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Version: 1.02 Time: 2008-07-10

SAFTTY INSTRUCTIONS

* WARNING! *
BEFORE SETTING UP THE GAME, PLEASE READ THE FOLLOWING INSTRUCTIONS.

* WARNING! *
FAILURE TO FOLLOW THESE DIRECTIONS COULD CAUSE DAMAGE TO THE GAME.

NOTICE FOR INSTALLATION

l   **This machine is for indoor use, is not suitable for outdoor use.**

l   **After the machine was completely set up, please make sure that the machine is securely and safely placed on the floor.**

l   **Do not assemble or disassemble the game. Or move the game without careful instructions.**

l   **Switch off the power and pull out the plug before moving the machine.**

l   **Place the game on flat floor. Do not put it on unsteady or vibrating location.**

l   **Do not place the game near equipment or areas that are humid, inflammable or of high temperature.**

l   **Do not place any heavy equipment on the top of the machine, or on top of the power cord.**

l   **Do not expose the circuit part in the machine to the air for a long time.**

l   **Adjust the power of crane or it will make the chaocolate out abnomal and the driver board damage.**

NOTICE FOR OPERATION

l   **Before plugging in or turning on the machine, please check if the power plug and power cord are in good conditions, and check if the voltage is set to the proper voltage that is suitable for your country.**

l   **Turn off the power before you check or inspect the machine.**

l   **Only qualified technicians are allowed to perform checking or maintenance of the game.**

l   **Suitable accessories and technical parts should be used for parts replacement**

l   **Hold the plug (not the wire) to remove the power cord from the wall outlet.**

l   **Do not plug or unplug the game with wet hand.**

l   **Do not pull or twist the power wire and fuses.**

INTRODUCTION

Chocolate Castle is a new version of indoor chocolate machine. This machine is simple to play, with brilliant cabinet design built of high quality materials. Chocolate Castle is a game that Every Family Entertainment Center should not miss!

PACKAGING

During delivery, the machine should be handled with care. Use a Forklift to deliver the packaged machine. Be careful not to hit the machine by heavy equipment. This may cause damage to the machine.

ACCERSSORIES

Check whether the machine is packed with the following Accessories:

Accessories	Quantity	Remarks
Operation Manual	1	
Keys	5	2*1866 (Glass Door Keys) 3*1888 (Front and Back Door Keys)
Power Cord	1	
String for the Claw Carriage	2*1.0m	
Door Lock	1 set	8840
Micro On/Off Switch for the Wheels	1 pcs	DECO VP531A-5F

TECHNICAL PARAMETERS

l   Mode: LP.TBJ003
l   Dimension: 865x800x1970mm
l   Weight: 175KG
l   Power supply: see the back cover of the machine.
l   Maximum power: 140W/220V
l   Location requirements

LOCATION REQUIREMENTS

l   Indoor temperature: between from 5℃ and 40℃.
l   Indoor humidity: low
l   U.V. radiation: Very low
l   Vibrations level: low

PLAYING INSTRUCTIONS

1. Insert coin. After the proper number of credits is achieved, the game will enter into play mode. The pusher moves front and back ,the prize door opening in the following time。 (eg. Default setting is 1 coin/token for every game. So, if 1 coin/token is inserted, then the game will start. If the setting is 2 coins/tokens for each game, then the player needs to insert 2 coins / tokens to start the game.) . The "CREDIT" LED display on the console will show the number of CREDITS and the TIME LED display will show the playtime.

2. Normal mode: Within the play time limit, move the joystick to control the position of the claw. Move the claw to your target. Press the red button on the top of the joystick to lower down the claw and try to catch the chocolate. If the claw catches the chocolate, The pusher moves front and back push the chocolate ,if it falls down and the plyer get the chocolate from prize door .No matter the chocolate falls off or not ,the claw lossen pusher move several times game over the chocolate will come out through the chocolate door. Game over when the crane returns the original position.

3. Vending mode: The play instruction as per normal mode .Otherwise, when the number of games played is equal to the max number of game play, game over.

Note: The voltage of claw always be at the Strong state so that the player can finally win a chocolate in vending mode***, so please attention to the claw and prize sensing panel.

TEST MODE

1. LED Instruction

TIME LED(X_1X_2)   COIN LED ($Y_1Y_2=Y$)

Left LED (X_1X_2): it means mode.

Right LED ($Y_1Y_2=Y$): it means data.

2. Test Mode

TEST MODE				
X_1X_2	Significance		X_1X_2	Significance
10	FUNCTION SETTING below		20	GAME TEST
11	Play mode		21	Serial No. of machine (SN)
12	Service credits		22	Displays "0123"
13	Background music setting		23	All LEDs turn off
14	Playtime setting		24	All LEDs turn on
15	Play times setting		25	Input test
16	Coin insert continuously setting		26	Output test
			27	Sound output

3. Joystick Instruction

1)   TEST button：

When be free, depress for 2 seconds until a 'DO' is heard will enter you into test mode.

When in test mode, depress the test button will exit test mode.

2)   JOYSTICK UP/DOWN

Pull joystick up/down: X_2 will increase/decrease.

For example: if the game is in SERVICE CREDIT of adjustment mode, the left LED shows 12(X_1X_2=12). Joystick up then the X_1X_2 will change to 13 and the game enters BACKGROUND MUSIC SETTING. Joystick down the X_1X_2 will change to 11 and the game enters PLAY MODE SETTING.

3)   JOYSTICK LEFT /RIGHT

Pull joystick left/right: when X_2=0, X_1 will decrease / increase. When $X_2 \neq 0$, Y will decrease / increase.

4)   JOYSTICK BUTTON

Depress joystick button until a 'DO ... DO' is heard to save the settings.

NOTE: the settings will be saved effective only when in adjustment mode.

If no operate in 3 minutes, game will exit test mode automatically.

4. Test Mode Instruction

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1)   Play mode (X$_1$X$_2$=11)：

Y = 0	Normal mode
Y = 1	Vending mode*(Unused in this machine)*

2)   Service credits (X$_1$X$_2$=12)：

Y = 0	Free play
Y（0<Y≤20）	The number of credits for a game＝Y
Y=A	A coin = 2 plays
Y=b	A coin = 3 plays

Note: there is no chocolate out when free play.

3)   Background music setting(X$_1$X$_2$=13)：

Y = 0	Music on when free
Y =1	Music off when free

4)   Playtime setting (X$_1$X$_2$=14)：

Y (秒)（20<Y<100）	Playtime of a game=Y

5)   Play times setting (X$_1$X$_2$=15)：

Y（1<Y<100）	Normal mode	Win 1 chocolate out of Y games: when the number of game played is more than Y, chocolate is allowed to be given out.
	Vending mode	Max play times of a game = Y and game will over if player catches chocolate successfully. *(Unused in this machine)*

6)   Coin inserted continuously (X$_1$X$_2$=16)：

Y = 0	No Bonus Game
Y(0<Y < 20)	Get a Bonus Game when insert Y coins continuously. Note: The Time Interval between inserting the second coin after the first coin should be <u>within 10 seconds.</u>

7)   Serial No. of machine (X$_1$X$_2$=21)：

Y	SN ＝Y

8)   LEDs display "0123"(X$_1$X$_2$=12)

.

9)   All LEDs turn off (X$_1$X$_2$ all turn off)：

10)   All LEDs turn on (X$_1$X$_2$ all turn on)：

11)   Input test (X$_1$X$_2$=25)：

Y	Low level input＝Y

12)   Output test (X$_1$X$_2$=26)：

Y	Low level output＝Y

13)   Sound output (X$_1$X$_2$=27)：

Y	Output Sound No.＝Y

ADJUSTING THE CLAW STRENGTH

In normal mode the Payout Ratio of the game depends on the Claw Strength, which is controlled by the voltage of the Claw.

How to Adjust the Claw Strength：

Enter the "CRANE TEST" mode: Press the "CRANE TEST" button for about 0.5s to enter into the "CRANE TEST" mode. When the LED displays "HX", the claw carriage enters into the "CRANE TEST" mode. Please refer to Table 1 for the value of "X".

For example, when the LED display is"H1", the Claw Strength is strong (at this stage, power output to the claw carriage is 3 seconds per 10 seconds). You can adjust the voltage via Drive Board R 23. Please refer to Table 1 below for details. Table 2 and 3 shows the relationship between Voltage Setting and Time.

Setting Payout Ratio：

Payout Ratio of chocolates is controlled by PLAY TIMES SETTING in TEST MODE.

At initial clear stage, when the no. of game played already is less than the payout ratio, and then chocolate will not be allowed to be given out. The Voltage setting will be same as Table 2.

However, if the voltage setting is not correctly adjusted, chocolate may also be given out. In this case, please adjust the voltage according to Table 1.

When the no. of game played is more than the payout ratio, then chocolate is allowed to be given out. The Voltage setting will be same as Table 3. The opportunity of giving out chocolates will be higher.

Claw Strength	Test Code #	Potentiometer	Voltage Setting （VDC）	LED Display
Strong	12	Drive Board R23	40±3	H1
Medium	13	Drive Board R24	30±3	H2
Weak	14	Drive Board R25	15 ±3	H3
Crane moving test				

Table 1: Test Mode – Claw Strength, Voltage Setting and LED Display.

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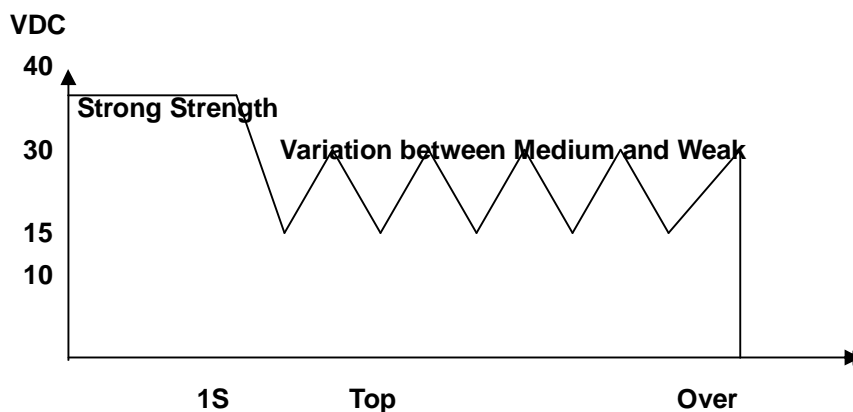
Table 2: No Chocolate will be given out

```
VDC
         Strong
40   ┌──────────────────────────────────┐
     │                                  │
30   │                                  │
     │                                  │
     │                                  │
10   │                                  │
     └──────────────────────────────────┴──────► t
        1S         Top              Over
```
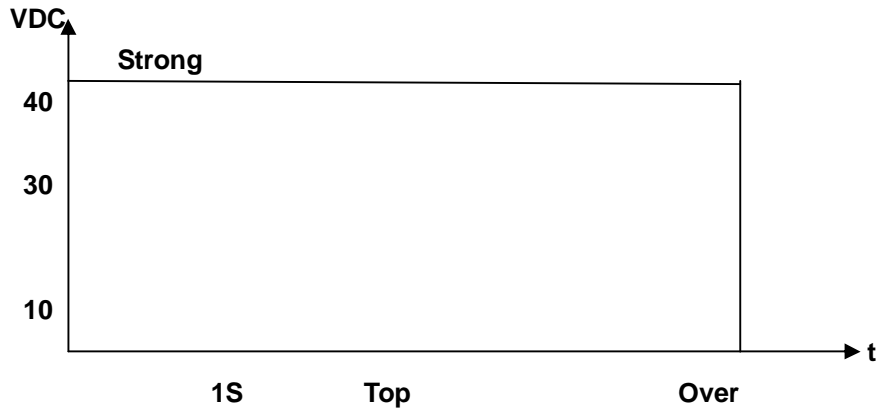
Table 3: Chocolate is allowed to be given out

ATTENTION:

Voltage cannot be adjusted to be too high. If the voltage is adjusted to be too high, this may cause damage to the PCB and the claw carriage

If you do not adjust the Claw Strength according to the above instructions, you cannot control the strength of the claw.

If the chocolate is not too heavy, it is highly recommended to always keep the voltage to be at a relatively lower level, so that the claw and the claw carriage can last longer.

METERS

COIN MECH METER

The no. shown on the Coin Mech will increase by one for every coin inserted in this electronic coin mechanism. This coin Mech has the function of "Continuous Play". When the number of coins inserted reaches a certain level (Please see the details in the "SETTING" section), then the player is awarded a FREE game play. The "CREDIT" LED display will show"+1" and there will also be a BONUS sound.

ATTENTION: The Time Interval between inserting the second coin after the first coin should be <u>within 10 seconds.</u> If the second coin inserted is more than 10 seconds after the first coin is inserted, then it will not be regarded as continuous play.

PRIZE METER

The no. shown on the Prize Meter will increase by one when a chocolate is given out.

CPU Diagram
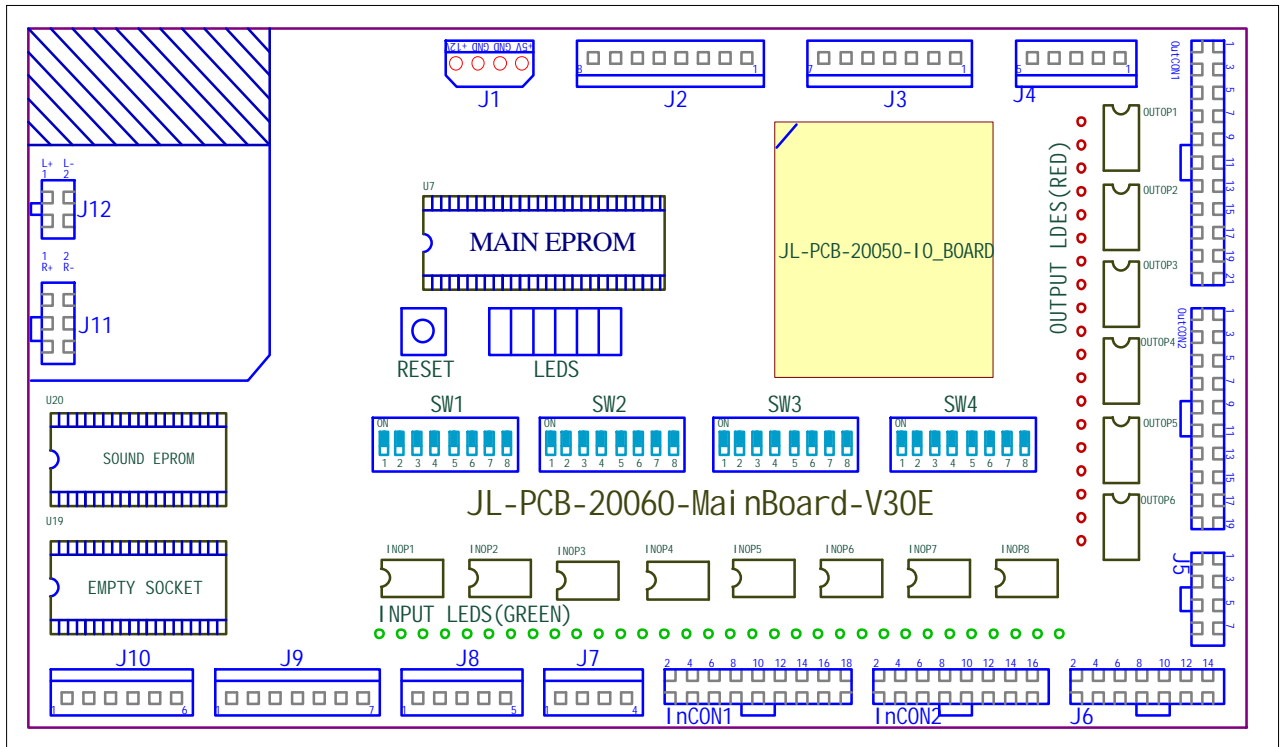
CONNECTORS

See the CPU WIRING PINOUT pages for more information.

RESET BUTTON

Press the RESET Button to resent the game.

Drive Board for the Crane

J1：**Power Input**

J2: **Crane connector.**

J3: **Main PC board connector.**

J4: **Claw voltmeter output.**

OPERATION

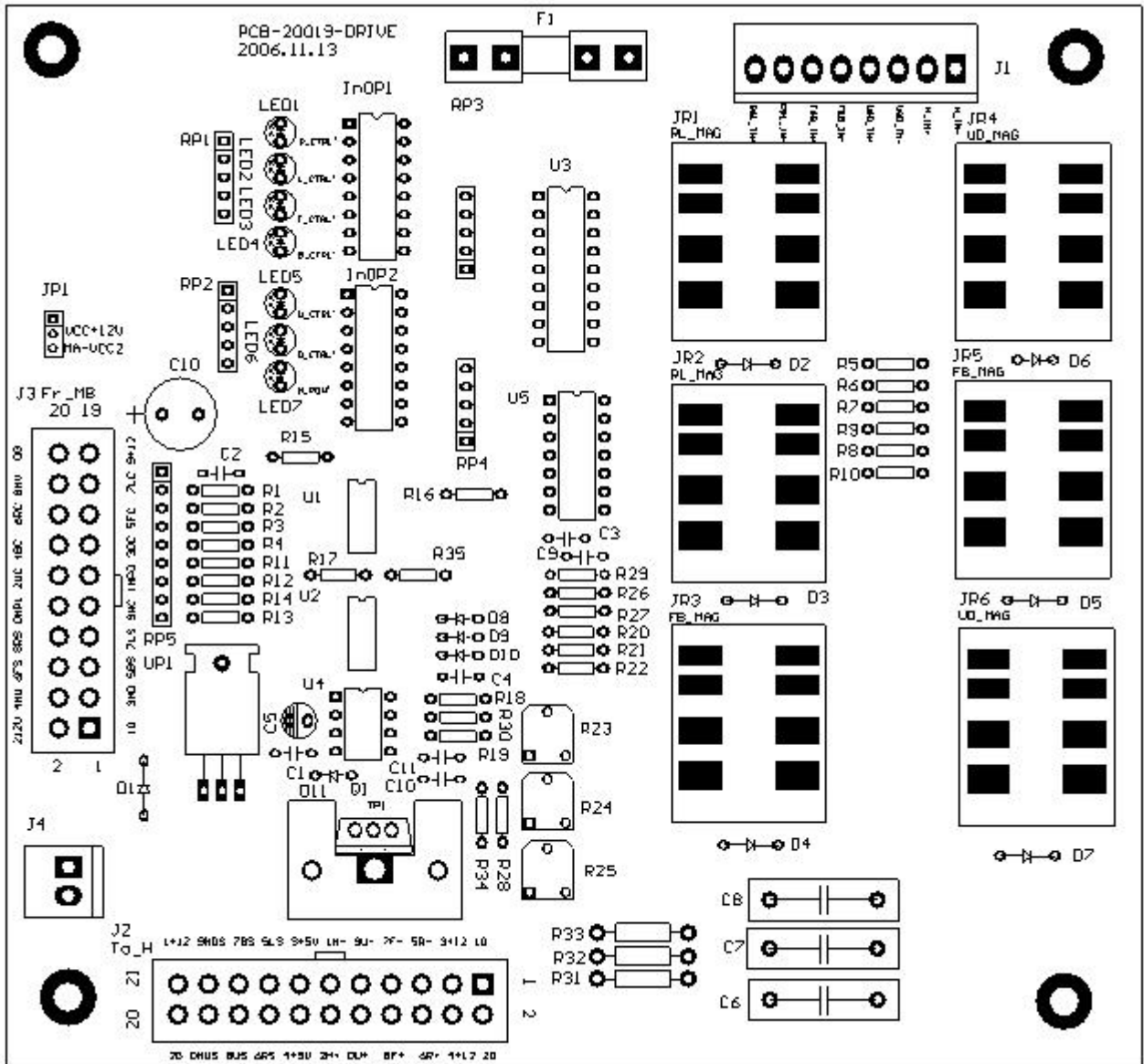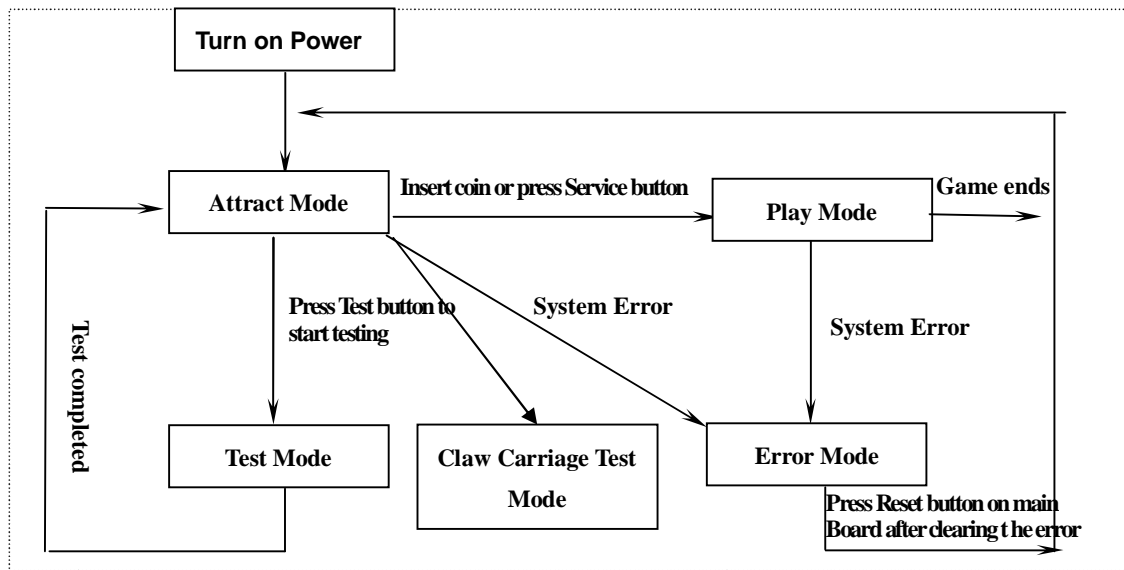This game has two adjustable play modes. One is the free play mode, and the other one is coin play mode. When the machine is in free play mode, after pressing the reset button, no coin is required to start the game. The machine will be in play mode continuously. When the machine is in coin play mode, it can be in one of the following six modes: 1) Attract Mode, 2) Test Mode , 3) Claw Carriage Test Mode, 4) Game Play Mode, 5) Error state, 6) Prize-Out Mode. Please refer to the Flow Chart below for details:

```
                    ┌──────────────┐
                    │ Turn on Power│
                    └──────┬───────┘
                           │
                           ▼
  ┌──────────────┐  Insert coin or press Service button  ┌────────────┐   Game ends
  │ Attract Mode │ ──────────────────────────────────►   │ Play Mode  │ ──────►
  └──────┬───────┘                                        └─────┬──────┘
         │ Press Test button to       System Error              │ System Error
         │ start testing                                        │
         ▼                    ▼                                 ▼
  ┌──────────────┐   ┌────────────────────┐          ┌──────────────┐
  │  Test Mode   │   │ Claw Carriage Test │          │  Error Mode  │
  └──────────────┘   │       Mode         │          └──────────────┘
   Test completed    └────────────────────┘   Press Reset button on main
                                               Board after clearing the error
```

TURN ON THE POWER

Before turning on the power, please check the plug and cord, and make sure that the game is set to the proper voltage.

GAME PLAY MODE

When the Game is started, the TIME and CREDIT LED on the console display the time and credit the player has. There is also MUSIC going with this.

ATTRACT MODE

In ATTRACT MODE, the LEDs on the console display ⊡ ⊡ , which also changes continuously. It is also going with music. Press the "TEST" button on the front cabinet for over 0.5 seconds and the game will enter into TEST MODE. Insert Coin, and the machine will enter into GAME PLAY MODE.

TEST MODE

Enter the test mode ,check the digital display LED boarb miss credit,light and crane are normal working .Attract mode ,depress the test button ,music off enter the test mode ,serial NO→Digital displayboard

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ordinal the number →Digital displayboard turn off→Digital displayboard turn on→test the intput→test the

output→music→exit test mode

ERROR MODE

During the game play, whenever there is ERROR, the system will enter into ERROR MODE. The Error code "EX" will be displayed. Alarm is activated, and you can check the errors according to the EROR CODES 1, 2, 3, 4, 6, 7 and 8. After clearing the error, reset the game and restart the machine. Please refer to the "ERROR CODES" table for details.

PRIZE OUT MODE

If a chocolate is given out, music "PRIZE-OUT" will be activated. The No. displayed on the Prize meter will also increase by one. And the time of the mode is 5 seconds from the crane return the home.

CPU Wiring Pin Out

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Plug code	Pin code	Pin color	Function	I/O code	Function of I/O
J1 (Power Input Connector)	PIN 1	4*0.75-Red	+5V Input	-----	Power Input
	PIN 2	4*0.75-Black	GND	-----	
	PIN 3	4*0.75-Black	GND	-----	
	PIN 4	4*0.75-Yellow	+12V Input	-----	
J4 (#2 Serial Output Connector)	PIN 1	6*0.3—Green	CLK	-----	Digital LED Board Output Connection order 1. Coin Qty LED (2 bits). 2. Time LED(2 bits)。
	PIN 2	6*0.3—White	DAT	-----	
	PIN 3	6*0.3—Brown	LTH	-----	
	PIN 4	6*0.3—Yellow	+12V Output	-----	
	PIN 5	6*0.3—Black	GND	-----	
	PIN 6	6*0.3—Red	+5V Output	-----	
J5 (Ticket Out Connector)	PIN 1	4*0.3—White	#1 Ticket Out Drive	-----	Ticket Out Connector(unused in this machine)
	PIN 2	4*0.3—White	#2 Ticket Out Drive	-----	
	PIN 3	4*0.3—Yellow	+12V Output	-----	
	PIN 4	4*0.3—Yellow	+12V Output	-----	
	PIN 5	4*0.3—Black	GND	-----	
	PIN 6	4*0.3—Black	GND	-----	
	PIN 7	4*0.3—Green	#1 Ticket Feedback	-----	
	PIN 8	4*0.3—Green	#2 Ticket Feedback	-----	
J6 (Base Function connector)	PIN 1	10*0.3-Yellow	+12V Out	-----	Base Function connector
	PIN 2	Null	+5V Out	-----	
	PIN 3	10*0.3-Black	GND	-----	
	PIN 4	Null	GND	-----	
	PIN 5	10*0.3-Blue/white	Service	IN #25	
	PIN 6	Null	No Connect	-----	
	PIN 7	Null	No Connect	-----	
	PIN 8	Null	No Connect	-----	
	PIN 9	10*0.3-Purple/white	Test	IN #27	
	PIN 10	10*0.3-Orange/white	Clear Data	IN #28	
	PIN 11	10*0.3-Yellow/white	#1 coin selector signal	IN #30	
	PIN 12	10*0.3-Green/white	Crane test signal	IN #31	
	PIN 13	10*0.3-Gray	Prize Meter	OUT #22	
	PIN 14	10*0.3-Brown	#1 coin meter	OUT #23	

	PIN 1	4*0.3-Red	+5V Output	-----	
J8	PIN 2	4*0.3-Yellow	+12V Output	-----	
(Communicatio	PIN 3	4*0.3-Green	T+/R+(RS485)	-----	**Unused**
n connector)	PIN 4	4*0.3-Brown	GND	-----	
	PIN 5	4*0.3-Blue	T-/R-(RS485)	-----	
	PIN 1	4*0.15-Green	Right Signal Input	-----	
	PIN 2	4*0.15-White	Left Signal Input	-----	
J11	PIN 3	4*0.15-Red	Right Signal Output	-----	**Volume Ctrl**
(Volume Ctrl)	PIN 4	4*0.15-Yellow	Left Signal Output	-----	
	PIN 5	STP	GND	-----	
	PIN 6	STP	GND	-----	
	PIN 1	2*0.75-White	Left Speaker +	-----	
J12	PIN 2	2*0.75-Black	Left Speaker -	-----	**Speaker**
(Speaker)	PIN 3	2*0.75-Red	Right Speaker +	-----	
	PIN 4	2*0.75-Black	Right Speaker -	-----	
	PIN 1	0.3-Brown/white	Input	IN #0	Joystick Up switch;
	PIN 2	0.3-Red/white	Input	IN #1	Joystick Down switch;
	PIN 3	0.3-Orange/white	Input	IN #2	Joystick left switch;
	PIN 4	0.3-Yellow/white	Input	IN #3	Joystick right switch;
	PIN 5	0.3-Green/white	Input	IN #4	Crane forward switch;
	PIN 6	0.3-Blue/white	Input	IN #5	Latter switch of crane input;
	PIN 7	0.3-Purple/white	Input	IN #6	Left switch of crane input;
	PIN 8	0.3-Gray/white	Input	IN #7	Right switch of crane input;
InCON1	PIN 9	0.3-Black/white	Input	IN #8	Upper switch of crane input;
(#1~#15 Input)	PIN 10	0.3-Brown/white	Input	IN #9	Down switch of crane input;
	PIN 11	0.3-Red/white	Input	IN #10	
	PIN 12	0.3-Orange/white	Input	IN #11	Prize test input;
	PIN 13	0.3-Yellow/white	Input	IN #12	
	PIN 14	0.3-Green/white	Input	IN #13	Joystick button input;
	PIN 15	0.3-Blue/white	Input	IN #14	#2 coin selector signal.
	PIN 16	0.3-Black	GND	-----	
	PIN 17	0.3-Red	+5V Output	-----	
	PIN 18	0.3-Yellow	+12V Output	-----	
InCON2	PIN 1	0.3-Brown/white	Input	IN #15	Switch for chocolates exit closing
(#16~#27	PIN 2	0.3-Red/white	Input	IN #16	
Input)	PIN 3	0.3-Orange/white	Input	IN #17	Switch for chocolates exit opening
	PIN 4	0.3-Yellow/white	Input	IN #18	

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	PIN 5	0.3-Green/white	Input	IN #19	Alarm for machine shaken input.
	PIN 6	0.3-Black/white	Input	IN #20	
	PIN 7	0.3-Purple	Input	IN #21	
	PIN 8	0.3-Gray	Input	IN #22	
	PIN 9	0.3-White	Input	IN #23	
	PIN 10	0.3-SkyBlue	Input	IN #24	
	PIN 11	0.3-Brown	Input	IN #25	
	PIN 12	0.3-Pink	Input	IN #26	
	PIN 13	NC			
	PIN 14	0.3-Black	GND	-----	
	PIN 15	0.3-Red	+5V Output	-----	
	PIN 16	0.3-Yellow	+12V Output	-----	
OutCON1 **(#1～#11** **Output)**	PIN 1	0.3-Brown	Output	OUT #0	Motor 1 for pushing chocolates
	PIN 2	0.75-Yellow	+12V Output	-----	
	PIN 3	0.3-Pink	Output	OUT #1	Motor 2 for pushing chocolates
	PIN 4	0.75-Yellow	+12V Output	-----	
	PIN 5	0.3-SkyBlue	Output	OUT #2	Motor 3 for pushing chocolates
	PIN 6			-----	
	PIN 7	0.3-Orange	Output	OUT #3	Motor for chocolates exit opening & closing
	PIN 8			-----	
	PIN 9	0.3-Green	Output	OUT #4	
	PIN 10			-----	
	PIN 11	0.3-Blue	Output	OUT #5	Coin indicator
	PIN 12			-----	
	PIN 13	0.3-Purple	Output	OUT #6	Crane front control output
	PIN 14			-----	
	PIN 15	0.3-Gray	Output	OUT #7	Crane back control output
	PIN 16	0.3-Yellow		-----	
	PIN 17	0.3-White	Output	OUT #8	Crane left control output
	PIN 18	0.5-Yellow		-----	
	PIN 19	0.3-SkyBlue	Output	OUT #9	Crane right control output
	PIN 20			-----	
	PIN 21	0.3-Brown	Output	OUT #10	Crane up control output
	PIN 22			-----	
OutCON2 **(#12～#21** **Output)**	PIN 1	0.3-Orange	Output	OUT #11	Crane down control output
	PIN 2	0.5-Yellow		-----	
	PIN 3	0.3-Green	Output	OUT #12	Claw power control output 0
	PIN 4			-----	

PIN 5	0.3-Blue	Output		OUT #13	Claw power control output 1
PIN 6				-----	
PIN 7	0.3-Blue	Output		OUT #14	
PIN 8				-----	
PIN 9	0.3-Purple	Output		OUT #15	
PIN 10				-----	
PIN 11	0.3-Brown	Output		OUT #16	
PIN 12				-----	
PIN 13	0.3-Orange	Output		OUT #17	
PIN 14				-----	
PIN 15	0.3-Green	Output		OUT #18	
PIN 16				-----	
PIN 17	0.3-Blue	Output		OUT #19	
PIN 18				-----	
PIN 19	0.3-SkyBlue	Output		OUT #20	#2 coin meter(reserved for future)
PIN 20				-----	
	Mainboard uses 11.0592M crystal oscillator and SyncMos SM8958AC25PP chip.				

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ERROR CODES

Error Code Table			
No	**Code**	**Significance**	**Solution**
1	E1	Coins Get Stuck In The Coin Mechanism	1) Check if the coins are jammed. 2) Check if the coin feedback switch is in "NC" mode.
2	E2	Chocolate out abnormal	1) Check if the chocolate out door is being blocked or not. 2) Check if the receiver is dirty or not. 3) Check if the checkout console is sensitive or not.
3	E3	Chip U12 – Error	1) Check whether Chip U 12 is properly inserted or not. 2) Replace Chip U12.
4	E4	Claw Up Abnormal	Check whether the motors for the Claw or the switch are working properly or not.
5	E6	Claw does not return to the HOME positions	Check whether the motors of the crane and the limiting switches are working properly or not.
6	E7	Alarm for machine shaken	Check whether someone shakes the machine.
7	E8	Motor for chocolates exit opening & closing abnormal	Check whether the motor for chocolates exit opening & closing is working properly or not.

Note: it won't be informed in case of any change of the performance of the machine, contents of the manual or the program!