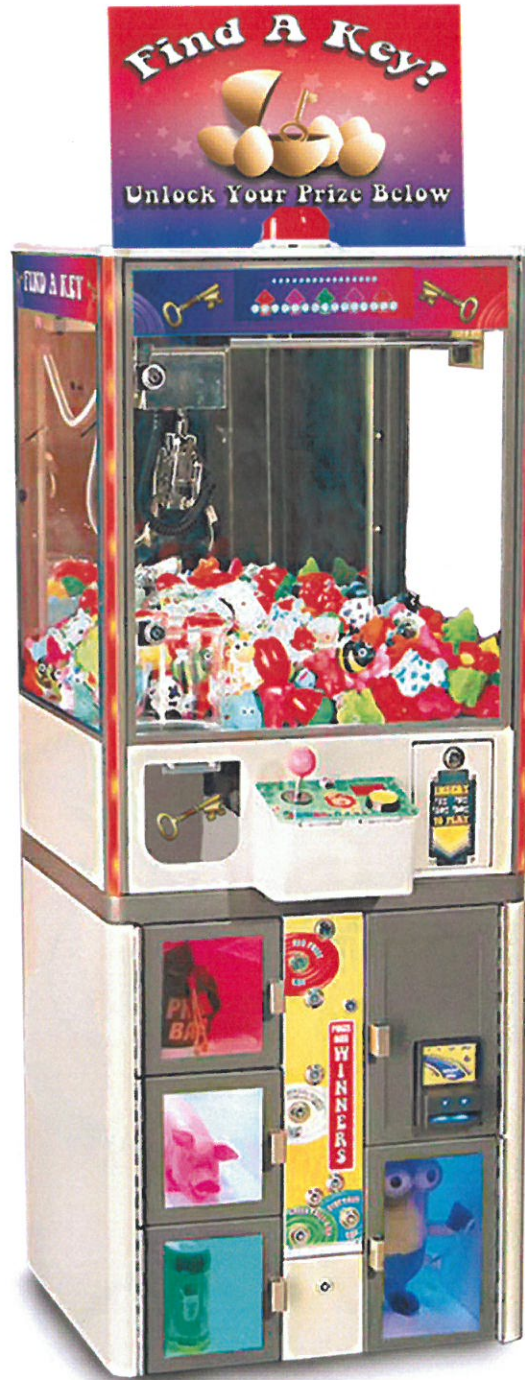




Welcome to Find A Key

"Designed by Operators for Operators"

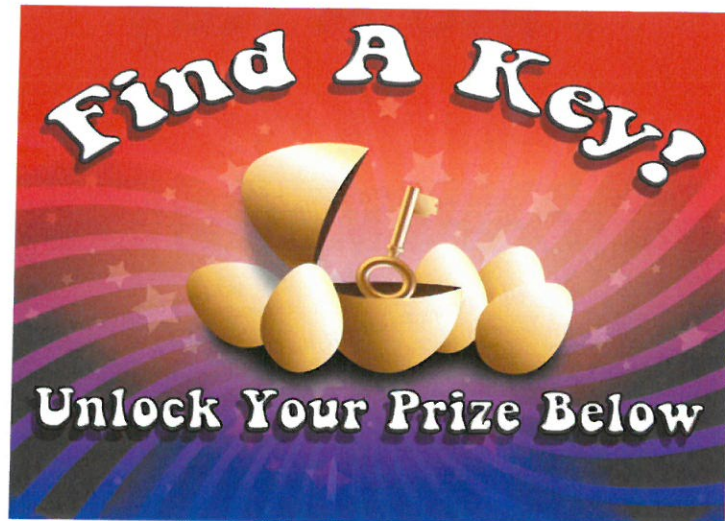


Net Weight 218 lbs

Shipping Weight 265 lbs

Setup 22.5" X 25.5" X 62"

Shipping DIMs 23" X 26" X 65"



- *Built in prize doors with individual color matching keys*
- *All metal Cabinet*
- *Attractive LED lighting*
- *Fully programmable*
- *Claw strength and transport voltage adjustable*
- *Led game positioned at top of crane can win free credits and extra claw strength*
- *Can be run as win every time*
- *All general illumination led fixtures*

Find A Key

Crane Manual

SAFETY PRECAUTIONS

Disregarding this text could result in serious injury and damage.

BE SURE TO READ THE FOLLOWING

WARNING

Always turn OFF Main AC power and unplug the game before installing machine, inspecting, servicing, opening or replacing any parts or moving the machine

The power cord must not be exposed on the surface (floor, ground, etc.) avoid trip hazards.

Always connect the Game Cabinet to grounded electrical outlet.

Always use a Digital Multimeter, logic tester or oscilloscope for testing integrated circuit (IC) logic PC boards.

Be Sure the fuses to be replaced ARE THE CORRECT specified rating.

We advise Only qualified personnel should troubleshoot the integrated circuit (IC) logic PC Boards.

Do Not place in the following areas:

High humidity

Direct water contact

Next to sources of heat or ignition

Extreme cold or dampness

Near fire equipment or exits.

BEFORE POWERING ON

Be sure the machine is installed on level ground and is stable

Be sure no connections are loose or disconnected in transit

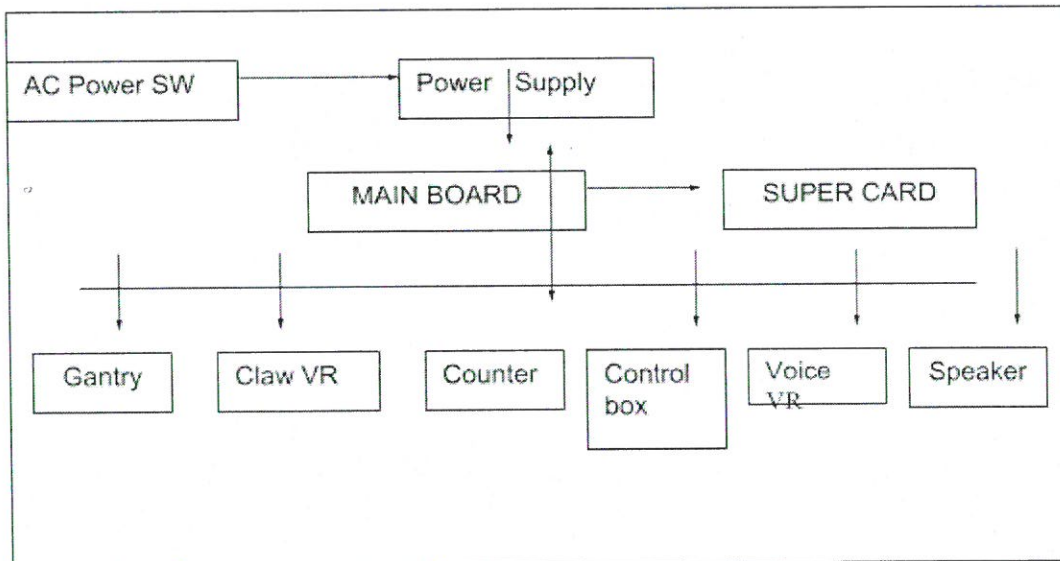
Find a Key **Table of Contents**

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HARDWARE

- A. Display: It mainly displays the number of coin insertion and the operation data of machine.
- B. Gantry : It includes 3 drive motors, claw coil and limit switches.

Hardware Flow Chart



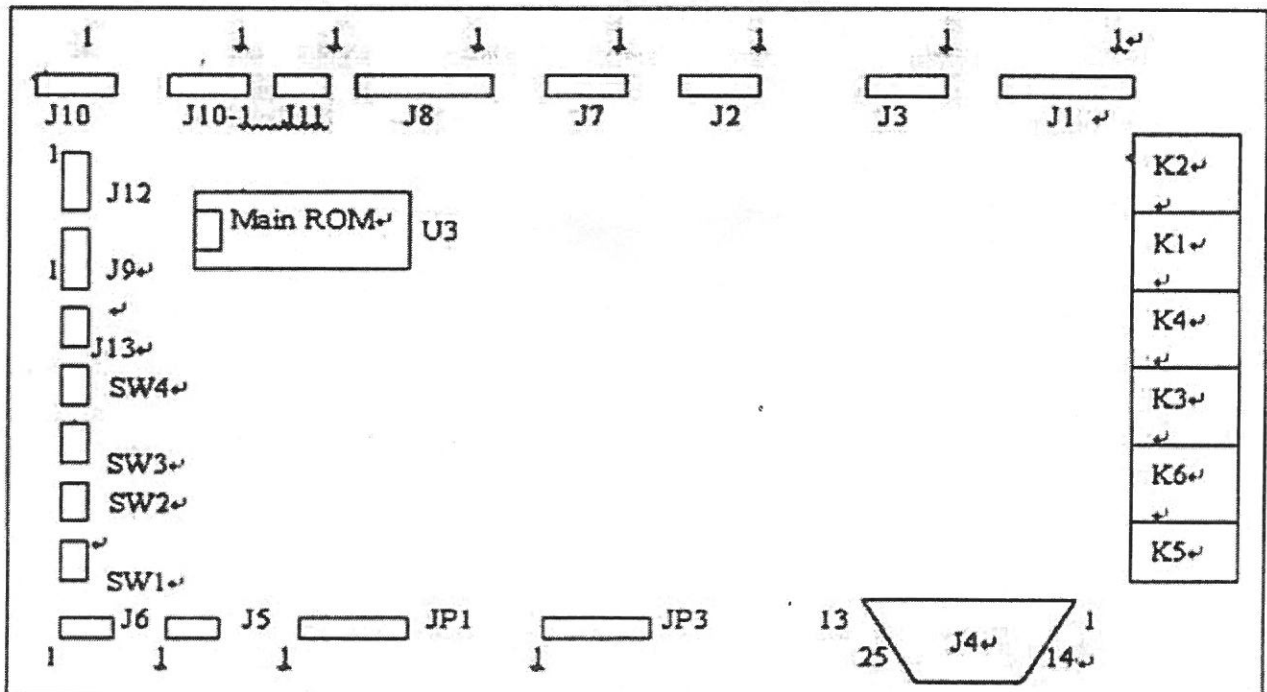
How to play :

1. Insert coins / tokens into coin slot, the display indicates credits and activates the coin counter.
2. The Super Card is optional ,adjust Pin 3 of DIP SW 1 to "ON" to activate this feature .

Joystick operation : Use the joystick to move claw above your selected object. Then select the preferred Bonus from LED Upper Display (Super Card) by pressing the drop button to choose your prize . The claw will automatically drop after preselected time if the drop button is not pushed. Stopping the light on the Super Card at "SUPER GRAB POWER", the player wins extra strength for the claw. If light stops at "ONE MORE FREE PLAY" or "TWO MORE FREE PLAYS" ,then the player wins one extra free game or two extra free games respectively.

3. After the claw drops and closes, the claw rises up until it activates the Stop-Up SW, then the claw moves to the drop chute and releases the prize.

Main PCB Wiring Diagram



J1	Color	Connection
1	BK/BK	GND
2	Brown	Joystick-Front SW (N.O.)
3	Red	Joystick -Back SW (N.O.)
4	Orange	Joystick -Right SW (N.O.)
5	Yellow	Joystick -Left SW (N.O.)
6	Green	Descend SW (N.O.)
7		
8	BK/WE	GND
9	Gray	Descend()button lamp
10		

J3	Color	Connection
1	Black	Connected to Super Card
2	Green	
3	Yellow	
4	Orange	
5	Red	
6	Brown	
7		
8	Blue	

J2	Connected to Display board
----	----------------------------

J7	Color	Connection
1	RD/WE	+12V output
2	OE/WE	COIN 1 meter
4	GN/WE	OUTPUT meter

J8	COLOR	CONNECTION
1	Brown	TILT SW (N.O.)
2		
3	Grey	GND
4	Black	Coin selector 1—GND
5	Green	Coin selector 1—Coin signal
6	Red	Coin selector 1 + 12V
7	Red	Coin selector 2 + 12V
8	WH/BL	Coin selector 2—Coin Signal
9	Black	Coin selector 2—GND
10	Black	GND
11	Blue	TEST SW(N.O.)
12	Purple	TILT ALARM
13	RD/WH	+12V
14		
15		
16		
17		
18		

J11	Color	Connection

1		Reserved for future use
2		
3		
4		
5		

J10-1	Color	Connection
1		Reserved for future use
2		
3		
4		

J10	Color	Connection
1	Black	Output Sensor--GND
2	Blue	Output Sensor--signal
3	Red	Output Sensor-- +12V

J12	Color	Connection
1		<p style="text-align: center;">J12 Reserved for future use</p> <p style="text-align: center;">J12 continued</p> <p style="text-align: center;">Reserved for future use</p>
2		
3		
4		
5		
6		
7		
8		

J13	Color	Connection
1		Reserved for future use
2		

J6	Color	Connection
1	White	Volume VR—PIN1
2	RD/WE	Volume VR—PIN2
3	Black	Volume VR—PIN3
4	GY/WE	Speaker --
5	Purple	Speaker +

J 5	Color	Connection
1	Red	VR1 Signal
2	Orange	VR1 COM
3	Yellow	VR2 Signal
4	Green	VR2 COM
5	Pink	Voltmeter +
6	Black	Voltmeter -

JP1	Color	Connection
1	Black	GND
2	Black	GND
3	Black	GND
4	Red	+ 5 V Input
5	Red	+ 5 V Input
6	Yellow	+ 12 V Input
7		

8	Orange	+ 24 V Input
9	Orange	+ 24 V Input
10	Purple	+ 48 V Input

JP3	Color	Connection
1		Reserved for future use
2		

J4	Color	Connection
1	BN/WH	Front/Back Motor +
2	RD/WH	Left/Right Motor --
3	OR/WH	Up/Down Motor --
4	WH	Claw Coil
5		
6	BH/WH	Stop-Front/Back SW (N.O.)
7		
8	PK/WH	Stop-Left/Right SW (N.O.)
9	Pink	Stop-Up SW (N.C.)
10	Black	Stop-Down SW (N.O.)
11		
12		
13		
14	Brown	Front/Back Motor -
15	Red	Left/Right Motor +
16	Orange	Up/Down Motor +
17	Yellow	Claw coil
18		
19	Blue	Stop-Front/Back SW COM.
20	Purple	Stop-Left/Right SW COM.
21	Grey	Stop-Up/Down SW COM.
22		
23		
24		
25		

DIP SW INSTRUCTIONS

※ If an error is detected by the optic, an error code "Ee" will be shown. One minute later the game will return to normal when an error is detected the "Ee" code will again be shown.

DIP SW 1		1	2	3	4	5	6	7	8
When CREDIT ≠0	Gantry moves to playfield	ON							
	Gantry remain in the original position	OFF							
Position where claws open at the exit	Claws lower down then release object		ON						
	Claws release object at the top position		OFF						
Super Card	With			ON					

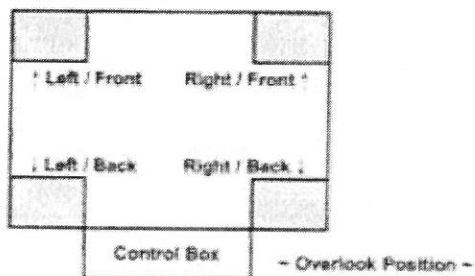
Function	Without				OFF					
Fixed adjustment						OFF	OFF			
Super power frequency	RANDOW							ON		
	FIXED							OFF		
Demo game when nobody is playing	With	Claw attract mode every 5 minutes (claw will not close.)							ON	
	Without								OFF	
Fixed adjustment										OFF

DIP SW 2		1	2	3	4	5	6	7	8
Demo music	With	ON							
	Without	OFF							
Voltage of super power	VR1		ON						
	The strongest		OFF						
Fixed adjustment				OFF					
Play till you win function	With			Will deduct 1 credit when win	ON				
	Without			Will deduct 1 credit for each game	OFF				
Operation mode	Joystick					OFF			
Save Credit Point	With						ON		
	Without						OFF		
Ability to change the inner-Values	Yes							ON	
	No							OFF	
Attract mode	attract mode on								ON
	attract mode off								OFF

※For Play till you win to function the Output Sensor must be included and functioning.

Note 1 : Starting Claw Position :

※ Start and Win position of Claw



CLAW STRENGTH INSTRUCTIONS

VR1: The first stage of grabbing power for claw. This is when the claw closes on the prize. The stronger the grabbing power is, the easier and higher the chance to win prizes is and vice versa .

VR2: The second stage of grabbing power for claw. This is when the claw holds the prize rises up and moves towards the exit. The higher the grabbing power is, the less

likely the prize is to drop during transport and vice versa. This is the transfer voltage

The adjustment of grabbing power is related to the object's size and weight. It is recommended to test grabbing power with the prizes before operation.

✳ Adjustment procedures :

With power off, adjust the slide switch on COIN 1 to NC on the back of the coin selector, then power on / or press **【TEST】** button then power on, the displays will show **【C0】** . Do not forget to reset the switch back to normally open (NO) on COIN 1 and turn machine on and off to restore to normal operating mode.

Joystick operation :

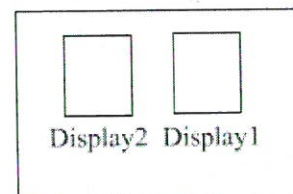
1. Pull joystick to **【Back】** : to adjust VR1, pick up prize voltage, the displays will show C1.
2. Pull joystick to **【Right】** : to adjust VR2, transport voltage, the displays will show C2 .
3. Pull joystick to **【Front】** :indicates full output power of the power supply for claw voltage C3 .

Inner-Value Set Up Instructions

Adjust switch 7 of DIP SW2 to ON and turn power on. A voice “Good Luck” is heard after the displays run a self–test. The displays will blink **【00】** . This means ready to proceed with setup of internal values.

SW operations :

1. Move Joystick **【Front】** : to adjust for Display1 .
2. Move Joystick **【Right】** : to adjust for Display2.
3. Press button on console : to confirm setup values .
 ∞ displays ∞



Item	Setup contents	Inside value	Notes
00	Ready to proceed with set ups	-	switch 7 of DIP-SW2 has to be adjusted back to OFF
01	COIN1-quantity of pay-out prizes after Inserting coins (coin selector 1)	0	
02	COIN1-quantity of pay-out prizes after Inserting coins (coin selector 2)	0	
03	COIN1-quantity of inserted coins (coin selector 1)	1	Coin quantity to get Credit. If adjusted to 0, automatically will modify to 1
04	COIN2-quantity of game credits (coin selector 1)	1	Game credit. If adjusted to 0, automatically will modify to 1
05	COIN2-quantity of inserted coins (coin selector 2)	1	Coin quantity to get Credit. If adjusted to 0, automatically will modify to 1
06	COIN2-quantity of game credits (coin selector 2)	1	Game credits. If adjusted to 0, automatically will modify to 1

07	Quantity of pay-out prizes won	0	
08	Quantity of pay-out prizes without winning	0	
09	Number of times for claw strong power given as bonus	10	Random: within X number of games played, the random generator will send super power. After this X number of games played, the random generator will pick up another opportunity to send to strong power. Fixed: every X number of games played, the super power will be sent regularly If adjusted to 0, automatically will modify to 256 times
10	play time (unit: second)	50	Set up value <5 will automatically adjust to 5 seconds .

Item	Setup contents	Inside value	Notes
11	Reserve	3	
12	"N" times for [one more free game] in Super Card	8	Valid only with Super Card
13	"N" times for [two more free games] in Super Card	3	Valid only with Super Card
14	"N" times for [highest grab power] in Super Card	1	Valid only with Super Card
15	Average setup value for item 12-14	99	Set up the average chance to win Bonus in item 12-14 within "N" games. Set up value <3 will automatically adjust to 3 times
16	Reserved for future use	1111	
17	Reserved for future use	2	
18	Reserved for future use	3	

Item 15 SET-UP INSTRUCTIONS

If the set up value <11, the system will automatically modify the set up values as below :

When set up value is equal to	Setup value is automatically changed to	When set up value is equal to	Setup value is automatically changed to
0	100	6	160
1	110	7	170
2	120	8	180
3	130	9	190
4	140	10	200
5	150	11	11

Eg: item 12=8 ;item 13=3; item 14=1; item 15=100

With a cycle of 100 games there will be 8 chances for [one more free game] , 3 chances for [two more free game] , 1 chance for [with added strength] given out. Bonus does not accumulate from one cycle of games to the next cycle of games. When a new cycle of games begin, the bonus counts also starts from the beginning. The program takes record of every game. The record will remain in the program even though the machine is power off and on again .

TEST INSTRUCTIONS

1. Claw strength :

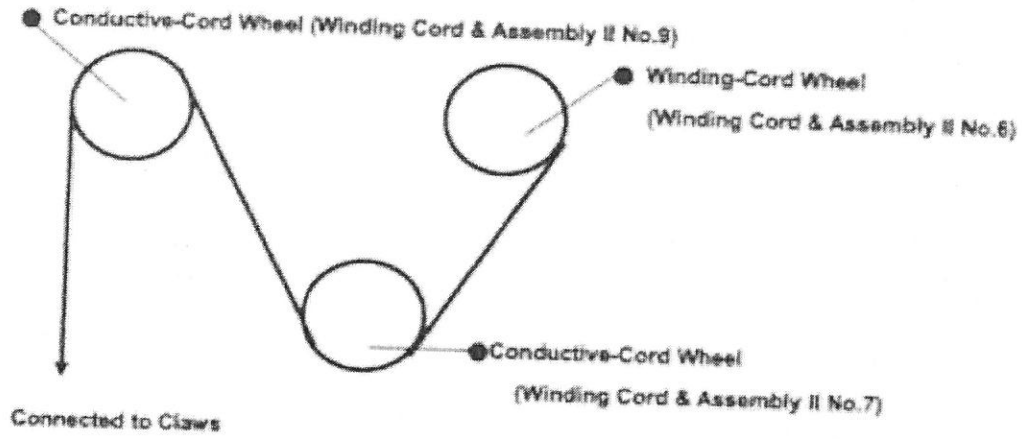
Adjust COIN 1 to N.C. then power on . or press [TEST] button then power on. Displays will show [C0]

Joystick operation	Testing items	Display indicates
Pull joystick to [Back]	VR1	C1
Pull joystick to [Right]	VR2	C2
Pull joystick to [Front]	Maximum power of claw	C3

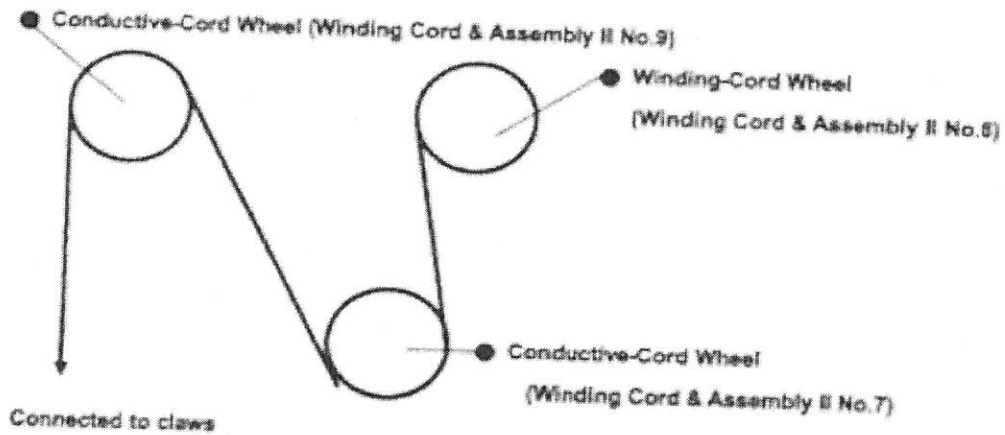
1. Error codes

Error code	Description	Error code	Description
E0	CPU Bit breakdown	E6	Flap door motor and/or control board breakdown
E1	Stop-up SW breakdown	E9	Counter meter not properly connected

WINDING CORD INSTRUCTIONS



【 Correct winding method 】



【 Improper winding method 】

Note: The program will automatically adjust to operate under normal conditions although the claw is improperly wound up as above drawing, but it will reduce the lifespan of the cord .

TROUBLESHOOTING

1. The Power Supply in this machine is DC power (+5V, +12V, +24V, +48V). Observe polarity in order to avoid damaging the PCB as well as other components.
2. Coins / tokens can not be inserted into coin slot.
 - (1) Check if anything is stuck in the coin slot
 - (2) Check if coin slot is deformed or intentionally damaged
 - (3) Check if the coin selector is of correct specification
3. Coins / tokens are returned after coin in.
 - (1) Check if coins/ tokens are of correct specification, be sure the sample coin is inserted in the selector.
 - (2) Check if connector is properly connected (electronic coin selector only).
 - (3) Check if coin selector is of correct specification.
4. No credit after coin in.
 - (1) Check if sliding end of coin selector is lined up with the bottom of the chute and not jammed
 - (2) Check if coin SW is properly positioned on the back of the selector to (NO)
 - (3) Check if coins / tokens properly touch the coin SW after coin in (mechanical selector only)
5. Claw does not lower down.
 - (1) See if the cord is improperly wound up. Hold stop-up SW (Gantry & Assembly II No. 29) and power off then power on again. The cord should be properly wound up now.
 - (2) Check to see if cord is out of the track. If so, wind the cord properly back to track and power on. The claw should go back to its normal position.
Note: unscrew and disassemble the top and front covers of gantry motor to check the cord.
 - (3) Shaking the machine beyond the normal limits during playing causes the machine to tilt, check tilt mechanism to be certain it is not inadvertently activated.
6. When displays show [C0] blinking, coin selector is at improper position N.C. (normal position is N.O.), possible conditions could be.
 - (1) If [C0] keeps blinking after holding coin SW and re-power on, it is then at condition for adjusting claws strength, refer to Claw Voltage Setting Instructions.
 - (2) [C0] will also blink during the operation when coin SW is stuck or out of position causing it be unable to detect another coin. Adjust the coin SW back to its proper position.
 - (3) [C0] will also blink during the operation when it appears players are trying to string the chute other methods of cheating.. Power off and on again, the machine should return back to its normal operation.
7. Gantry does not return to its home position :
 - (1) If power off and on again the gantry still does not return to its home position, then check if stop-back SW on Gantry or stop-left SW on Gantry are functioning properly. Also check for continuity if necessary.
 - (2) P.C.B. is not functioning properly. Check p/s voltages to determine if they are within limits.

8. Gantry does not move either forward and /or backward by joystick operation.
 - (1) Check if fwd/backward SW and wires on joystick are properly connected and have continuity.
 - (2) Check if J1 connecting pin of P.C.B. is properly connected.
 - (3) Check if stop-front SW on Gantry or back-stop SW on Gantry are functioning. Check continuity.
 - (4) Check if Front / Back motor is working. Also check if its shaft pinion and gear are matched and not binding.
 - (5) Check if J4 connecting pin of P.C.B. is properly connected.
 - (6) Check if all connecting pins of gantry are properly connected.
9. Gantry does not move to left/and or right.
 - (1) Check if left and / or right SW are functioning or if their wires are properly connected.
 - (2) Check if J1 connecting pin of P.C.B. is properly connected.
 - (3) Check if stop-left SW (Gantry & Assembly I No.21) is functioning.
 - (4) Check if left/right motor is is working or if its wires are properly connected . Also check if its shaft pinion is matched with drive gear and not binding.
 - (5) Check if J4 connecting pin of P.C.B. is properly connected.
 - (6) Check if all connecting pins of gantry are properly connected.
10. Claw does not lower down by drop button, but only until time's up.
 - (1) Check if drop button is functioning properly.
 - (2) Check if connecting wires of drop button are properly connected.
 - (3) Check if J1 connecting of P.C.B. is properly connected.
11. Claw will not lower down, but the button is working.
 - (1) Check if Up/Down motor is working and check continuity to the main board. Also check if its shaft pinion is matched with drive gear and not binding.
 - (2) Check if the cord is properly wound up
 - (3) Check if J4 connecting pin of P.C.B. is properly connected.
12. Claw does not lower or goes down a bit, claw closes goes up in then it returns to its home position.
 - (1) Check if cord is stuck.
 - (2) Check if stop-down SW is functioning correctly.
13. Claw does not fully lower down.
 - (1) Check if cord is of proper length.
 - (2) Follow same procedures in 12 above.
14. Claw does not open when returning to the home position.
 - (1) Check if stop-back or stop-left SW are out of function or if their wires are properly connected.
 - (2) Check if the gantry wire connecting to J4 connecting pin of P.C.B. is properly connected.
15. Claw does not rise up after closing and is returned back to its home position.
 - (1) Check if stop-up SW is functioning.
16. Claw does not rise up and gantry does not move at all.
 - (1) Check if Up/Down motor is working and has continuity to the mail board.
 - (2) check if its shaft pinion is matched with drive gear and not binding.
17. Claw does not close and is returns to its home position :
 - (1) Check if fuse of power supply is burnt . If not, then the P.C.B. is out of function .
 - (2) Check claw coil fuse, If fuse was blown and blows again, replace the claw coil .
 - (3) If claw does not close, check for continuity to the main P.C.B. and also through the claw coil, if there is good continuity, then the P.C.B will need replacement.
 - (4) Check if VR1 and VR2 are functioning properly.

Notes