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OPERATION

How to Play

- 1. Insert coins/tokens into coin slot, the display will show credits and the crane starts game music.
- 2. Use the joystick to move claw above your selected object. When you move the joystick, the game time counts down, and [DESCEND] button light is flashing.
- **3.** When you press the **[DESCEND]** button or time runs out (game's playing time is adjustable), the gantry drives the motor to lower down the claw and attempts to catch object.
- 4. If 'Catch in air' function is available, press [DESCEND] button before claw reaches in field, the claws will catch item in the air.
- 5. After the claw closes, the claw rises up until it touches the Stop-Up SW. Then the claw moves to exit area and opens.

Game Rules

DEMO

Play Demo music for 2 minutes every 3 minutes.

Coin In

- 1. Coins per play: Controlled by DIP SW setting
- 2. If COIN pulse speed was lower than 10 milliseconds, the machine will not recognize the signal.
- 3. If coin pulse speed is over 200 milliseconds, the machine shows error code.

Shaking Machine

- 1. When a tilt is installed in the machine, and players shake the machine, it says "Don't Shake the Machine".
- 2. When the claw arms close and someone shakes the machine, the claw opens and moves back to the home position.

DIP SW Setting

1. DIP SW1			2	3	4	5	6	7	8
I. DIPS	W I	1	<u>∠</u>	3	4	3	U	/	0
When the DIP SW2 PIN #6 is setup on "Play till	VR1 Adj. of Power	ON							
you win", the claw strength voltage	+48V	OFF							
Position where claws	Claws lower down then release object		ON						
open at the exit	Claws release object at the top position		OFF		-				
Coin 1 & Coin 2	Yes			ON	-				
Linked Together	No			OFF					
Adjustment of Credit	Inner Value				ON				
Value	DIP SW				OFF				
Bonus Plays (see bonus table)	YES					ON			
(4 pulses=\$1) when Dip SW1-4 is off	NO					OFF			
Claw moves to	YES						ON		
playfield when game begins	NO						OFF		
Reserved	FIXED							OFF	
At the moment the	On								ON
program sends strong strength on the basis of the setup winning percentage, the system will keep sending strongest strength to the claw until a prize is caught.	Off								OFF
Default Se	etting	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

2.	DIP SW2	1	2	3	4	5	6	7	8
Coin1 setup	8:1 6:1	ON OFF	ON ON	-					
(Number of coins	4:1	ON	OFF						
per play)	2:1	OFF	OFF						
Coin2 setup	4:1			ON	ON				
(Bill Acceptor	3:1			OFF	ON				
	2:1			ON	OFF				
pulses per play)	1:1			OFF	OFF				
Free Play	On					ON			
Fiee Flay	Off					OFF			
Play till you win function	On	Will dea	luct 1 crea	lit when w	vin.		ON		
(Output Sensor must be included.)	Off	Wi	ll deduct .	1 credit fo	r each ga	me.	OFF		
Ability to change	On							ON	
the Inner-Values	Off							OFF	
Demo Game	On								ON
when nobody is playing	Off								OFF
Defa	ult Setting	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

MAINTENANCE

TEST

System Test: COIN1 NC +COIN2 NC+POWER ON (or Service NC+POWER ON) Enter the system Test, DISPLAY shows 0~3, then press button to confirm.

KIT

- 1 Claw Setting (COIN1 NC +POWER ON can also test Claw Setting)
- 2 Gantry Test (COIN2 NC +POWER ON can also test Gantry)

3	System Test	FO	EXIT
;;		F 1	DISPLAY and Light Test
;;		F 2	DIP SW Test
;;		F 3	Demo Sound
;;		F 4	Auto Demo
;;		F 5	RESERVED
;;		F 6	BACK TO DEFAULT
;;		F 7	Length of String adjustment

AUTO PERCENTAGING SETTING

SET Cost Of Play: (\$0.01~\$9.99) Set Prize Value: (\$00.01~\$99.99) Set Win Percentage (Range: 01~99 %)

How to Setup: 1. Tilt (NC) +Button (NC) + Turn Power ON Display shows "P5" for setup auto percentage function.

2. Tilt (NO) + Button (NO) Display "00" in flashing: Use Joystick and button to adjust

Function Code: 00 Exit 01 Cost Of Play 02 Prize Value 03 Win Percentages 04 This number shows how many plays needed before full strength of claw

Bonus Play Table

CREDIT	PLAYS
\$1	1
\$2	3
\$3	4
\$4	6
\$5	7
\$6	9
\$7	10
\$8	12
\$9	13
\$10	15
\$11	16
\$12	18
\$13	19
\$14	21
\$15	22
\$16	24
\$17	25
\$18	27
\$19	28
\$20	30
\$21	31
\$22	33
\$23	34
\$24	36
\$25	37
\$26	39
\$27	40
\$28	42
\$29	43
\$30	45

-	Internal setting .		
TIEM	Description	Instruction	
01	COIN1 – quantity of pay-out tickets after	0~9	0
UI	inserting coins (coin selector 1)		
02	COIN2 – quantity of pay-out tickets after	0~9	0
02	inserting coins (coin selector 2)		
03	COIN1 – quantity of Inserted coins (coin	1~9	1
	selector 1)		
04	COIN1 – quantity of game's credits (coin	1~9	1
•••	selector 1)		
05	COIN2 – quantity of Inserted coins (coin	1~9	1
	selector 2)		
06	COIN2 – quantity of game's credits (coin	1~9	1
07	selector 2)		0
07	Quantity of pay-out tickets with winning prizes	0~9	0
08	Quantity of pay-out tickets without winning	0~9	0
09	Reserved		
10	Game time	0 - 5 = 5 5-99 Sec.	50
11	Reserved		
12	Reserved		
13	Reserved		
14	Reserved		
15	Reserved		
16	Reserved		
17	Reserved		
18	Reserved		
19	DEMO Music	0~1 0=On 1=Off	0
20	Shocking machine-sound	0~1 0= On 1=Off	0
21	Reserved		
22	Reserved		

■ Internal setting :

ERR	OR CODE		
Error Code	Description	Appearance	Trouble shooting
Er 00	CPU Error	When switch on the machine	 Change U1 CPU PCB is out of service.
Er 01	Error while up the winding cord	 When switch on the machine When play the game Auto Demo 	 Check if the up-stop SW is loose? Check if up-stop SW is out of work? Check if the air-plug of the gantry set connects well? PCB is fault.
Er 03	Error while down the winding cord	When auto demo	 Check if the string at the winding wheel is smooth? Check if up-stop SW is out of work? Check if the air-plug of the gantry set connects well? PCB is fault.
Er OE	SENSOR is out of service		 Check whether sensitivity of sensor is too high? Please adjust the sensitivity-VR to make sure the LED of Sensor is in Dark status. Check J5 sensor harness is connected well? Sensor is fault. PCB is fault
Er 05	Stop-Forward SW or Stop-back SW Error	 When switch on the machine When play the game Auto Demo 	 Check if the stop-forward SW or stop-back SW is out of work? Check if the air-plug of the gantry set connects well? PCB is fault.
Er 06	Stop-Left SW Error	 When switch on the machine When play the game Auto Demo 	 Check if the Stop-Left SW is out of work? Check if the air-plug of the gantry set connects well? PCB is fault
Er 07	Coin1 Meter disconnected		
Er 08	Coin2 Meter disconnected		 Check if the J5 PIN connects well? Check if the Meter is out of work? Check if the
Er 09			Pin connects well? 3. PCB is fault.
Er 10	Prize Meter disconnected		
Er 22	Cabinet size check Error when power on		 Check if the stop-front SW or stop-back SW is out of work? Check if the air-plug of the gantry set connects well? Check the J4 Pin on the board connect well? PCB is fault

TROUBLE SHOOTING

Items	Description	Check and Maintenance
Coin	No credit after coin in	1. Check if the Coins vs. Plays is correct.
In		 If Coins vs. Plays can't be adjusted, it's possible main board problem. Please send the main board back for repair.
	Coins/tokens cannot be inserted into coin slot	 Comparative Coin Mech: Check the sample coin at the coin mech. Loose the coin mech sensitivity. Check if DC12V input to coin mech. Coin mech breakdown. Multi-Coin Mech: Adjust the coin mech data based on manual. Check if DC12V input to coin mech.
Claw Power	Claw open after hitting upper-stop switch	VR2 is too low. Adjust VR2 higher according to objects dimension and weight.
	Claw is close after power on	 Claw coil burned. Main board is out of service
	Claw doesn't close	 Check if the CW at the fuse board burned? Check if the black wire at claw coil connects well.
Gantry	Don't return to its home position	 If power off and on again, the gantry still does not return to its home position, then check if stop-back SW (Gantry & Assembly I No. 23) or stop-left SW (Gantry & Assembly I No. 21) are in proper position. Also check if their connecting wires are properly connected. Check if the air-plug of the gantry set connects well? PCB is out of service.
	Don't move either forward and/or backward by joystick operation	 Check if the forward/back motor fuse (FB) at the fuse board is burned? Check if J5 connecting pin of P.C.B. is properly connected. Check if stop-front SW (Gantry & Assembly I No. 22) or back-stop SW (Gantry & Assembly I No. 23) is in proper position. Also check if their connecting wires are properly connected. Check if Front/Back motor is out of function or if its wires are properly connected. Also check if its shaft pinion is properly positioned. Check if J9 connecting pin of P.C.B. is properly connected. Check if all connecting pins of gantry are properly connected to the machine.

Does not move to left and/or right by	1. Check if the left/right motor fuse (LR) at the fuse board is burned?
joystick operation	2. Check if left and/or right SW is out of function or if their wires are properly connected.
	3. Check if J5 connecting pin of P.C.B. is properly connected.
	4. Check if stop-left SW (Gantry & Assembly I No. 21) is in proper position.
	5. Check if Left/Right motor is out of function or if its wires are properly connected. Also check if its shaft pinion is properly positioned.
	6. Check if J9 connecting pin of P.C.B. is properly connected.
	7. Check if all connecting pins of gantry are properly connected to the machine

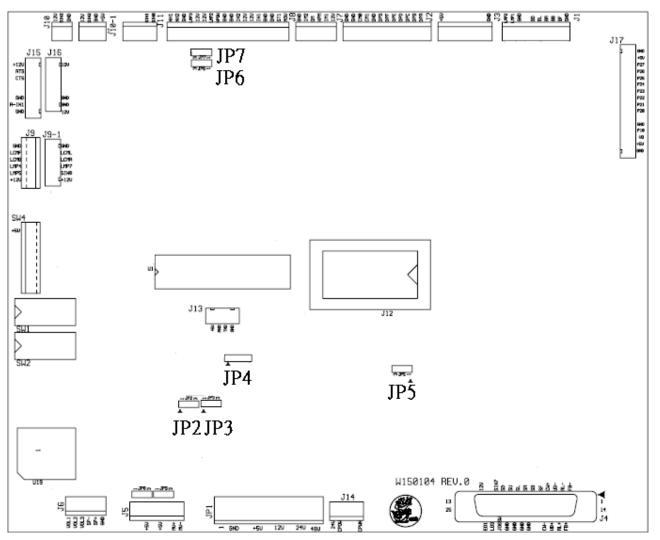
Items	Description	Check and Maintenance
Claw Desce nding	Don't lower down by 【Descend】 button operation, but only until time's up	 Check if [Descend] button is functioning properly. Check if connecting wires of [Descend] button are properly connected. Check if J5 connecting pin of P.C.B. is properly connected.
	Don't lower down, but the 【 Descend】 button is in normal condition	 Check if Up/Down motor wires are properly connected. Check if Up/Down motor is out of function. Also check if its shaft pinion is in proper position. Check if J9 connecting pin of P.C.B. is properly connected. Main board break down
	Don't lower down or only down a bit and close up in the air then it returns to its home position Don't fully lower down	 Check if winding cord is stuck. Check if stop-down SW is functioning properly
		 Check if winding cord is of proper length? Check if winding cord is stuck. Check if stop-down SW is functioning properly
Claw Grab bing	Don't open when reached to exit door after seizing	 Check if stop-back or stop-left SW is out of function or if their wires are properly connected. Check if the gantry wire connecting to J9 connecting pin of P.C.B. is properly connected.
	Don't rise up after seizing and is returned back to its home position	 Check if stop-up SW is hit by something. Check if stop-up SW is in proper position and in normal function. Main board breaks down.
	Don't close up and not be returned to its home position, either	 Check if the up/down motor are out of function or if their wires are properly connected. Check if stop-up SW is functioning properly. Main board break down.

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WIRING DIAGRAM

MAIN BOARD W150104

• Main board CONNECTOR position



W1501	04 3.96mm	(JP1) POWER SUPPLY
1	GND	
2	GND	
3	GND	
4	+5V	
5	+5V	
6	+12V	
7	+12V	
8	+24V	
9	+24V	
10	+48V	

W150)104	2.54mm	(J11)	W98	833 JP3
1				1	IN2
2				2	IN4
3				3	EN04
4				X	
5				4	EN05

W1501	04 2.54mm (J5)
1	VR23
2	VR13
3	VR11
4	VR12
5	VR21
6	VR22
7	Voltmeter +
8	Voltmeter -

W1501	04 2.54mm	(J14)	W040316 JP1
1			1
2			2
3			3
4			4
5			5

W1501	04 2.54mm (J6)
1	Speaker VR 1
2	VR2
3	VR3
4	SP-
5	SP+

W1501	04 2.54mm (J10)
1	GND
2	PRIZE SENSOR
	SINGAL
3	12V

W1501	04	2.54mm	(J7)
1	12	V	

2	COIN1 Meter
3	
4	Prize Meter
5	COIN2 Meter

W150	104 2.54mm (J1)
1	GND
2	Joystick Front SW(N.O.)
3	Joystick Back SW (N.O.)
4	Joystick Right SW (N.O.)
5	Joystick Left SW (N.O.)
6	Descend SW (N.O.)
7	
8	GND
9	Descend button lamp
10	lamp 2

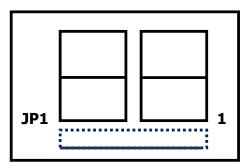
W1501	04 2.54mm (J2)	W9919	07 JP1
1	X		X
2		1	
3		2	
4		3	
5		4	
6		5	
7		6	
8		7	
9	X	8	X
10		9	
11		10	
12	X	11	X
13	X	12	X

W1501	04 2.54mm (J8)
1	TILT SW (N.O.)
2	DOOR TEST
3	GND
4	GND
5	COIN1
6	12V
7	12V
8	COIN2
9	GND
10	GND
11	HPSW
12	HP
13	12V
14	12V
15	SSR
16	GND

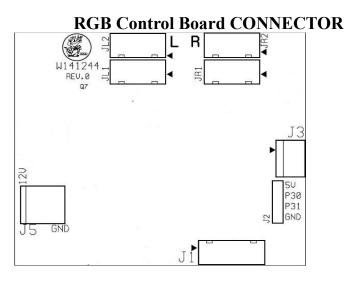
17	Coin Inhibit input +
18	Coin Inhibit input -

W1501	W150104 2.54mm (J4)				
1	Forward/Back Motor +	14	Forward/Back Motor -		
2	Left/Right Motor -	15	Left/Right Motor +		
3	Up Down Motor -	16	Up Down +		
4	Claw Power+	17	Claw Power -		
5	X	18	X		
6	STOP	19	GND		
	FORWARD/BACK				
7	X	20	GND		
8	Stop-Left / Right SW	21	GND		
	(N.O.)				
9	Stop-UP SW (N.C.)	22	GND		
10	Stop-Down SW (N.O.)	23			
11	X	24			
12	X	25	X		
13	12V				

DISPLAY W991907



J1	Color	2.54 Pin — connect W120206				
1	Brown	Α	Connect to Main Board J5	Pin 1		
2	Red	В	Connect to Main Board J5	Pin 2		
3	Orange	С	Connect to Main Board J5	Pin 3		
4	Yellow	D	Connect to Main Board J5	Pin 4		
5	Green	Ε	Connect to Main Board J5	Pin 5		
6	Blue	F	Connect to Main Board J5	Pin 6		
7	Purple	G	Connect to Main Board J5	Pin 7		
8		DP	Connect to Main Board J5	Pin 10		
9	White	COM4	Connect to Main Board J5	Pin 9		
10	Pink	COM3	Connect to Main Board J5	GND		
11		COM2				
12		COM1				



J5	c	PIN
1	Red	+12V
2	Black	GND

J3	color	PIN
1		+5V
2		P30
3		P31
4		GND

J1	color	PIN
1		NO 1
2		NO 2
3		NO 3
4		NO 4
5		GND

J3	color	PIN			
1					
2		Reseverd			
3					

JL1	color	PIN
1	Black	G
2	Brown	R
3	Red	В
4	Orange	GND

JR1	color	PIN
1	Black	G
2	Brown	R
3	Red	В
4	Orange	GND

JL2	color	PIN
1	Black	G
2	Brown	R
3	Red	В
4	Orange	GND

JR2	color	PIN
1	Black	G
2	Brown	R
3	Red	В
4	Orange	GND

SECTION 4. W141243WIRING DIAGRAM

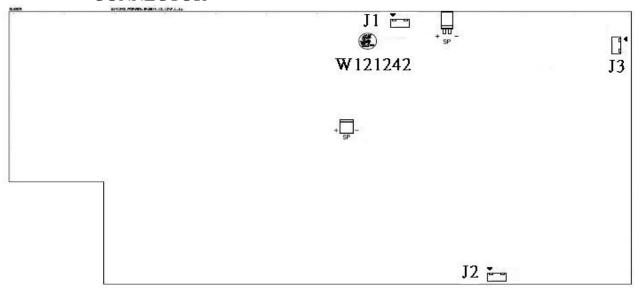
J1		۲ ک	₩14124	3	
^{J2} ◀					

J1	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND

J2	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND

SECTION 5. W141242 WIRING DIAGRAM

CONNECTOR



J1	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND

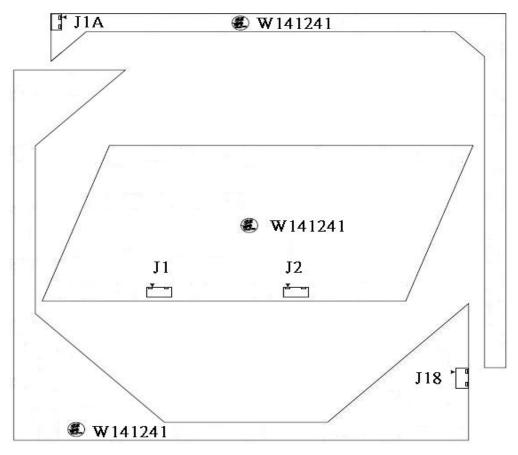
J2	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND

J3	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND

SP	color	PIN
1		SP +
2		SP -

SECTION 6. W141241 WIRING DIAGRAM

CONNECTOR



J1A	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND

J18	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND

J1	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND

J2	color	PIN
1	Red	В
2	Brown	R
3	Black	G
4	Orange	GND