CHAPTER 1. OPERATION

SECTION 1. How to Play ✓

1. Insert coins/tokens into coin slot, the display shows credits and the crane plays game music.
2. Use joystick to move claws above your selected object.   When you move the joystick, the game time is countdown, and 【DESCEND】 button light is flashing.
3. At pressing 【DESCEND】 button or time's up (game's playing time is adjustable), the gantry drives motor to lower down claws and then catch object.
4. If 'Catch in air' function is available, press 【DESCEND】 button before claw reaches in filed, the claws will catch item in the air.
5. After movement of catching (claws closes), the claws rise up till it touches Stop-Up SW.   Then the claws move to exit area and releases.

SECTION 2. Game Rules ✓

✓ ITEM 1.   DEMO

Play Demo music for 3 minutes every 5 minutes.

✓ ITEM 2.   Coin In

1. Coins vs. plays: by internal setting.
2. If COIN pulse speed was lower than 10msec, the machine does not recognize the signal.
3. If coin speed is over 200msec, the machine shows error code.

✓ ITEM 3.   Shocking Machine

1. When a tilt is mounted at machines, and players shock the machines, it plays "Don't Shock the Machine".
2. When the claw arms close and someone shocks the machines, the arms open and move back to the home position.

✓ ITEM 4.   SERVICE Switch

1. When no one plays, press 【SERVICE】 switch for free games. The number at "Score" display flashes and the prize meter won't work when prize won.
2. Coin mechanism inhibit under free game status.

SECTION 3. DIP SW Setting

DIPSW1		1	2	3	4	5	6	7	8
DEMO Music	YES	ON							
	NO	OFF							
Keep CREDIT if turn off	YES		ON						
	NO		OFF						
Keep Game Times if turn off	YES			ON					
	NO			OFF					
Reserved	FIXED				OFF				
Offer Super power once by randomly	YES					ON			
	NO					OFF			
Game Model	Free Game						ON		
	Operation						OFF		
Reserved	FIXED							OFF	OFF

COIN1 COIN2

DIPSW2		1	2	3	4	5	6	7	8
COIN1	5 coins 3 plays	ON	ON						
	3 coins 1 play	ON	OFF						
	2 coins 1 play	OFF	ON						
	1 coins 1 play	OFF	OFF						
COIN2	5 coins 3 plays			ON	ON				
	3 coins 1 play			ON	OFF				
	2 coins 1 play			OFF	ON				
	1 coins 1 play			OFF	OFF				
Game Model	Play until Win					ON	ON		
	Keep giving super power WITHOUT inserting coin					ON	OFF		
	Keep giving super power WITH inserting coin					OFF	ON		
	Normal					OFF	OFF		
GIVE ONE GAME FREE WHEN INSERTING $5	YES							ON	
	NO							OFF	
MACHINE MODEL	Candy Crane								ON
	TOY Crane								OFF

Game Model：

Play until Win：Play until won a prize.

Normal：When games reach to the win percentage, Claw will give a super power.   If no won, the game will restart to count the win percentage again.

CHAPTER 2. MAINTENANCE ✓

✓ **How to enter in the TEST mode :**

Press 【SERVICE】 SW while power-on the machine. The DISPLAY shows 『PP』. Release from the 【SERVICE】 SW, the DISPLAY will show 『00』 flashing meaning the software is under the TEST mode. Move the joystick to select the test item. Press 【DROP】 button for enter. The test items are shown as the following table. You must switch off the machine to quit test mode.   Press 【SERVICE】 SW again to exit the test mode. *? => see item "00"*
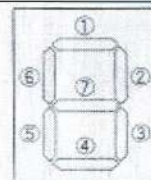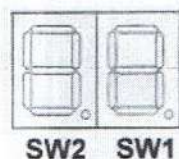

Release 【SERVICE】 SW ✓

■ **Test items list:**

Item	Description	Instruction
00	To quit	Press 【DROP】 button to quit test mode.
01	Claw strength adjustment	Display shows 『C0』 1. Hold joystick to backward: Adjust VR1. Display shows 『C1』. 2. Hold joystick to right: Adjust VR2. Display shows 『C2』. 3. Hold joystick to front: Adjust super power. Display shows 『C3』.
02	Gantry test	Display shows 『a0』 ➢ Joystick operate 【Front】, display shows 『aF』, gantry moves to forward. ➢ Joystick operate 【Back】, display shows 『ab』, gantry moves to back. ➢ Joystick operate 【Right】, display shows 『ar』, gantry moves to right. ➢ Joystick operate 【Left】 display showing 『aL』, gantry moves to left. ➢ Press 【DROP】 + Joystick operate 【Front】, display showing 『bU』, Claws rises up.
03	Display test	Display test.
04	DIP SW	1. Adjust PCB' Dip SW to match the display like (A.), when switch Pins to ON, the light turn on, when Pin 8 switch to ON, the display blink. 2. Display digit for DIP SW1 and 10 digits for DIP SW2, (see B.)
05	Music	Move Joystick to select song and voice. Press test button to exit.
06	Gantry Auto test	Gantry Auto test. If want to stop auto test, need to power off machine.
09	Super Power	Move joystick to frontward or backward to adjust value. Move joystick to left to

|		
✓	setting	select digits, ten-digit, hundreds digit. Press Drop button to leave the setting. (Default setting is 10. Adjusting Range is 1-999) For example：Adjust the 25th power for super power. 　1. Press【SERVER】 SW and turn on power. 　2. Move joystick to frontward to select Test item 09 　3. Press drop button to enter the setting. Display shows ⌷⌷. Digit is flashing. 　4. Move joystick to frontward，number in digit increases to 5. Show ⌷5 (Digit is flashing.) 　5. Move joystick to left to move Ten-digit. Display shows ⌷5 (Ten-Digit is flashing.) 　6. Move joystick to frontward，number in Ten-digit increases to 2. Display shows 25. (Ten-Digit is flashing.) 　7. Move joystick to left to move hundreds-digit. Display shows H⌷. (Hundreds-Digit is flashing.) 　8. Press drop button to exit, setting complete.
✓ 10	Game time (second)	Move joystick to front for increasing number, move joystick to back for decreasing number. Press button to exit. (Default time is 60 seconds, range is 10~90 second.)
✓ 18	Claw String adjusting	It is for adjusting the length of claw string. Move joystick to frontward or backward to adjust value, Press Drop button to leave the setting. (Default setting is 23, range is 1~99)
✓ 21	Default	Press Drop button, display shows cc, and then machine will restart and clear all data and back to default setting.

✓

SECTION 1.   ERROR CODE

Error Code	Description	Checking timing	Trouble shooting
Er 01	CPU Error	When switch on the machine	1. Change U1 CPU 2. PCB is out of service.
Er 02	Error while up the winding cord	1. When switch on the machine 2. When play the game 3. Auto Demo	1. Check if the up-stop SW is loose? 2. Check if up-stop SW is out of work? 3. Check if the air-plug of the gantry set connects well? 4. PCB is fault.
Er 03	Error while down the winding cord	When auto demo	1. Check if the string at the winding wheel is smooth? 2. Check if up-stop SW is out of work? 3. Check if the air-plug of the gantry set connects well? 4. PCB is fault.
Er 04	SENSOR is out of service	*no Error if disconnected or blocked*	1. Check whether sensitivity of sensor is too high? Please adjust the sensitivity-VR to make sure the LED of Sensor is in Dark status. 2. Check J5 sensor harness is connected well? *=> J10 ?? is the one* 3. Sensor is fault. 4. PCB is fault.
Er 05	Stop-Forward SW or Stop-back SW Error	1. When switch on the machine 2. When play the game 3. Auto Demo	1. Check if the stop-forward SW or stop-back SW is out of work? 2. Check if the air-plug of the gantry set connects well? 3. Check if the J4 PIN on main board connects well 4. PCB is fault.
Er 06	Stop-Left SW Error	1. When switch on the machine 2. When play the game 3. Auto Demo	1. Check if the Stop-Left SW is out of work? 2. Check if the air-plug of the gantry set connects well? 3. Check if the J4 PIN on main board connects well 4. PCB is fault.
Er 07	Coin1 Meter disconnection	When needed	1. Check if the J5 PIN connects well? 2. Check if the Meter is out of work? Check if the Pin connects well? 3. PCB is fault.
Er 08	Coin2 Meter disconnection		
Er 09	Ticket Mater disconnection		
Er 10	Prize Mater disconnection		
Er 22	Machine Size checking fail.		1. Check if the stop-forward SW is out of work? 2. Check if the air-plug of the gantry set connects well? 3. Check if the J4 PIN on main board connects well 4. PCB is fault.

CHAPTER 3. WIRING DIAGRAM

SECTION 1. MAIN PCB W150104 ✓✓

● Main board CONNECTOR position
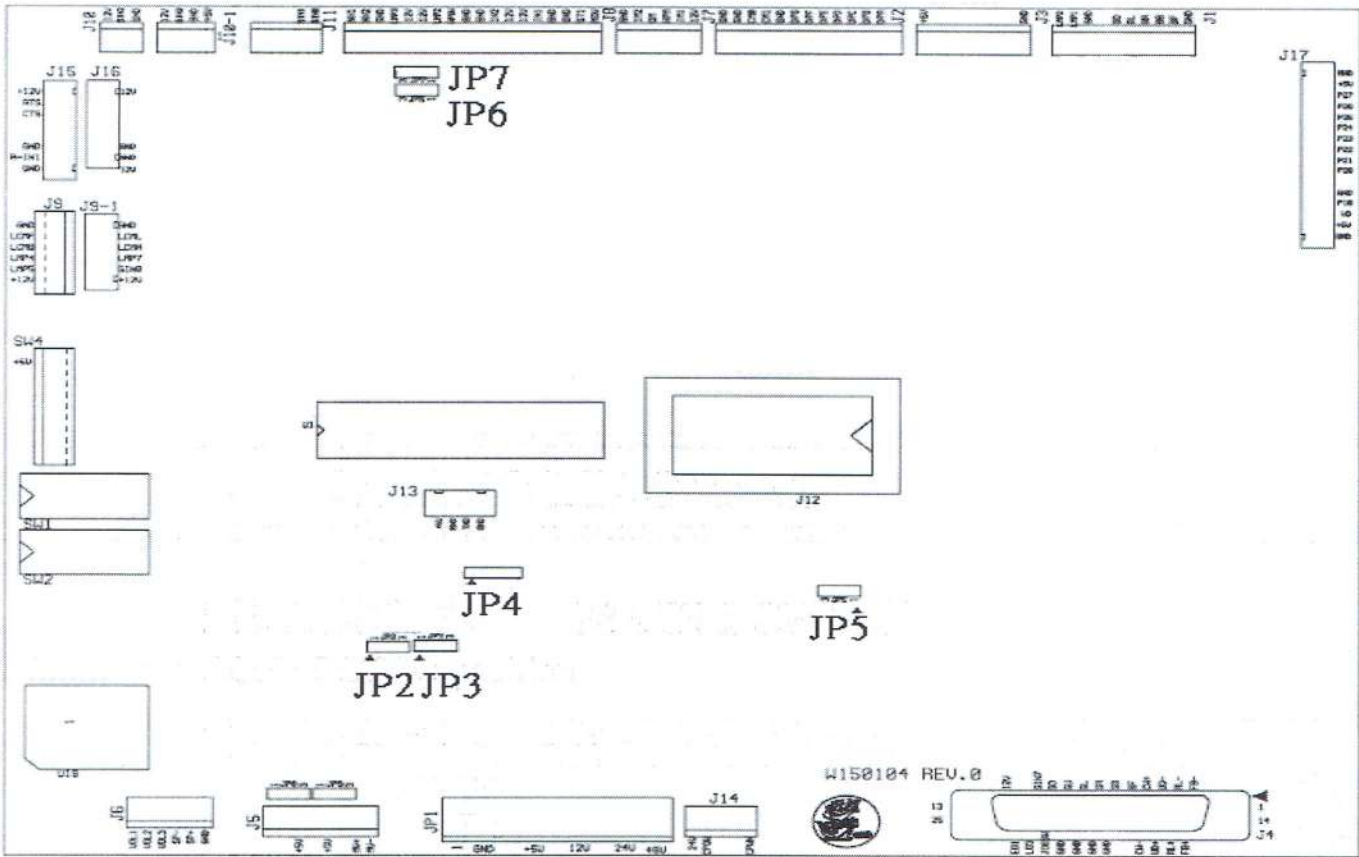
W150104 3.96mm (JP1) power supply	
1	GND
2	GND
3	GND
4	+5V
5	+5V
6	+12V
7	+12V
8	+24V
9	+24V
10	+48V

W150104 2.54mm (J11)		W9833 JP3	
1		1	IN2
2		2	IN4
3		3	EN04
4		X	
5		4	EN05

W150104 2.54mm (J14)		W040316 JP1	
1		1	
2		2	
3		3	
4		4	
5		5	

11

W150104 2.54mm (J5)	
1	VR23
2	VR13
3	VR11
4	VR12
5	VR21
6	VR22
7	Voltmeter +
8	Voltmeter -

W150104 2.54mm (J6)	
1	SOUND VR 1
2	VR2
3	VR3
4	SP-
5	SP+

W150104 2.54mm (J10)	
1	GND
2	Prize Out SENSOR
3	12V

W150104 2.54mm (J1)	
1	GND
2	Joystick front
3	Joystick Back
4	Joystick Right
5	Joystick Left
6	Drop Button
7	X
8	GND
9	Light of Drop Button
10	Light 2

W150104 2.54mm (J7)	
1	12V
2	COIN1 Meter
3	x
4	Prize Meter
5	COIN2 Meter

W150104 2.54mm (J2)		W991907 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

W150104	2.54mm (J8)
1	Shocking machine signal
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	Inhibiting +
18	Inhibiting -

W150104	2.54mm (J4)		
1	Front/back Motor +	14	Front/back Motor -
2	Right/Left Motor -	15	Right/Left Motor +
3	Up/Down Motor -	16	Up/Down Motor +
4	Claw Power +	17	Claw Power -
5	X	18	X
6	Front/Back Stop SW	19	GND
7	X	20	GND
8	Right/Left Stop SW	21	GND
9	Up stop NC	22	GND
10	Down Stop NO	23	S
11	X	24	
12	X	25	X
13	12V		

SECTION 2.   Display W991907 ✓
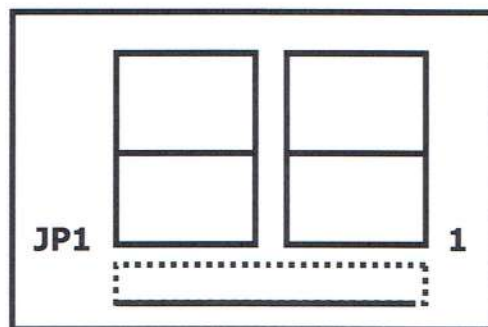
J1	Color		2.54 Pin — connect W120206
1	Brown	A	Connect to Main Board J5 Pin 1
2	Red	B	Connect to Main Board J5 Pin 2
3	Orange	C	Connect to Main Board J5 Pin 3
4	Yellow	D	Connect to Main Board J5 Pin 4
5	Green	E	Connect to Main Board J5 Pin 5
6	Blue	F	Connect to Main Board J5 Pin 6
7	Purple	G	Connect 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	

✓

CONNECTOR
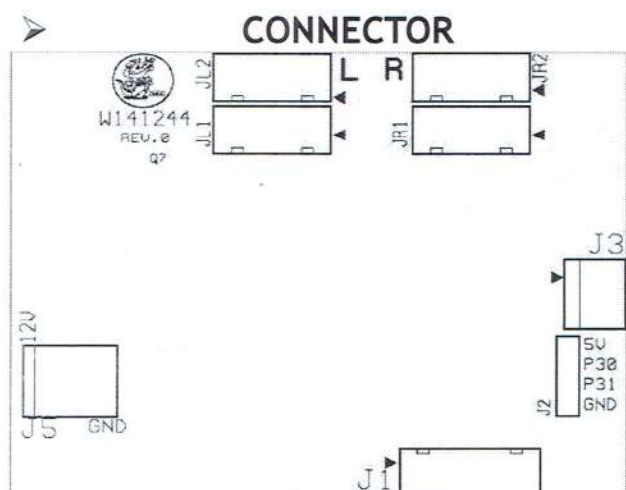
J5	c	PIN
1	Red	+12V
2	Black	GND

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	B
4	Orange	GND

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

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

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