

SERVICE MANUAL



Ver 1.0



ISSUE DATE:Mar.11, 2011



- ▶ Please read the manual carefully and keep it in mind before using this machine.
- ▶ Put this manual within touch of your reference in anytime.

PRECAUTIONS FOR USE

The following safety precautions are given throughout this manual. They must be strictly followed to protect those who install, use or maintain this product as well as to protect players, visitors and property.

For safety reasons.

- The following suggestions should be adhered to:



WARNING

Disregarding could result in serious injury.



CAUTION

Disregarding could result in injury or product damage.

- The following graphic suggestions describe the types of precautions to be followed.



Indicates a care should be taken.



Forbidden.



Indicates a matter which must be performed.

- Precautions to be followed:

Certain procedures require a qualified in-shop maintenance person or industry specialist. For such instructions, a qualified person must take care of the jobs.

- Otherwise an electric shock, machine trouble, or a serious accident may result.
- Replacing the machine parts, inspecting and maintaining the machines, and troubleshooting must be assigned only to a qualified in-shop maintenance person or industry specialist. This booklet gives instructions that hazardous jobs in particular must be handled by an industry specialist. Qualified in-shop maintenance person and industry specialist are defined as follows.

Qualified in-shop maintenance person

- A service staff shall have experience in operations of game machines. The staff shall be responsible for assembly, installation, inspection and maintenance of the machine.

Industry specialist

- An industry specialist must be engaged in designing, manufacturing, inspecting and servicing amusement machines. He or she must have an education in electrical, electronic and mechanical engineering, and routinely maintain and repair amusement machines.

PRECAUTIONS FOR USE

WARNING

Be sure to consult an industry specialist when setting up, moving or transporting this product.

- This product should not be set up, moved or transported by any one other than an industry specialist.
- When installing this product, set the 4 leg levelers evenly on the floor and make sure that the product is installed stably in a horizontal position. Unstable installation may result in injury or accident.
- When installing this product, do not apply undue force on movable parts. Otherwise, injury and accident may result, or the product may be damaged.

The machine for indoor usage only does not install outside.



Do not set the game machine up near emergency exits.



Protect the game machine from:

- Rain or moisture.
- Direct sunlight.
- Direct heat from air-conditioning and heating equipment, etc..
- Hazardous flammable substances.
- Otherwise an accident or malfunction may result.



Do not place containers holding chemicals or water on or near the game machine.



Do not place objects near the ventilating holes.



Do not bend the power cord by force or place heavy objects on it.



Never plug or unplug the power cord with wet hands.



Never unplug the game machine by pulling the power cord.



CAUTION

Be sure to use indoor wiring within the specified voltage requirements. For extension cord, use the specified rating or more.

Be sure to use the attached power cord.

Never plug more than one cord at a time into the electrical receptacle.



Do not lay the power cord where people walk through.



Be sure to ground this product.



Do not exert excessive force when moving the machine.




For proper ventilation, keep the game machine 100mm(4") away from the walls.

Do not alter the system related dipswitch settings.

PRECAUTIONS FOR USE


WARNING

If there is any abnormality such as smoke, bad smell or abnormal noise being emitted from the machine, immediately turn OFF the main power switch and unplug the power cord from the receptacle to stop operating it. 

- Using the machine in abnormal conditions could result in fire or accidents.

In case of abnormality

1. Turn OFF the main power switch.
2. Unplug the power cord from the receptacle.
3. Contact your nearest dealer.

Do not leave the power cord plugged in improperly or covered with dust. 

- Doing so could result in the power cord being damaged periodically.


CAUTION

Do not use this product anywhere other than industrial areas. 

- Using in a residential area or an area next to a residential area could affect signal reception of radios, television sets, telephones, etc..
- Do not give shock the surface of glass products.

- Please do not play this game if
 - When you do drinking;
 - When your physical condition is not normal;
 - When you are in pregnancy;
 - When you have on a pulse controller;
 - When you have recently experienced a cramp or fainting away while watching TV.
- Avoid excessive force/shock while playing/moving the game.
- While do games, pay attention to surrounding.

Do not plug or unplug the power cord with wet hands. 

In handling the power cord, follow the instructions below. 

- | | |
|---|--|
| • Do not damage the power cord. | • Do not modify the power cord. |
| • Do not bend the power cord excessively. | • Do not twist the power cord. |
| • Do not heat the power cord. | • Do not pull the power cord. |
| • Do not bind the power cord. | • Do not stand on the power cord. |
| • Do not sandwich the power cord. | • Do not drive a nail into the power cord. |

If the power cord or power plug becomes damaged, stop using the machine immediately and ask your nearest dealer to replace the parts.

PRECAUTIONS FOR USE

WARNING

Be sure to turn OFF the main power switch and unplug the power cord from the receptacle before inspecting or cleaning the machine.



When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.



Opening inside the machine shall be done by machine specialist only as high electric current is being sent inside. For game machine with monitor, a care should be taken while opening its back door. If not, a damage to the inside parts or the monitor may occur.



If the sub power switch of the service panel is turned OFF without turning OFF the main power switch of the power supply unit, some parts in the units remain live. When opening the back door, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.



Strictly refrain from disassembly and repair of parts which are not indicated in this manual, as well as settings and remodeling.



To clean the game machine, wipe it with a soft cloth dampened in a neutral detergent.

- Using thinner or other organic solvent or alcohol may decompose the material.
- Electrical shock or equipment failure could be caused by water entering the inside of the machine.

CAUTION

Components in the game are sensitive to vibrations and impact. Care should be used when moving and transporting the game machine.



Be sure not to let the machine tip over.

Before moving the machine, be sure to turn OFF the main power switch, unplug the power cord from the receptacle and remove the power cord from the machine.



Before moving take the machine, off the levelers and move it on the casters.

Avoid excessive force while moving the machine.

PRECAUTIONS IN HANDLING

- When setting up, inspecting, maintaining, moving or transporting this product, follow the procedures and instructions set forth in this manual and perform such work safely.
- Do not set up, handle, inspect, maintain, move or transport this product under conditions equivalent to the condition of "WARNING" or "CAUTION" specified in this manual.
- If a new owner is to have this product as a result of transfer, etc., be sure to give this manual to the new owner.

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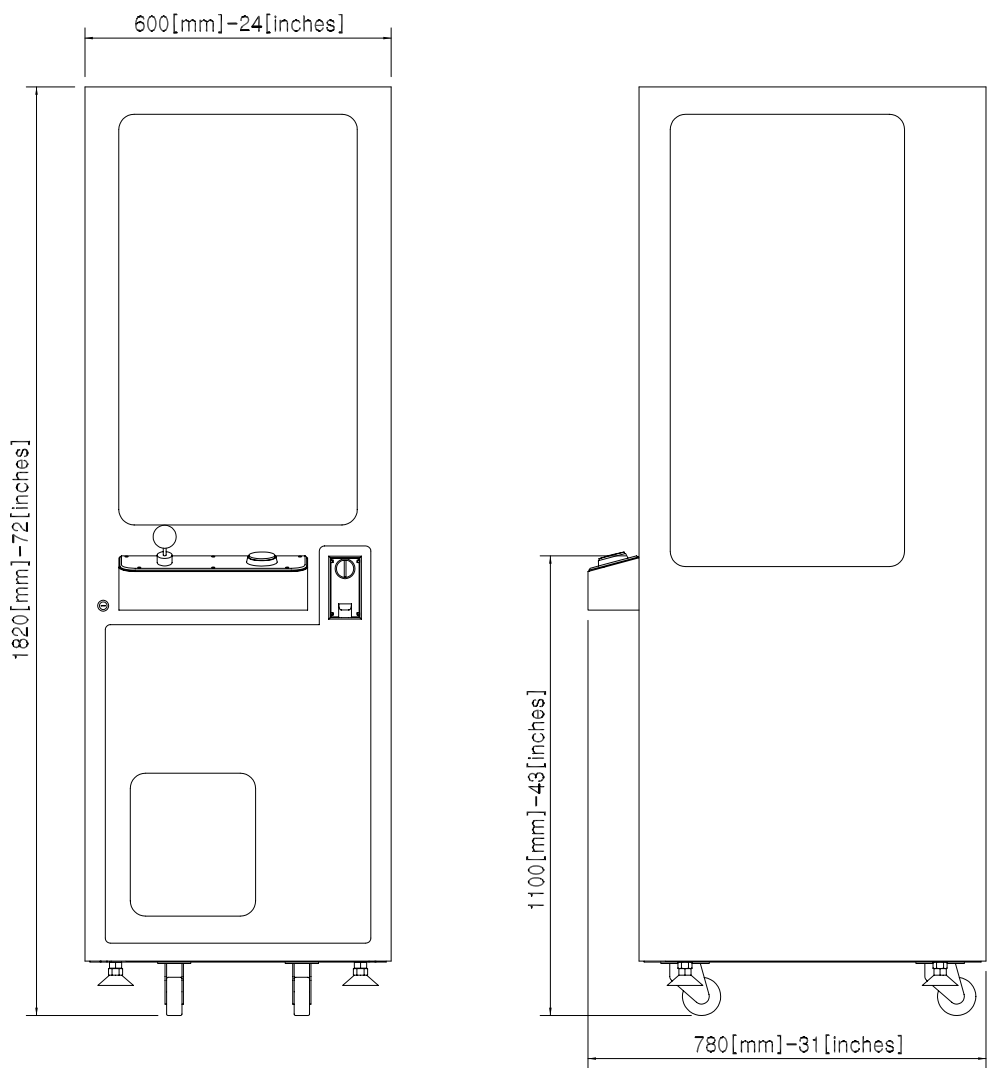
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1. SPECIFICATION AND DIMENSION

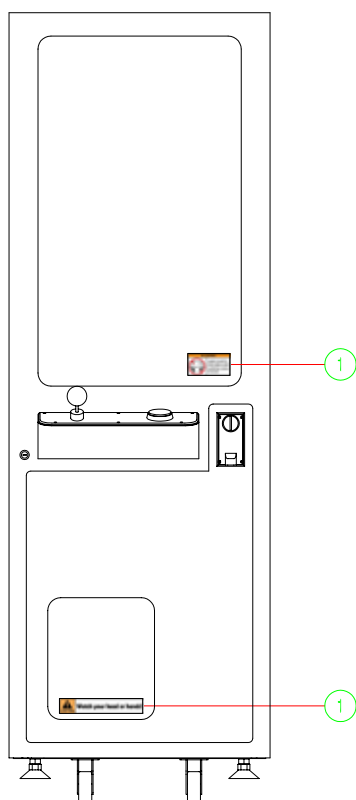
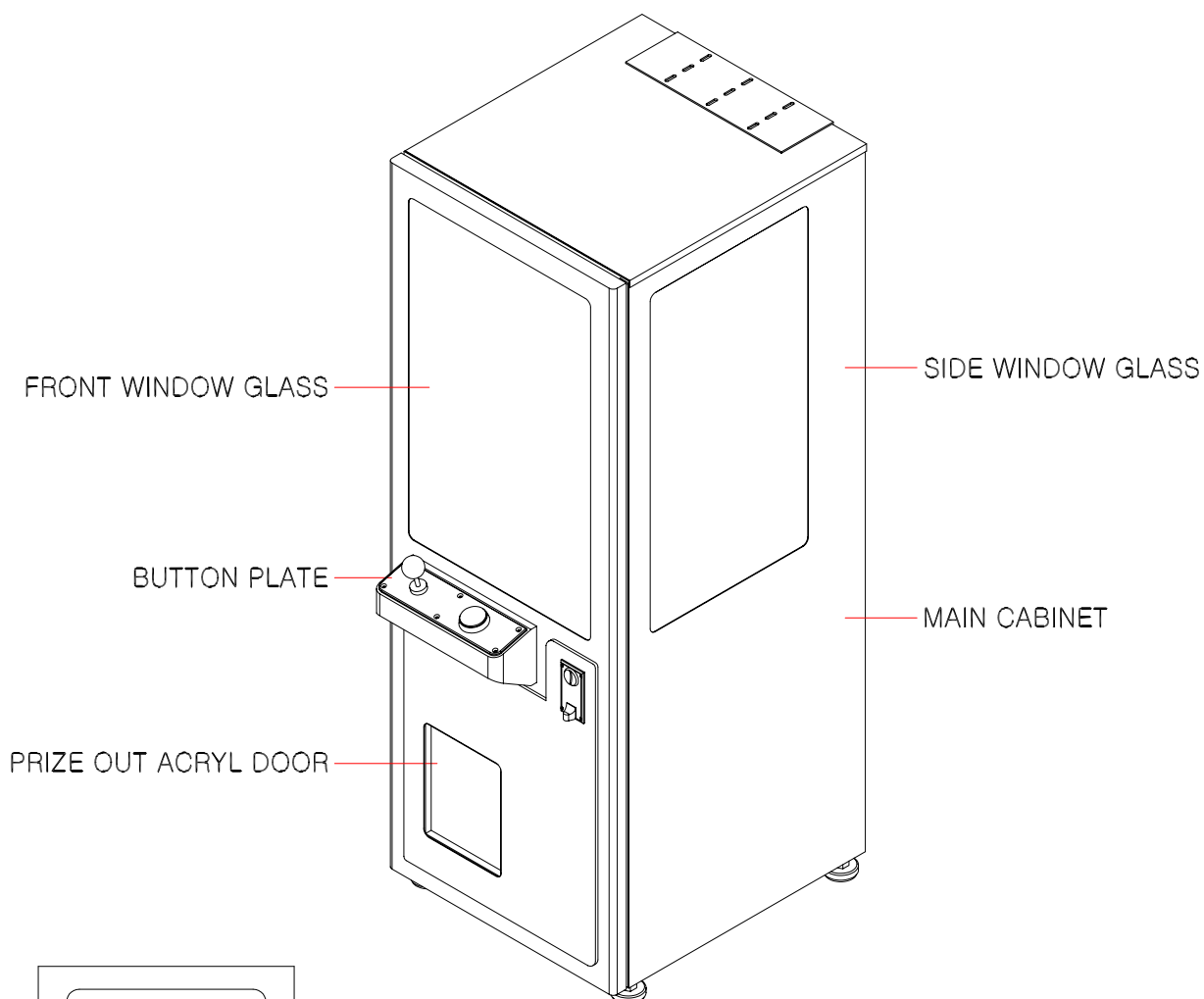
1-1. DIMENSION



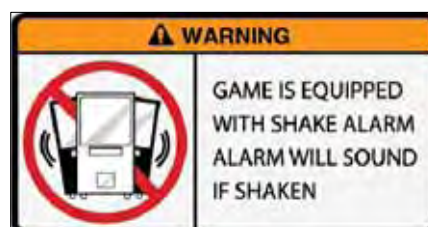
1-2. SPECIFICATION

DIMENSION (W x D x H)	600 x 780 x 1820 (mm)	
PACKING DIMENSION (W x D x H)	760 x 840 x 1940 (mm)	
WEIGHT (kg)	200 kg	
VOLTAGE	AC 110V	AC 220V
FREQUENCY RANGE	50 Hz	60 Hz
CONSUMPTION	200 W	

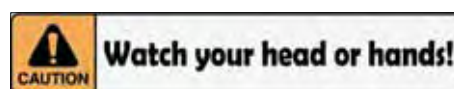
1-3. NAME OF PARTS & STICKER LOCATION



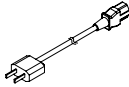
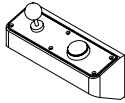


1



2



COMPONENTS

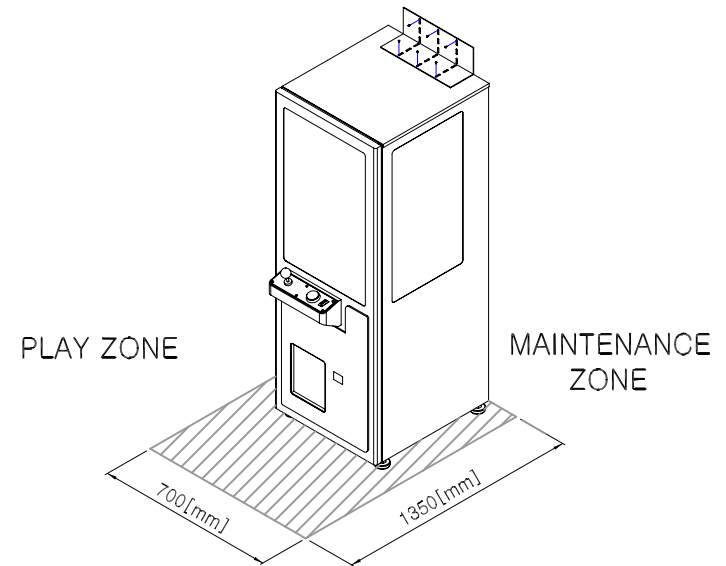
NO.	PART NAME	SPEC.	QTY
1	AC POWER CORD	110V / 220V 	1
2	CONTROL BOX ASS'Y	- 	1
3	BOLT	M4x10L 	20
4	MANUAL	- 	1

2. INSTALLATION

- Need to have installation place.
Maintenance Zone & Play zone should have at least 700mm x 1350mm each.

IMPORTANT

- Once you set up the machine with required game-play area, when installing this product, set the 2 leg levers evenly on the floor and make sure that it and you must fixed, The product is installed stably in a horizontal position by bracket. Otherwise the set winning percentage can be twisted.



[How to installation]



1
FIX BRACKET
[WITH SCREW 1 PCS]



2
SPONGE



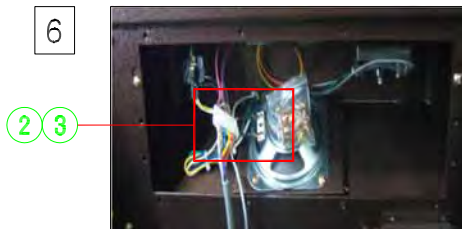
3
CABLE TIE



4
BRACKET INSTALL



- Assemble ① the button ass'y by screws
- Connect ③ the button ass'y harness with ② speaker harness as follows.
- Plug the ④ AC Power cord into the outlet of outside.
- Turn on the ⑤ UPS power s/w at first. Turn on ⑥ the Power switch.



8
CALIBRATION

Hole Y1 Center
* Press Mode S/W *

- Press "MODE" and goto the "14. HOLE H1 CENTER" by press "UP" and then press "MODE" You can see that push ass'y is moving H1-H4-H9 hole step by step.
- **If the pole is passed through Hole H4->H1->H9 Pole position is correctly set. Maybe it takes 2 minutes, Shortening key : Press DOWN

3. PRODUCT CHARACTER

3-1. SPECIALIZED PRODUCT

- Customized product especially, small location, restaurant, pub and so on.

3-2. INDIVIDUAL PAYOUT RATE

- Each cube(12ea) can be set with individual payout rate.

3-3. DISPLAY EFFECT

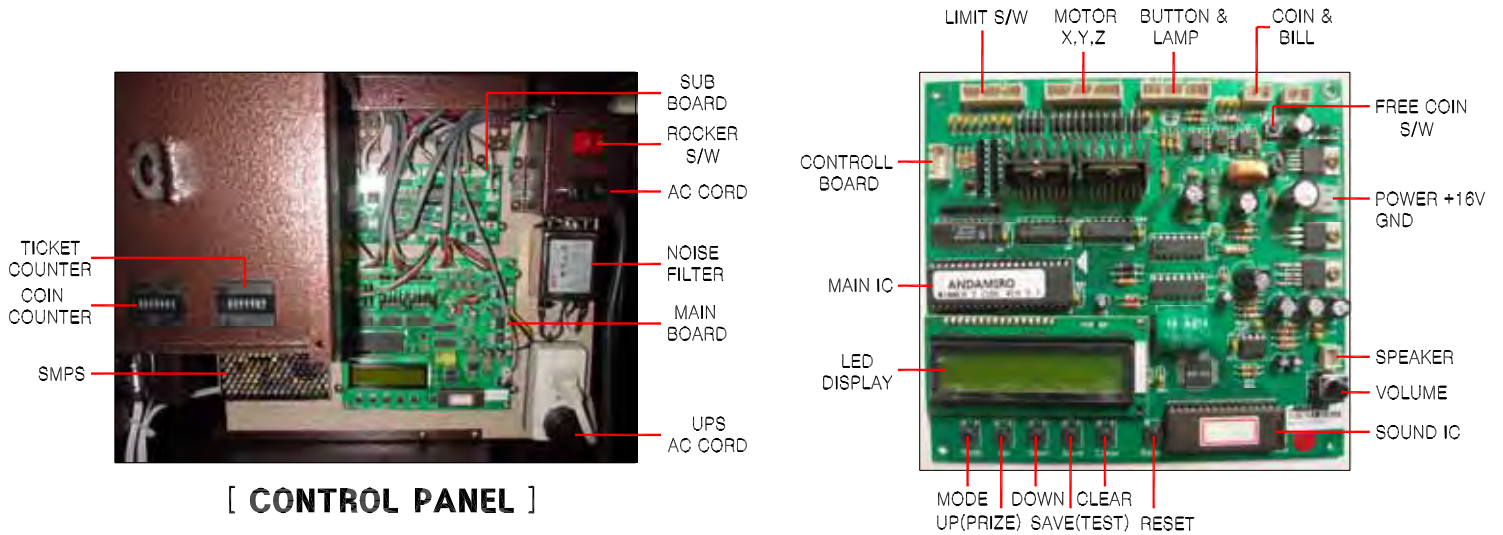
- Using various LED, Fabulous displaying effect give customer satisfaction.

4. SET UP

4-1. SETUP METHOD

(1) OPERATIONAL MODE

- 1 There is "Control panel" when you open front door.



[BUTTON EXPLANATION]

- Key is composed mode , up, down ,select, clear, reset, credit key and all key are operated short key and long key.

MODE S/W	Access setup mode
UP(PRIZE) S/W	The number of Prize out
DOWN S/W	Perform calibration.
SAVE(TEST) S/W	Test mode
CLEAR S/W	Delete daily income and prize payout
RESET S/W	Turn off /On Main PCB power
VOLUME S/W	Volume S/W
FREE COIN S/W	Free game set: it display "20" in FND and Free play start. You may cancel it with "Reset S/W"

CAUTION – Please make sure it announces "setting saved" after saving value when it's changed.

- HOW TO CHANGE VALUE

UP, DOWN S/W	Move section
MODE S/W	Select menu to change value
SAVE S/W	Save value

[HOLE POSITION]

H4	H8	H12
H3	H7	H11
H2	H6	H10
H1	H5	H9

4-2. MENU

	LCD DISPLAY	DESCRIPTION
1	WINNER'S CUBE CLASSIC 2.2	The current program version will be display for 2sec when Main PCB turns on.
2	TODAY : 0 TOTAL : 0	Check status of account by pressing "UP" switch. Income – payout – payout by row check. Today & Total Value Initialization – please press "Clear" & "Reset" button at the same time and press "Free coin" S/W. Today initialization values – 1 Reset button
3	Total Out Gift 0	Check the number of prize payout.
4	H? RND CNT PRZ 1 999 000 000	Term : RND – Payout rate , CNT – the number of trail (before prize payout), PRZ – the number of prize payout – CNT value comes to "0" when prize is dispensed. – If you want to value for " Y1 TRY COUNT", please change "payout rate of RND" and save it.
5	H1 TRY COUNT	H1 hole the entire game attempts to show.
	<div> <div>H? RND CNT PRZ 1 999 000 000</div> <div>H1 TRY COUNT 0</div> <div>~</div> <div>H? RND CNT PRZ 12 999 000 000</div> <div>H12 TRY COUNT 0</div> </div> <p>– You may check them from Y1 ~ Y12.</p>	

* **MODE** : How to change vaule

MODE	DEFAULT/VALUE	DESCRIPTION												
1) HOLE H1 Random	HOLE H1 Random 999	– Payout setting from Y1 ~ Y12. Default : 999 (You may change this value as you want) – Win prize : It give a change for player to win prize easily from set value "N" until wining.												
12) HOLE H1 Random	HOLE H12 Random 999													
13) LOSE STEP	Lose Step N	Modify difficulty It's getting more difficult as the number is higher. (1~9) Default : 3 <table><tr><td>N</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr><tr><td>mm</td><td>–</td><td>1.2</td><td>2.4</td><td>3.6</td><td>4.8</td></tr></table>	N	3	4	5	6	7	mm	–	1.2	2.4	3.6	4.8
N	3	4	5	6	7									
mm	–	1.2	2.4	3.6	4.8									
14) HOLE H1 CENTER	Hole H1 Center Press Mode sw	Calibration: Please perform this calibration whenever machine is moved. – In case default position is OK The Pole move to H4 → H1 → H9 step by step to check default position and save value automatically – In case default position is wrong. The pole move to H4 → H3 → H2 → H1 → H9 step by step and save value automatically.												
15) CREDIT SET	Credit Set 1 CREDIT 1 COIN	Set CREDIT / COIN Set value are 1/1, 1/2, 1/3, 1/4, 2/1 Default : 1/1												
16) GAME TIME	Game time 20 sec	Game time per a game Default : 20sec												
17) DEMO SOUND	DEMO SOUND	Demo sound On/Off Default : ON												
18) BUTTON & LEVER	LEVER GAME	It's optional to chose "Button" & Lever" Type (Need to change aseembly) Default : Lever game												
19) MENU EXIT	Menu Exit Press Mode Key	Exit menu.												

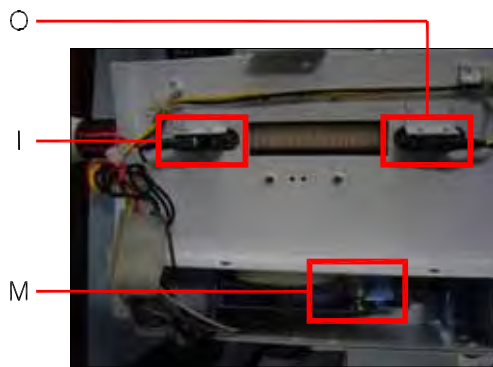
5. TROUBLESHOOTING

– MAIN COMPONENTS ERROR CHECK

* SAVE + RESET : You may find below message when you press "Save" and "Reset" button at the same time.

If you press "Down" Switch, It moves to the left and right side to check motor.

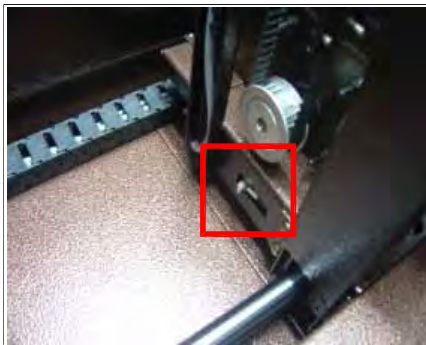
If you press "up" Switch, It moves to up and down to check motor.



PICTURE I, M, O



PICTURE D



PICTURE L



PICTURE R

	NORMAL	ERROR	DESCRIPTION	PROCESSING
I	1	0	PUSH ASS'Y Inner Switch ON/FF	CHANGE
M	1	0	PUSH ASS'Y Inner motor switch ON/OFF	CHANGE
O	0	1	PUSH ASS'Y rare switch ON/FF	CHANGE
U	1	0	–	–
D	0	1	PUSH ASS'Y Bottom switch ON/FF	CHANGE
L	0	1	PUSH ASS'Y L S/W ON/OFF	CHANGE
R	1	0	PUSH ASS'Y R S/W ON/OFF	CHANGE
1	1	0	No #1 button ON/OFF	CHANGE
2	1	0	No #2 button ON/OFF	CHANGE

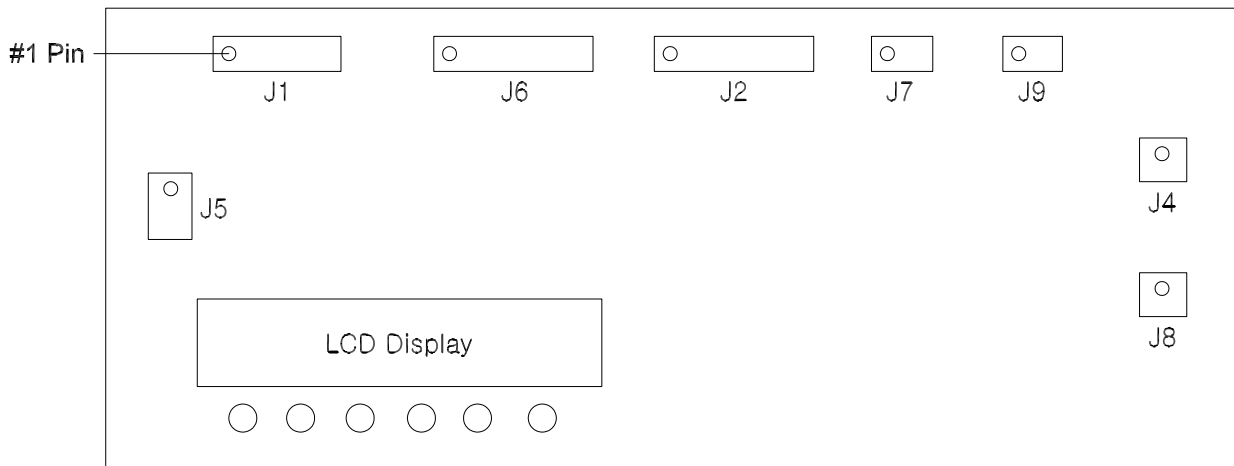
6. LIST

NO.	PIC	PART NAME	SPEC.	QTY	CODE NO.
1	○	CLASSIC MAIN PCB ASSY	-	1	MWIC0PAR101
2	○	CLASSIC SUB PCB ASSY	-	1	MWIC0PAR087
3	○	BELT	860XL W9.5	1	MWIC0PAR001
4		BILL ACCEPTER	OPTION		MWIC0PAR002
5	○	BUTTON UP	-	1	MWIC0PAR004
6		AS COVER	-	1	MWIC0PAR005
7	○	BUTTON ACRYL	-	1	MWIC0PAR006
8	○	DISPLAY ACRYL A	-	7	MWIC0PAR007
9	○	DISPLAY ACRYL B	-	3	MWIC0PAR008
10	○	ELECTRONIC BALLAST	110V / FPL 36W X 2	1	MWIC0PAR013
11	○	FND-1 PCB ASS'Y	CREDIT	1	MWIC0PAR014
12	○	LAMP	36W	2	MWIC0PAR017
13	○	MICRO SW B, F	5A 125-250VAC	2	MWIC0PAR020
14	○	MICRO SW BOTTOM	5A 125-250VAC	1	MWIC0PAR021
15	○	MICRO SW L, R	SZM-V16-5FA-63	2	MWIC0PAR022
16	○	MICRO SW	SZM-V16-FA-63	2	MWIC0PAR023
17	○	MOTOR	KGC-0083 DC12V, 7500 RPM	1	MWIC0PAR024
18	○	MOTOR	KWA-0255-IMF-04, DC12V 9100RPM	1	MWIC0PAR025
19	○	AC MOTOR	KAE-6130-TCB, AC 110V 50/60Hz	1	MWIC0PAR026
20	○	MOTOR STEPPING	4S56Q-08254SG	1	MWIC0PAR027
21	○	MOTOR STEPPING SUB	K6G3C	1	MWIC0PAR028
22	○	POWER SMPS	110V / 16V 7A, 5V 2A	1	MWIC0PAR030
23	○	SPEAKER	5W 8Ω	1	MWIC0PAR041
24	○	LAMP	T5 110V 21W	2	MWIC0PAR041
25	○	FND-2 PCB ASS'Y	TIME	1	MWIC0PAR056
26	○	TILT	-	1	MWIC0PAR100
27	○	LAMP	T5 220V 21W 60HZ	2	MWIC0PAR044
28	○	POWER SMPS	220V / 15V-7A 5V-2A KP-1033	1	MWIC0PAR042
29	○	AC MOTOR	KGB-0100 CMF01, AC 220V 50/60Hz	1	MWIC0PAR045
30	○	DOOR LED L PCB ASS'Y	-	1	AWCM0PCB004
31	○	DOOR LED R PCB ASS'Y	-	1	AWCM0PCB005

7. PICTURE

1	2	3	5	7
				
8	9	10	11	12
				
13	14	15	16	17
				
18	19	20	21	22
				
23	24	25	26	27
				
28	29	30	31	
				

8. PIN LAYOUT OF MAINBOARD



* J1 (Limit Connector)

1	Horizontal Left Limit SW (+)
2	Horizontal Right Limit SW (+)
3	Vertical Up Limit SW (+)
4	Vertical Down Limit SW (+)
5	Progress Bar in Limit SW (+)
6	Progress Bar Out Limit SW (+)
7	Progress Bar Stop Limit SW (+)
8	Ground

* J6 (Motor Connector)

1	Step Motor A
2	Step Motor /A
3	Step Motor B
4	Step Motor /B
5	Horizontal DC Motor (+)
6	Horizontal DC Motor (-)
7	Push DC Motor (+)
8	Push DC Motor (-)
9	DC +13V
10	DC -13V

* J2 (Button & Lamp Connector)

1	Display FND Data Signal
2	Display FND Clock Signal
3	Display FND Strobe Signal
4	Ground
5	Vertical Button Lamp (-)
6	Horizontal Button Lamp (-)
7	Vertical Button SW (+)
8	Horizontal Button SW (+)
9	DC +15V

* J7 (Sub Connector)

1	Credit In Signal
2	Ground
3	DC +15V

* J5 (Sub PCB Connector)

1	RS-232 Rx Data
2	RS-232 Tx Data
3	NC
4	Ground

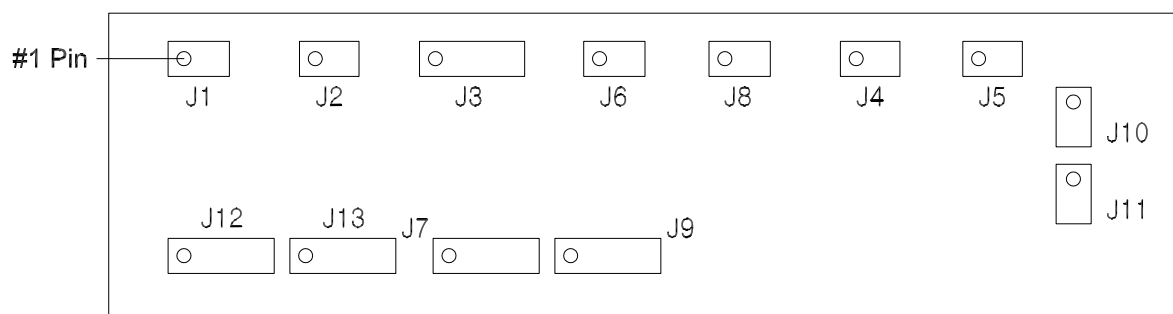
* J4 (Power Connector)

1	DC +15V
2	Ground

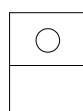
* J8 (Speaker Connector)

1	Speaker(+)
2	Ground

9. PIN LAYOUT OF SUB-BOARD



* J1 (115VAC Connector)

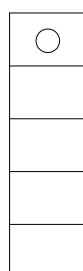


1. 115VAC hot.
2. 115VAC hot.

* J2 (AC Motor Connector)

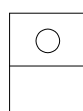
1. Door AC Motor
2. Door AC Motor

* J3 (Bill Acceptor Connector)



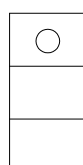
1. Bill Acceptor 115VAC
2. Bill Acceptor 115VAC
3. NC
4. Bill accept signal(+)
5. Bill accept signal(-)

* J6 (NC Connector)



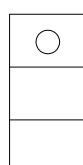
1. NC
2. Ground

* J4 (A Coin Selector Connector)



1. Accept signal(+)
2. Ground
3. DC+12V

* J5 (B Coin acceptor Connector)



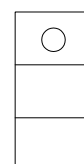
1. Accept signal(+)
2. Ground
3. DC+12V

* J7 (Main PCB Connector)



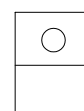
1. RS-232 Tx data
2. RS-232 Tx data
3. NC
4. Ground

* J9 (Main PCB Connector)



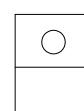
1. Credit out Signal
2. Ground
3. DC+15V

* J10 (Counter Connector)



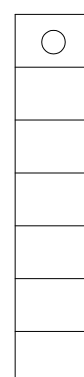
1. Signal
2. Ground

* J11 (Counter Connector)



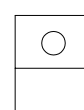
1. Signal
2. Ground

* J12 (A led Counter)



1. 5V
2. 5V
3. S data
4. Clock
5. Strobe
6. Ground
7. Ground

* J13 (B led Connector)



1. DC+15V
2. Ground

