

# WMH-388 DIP SW Adjustment

Program no.: **S388**

PCB no.: **W021208A**

<b>DIP SW1</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>COIN #1 Coins vs. Play</b>	<b>2:3</b>	ON	ON						
	<b>2:1</b>	OFF	ON						
	<b>1:2</b>	ON	OFF						
	<b>1:1</b>	OFF	OFF						
<b>COIN #2 Coins vs. Play</b>	<b>2:1</b>			ON	ON				
	<b>1:5</b>			OFF	ON				
	<b>1:4</b>			ON	OFF				
	<b>1:1</b>			OFF	OFF				
<b>GAME TIME</b>	<b>60 sec.</b>					ON	ON		
	<b>50 sec.</b>					OFF	ON		
	<b>40 sec.</b>					ON	OFF		
	<b>30 sec.</b>					OFF	OFF		
<b>DIFFICULTY</b>	<b>Very difficult</b>							ON	ON
	<b>Difficult</b>							OFF	ON
	<b>Easy</b>							ON	OFF
	<b>Very easy</b>							OFF	OFF

<b>DIP SW2</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>DEMO MUSIC</b>	<b>YES</b>	ON							
	<b>NO</b>	OFF							
<b>Play till win prize in basket</b>	<b>YES</b>		ON						
	<b>NO</b>		OFF						
<b>Basket position reset when power on</b>	<b>YES</b>			ON					
	<b>NO</b>			OFF					
<b>Catch in the air</b>	<b>YES</b>				ON				
	<b>NO</b>				OFF				
<b>Keep CREDIT</b>	<b>YES</b>					ON			
	<b>NO</b>					OFF			
<b>Claw strength power interruption time From VR1 to VR2</b>	L ↑	<b>7</b>					ON	ON	ON
		<b>6</b>					OFF	ON	ON
		<b>5</b>					ON	OFF	ON
		<b>4</b>					OFF	OFF	ON
		<b>3</b>					ON	ON	OFF
	↓ S	<b>2</b>					OFF	ON	OFF
		<b>1</b>					ON	OFF	OFF
		<b>0</b>					OFF	OFF	OFF

# **WMH-388 DIP SW Adjustment**

**Program no.: S388•0→ ON, X→ OFF•**

**PCB no.:**

**W021208A**

DIP SW3		1	2	3	4	5	6	7	8
Win	1 x	0	0	0	0	0	0	0	0
Prize from	N								
Basket	2 x	X	0	0	0	0	0	0	0
After Every X	N								
times	3 x	0	X	0	0	0	0	0	0
(N=1 or 3	N								
adjustable	4 x	X	X	0	0	0	0	0	0
with DIP	N								
SW #3	5 x	0	0	X	0	0	0	0	0
PIN #8)	N								
	6 x	X	0	X	0	0	0	0	0
	N								
	7 x	0	X	X	0	0	0	0	0
	N								
	8 x	X	X	X	0	0	0	0	0
	N								
	9 x	0	0	0	X	0	0	0	0
	N								
	10 x	X	0	0	X	0	0	0	0
	N								
	11 x	0	X	0	X	0	0	0	0
	N								
	12 x	X	X	0	X	0	0	0	0
	N								
	13 x	0	0	X	X	0	0	0	0
	N								
	14 x	X	0	X	X	0	0	0	0
	N								
	15 x	0	X	X	X	0	0	0	0
	N								
	16 x	X	X	X	X	0	0	0	0
	N								
	17 x	0	0	0	0	X	0	0	0
	N								
	18 x	X	0	0	0	X	0	0	0
	N								
	19 x	0	X	0	0	X	0	0	0
	N								
	20 x	X	X	0	0	X	0	0	0
	N								
	21 x	0	0	X	0	X	0	0	0
	N								
	22 x	X	0	X	0	X	0	0	0
	N								
	23 x	0	X	X	0	X	0	0	0
	N								
	24 x	X	X	X	0	X	0	0	0
	N								
	25 x	0	0	0	X	X	0	0	0
	N								
	26 x	X	0	0	X	X	0	0	0
	N								
	27 x	0	X	0	X	X	0	0	0
	N								
	28 x	X	X	0	X	X	0	0	0
	N								
	29 x	0	0	X	X	X	0	0	0
	N								
	30 x	X	0	X	X	X	0	0	0
	N								

DIP SW3		1	2	3	4	5	6	7	8
Win	49 x	0	0	0	0	X	X	0	0
Prize from	N								
Basket	50 x	X	0	0	0	X	X	0	0
After Every X	N								
times	51 x	0	X	0	0	X	X	0	0
(N=1 or 3	N								
adjustable	52 x	X	X	0	0	X	X	0	0
with DIP	N								
SW #3	53 x	0	0	X	0	X	X	0	0
PIN #8)	N								
	54 x	X	0	X	0	X	X	0	0
	N								
	55 x	0	X	X	0	X	X	0	0
	N								
	56 x	X	X	X	0	X	X	0	0
	N								
	57 x	0	0	0	X	X	X	0	0
	N								
	58 x	X	0	0	X	X	X	0	0
	N								
	59 x	0	X	0	X	X	X	0	0
	N								
	60 x	X	X	0	X	X	X	0	0
	N								
	61 x	0	0	X	X	X	X	0	0
	N								
	62 x	X	0	X	X	X	X	0	0
	N								
	63 x	0	X	X	X	X	X	0	0
	N								
	64 x	X	X	X	X	X	X	0	0
	N								
	65 x	0	0	0	0	0	0	0	X
	N								
	66 x	X	0	0	0	0	0	0	X
	N								
	67 x	0	X	0	0	0	0	0	X
	N								
	68 x	X	X	0	0	0	0	0	X
	N								
	69 x	0	0	X	0	0	0	0	X
	N								
	70 x	X	0	X	0	0	0	0	X
	N								
	71 x	0	X	X	0	0	0	0	X
	N								
	72 x	X	X	X	0	0	0	0	X
	N								
	73 x	0	0	0	X	0	0	0	X
	N								
	74 x	X	0	0	X	0	0	0	X
	N								
	75 x	0	X	0	X	0	0	0	X
	N								
	76 x	X	X	0	X	0	0	0	X
	N								
	77 x	0	0	X	X	0	0	0	X
	N								
	78 x	X	0	X	X	0	0	0	X
	N								

<b>31<sup>x</sup> N</b>	O	X	X	X	X	O	O
<b>32<sup>x</sup> N</b>	X	X	X	X	X	O	O
<b>33<sup>x</sup> N</b>	O	O	O	O	O	X	O
<b>34<sup>x</sup> N</b>	X	O	O	O	O	X	O
<b>35<sup>x</sup> N</b>	O	X	O	O	O	X	O
<b>36<sup>x</sup> N</b>	X	X	O	O	O	X	O
<b>37<sup>x</sup> N</b>	O	O	X	O	O	X	O
<b>38<sup>x</sup> N</b>	X	O	X	O	O	X	O
<b>39<sup>x</sup> N</b>	O	X	X	O	O	X	O
<b>40<sup>x</sup> N</b>	X	X	X	O	O	X	O
<b>41<sup>x</sup> N</b>	O	O	O	X	O	X	O
<b>42<sup>x</sup> N</b>	X	O	O	X	O	X	O
<b>43<sup>x</sup> N</b>	O	X	O	X	O	X	O
<b>44<sup>x</sup> N</b>	X	X	O	X	O	X	O
<b>45<sup>x</sup> N</b>	O	O	X	X	O	X	O
<b>46<sup>x</sup> N</b>	X	O	X	X	O	X	O
<b>47<sup>x</sup> N</b>	O	X	X	X	O	X	O
<b>48<sup>x</sup> N</b>	X	X	X	X	O	X	O

<b>79<sup>x</sup> N</b>	O	X	X	X	O	O	X
<b>80<sup>x</sup> N</b>	X	X	X	X	O	O	X
<b>81<sup>x</sup> N</b>	O	O	O	O	X	O	X
<b>82<sup>x</sup> N</b>	X	O	O	O	X	O	X
<b>83<sup>x</sup> N</b>	O	X	O	O	X	O	X
<b>84<sup>x</sup> N</b>	X	X	O	O	X	O	X
<b>85<sup>x</sup> N</b>	O	O	X	O	X	O	X
<b>86<sup>x</sup> N</b>	X	O	X	O	X	O	X
<b>87<sup>x</sup> N</b>	O	X	X	O	X	O	X
<b>88<sup>x</sup> N</b>	X	X	X	O	X	O	X
<b>89<sup>x</sup> N</b>	O	O	O	X	X	O	X
<b>90<sup>x</sup> N</b>	X	O	O	X	X	O	X
<b>91<sup>x</sup> N</b>	O	X	O	X	X	O	X
<b>92<sup>x</sup> N</b>	X	X	O	X	X	O	X
<b>93<sup>x</sup> N</b>	O	O	X	X	X	O	X
<b>94<sup>x</sup> N</b>	X	O	X	X	X	O	X
<b>95<sup>x</sup> N</b>	O	X	X	X	X	O	X
<b>96<sup>x</sup> N</b>	X	X	X	X	X	O	X

# WMH-388 DIP SW Adjustment

Program no.: S388•0→ ON, X→ OFF•

PCB no.:

W021208A

DIP SW3		1	2	3	4	5	6	7	8
Win Prize from Basket After Every X times (N=1 or 3 adjustable with DIP SW #3 PIN #8)	97 x N	0	0	0	0	0	X	X	
	98 x N	X	0	0	0	0	X	X	
	99 x N	0	X	0	0	0	X	X	
	100 x N	X	X	0	0	0	X	X	
	101 x N	0	0	X	0	0	X	X	
	102 x N	X	0	X	0	0	X	X	
	103 x N	0	X	X	0	0	X	X	
	104 x N	X	X	X	0	0	X	X	
	105 x N	0	0	0	X	0	X	X	
	106 x N	X	0	0	X	0	X	X	
	107 x N	0	X	0	X	0	X	X	
	108 x N	X	X	0	X	0	X	X	
	109 x N	0	0	X	X	0	X	X	
	110 x N	X	0	X	X	0	X	X	
	111 x N	0	X	X	X	0	X	X	
	112 x N	X	X	X	X	0	X	X	
	113 x N	0	0	0	0	X	X	X	
	114 x N	X	0	0	0	X	X	X	
	115 x N	0	X	0	0	X	X	X	
	116 x N	X	X	0	0	X	X	X	
	117 x N	0	0	X	0	X	X	X	
	118 x N	X	0	X	0	X	X	X	
	119 x N	0	X	X	0	X	X	X	
	120 x N	X	X	X	0	X	X	X	
	121 x N	0	0	0	X	X	X	X	
	122 x N	X	0	0	X	X	X	X	
	123 x N	0	X	0	X	X	X	X	
	124 x N	X	X	0	X	X	X	X	
125 x N	0	0	X	X	X	X	X		
126 x N	X	0	X	X	X	X	X		
127 x N	0	X	X	X	X	X	X		
128 x N	X	X	X	X	X	X	X		

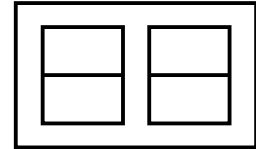
DIP SW3		1	2	3	4	5	6	7	8
N	X1								0
	x3								X

# WMH-388 Inner Values Adjustment

1. Set Coin#1 to N.C. and move joystick forward and right forward while keeping it in this position, power on the machine. Display will show “00” twinkling. You are now in adjusting mode for inner values. Please remember to set Coin#1 back to N.O., otherwise you will be entering to claw testing mode.

2. How to use the joystick to enter the numbers:

- Move joystick to front or left → unit place (Display)+1
- Move joystick to back or right → tenth place (Display2)+1.
- Press Drop button → Confirm.



3. Inner values setup table:

ITEM	DESCRIPTION	Value	EXPLANATION
<b>00</b>	EXIT		Be reminded to set Coin #1 back to N.O.
<b>01</b>	Inserted coins to COIN#1	<b>1</b>	Number of coins inserted to Coin #1 If adjusted to 0, it will become automatically to 1.
<b>02</b>	Number of plays per coin inserted to COIN#1	<b>1</b>	Number of plays per the coins inserted adjusted in item no. 01 If adjusted to 0, it will become automatically to 1.
<b>03</b>	Inserted coins to COIN#2	<b>1</b>	Number of coins inserted to Coin #2 If adjusted to 0, it will become automatically to 1.
<b>04</b>	Number of plays per coin inserted to COIN#2	<b>1</b>	Number of plays per the coins inserted adjusted in item no. 03 If adjusted to 0, it will become automatically to 1.
<b>05</b>	Within every X plays a strong strength sent to claw	<b>10</b>	A strongest strength will be sent to the claw within a circle of X plays by random. If adjusted to 0, it will become automatically to 256.
<b>06</b>	GAME TIME	<b>50</b>	If adjusted to 5, will become 5 seconds automatically
<b>07</b>	RESERVED		
<b>08</b>	RESERVED		

**NOTE: Items 1~4 reserved. Please adjust mainly by DIP SW.**

# WMH-388 Testing Explanation

## 1. Claw Strength Adjustment: COIN#1 adjusted to N.C. then power on. Display will show “C0”.

JOYSTICK	TEST ITEM	SHOWN ON DISPLAY
Backward and hold	VR1	C1
Right and hold	VR2	C2
Forward and hold	Super Strong Strength	C3

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

- The adjustment of grabbing power is related to the object’s size and weight. It is recommended to test grabbing power with its grabbing objects before operation. The lighter and bigger the object is, the tougher (lesser) the opportunity for the object to slip off from the claws and vice versa.

### Adjustment procedures:

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

## 2. Gantry:

Adjust COIN#2 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
Descend Right	Motor moves to right	b1
Descend Left	Motor moves to left	b2
Descend Back	Motor moves backward	b3
Descend Front	Motor moves forward	b4

## 3. BASKET:

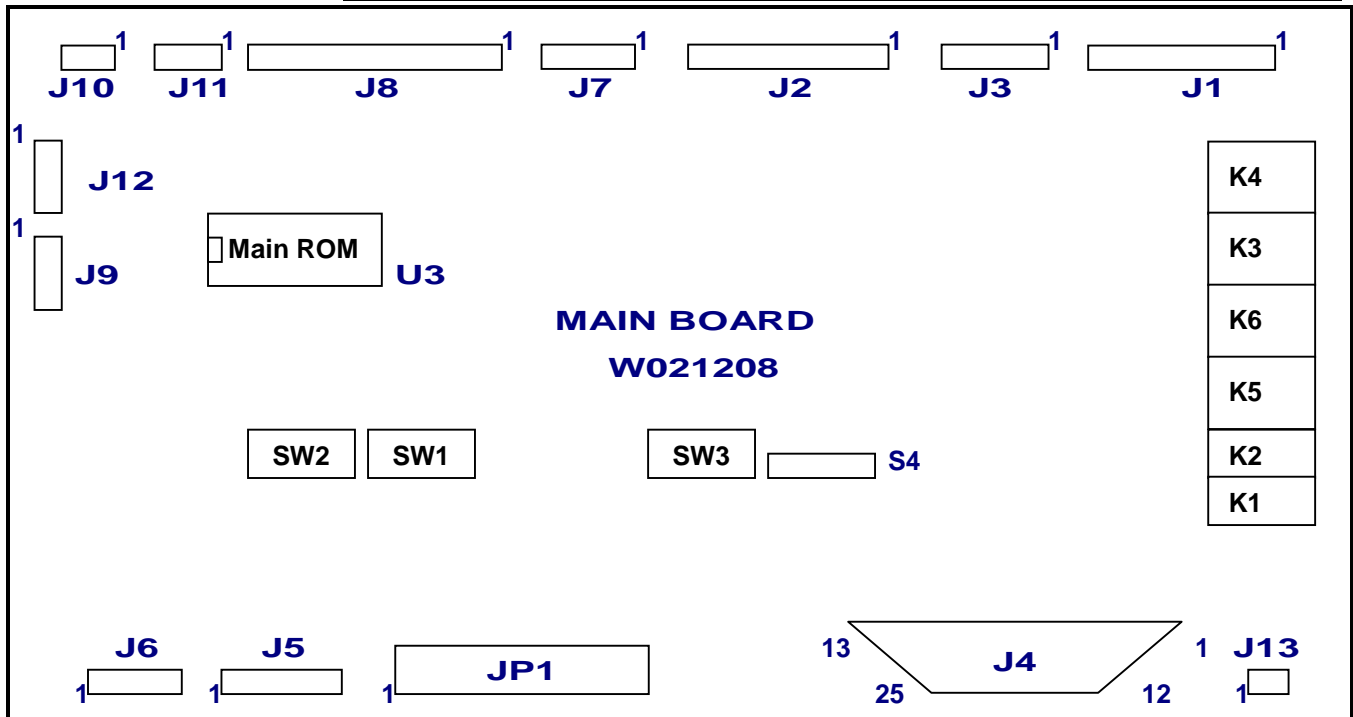
Set SW2, pin #3 to ON and the rest of the pins to OFF. Adjust COIN #1 & #2 to N.C., then power on. Display will show CC. Adjust COIN #1 & #2 back to N.O., 5P will be shown now on display. Test will be ready right now. Set SW2 to the desired positions, turn off and on again to resume game.

Joystick/Button operation	Testing Object
Back or Front	Upper basket
Left or Right	Lower basket
DROP button	Wheel of fortune

#### 4. Error code description:

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

### WMH-388 *Serial Main PCB 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	Drop -- SW (N.O.)
7		
8	Black	GND
9	Grey	Drop button light / Button #1 light
10	White	Reserved button light / Button #2 light

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

J3	Color	Connection
1		Connected to baskets control board W030103 / JP8 •1 to 1•
2		
3		
4		
5		
6		
7		
8		

J8	Color	Connection
1	Brown	TILT SW (N.O.)
2		
3	Black	GND
4	Black	Coin Selector 1-- GND
5	WE/GN	Coin Selector 1 -- Coin Signal
6	Red	Coin Selector 1 -- +12V
7	Red	Coin Selector 2 -- +12V
8	WE/BE	Coin Selector 2 -- Coin Signal
9	Black	Coin Selector 2 -- GND
10		
11		
12		
13		
14		
15		
16	Black	GND
17		
18	Green	Coin Inhibit input•--•

<b>J2</b>	Connected to Display Board
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J11	Color	Connection
1		
2		
3		Connected to baskets control board W030103 / JP9 / PIN3
4		Connected to baskets control board W030103 / JP9 / PIN4
5		

J10-1	Color	Connection
1		RESERVED
2		
3		
4		

J10	Color	Connection
1	Blue	Output Sensor -- GND
2	Gray	Output Sensor -- signal
3	Brown	Output Sensor -- +12V

J12	Color	Connection
1		
2		
3		Metal box control SW (N.O.)
4		GND
5		
6		
7		
8		

J9	Color	Connection
1		RESERVED
2		
3		
4		
5		
6		

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

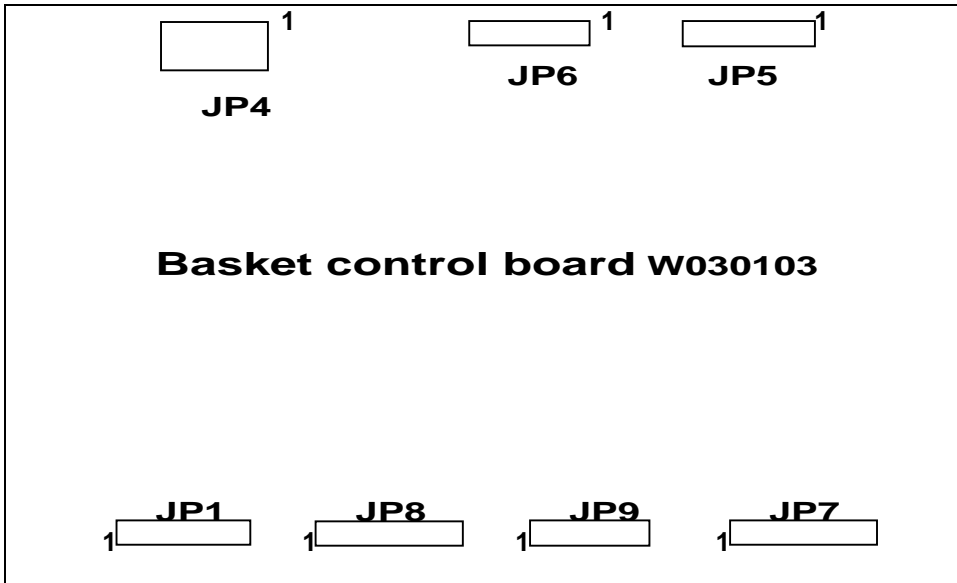
J5	Color	Connection
1	Red	VR1 Signal
2	Orange	VR1 COM.
3	Yellow	VR2 Signal
4	Green	VR2 COM.
5	Pink	Voltmeter +
6	Black	Voltmeter -

JP1	Color	Connection
1	Black	GND
2	Black	GND
3	Black	GND
4	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	
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	
24	RD / YW	
25	YW / GN	

J13	Color	Connection
1		RESERVED
2		

S4	Color	Connection
1		Connected to basket control board W030103 / JP7•1 to 1•
2		
3		
4		
5		
6		
7		
8		



### BASKET Control Board Wiring Diagram

JP5	Color	Connection
1		Basket motor 1 +
2		Basket motor 1 -
3		Basket motor 2 +
4		Basket motor 2 -
5		Basket motor 1 SW (N.O.)
6		Basket motor 2 SW (N.O.)
7		GND -- Basket motor SW (COM.)
8		
9		
10		GND -- Basket motor SW (COM.)

JP6	Color	Connection
1~6		Connected to Step Motor control board W030206 / JP3 (1 to 1)

JP4	Color	Connection
1		AC 12V IN
2		AC 12V IN

JP1	Color	Connection
1		Connected to Step motor control board W030206 JP1
2		
3		
4		
5		
6		
7		
8		

JP8	Color	Connection
1~8		Connected to main board W021208 /J3 (1 to 1)

JP9	Color	Connection
1		
2		
3		Connected to main board W021208 J3 / P3
4		Connected to main board W021208 J3 / P4
5		

JP7	Color	Connection
1~8		Connected to main board W021208 /S4 (1to1)

### STEP MOTOR Control Board Wiring Diagram

JP1	Color	Connection
1		Connected to Basket control board W030203 JP1
2		
3		

JP2	Color	Connection
1~6		Connected to step motor

JP3	Color	Connection
1~6		Connected to Basket control board W030203 / JP6

# ***"ELFIN CUPID"***

## **JUMBO CRANE**

### **OPERATING MANUAL**

(VERSION 8-21-03; S/W V.S-388)

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