, Q17, Q19, Q21, Q23, Q25, Q27, Q29, Q31, Q33, Q35, Q37, Q39, Q41, Q43, Q45	TP122 DARLINGTON NPN POWER TRANSISTOR	22
10	5A-8978	Q63, Q65, Q67, Q69, Q71, Q73, Q75, Q77	TPP42 PNP POWER TRANSISTOR	8
11	5A-8979	Q47, Q49, Q51, Q53, Q55, Q57, Q59, Q61	2M6122 NPN POWER TRANSISTOR	8
12	5A-6258	D1	1M4001 DIODE	1
13	5A-8919	D2 THRU D9	1M4148 DIODE	8
14	5A-9014	S1 THRU S8	2M6060 SCR	8
15	5A-8980	C1 THRU C14, C24 THRU C28, C30, C32, C38, C47, C48	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 % 1/4 W	62
21	5A-8983	R27	RESISTOR, FC, 3.3 OHM 10 % 1/4 W	1
22	5A-8984	R96, R97, R102, R103, R108, R109, R114, R115, R117, R122, R126, R127, R132, R133, R138, R139, R196 THRU R203	RESISTOR, FC, 1 OHM 10 % 1/4 W	24
23	5A-8992	R7, R10, R13, R16, R19, R22, R26, R29, R35, R38, R41, R44, R47, R50, R53, R55, R59, R62, R65, R68, R71, R74	RESISTOR, FC, 560 OHM 10 % 1/4 W	22
24	5A-8993	R8, R11, R14, R17, R20, R23, R23, R28, R39, R42, R45, R46, R51, R54, R57, R60, R63, R66, R69, R72, R75	RESISTOR, FC, 68 OHM 10 % 1/4 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 OHM 10 % 1/4 W	23
26	5A-8917	R28	RESISTOR, FC, 10 OHM 10 % 1/4 W	1
27	5A-8998	R141 THRU R148	RESISTOR, FC, 2.2 OHM 10 % 1/4 W	8
28	5A-8999-1	R149 THRU R156	RESISTOR, FC, 27 OHM 10 % 2 W	8
29	5A-9084	R95, R100, R102, R118, R124, R130, R136	RESISTOR, FC, 100 OHM 10 % 3 W	8
30	5A-9085	R93, R99, R105, R111, R117, R123, R129, R135	RESISTOR, FC, 1.5 OHM 10 % 1/4 W	8
31	5A-9086	R94, R101, R107, R113, R119, R125, R131, R137	RESISTOR, FC, 6.8 OHM 10 % 1/4 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 40 OHM COIL V.D.C	1
34	5A-9066	ZP1	8 PIN RECEPTACLE	6
35	5A-9027	W2 THRU Z1/3	9 PIN HEADER	12
36	5A-9534	W9 THRU W16	RESISTOR, FC, 0 OHM, 1/4 W	8