

SPIDER -BOT



Coastal Amusements, Inc.



SPIDER-BOT

Redemption Version

(version: 2-1-10)

HOW TO PLAY

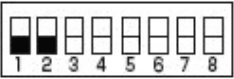




1. Insert coin(s). The spider's back-light will go out after it returns to the start position; then begin to scurry around the web.
2. A timer will start counting down and the player must "Zap" the spider with the "Laser Gun".
3. The player aims at the target on the spider's back and "Zaps" the spider to win. Each time the player successfully hits the spider, the "*Number of Hits Needed to Win*" display will decrease by 1. When the number is "0", the player wins.
4. 5 or 10 seconds before game over, the game will send a "bee" sound to alert the player that time is about to expire.
5. When time expires, the spider will return to the home position (upper left corner).
6. When the player successfully hits the spider enough times to win, the spider will immediately return to the home position.
7. There are 4 levels difficulty that control the spider's speed and movement. The more the spider is hit, the faster the spider will crawl around the web.

※ DIP SW ADJUSTMENT

PCB: **W060101B**

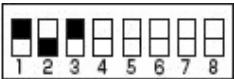

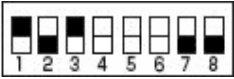
SOFTWARE: **W820B12**

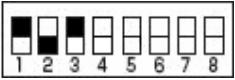




PS. DEFAULT SETUP. O → ON, X → OFF


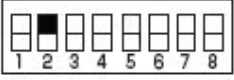
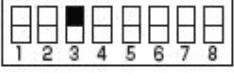

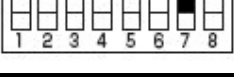

SW No	ITEM	SETTING						DIP SW1		
SW1 - 1,2	COIN1 VS. CREDIT	1	2							ON 
		ON	ON	1 : 2						
		ON	OFF	4 : 1						
		OFF	ON	2 : 1						
		OFF	OFF	1 : 1						
SW1 - 3,4	COIN2 VS. CREDIT	3	4							ON 
		ON	ON	1 : 2						
		ON	OFF	4 : 1						
		OFF	ON	2 : 1						
		OFF	OFF	1 : 1						
SW1 - 5,6	REDEMPTION TICKET(S)/UPON COINS INSERTED	5	6							ON 
		ON	ON	5						
		ON	OFF	2						
		OFF	ON	1						
		OFF	OFF	0						
SW1 - 7,8	DIFFICULTY	7	8							ON 
		ON	ON	Very hard						
		ON	OFF	Hard						
		OFF	ON	Easy						
		OFF	OFF	Very easy						
DIP SW1	FACTORY DEFAULT	1	2	3	4	5	6	7	8	ON 
		X	X	X	X	X	X	O	X	

EXPLANATION

- If COIN1 and COIN2's "COIN vs. CREDIT" are set the same, both inputs will be counted together. Example: *If COIN1 and COIN2 are both set to 2 coins = 1 play, then 1 coin inserted into COIN1 and 1 coin inserted into COIN2, will equal 1 play.*

SW No	ITEM	SETTING								DIP SW2
SW2 – 1,2,3	Number of Hits to Win Bonus.	1	2	3						ON 
		ON	ON	ON	45 HITS					
		ON	ON	OFF	40 HITS					
		ON	OFF	ON	35 HITS					
		ON	OFF	OFF	30 HITS					
		OFF	ON	ON	25 HITS					
		OFF	ON	OFF	20 HITS					
		OFF	OFF	ON	15 HITS					
		OFF	OFF	OFF	10 HITS					
SW2 - 7,8	Game Time	7	8							ON 
		ON	ON	45 SEC.						
		ON	OFF	40 SEC.						
		OFF	ON	35 SEC.						
		OFF	OFF	30 SEC.						
DIP SW2	FACTORY DEFAULT	1	2	3	4	5	6	7	8	ON 
		0	X	0	-	-	-	X	X	

SW No	ITEM	SETTING								DIP SW3
SW3 - 1,2,3	HITS/TICKET TICKETS/HIT	1	2	3						ON 
		ON	ON	ON	5HITS = 1TICKET					
		ON	ON	OFF	4HITS = 1TICKET					
		ON	OFF	ON	3HITS = 1TICKET					
		ON	OFF	OFF	2HITS = 1TICKET					
		OFF	ON	ON	1HITS = 4TICKETS					
		OFF	ON	OFF	1HITS = 3TICKETS					
		OFF	OFF	ON	1HITS = 2TICKETS					
		OFF	OFF	OFF	1HITS = 1TICKETS					
SW3 - 4	Sound in attract	4								ON 
		ON	Sound on							
		OFF	Sound off							
SW3 - 5,6	Bonus Reset Value	5	6							ON 
		ON	ON	200						
		ON	OFF	100						
		OFF	ON	50						
		OFF	OFF	25						
SW3 - 7,8	Bonus Value Increment/Play	7	8							ON 
		ON	ON	4 TICKETS						
		ON	OFF	3 TICKETS						
		OFF	ON	2 TICKETS						
		OFF	OFF	1 TICKET						
DIP SW3	FACTORY DEFAULT	1	2	3	4	5	6	7	8	ON 
		0	X	0	0	0	X	X	X	

SW No	ITEM	SETTING								DIP SW4
SW4 - 1	Keep CREDIT after power off?	1								ON 
		ON				YES				
		OFF				NO				
SW4 - 2	Keep tickets owed after power off?	2								ON 
		ON				YES				
		OFF				NO				
SW4 - 3	"Bee" sound ON before game time is up	3								ON 
		ON				10 SECONDS				
		OFF				5 SECONDS				
SW4 - 4	DEMO game	4								ON 
		ON				YES				
		OFF				NO				
SW4 - 7	Keep Progressive Bonus after Power Off?	7								ON 
		ON				YES				
		OFF				NO				
DIP SW4	FACTORY DEFAULT	1	2	3	4	5	6	7	8	ON 
		0	0	0	X	-	-	0	-	

EXPLANATION:

- **GAME MODE:** DIP SW - PIN 5 DOES NOT WORK WHEN DIP SW4 - PIN 8 IS SET TO "ON". DIP SW 3 DOES NOT WORK WHEN DIP SW 8 IS SET TO "OFF".

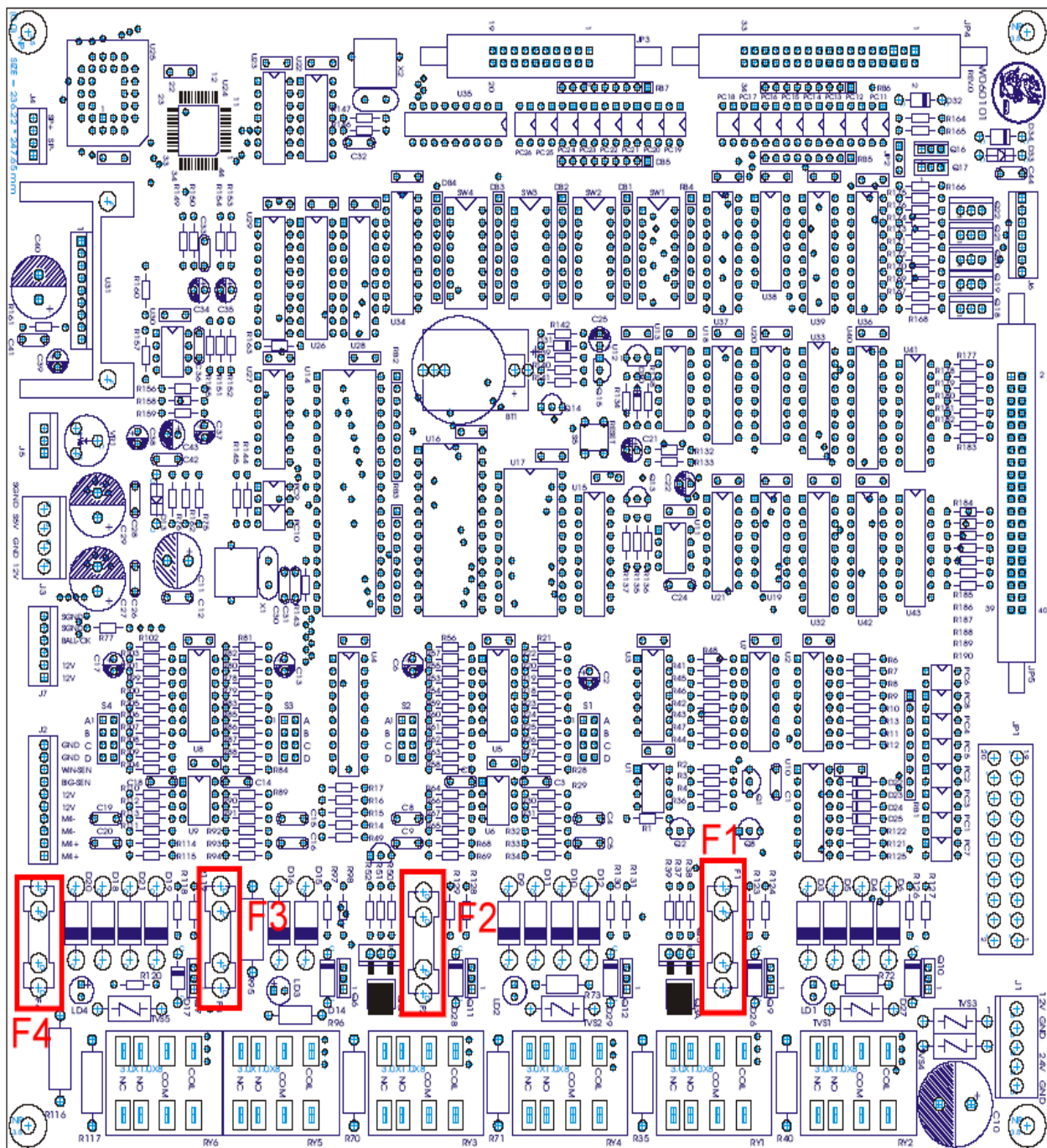
SYSTEM RESET: PRESS "CLEAR" & "TEST SW" TOGETHER AND THEN TURN ON THE GAME; RELEASE BOTH SWITCHES AFTER "BEE" SOUND IS HEARD.

※ **ERROR CODES EXPLANATION**

CODE	DESCRIPTION	TROUBLE SHOOT
E0	Gantry not in home position on power up	Press the TEST SW for test mode. The possible reasons: 1. UP/DOWN string reversed. 2. UP/DOWN motor fuse burned or UPPER SW failure. 3. LEFT/RIGHT motor fuse burned or LEFT SW failure. 4. Motor movement blocked by something. 5. Check if gantry JP1 harness pin is disconnected. 6. Main board failure.
E1	Right-stop SW breakdown on power up.	Press the TEST SW for test mode and check. The possible reasons: 1. Right stop SW breakdown, harness disconnected, or faulty connection. 2. Check if gantry JP1 harness pin disconnected. 3. Main board failure.
E2	Lower stop SW breakdown on power up.	Press TEST SW for test mode and check. The possible reasons: 1. Lower-stop SW breakdown, harness disconnected, or bad connection. 2. Check if gantry JP1 harness pin disconnected. 3. Main board failure.
E3	Upper stop SW breakdown on power up. String is going down but upper stop SW is not changing its condition from N.O. to N.C.	Press TEST SW for test mode and check. The possible reasons: 1. UP/DOWN string reversed. 2. Right stop SW breakdown, harness disconnected, or bad connection. 3. F2 FUSE burned. LEFT/RIGHT motor fuse burned. 4. Check if gantry JP1 harness pin disconnected. 5. Main board failure.

CODE	DESCRIPTION	TROUBLE SHOOT
E4	Spider not going up to home position on power up. Upon power up, the string goes down, then goes up, but Upper stop SW does not receive a signal	<p>Press TEST SW for test mode and check. The possible reasons:</p> <ol style="list-style-type: none"> 1. UP/DOWN string reversed. 2. Upper stop SW breakdown, harness disconnected, or bad connection. 3. F2 FUSE burned. UP/DOWN motor fuse burned. 4. Check if gantry JP1 harness pin disconnected. 5. Main board failure.
E5	Coin mech error	<p>On power up, the coin mech is signal checked automatically. E5 is displayed when set into N.C.</p> <ol style="list-style-type: none"> 1. Check the N.O./N.C. SW and restart game after set to N.O. 2. Coin mech failure. 3. Main board failure.
E6	TICKETS OUT ERROR	Press CLEAR to restart ticket dispenser.
E9	Spider not returning to home position on power up.	E9 is displayed. The game will still start after coin in. E9 will clear after 3 attempts.

※ FUSE POSITIONS ON THE MAIN BOARD



- F1: Left/right motor fuse, 20mm slow 2A**
- F2: Up/Down motors fuse, 20mm slow 2A**
- F3: Claw coil fuse, 20mm slow 2A**
- F4: Forward/backward fuse, 20mm slow2A**

TEST

Press TEST SW for 0.8 seconds to enter test feature. All motor power will shut down during test. Press TEST SW to change test item, and restart the game to quit TEST” feature.

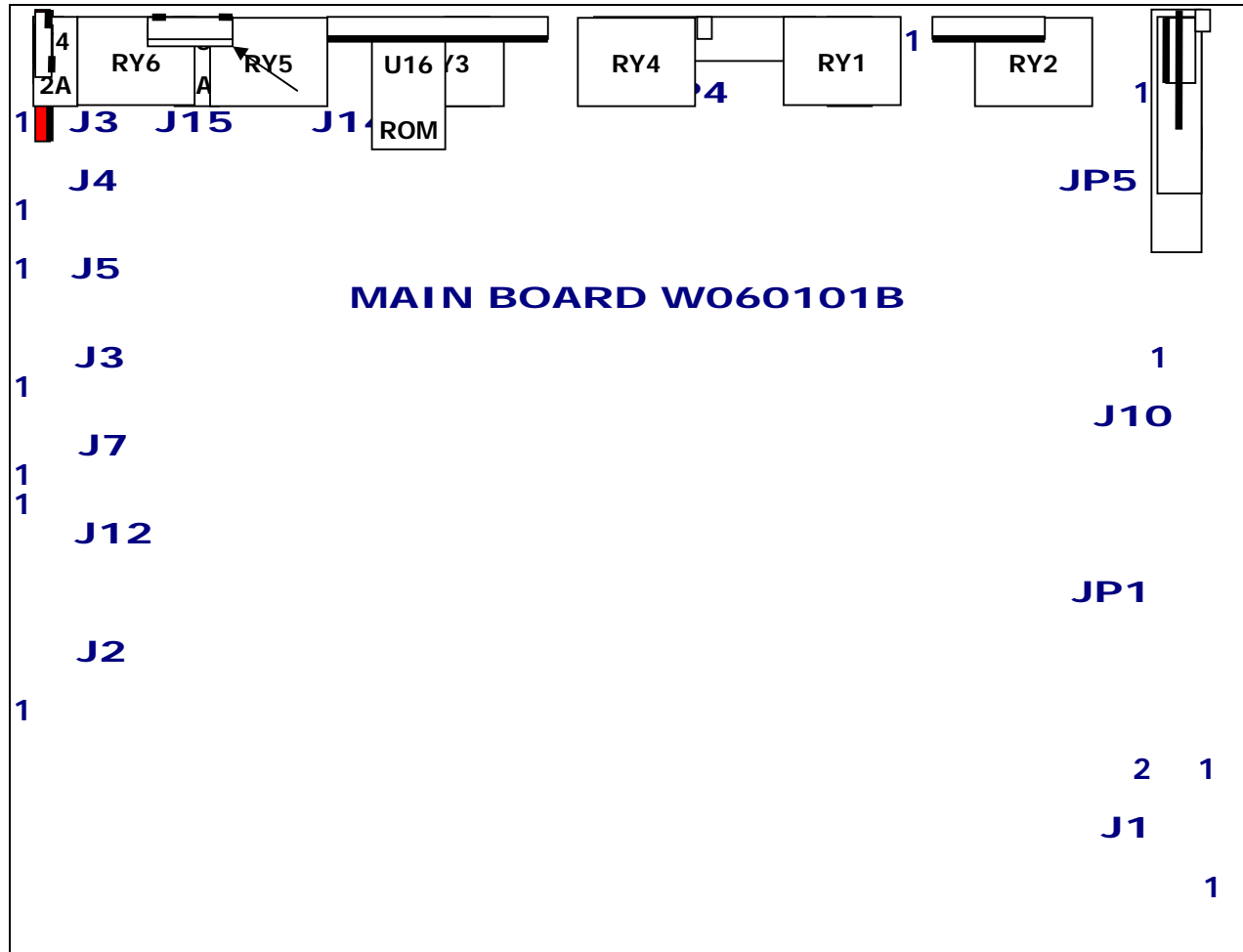
Code	ITEM	DESCRIPTION																																		
1	DISPLAY	TEST ALL DISPLAYS, LED AT THE SPIDER, AND BULBS ◦																																		
2		<p>1. Test all I/O, including 6 items: 2. How to test: A. Press SERVICE SW to change the test items B. Press TEST SW to quit</p> <p style="text-align: center;">DISPLAY ON "PLAY" DISPLAY DISPLAY ON "TIME" DISPLAY</p> <p style="text-align: center;">1 -</p> <p>Test DIP SW1 SW1 ON/OFF</p> <p style="text-align: center;">2 -</p> <p>Test DIP SW2 SW2 ON/OFF</p> <p style="text-align: center;">3 -</p> <p>Test DIP SW3 SW3 ON/OFF</p> <p style="text-align: center;">4 -</p> <p>Test DIP SW4 SW4 ON/OFF</p> <p style="text-align: center;">5 -</p> <p>Not Used</p> <p style="text-align: center;">6 -</p> <p>OTHER INPUTS KEY CODE displayed as below</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">CODE</th> <th style="text-align: left;">Inputs</th> </tr> </thead> <tbody> <tr><td>0 →</td><td>Coin Mech 1</td></tr> <tr><td>1 →</td><td>Coin Mech 2</td></tr> <tr><td>2 →</td><td>Ticket dispenser SENSOR</td></tr> <tr><td>3 →</td><td>CLEAR SW</td></tr> <tr><td>4 →</td><td>SERVICE SW</td></tr> <tr><td>5 →</td><td>TEST SW</td></tr> <tr><td>6 →</td><td>Not Used</td></tr> <tr><td>7 →</td><td>Not Used</td></tr> <tr><td>8 →</td><td>I/R receiver SENSOR</td></tr> <tr><td>11 →</td><td>Playfield UP SENSOR</td></tr> <tr><td>12 →</td><td>Gantry UP-Stop SW</td></tr> <tr><td>13 →</td><td>gantry Down-Stop SW</td></tr> <tr><td>14 →</td><td>Gun trigger SW</td></tr> <tr><td>16 →</td><td>Gantry right-stop SW</td></tr> <tr><td>17 →</td><td>Gantry left-stop SW</td></tr> <tr><td>18 →</td><td>Gantry up/down home position plate sensor</td></tr> </tbody> </table> <p>How to quit: 1. Press SERVICE SW for 2 seconds to quit, and back to "1". 2. Press TEST SW for 2 seconds to quit and enter "Gantry Test"</p>	CODE	Inputs	0 →	Coin Mech 1	1 →	Coin Mech 2	2 →	Ticket dispenser SENSOR	3 →	CLEAR SW	4 →	SERVICE SW	5 →	TEST SW	6 →	Not Used	7 →	Not Used	8 →	I/R receiver SENSOR	11 →	Playfield UP SENSOR	12 →	Gantry UP-Stop SW	13 →	gantry Down-Stop SW	14 →	Gun trigger SW	16 →	Gantry right-stop SW	17 →	Gantry left-stop SW	18 →	Gantry up/down home position plate sensor
CODE	Inputs																																			
0 →	Coin Mech 1																																			
1 →	Coin Mech 2																																			
2 →	Ticket dispenser SENSOR																																			
3 →	CLEAR SW																																			
4 →	SERVICE SW																																			
5 →	TEST SW																																			
6 →	Not Used																																			
7 →	Not Used																																			
8 →	I/R receiver SENSOR																																			
11 →	Playfield UP SENSOR																																			
12 →	Gantry UP-Stop SW																																			
13 →	gantry Down-Stop SW																																			
14 →	Gun trigger SW																																			
16 →	Gantry right-stop SW																																			
17 →	Gantry left-stop SW																																			
18 →	Gantry up/down home position plate sensor																																			

CODE	ITEM	DESCRIPTION
3	GANTRY TEST	<p>1. Gantry and claw test: 2. How to test: (1.) Press SERVICE SW to change the spider's movement. (2.) Press CLEAR SW to move spider. Press to energize motor; press Stop SW to stop motor. (3.) Press TEST SW to quit and enter next item (output). (4.) Press gun trigger to grab. 3. Code: (1.) '7-' on "CREDIT" display → Gantry test (2.) 7-segment display at the left of TIME display → Moving way limited (3.) 7-segment display at the right of TIME display → Moving way, and flash when motor is working. (4.) 7-segment display at the left of HIT display → UP-Down home position calibration: Middle line "-" means the middle playfield range over. Bottom line "_" means the lower playfield range over. (5.) 7-segment display at the right of HIT display → UP-Down home position plate sensor. Middle line "-" means sensor status shows at the lower column of the display. (6.) <u>Hits Needed to Win display</u> → show gantry up-down home position. The display number will increase when the gantry is going down, and decrease when going up. (7.) Spider's eyes light up when the claw is working.</p>
4	OUTPUT INTERFACE	<p>1. Test output I/Os, including 4 items: 2. How to test: i. Press SERVICE SW to change test items. ii. Press TEST SW to quit for Sound Test.</p> <p style="text-align: center;">Display on PLAY Display on TIME display 9 -</p> <p>Ticket dispenser Test 1. Left 7-segment display for ticket dispenser sensor. 2. Press the trigger to test ticket dispenser motor. 1 0</p> <p>I/R receiver and transmitter Test 1. Spider's eyes light up when I/R light is received. 2. Press gun trigger to test I/R light. Aim at spider target to check the receiver. 1 1</p> <p>Counter Meter Test 1. 10 units up in sequence 2. Explanation: 7-segment display at the left of TIME 7-segment display at the right of TIME 1 X</p> <p>Coin 1 Meter Display in decreasing progressively 2 X</p> <p>Coin 2 Meter</p>

		4 X
		Ticket dispenser Meter

CODE	ITEM	DESCRIPTION
5	Sound Test	<ol style="list-style-type: none"> 1. Sound Test: 2. How to test: <ol style="list-style-type: none"> A. Press SERVICE SW to change sound: B. Press CLEAR SW to replay: C. Press TEST SW to quit for "DISPLAY" item. 3. Explanation: <ul style="list-style-type: none"> '12' displayed on the CREDIT display "Sound Test" code displayed on the TIME display

Wiring Diagram



J4	COLOR	PIN		
1	BE	SP-	SPEAKER-	SPEAKER
2		SP-	SPEAKER-	
3		SP+	SPEAKER+	
4	PE	SP+	SPEAKER+	

J8	COLOR	PIN		
1	WE	IN	VR #PIN1	VOLUMN VR (1K)
2	RD	OUT	VR #PIN2	
3	BK	GND	VR #PIN3	

J3	COLOR	PIN		
1	YW	12V	+12V	POWER SUPPLY (P2040) PIN
2	BK	GND	GND	
3	RD	S5V	+5V	
4	BK	SGND	GND	

J7	COLOR	PIN		
1		12V	+12V	PLAYFIELD SENSOR
2	BN	12V	+12V	
3	GY/BK	L-IN	PLAYFIELD SENSOR	
4	BK	B-OK	SENSOR SIGNAL	DEMO CAPSULE HOME POSITION SENSOR
5	BE	GND	GND	
6	BE/WE	GND	GND	

J2	COLOR	PIN (RED)		
1	OE	M4+	MOTOR+	CAPSULE DISPLAY SENSOR
2		M4+	MOTOR+	
3	GN	M4-	MOTOR-	
4		M4-	MOTOR-	PRIZE OUT SENSOR
5		12V	+12V	
6	BN	12V	+12V	
7	BK	B-SEN	PRIZE OUT MOTOR	
8		W-SEN		
9	BE	GND	GND	
10		GND	GND	

JP4 (34P CONNECTOR)					
P#	COLOR	PIN	P#	COLOR	PIN
1	RD	+12V	2	GN	COIN1 INHIBIT
3	WE	COIN1 SIGNA	4	BK	GND
5	RD	+12V	6	GN/WE	COIN2 INHIBIT
7	WE/BE	COIN2 SIGNAL	8	BK	GND
9	RD	+12V	10	WE/BK	TICKET IN
11	GN/YW	TICKET OUT	12	BK	GND
13	RD	+12V	14	OE/WE	COIN1 METER
15		+12V	16	YW/GN	COIN2 METER
17		+12V	18	GN/WE	PRIZE METER
19		+12V	20	BE/WE	TICKET METER
21	PE	CLEAR SW	22	BK	GND
23	GY	SERVICE SW	24		GND
25	PK	TEST SW	26		GND
27			28		
29			30		
31		+12V	32		START LIGHT
33		START SW	34		GND

J6	COLOR	PIN	
1	RD	12V	CONNECT TO J1 OF GUN TRANSMITTER W060103 (1 TO 1)
2	OE	MOT	
3	YW	CTL	
4	GN	LED1	
5	BE	LED2	
6	PE	SW	
7	BK	GND	

J1	COLOR	PIN

JP5 TO DISPLAY (40P CONNECTOR)					
P#	COLOR	PIN	P#	COLOR	PIN
1	BN/WE	AA	2	RD	BA
3	RD/WE	AB	4	OE	BB
5	OE/WE	AC	6	YW	BC
7	YW/GN	AD	8	GN	BD
9	GN/WE	AE	10	BE	BE
11	BE/WE	AF	12	PE	BF
13	PE/WE	AG	14	GY	BG
15			16		
17	BY/BK	CM0	18	WE	CM2
19	WE/RD	CM1	20	PK	CM3
21	BN	CA	22	RD/WE	DA
23	RD	CB	24	OE/WE	DB
25	OE	CC	26	YW/GN	DC
27	YW	CD	28	GN/WE	DD
29	GN	CE	30	BE/WE	DE
31	BE	CF	32	PE/WE	DF
33	PE	CG	34	GY/BK	DG
35			36		
37	GY	CM4	38	WE/BE	CM6
39	WE	CM5	40	PK/BE	CM7

JP1 GANTRY PIN (20P ATX PIN)					
P#	COLOR	PIN	P#	COLOR	PIN
1	RD	L/R MOTOR +	2	RD/BK	L/R MOTOR -
3	OE	U/D MOTOR +	4	OE/BK	U/D MOTOR -
5	YW	RIGHT STOP SENSOR (N.C.)	6	WE	LEFT STOP SENSOR (N.C.)
7	BE/WE	L/R STOP SW (COM.)	8	GY/WE	U/D STOP SW (COM.)

1	YW	12V	+12V	POWER SUPPLY (P2040) PIN
2	BK	GND	GND	
3				
4	GR	24V	+24V	
5	BK	GND	GND	

9	PK	UP-STOP SW (N.O.)	10	BK DOWN-STOP SW (N.C.)
11		TOP SW	12	GND
13	BN	+24V	14	GN CLAW-
15			16	YW/ BK DATA
17	GN/ RD	CLK	18	PE/Y W LASER-IN
19	BE	GND	20	BE/O E LATCH
#13~20 CONNECT TO J1 OF W060102				

J10	COLOR	PIN	
1	BN	TDA	CONNECT TO "HITSNEEDED TO WIN" DISPLAY
2	RD	TDB	
3	OE	TDC	
4	YW	TDD	
5	GN	TDE	
6	BE	TDF	
7	PE	TDG	
8		TDP	
9	GY	CM8	
10	WE	CM9	

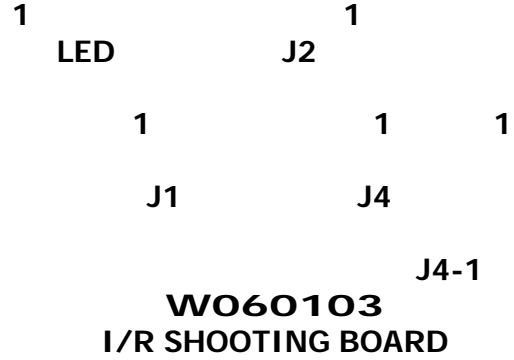
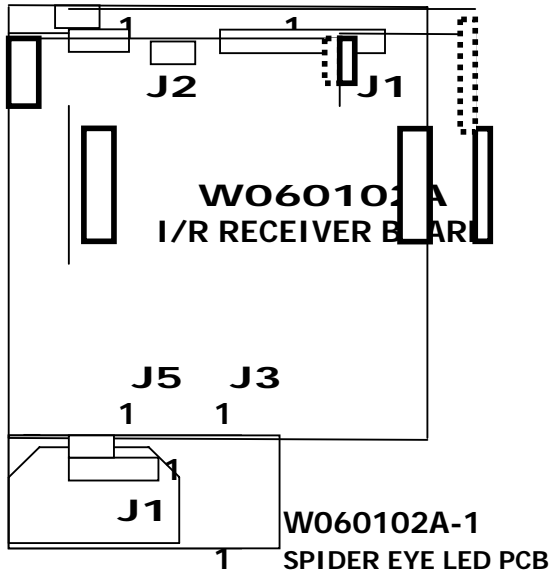
J11	COLOR	PIN		
1	BK	GND	CONNECT TO LEFT LED BOARD	LED BOARD
2	RD	R1		
3	OE	G1		
4	YW	B1	CONNECT TO RIGHT LED BOARD	LED BOARD
5	BK	GND		
6	GN	R2		
7	BE	G2		
8	PE	B2		
9		GND		
10		LED-W		
11		+12V		
12		+12V		

J12	COLOR	PIN	
1	BN	TX	CONNECT TO J3 OF MATRIX BOARD W040314
2	BK	GND	
3	OE	RX	
4		GND	

J13	COLOR	PIN	
1	BN	AC1	TRANSFORMER AC12V
2	BE	AC2	

J14	COLOR	PIN	
1	BN	AC2	CONNECT TO ROUND LED BOARD W040420
2	RD	LED11	
3	OE	LED12	
4	YW	LED13	
5	GN	LED14	
6	BE	LED15	
7	PE	AC2	

J15	COLOR	PIN		
1	BN	AC2	CONNECT TO ROUND LED BOARD W040420	
2	RD	LED11		
3	OE	LED12		
4	YW	LED13		
5	GN	LED14		
6	BE	LED15		
10	PE	AC2		



W060102A-2
SPIDER BELLY LED PCB

W060103-LED
LASER GUN LED BOARD

※ **W060102A** I/R RECEIVER BOARD

J1	COLOR	PIN	
1	BN	24V	CONNECT TO J2 PIN 13~29 OF W060101
2	GN	CLAW-	
3	BE	GND	
4	YW/BK	DATA	
5	GN/RD	CLK	
6	BE/OE	LATCH	
7	PE/YW	LASER-	

J2	COLOR	PIN	
1	GN	CLAW-	CLAW COIL -
2	WE	24V	CLAW COIL +

J3	COLOR	PIN	
1	BE	EYE LED1	CONNECT TO W060102A-1
2	GN	EYE LED2	
3	YW	+5V	

J5	COLOR	PIN	
1	PK	Ball LED1	CONNECT TO W060102A-2
2	WE	Ball LED2	
3	YW	+5V	

※ **W060103** I/R SHOOTING BOARD

LED	COLOR	PIN	
1		R	LED → RED
2		-	LED → COM
3		G	LED → GREEN

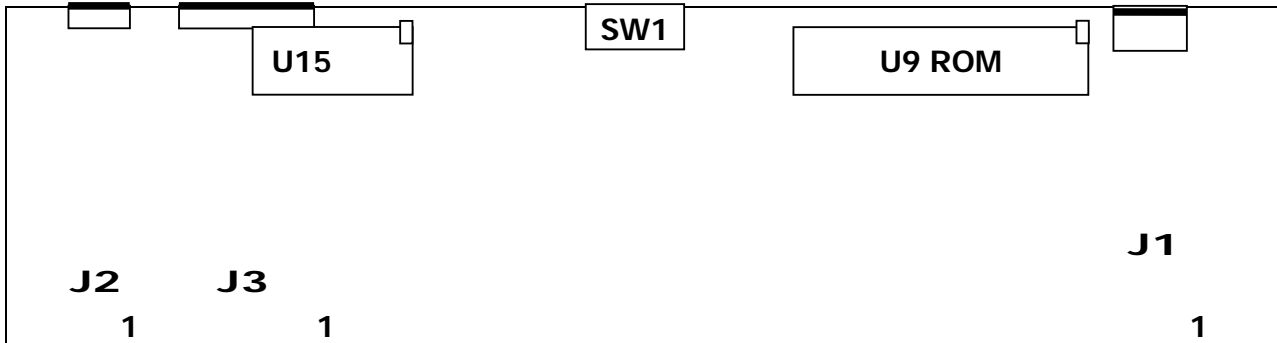
J1	COLOR	PIN	
1	RD	12V	CONNECT TO J6 OF W060101
2	OE	MOT	
3	YW	CLT	
4	GN	LED1	
5	BE	LED2	
6	PE	SW	
7	BK	GND	

J2	COLOR	PIN	
1	PK	LED +	I/R LED +
2	BK	LED -	I/R LED -

J4	COLOR	PIN	
2.0" 9PIN		CONNECT TO LASER GUN LED BOARD	

J4-1	COLOR	PIN	
2.0" 9PIN		CONNECT TO LASER GUN LED BOARD	

※**MATRIX DISPLAY W040314**



J1	COLOR	PIN	NOTE
1	YW	+12V INPUT	POWER SUPPLY PIN
2	BK	GND (12V GND)	
3	RD	+5V INPUT	
4	BK	GND (5V GND)	

J3	COLOR	PIN	NOTE
1			NOT USED
2			
3			
4			
5			
6			

J2	COLOR	PIN	NOTE
1	BN	TX	CONNECT TO J12 OF W060101B
2	BK	GND	
3	OE	RX	