COASTAL

DOUBLE PLAY CRANE

Plush and Candy Crane

OPERATION MANUAL

Version: 6-20-05

S/N

Software features:

1. The candy crane will be allowed to play only if the player did not win with the toy crane. The game time of the candy crane is fixed to 20 seconds. The claw power is controlled by VR1 or +48V voltage.
2. If the game is TILTED during toy crane segment of play it will not activate the candy crane portion of play for the game in which the tilt signal was received.

DIP SW1		1	2	3	4	5	6	7	8
RESERVED	FIXED	OFF							
Position where toy claws open at the exit	Claws lower down then release object		ON						
	Claws release object at the top position		OFF						
Position where candy claws open at the exit	Lower down			ON					
	At Top			OFF					
Toy Claw closes on drop button release	YES				ON				
	NO				OFF				
Candy Claw closes on drop button release	YES					ON			
	NO					OFF			
Super Power frequency[1]	Random						ON		
	Fixed						OFF		
Demo Game when nobody is playing	YES	Claws play automatically every 20 minutes (but claws remain closed)						ON	
	NO							OFF	
Super Card feature	YES								ON
	NO								OFF

Super Power Frequency[1] (Game group data will reset at power off)

Random: Within a group of (X) games (Inner value setup NO.9), The random generator will pick a game number to send super power to the claw. When (X) games have been played, another game number will be selected to receive super power within the group.

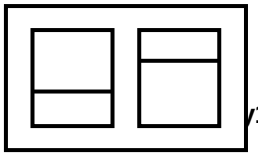
Fixed: Every X number of games (Inner value setup NO.9) super power will be sent to the claw.

DIP SW2		1	2	3	4	5	6	7	8
OPTICAL detection	Continuously (small prize)	ON							
	One time (bigger prize)	OFF							
DEMO MUSIC	YES		ON						
	NO		OFF						
Prize detection timing	When claw closing			ON					
	When claw goes up to top			OFF					
Toy play to win[2]	YES	Credit deducted at player win			ON				
	NO	Deduct credit per game played			OFF				
Candy play to win	YES	Play until candy is won				ON			
	NO	Single Play				OFF			
Keep CREDIT after power off?	YES						ON		
	NO						OFF		
Modify default setting?(Inner Value)	YES							ON	
	NO							OFF	
MODE	AUTO-DEMO								ON
	NORMAL GAME								OFF

[2]When the toy crane is set to “play to win” the candy crane will be disabled.

WMH-391 Inner value setup

1. Set DIP SW2 pin 7 to ON and power on. When “Good Luck” is heard and (**OO**) is shown on the display, flashing the setup mode is ready.
2. Operation:
   Move joystick forward or left → to change display 1
   Move joystick backward or right → tenths place to change display 2
   Press Drop to confirm.



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3. INNER VALUE

ITEM	DESCRIPTION	Default value	EXPLANATION
00	To quit	-	DIP SW2 pin 7 must be reset to OFF
01	Reserved	0	
02	Reserved	0	
03	COIN1 coins inserted	1	Coin 1→ coins required. 0 not accepted. Must be 1 and up.
04	COIN1 games played	1	Coin 1→ number of plays equivalent to the above set number of coins. 0 not accepted. Must be 1 and up.
05	COIN2 coins inserted	1	Coin 2→ coins required. 0 not accepted. Must be 1 and up.
06	COIN2 games played	1	Coin 2→ number of plays equivalent to the above set number of coins. 0 not accepted. Must be 1 and up.
07	Reserved	0	
08	Reserved	0	
09	Number of times for claws' strong power given as bonus	10	This Feature will allow you the operator to choose the amount of game plays until you want the claw to receive full strength. When set to (0), full power will only be received every 256 times. Factory default is (10)
10	GAME TIME	20	Game Play time in seconds
11	RESERVED	0	
12	Number of plays for free game when using Super Card	8	Valid only with Super Card
13	Number of plays for 2 free game when using Super Card	3	Valid only with Super Card
14	Number of times for full strength using Super Card	1	Valid only with Super Card
15	Average set up value for Super Card items 12-14	00	Set up the average chance to win Bonus in item 12-14 within number of games.

TESTING INSTRUCTION

1. Claw strength testing:

Adjust COIN1 to N.C. then power on the game. The display will show [C0].

Joystick operation	Testing items	Displays showing
Pull joystick back	VR1	C1
Pull joystick to right	VR2	C2
Pull joystick forward	Check strongest power of claws	C3

VR1: The first stage of grabbing power for claws. This is when the claw is descended to grab objects. The stronger the grabbing power is, the easier and higher opportunity to grab objects and vise versa.

VR2: The second stage of grabbing power for claws. This is when the claws holds the grabbed object then rises up and moves towards the exit. The stronger the grabbing power is, the tougher the grabbed object slips off from the claws and vise versa.

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

Adjustment procedures:

1. Adjust COIN1 to N.C. then power on, the displays will show (C0). Adjust COIN1 back to N.O.
2. Pull joystick Back: to adjust VR1, the displays will show C1.
3. Pull joystick Right: to adjust VR2, the displays will show C2.
4. Pull joystick Forward: to check the strongest power of claws, the displays will show C3.

2. Gantry testing:

Adjust COIN2 to N.C. then power on. Displays will show (a0).

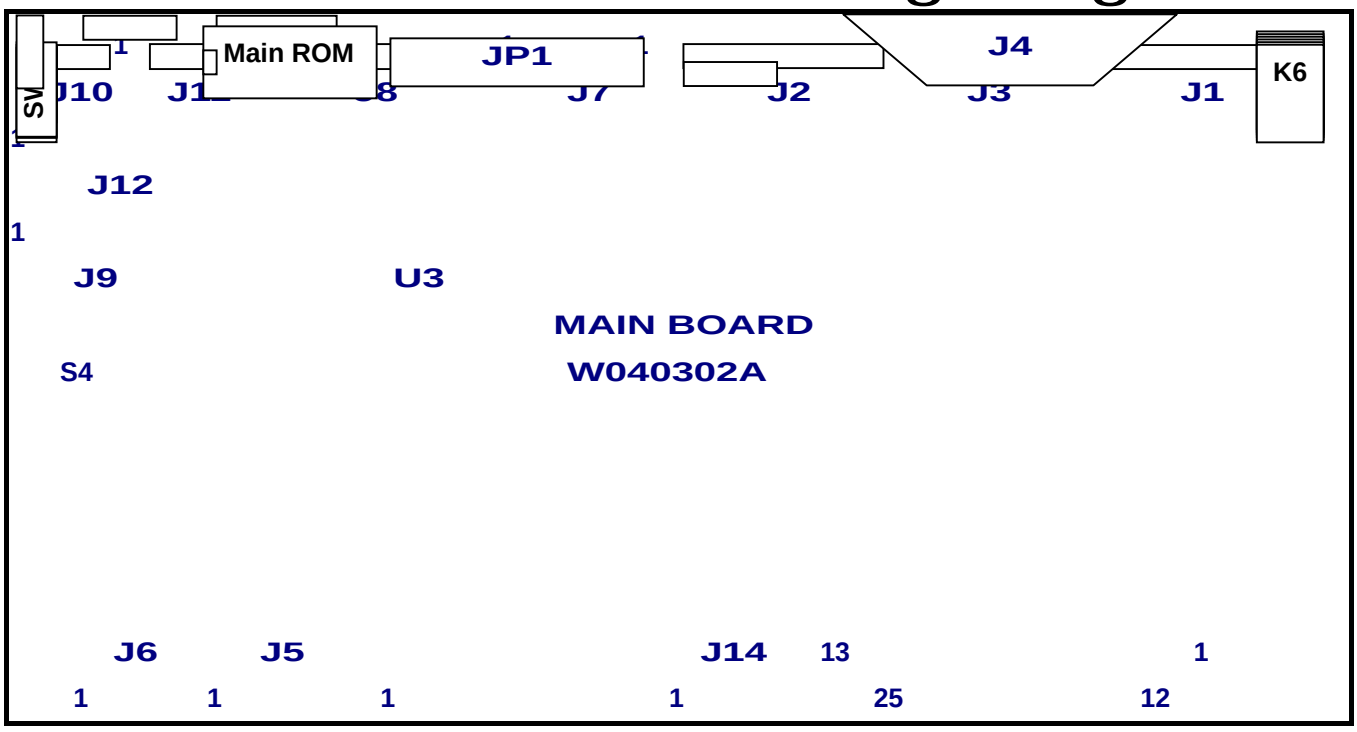
Joystick/Button operation	Case	Displays showing
Back	Claws lower down	a3

Front	Claws rises up	a4
Right + Drop Button	Motor moves to right	b1
Left + Drop Button	Motor moves to left	b2
Back + Drop Button	Motor moves backward	b3
Front + Drop Button	Motor moves forward	b4

3. Error Code Description:

Error code	Description	Error code	Description
E1	Toy gantry string pulling up error	Ea	Left-right stopping switch error
E3	Toy gantry string lowering down error	Ec	Front-Back stopping switch error
E7	Candy gantry string pulling up error	Ee	Toy prize optic error
E8	Candy gantry string lowering down error	EF	Candy prize optic error
E9	Counter meter disconnected		

WMH-391 Series Wiring Diagram



J1	Color	Connection
1	Black	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	Blue	
8	Black	GND
9	Grey	Descend (RIGHT) button lamp
10	White	Reserved button lamp

J3	Color	Connection
1		RESERVED
2		
3		
4		
5		
6		
7		
8		

J2	Connected to display

J7	Color	Connection
1	RD / WE	+12V output
2	OE / WE	COIN1 Meter
3	YW / GN	COIN2 Meter
4	GN / WE	Toy prize out Meter
5	BE / WE	Candy prize out Meter

J8	Color	Connection
1	Brown	TILT SW (N.O.)
2		
3	Black	GND
4	Black	Coin Selector 1-- GND
5	White/gn	Coin Selector 1 -- Coin Signal
6	Red	Coin Selector 1 -- +12V
7	Red	Coin Selector 2 -- +12V
8	White/blue	Coin Selector 2 – Coin Signal
9	Black	Coin Selector 2 -- GND
10		
11	Pink	TEST SW (N.O.)
12		
13		
14		
15		
16		
17		
18	Green	Coin Inhibit signal（–）

J11	Color	Connection
1		RESERVED
2		
3		
4		
5		

J10-1	Color	Connection
1		RESERVED
2		
3		
4		

J10	Color	Connection
1	Blue	Candy prize out optic -- GND
2	Grey	Candy prize out optic – Sensor signal
3	brown	Candy prize out optic -- +12V

J12	Color	Connection
1		RESERVED
2		
3		
4		
5		
6		
7		
8		

J9	Color	Connection
1	Black	Toy prize out optic -- GND
2	Blue	Toy prize out optic – Sensor signal
3		
4		
5		
6	Red	Toy prize out optic -- +12V

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

J5	Color	Connection
1	Red	Claw strength VR2 PIN3
2	Orange	Claw strength VR1 PIN3
3	Yellow	Claw strength VR1 PIN1
4	Green	Claw strength VR1 PIN2
5	Blue	Claw strength VR2 PIN1
6	Grey	Claw strength VR2 PIN2
7	Red/we	Volt meter+
8	Black	Volt meter–

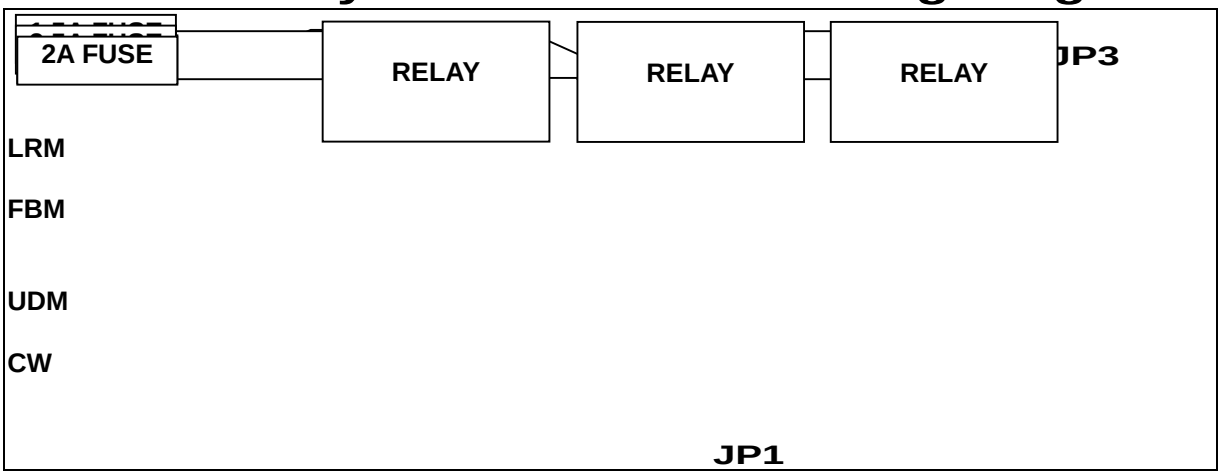
JP1	Color	Connection
1	Black	GND
2	Black	GND
3	Black	GND
4	Yellow	+5V Input
5	Yellow	+5V Input
6	Red	+12V Input
7	Red	+12V Input
8	Orange	+24V Input
9	Orange	+24V Input
10	Purple	+48V Input

J4	Color	Connection
1	BN / WE	Front / Back Motor +
2	RD / WE	Left / Right Motor –
3	OE / WE	Up / Down motor –
4	White	Claws Coil
5	GN / WE	
6	BE / WE	Stop-Front / Back SW (N.O.)
7	WE / BN	Front-Back SW sensor
8	PE / WE	Stop-Left / Right SW (N.O.)
9	Pink	Stop-UP SW (N.C.)
10	Black	Stop-Down SW (N.O.)
11	WE / BE	
12	GY / BK	
13	WE/GN	+12V Output
14	Brown	Back / Front Motor –
15	Red	Left / Right Motor +
16	Orange	Up / Down Motor +
17	Yellow	Claws Coil
18	Green	
19	Blue	Stop-Front / Back SW COM.
20	Purple	Stop-Left / Right SW COM.
21	Gray	Stop-Up / Down SW COM.
22	WE / PE	GND
23	PK / BE	Front-Back SW sensor
24	RD / YW	
25	YW / GN	
J4	Connected 1 by 1 to Gantry control board W040846 JP1	

J13	Color	Connection
1		RESERVED
2		

S4	Color	Connection
1		RESERVED
2		
3		
4		
5		
6		
7		
8		

W040846 Gantry Control Board Wiring Diagram



JP1 connected 1 by 1 to main board
JP2 connected to toy gantry
JP3 connected to candy gantry