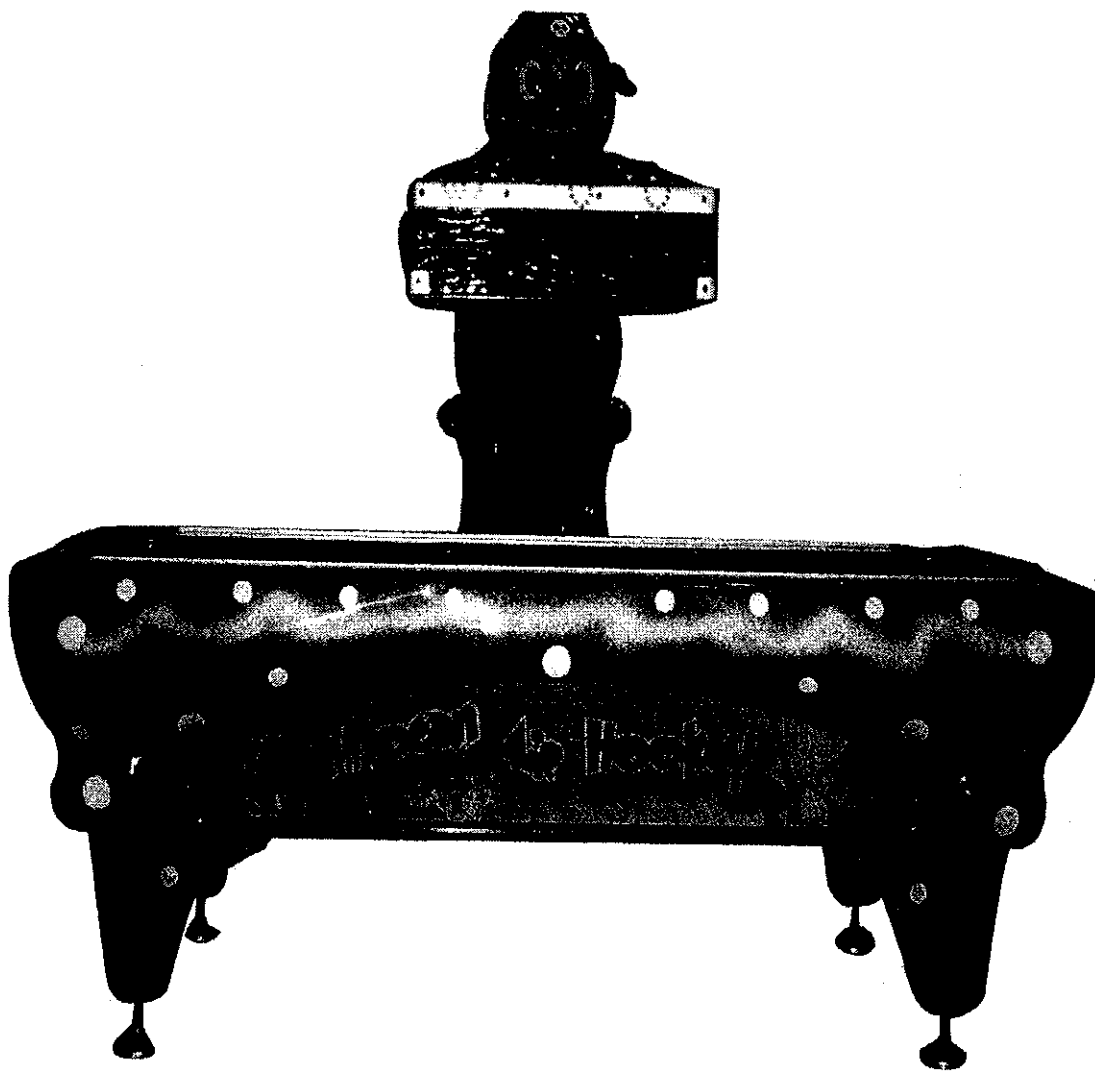


Operation Manual

OCEAN AIR HOCKEY



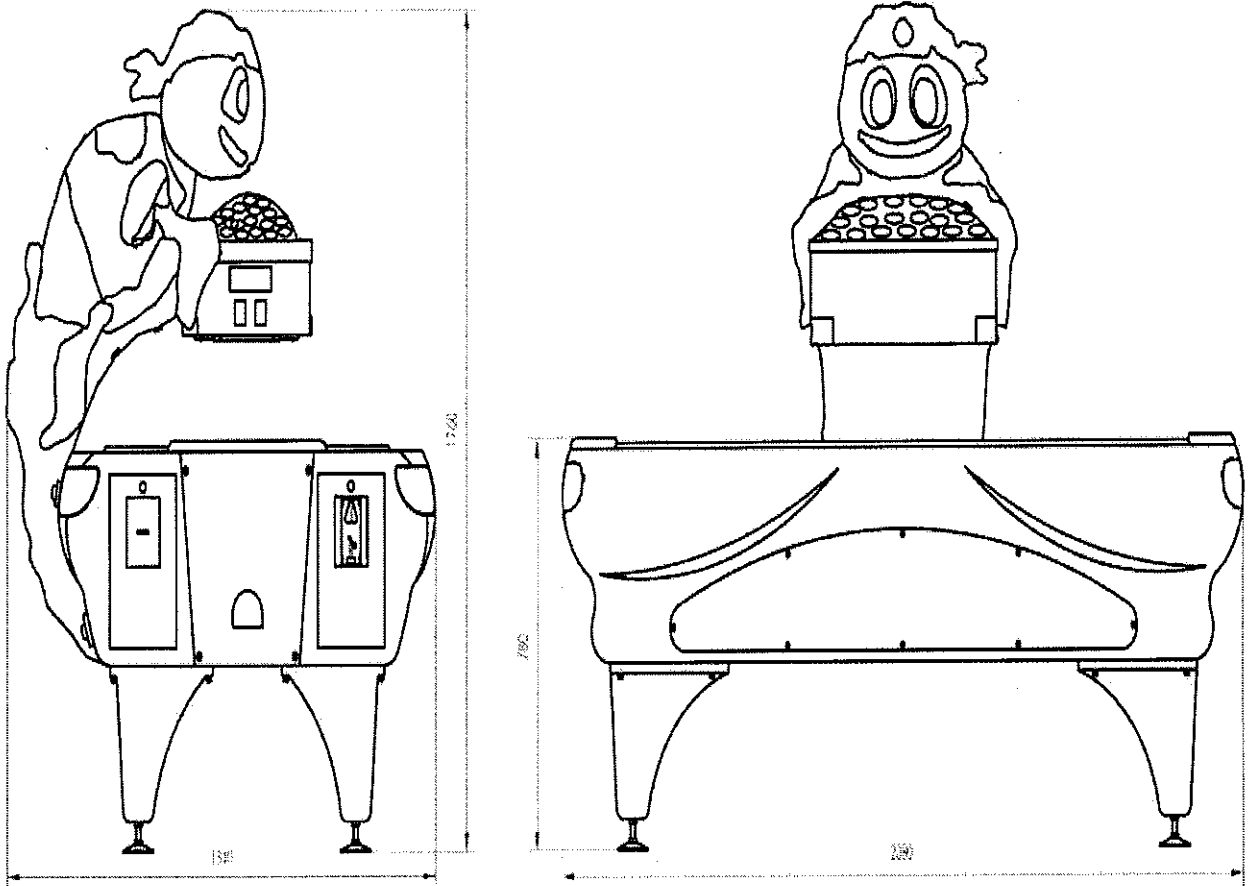
 **WARNING**

Be sure read this Operation Manual before using your machine to ensure safe operation.

US
UNIVERSAL SPACE
AMUSEMENT EQUIPMENT LTD.
2005

1. Specification

- (1) Rated power supply : AC “220V±10% 50Hz or 110V±10% 60Hz”
(Note: As the actual voltage, please refer the label of the machine.)
- (2) Power Consumption : Min120VA ~Max 740 VA
- (3) Dimensions : W1340×D2080×H1760(mm)
- (4) Weight : about 140kg
- (5) Environment Condition: Temperature(indoor): -10°C~+40°C
: Humidity: 30% ~90%
: Atmospheric pressure: 86Pa~106Pa












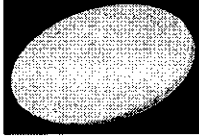
Note: Game parameters are subject change without notice.

2 Package contents

Be sure to check that you have received all packages indicated below.

(1) Body Assembly: 1 unit

(2) Accessories:

No.	Component	Specification	Qty	Illustration	Note
1	Power wire	15A/250V 1.8m	1		
2	Fuse	5A/250V φ 5-20mm	2		For 220V
		10A/125V φ 5-20mm			For 110V
3	Keys	2222	2		Coin door
		171	2		Service door
4	Micro SW(ZIPPY)	CNR-05S-03	2		
5	Bulb	12V/8W(double contact)	4		
6	Hexagon ring spanner	CR-V 8mm	1		
7	Manual	Chinese/English	1		
8	Racket		2		
9	Ball		1		

3 Installation

 WARNING

- For indoor use only!

3-1. Locations to avoid installing

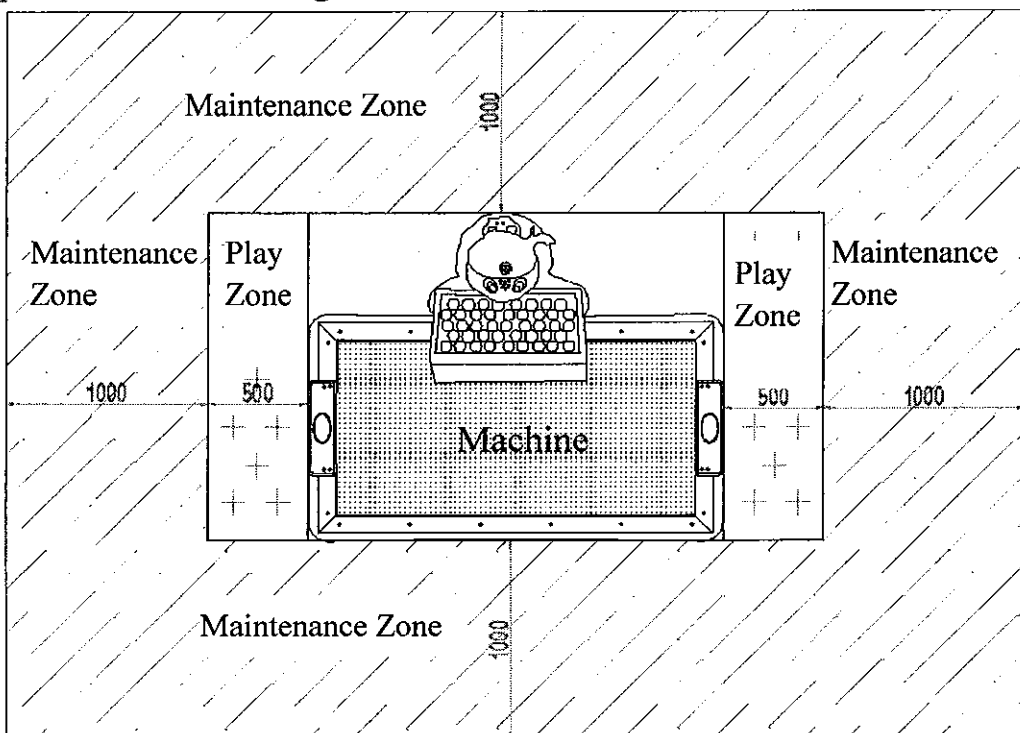
 WARNING

This machine is designed for indoor use only. Never install this machine outdoors or at any of the following:

- Places where dew may develop due to temperature differences
- Locations close to hazardous article
- Locations close to a heating instrument
- Close to instruments that can easily catch fire
- Unstable or vibrating places
- Damp or dust places.

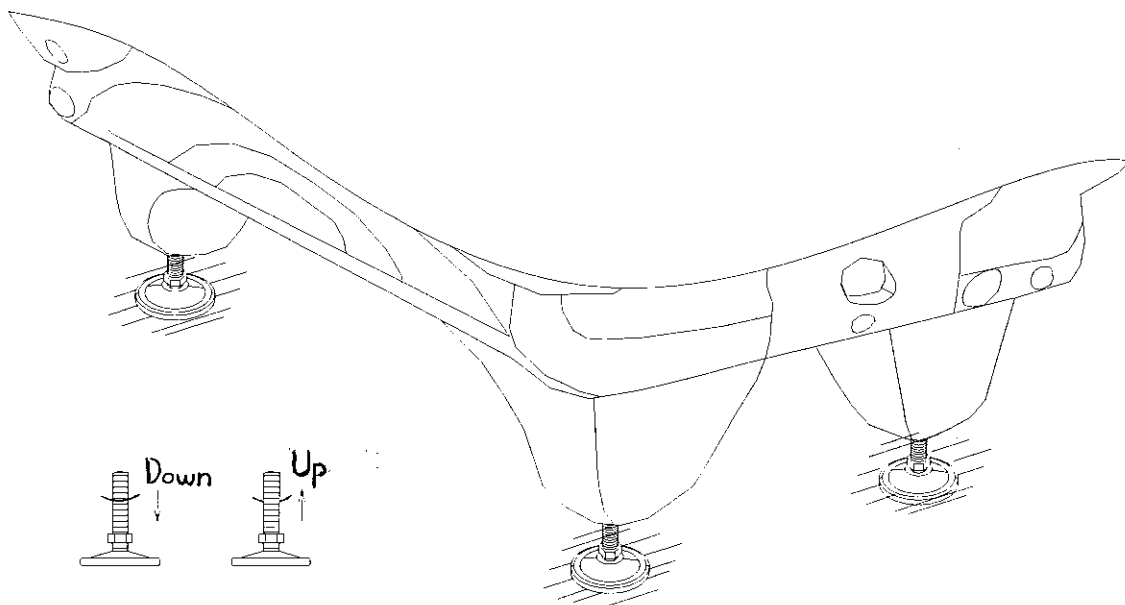
3-2. Play Zone

This machine requires space for playing the game, (play zone), and for maintenance, (maintenance zone), as shown below. Be sure to leave enough space when installing the machine.

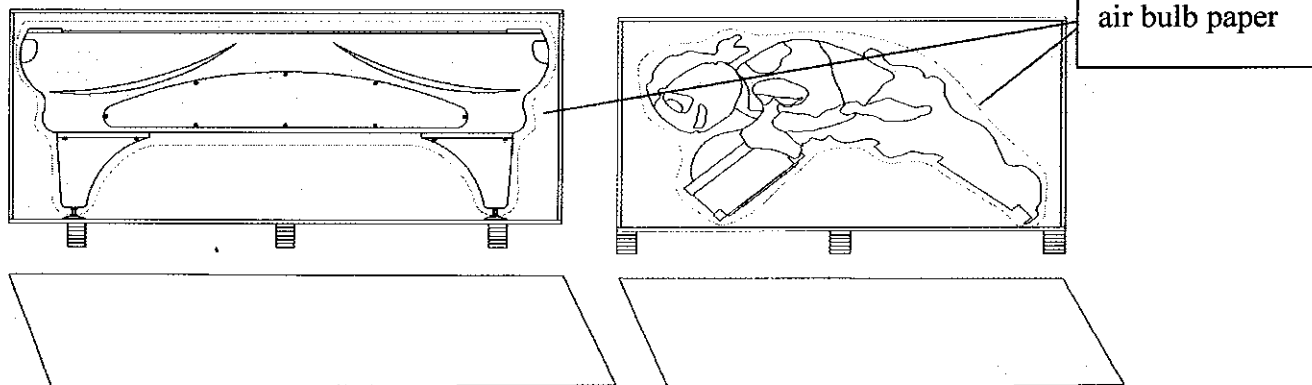


3-3. Game Leveling

1. Install this machine on a flat surface. Adjust levelers to lift casters off the ground and level game.



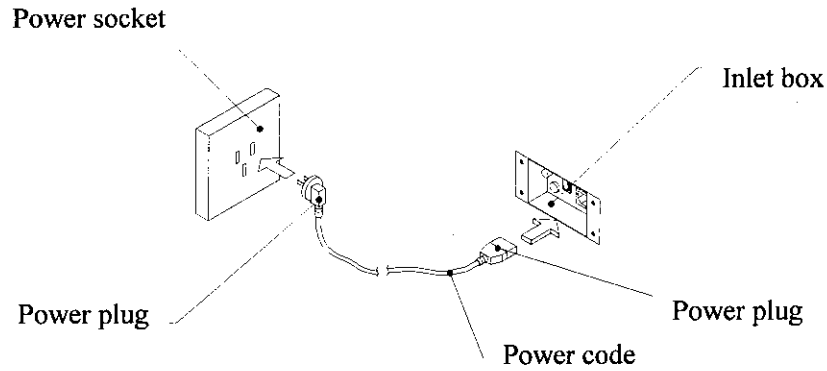
2. When moving to far distance, the machine must be packed in 2 parts: turtle and the body. Use carrier to carry them. When packing or binding the machine, it must be packed with air bulb paper or other anticollision material on surface to protect the machine. It is suggested that use the original package for shipping.



WARNING

- Unplug game before moving.
- The unbending moving, turnover and transport will attain the machine.
- Adjust casters when reinstall the game.
- Ensure the game is level before connecting the power.

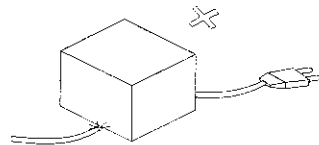
4. Connecting the power cord



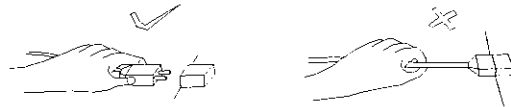
1. Insert the socket end of power cord into the power input of the game.
2. Insert the power cord plug into a service outlet.

! WARNING

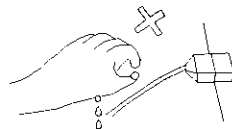
- **Do not put heavy items on power cord.**



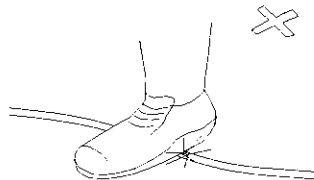
- **Hold the power plug instead of the wire to draw the power cord out of the socket.**



- **Do not touch the power plug with a wet hands.**



- **Do not draw or twist the cord or near a heat source.**
- **Do not place the cord where the player can easy to touch or kick.**



- **Run this machine with the correct power configuration.**

5 Instructions for play

1. This is a 2 players game.
2. Insert the suitable coins, the game starts. Get the ball into the goal of your partner during the specified time. You can get corresponding score when have one goal. The player who gets the highest score or get 7 scores will get tickers.

6 Switches control signal and illuminate

6-1 Refer the attached I/O chart, mainboard and wiring schematic. You can get the place of input and output.

6-2 DIP adjust: please refer the I/O chart. The initial setting is in capitalization.

Initial setting:

- Insert coin: **1** (1 coin for each round)
Play time: **180s** (60s each round)
Ticket out: **2** (1 ticket for 2 score)
Ticket out mode: **winner** (winner gets tickets)
The least ticket: **0** (no mercy prize)
Ticket dispenser amount: **2** (initial setting is 2 dispensers)

Adjust DIP: (the initial setting)



7 Parameters setting

7-1 SW1 setting:

Option	Content	1	2	3	4	5	6	7	8
Insert coin	1 coin per round	ON	ON						
	2 coins per round	off	on						
	3 coins per round	on	off						
	4 coins per round	off	off						
Play time	60s per round			on	on	on			
	90s per round			off	on	on			
	120s per round			on	off	on			
	180s per round			OFF	OFF	ON			
	240s per round			on	on	off			
	300s per round			off	on	off			
	360s per round			on	off	off			
score per ticket	No pay							on	on
	1score for 2 tickets							off	on
	1score for 1 ticket							on	off
	Every 2 score for 1 ticket							OFF	OFF

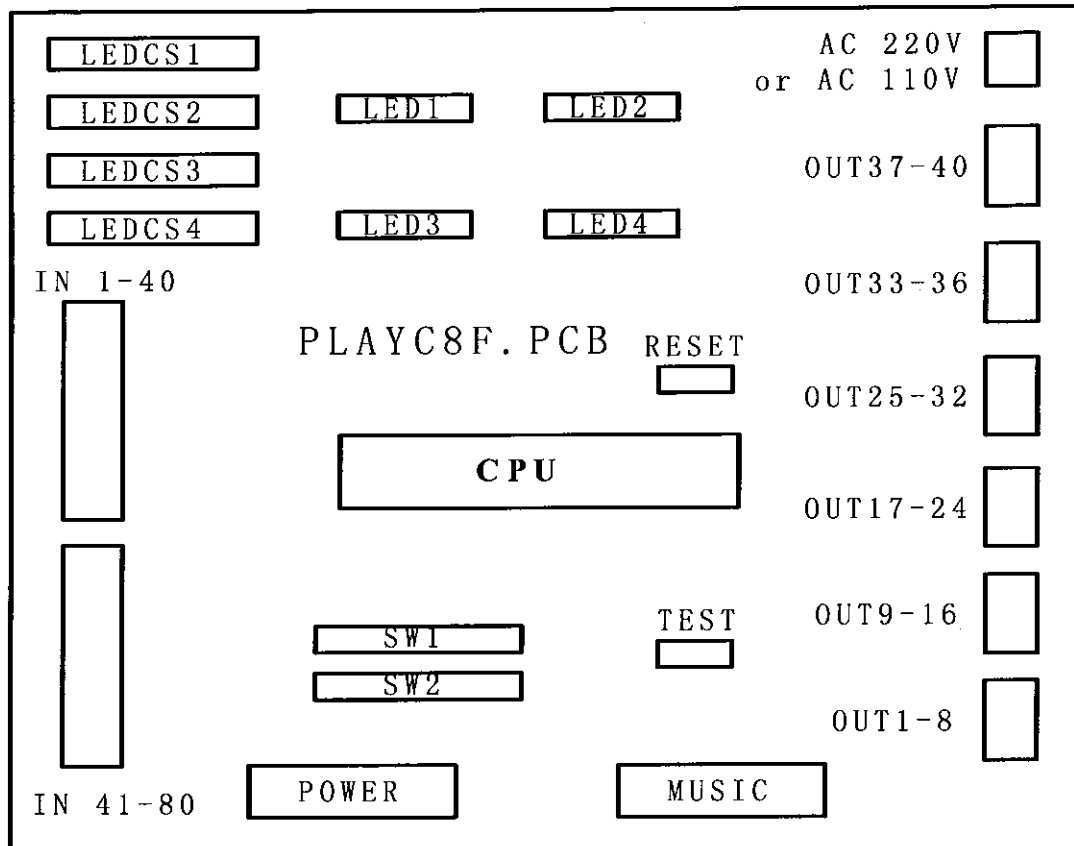
7-2 SW2 setting:

Option	content	1	2	3	4	5	6	7	8
Ticket out mode	Normal	on	on						
	Winner ticket out	OFF	ON						
	Winner ticket out double	on	off						
	≥3 score ticket out	off	off						
The least ticket out	NO PAY			ON	ON				
	1 ticket each one			off	on				
	2 tickets each one			on	off				
	3 tickets each one			off	off				
Ticket dispenser amount	1					on	on		
	2					OFF	ON		
	2					on	off		
	1					off	off		



The above are subject change without notice.

7-3 Main board:



7-3-1 Input port

IN1-40 DDK40P, connecting input signal

IN1-40 NC

7-3-2 Output port:

OUT1-8 Counter and ticket dispenser drive output port.

OUT9-16 Corner lamp drive output port.

OUT33-40 Strobe and air blower drive output port.

LEDCS1 LED display block output port.

LED1 LED display segment output port.

Other ports NC

8 Maintenance and inspections (Can not maintain the game expect the professional.)

1. Remove power before servicing game.

To avoid short circuit, the power must be removed before touching inside. If you have to switch on the power, please refer the operation manual.

2. Choose the appropriate replacement parts.

Using the wrong parts will lead to short circuit or break down the main board.

3. Do not unbending remove, install or change equipment.

It will lead to short circuit and machine malfunction even can bring a fire.

4. Do not put vases with water, cups or containers on the machine. Also

chemical or heavy items are not allowed.

The spill will cause short circuit, and people will be injured by the falling items which also can destroy the machine.

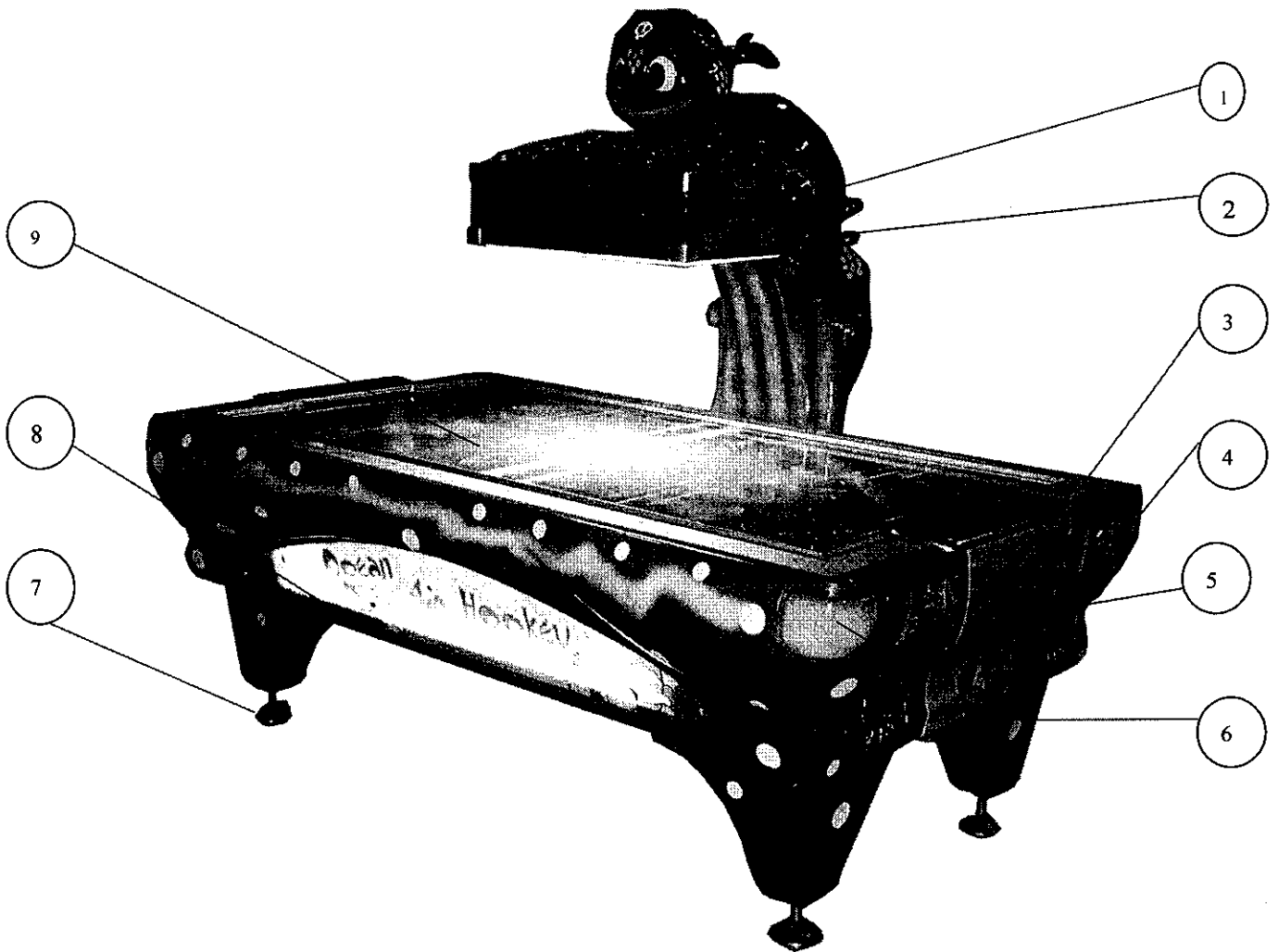
5. Do not place any items in front of the air outlet of the machine.

Or it will cause the temperature higher inside and affect the game even break down the machine.

6. Do not unbending maintain the machine.

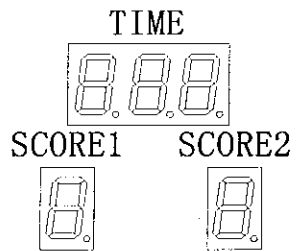
Because it can cause short circuit and lose control of the machine and any other faults.

9 Overall construction



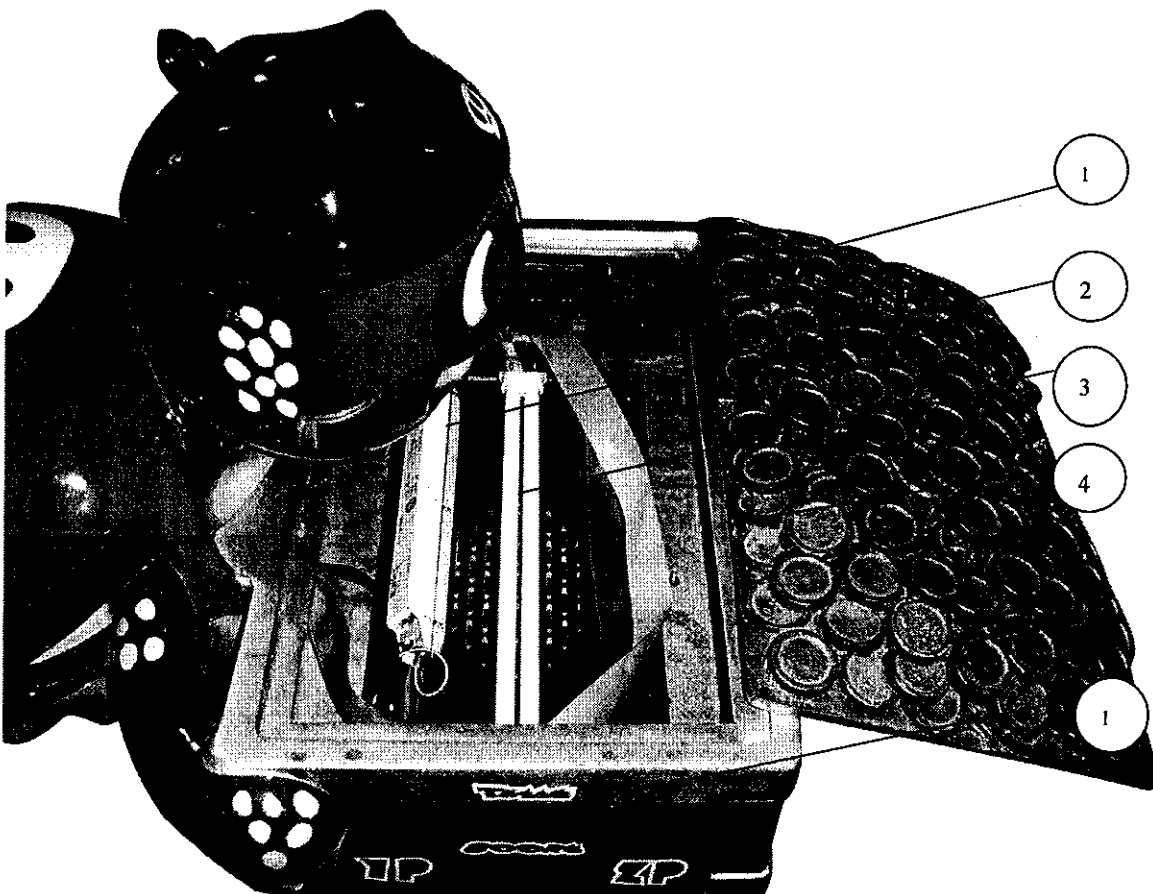
1. Score & time LED
2. Lamp cabinet
3. Baffle assy
4. Coin door
5. Ticket door
6. Corner lamp
7. Caster
8. Main graphics
9. Playfield (air blower assy inside)

9-1 Score & time LED:



You can see the play time, your score and your partner's score from the LED.

9-2 Lamp cabinet:



9-2-1. LED (2pics)

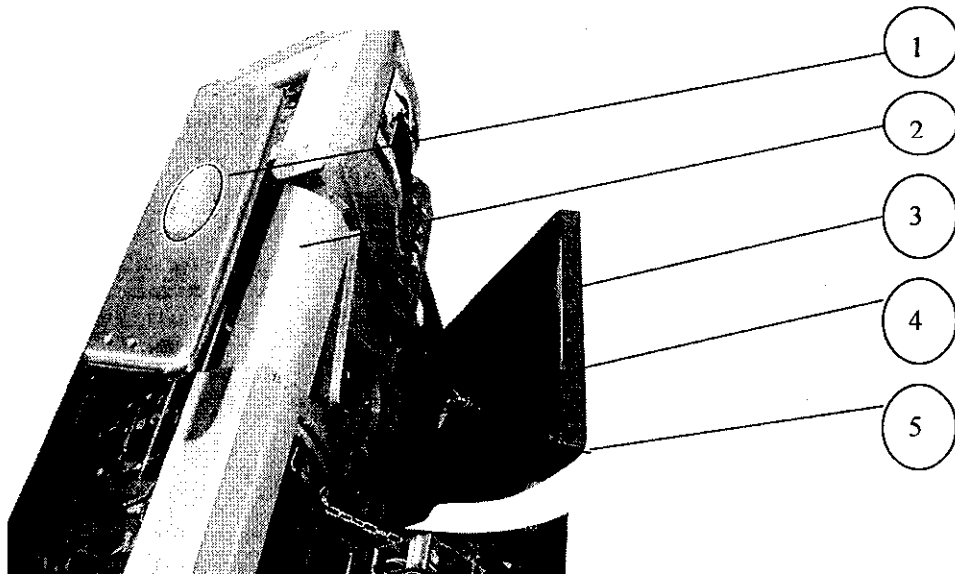
9-2-2. H-model fluorescent lamp (55W)

9-2-3. Fluorescent lamp ballast

9-2-4. Top cover

9-3 Baffle assy:

Strobe and score assy inside. When the ball drop into the goal, the score will be marked and lock the ball when the game is over.



- 5-3-①. The goal
- 5-3-②. Ball return guide plate
- 5-3-③. Ball falling baffle
- 5-3-④. M6 wing nut (add plain cushion)
- 5-3-⑤. Strobe mechanism

9-4 Coin door:

There's a coin assy inside which is use for selecting the suitable coins. There's coin box under it which is collect inserted coins so that is easy for counting and circulation.

9-5 Ticket door:

There're ticket dispenser and ticket box inside. Open this door can install ticket assy and take tickets out. It will dispense corresponding tickets from the ticket assy when the game is over.

9-6 Corner lamp:

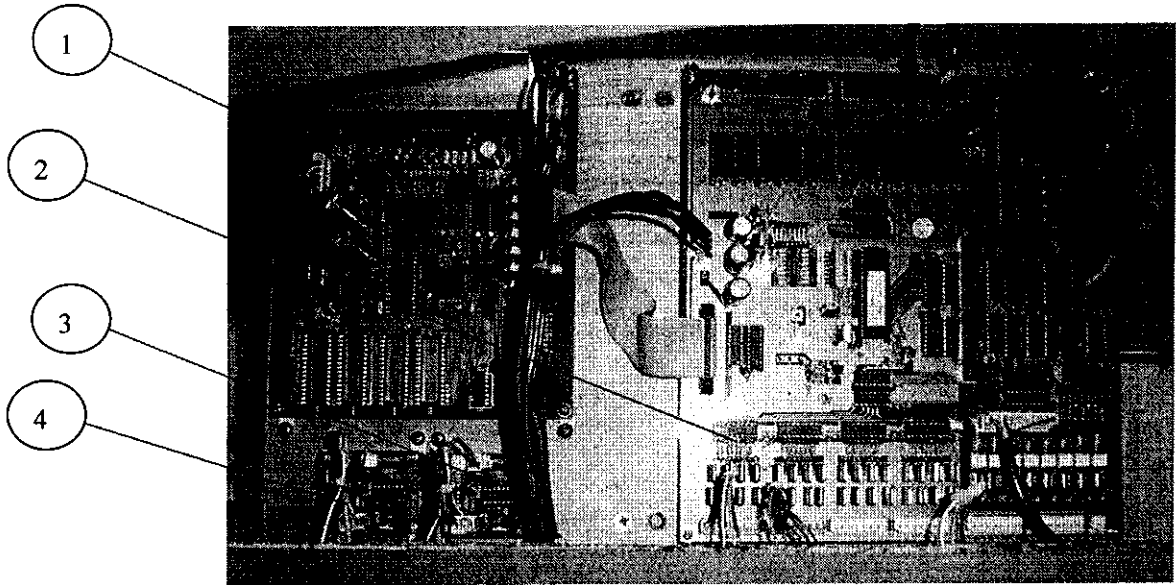
There is one lamps in each corner which is use in attract mode and playtime so that increase more effect.

9-7 Caster:

It is use for supporting the game. Adjust it when the ground is not even.

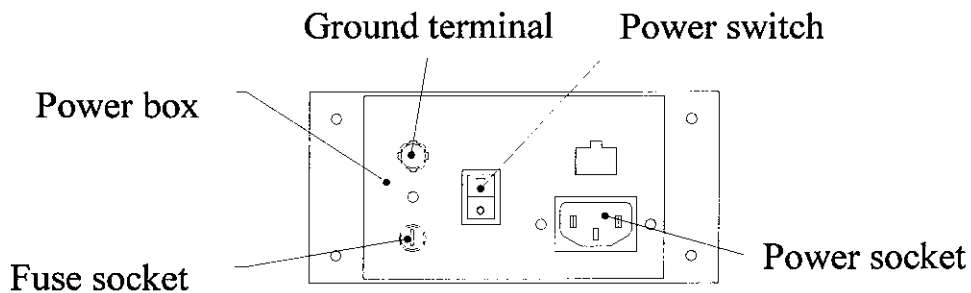
9-8 Main graphics:

There're lamps, music board and power box inside. Open the graphics to check and maintain the circuit main board and other parts.



- 5-8-①. Music board——SY MUSIC01
- 5-8-②. Main board——PLAYO8F
- 5-8-③. Sound control board1——SC52b
- 5-8-④. Sound control board2——SC52b

Power box

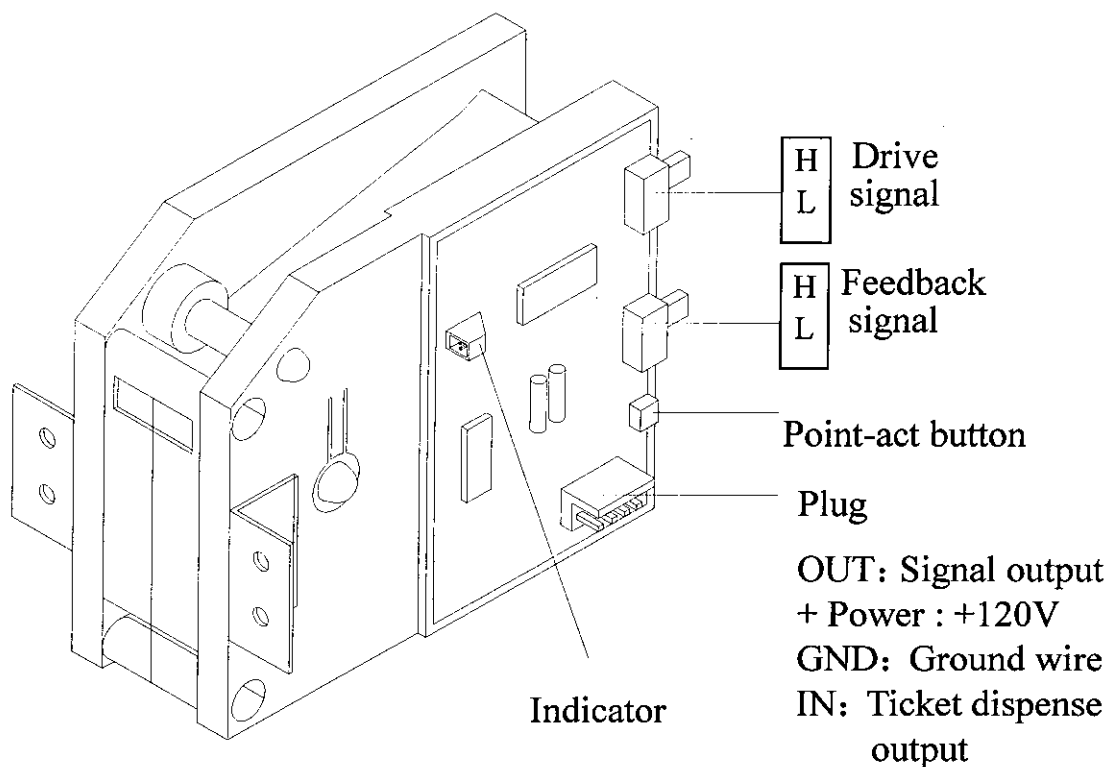


- a. This game's supply voltage is "AC 220V \pm 10% 50Hz or AC 110V \pm 5% 60Hz"
(For actual supply voltage, please refer the label of the machine)
- b. Fuse specifications: "220V/5A Φ 5-20mm or 110V/10A Φ 5-20mm"

9-9 Playfield (air blower assy inside):

After inserting coin, the air blower blows gas from the little holes on the playfield which may reduce friction force between the ball and the playfield so that players can play on the playfield with the racket.

10 Ticket dispenser

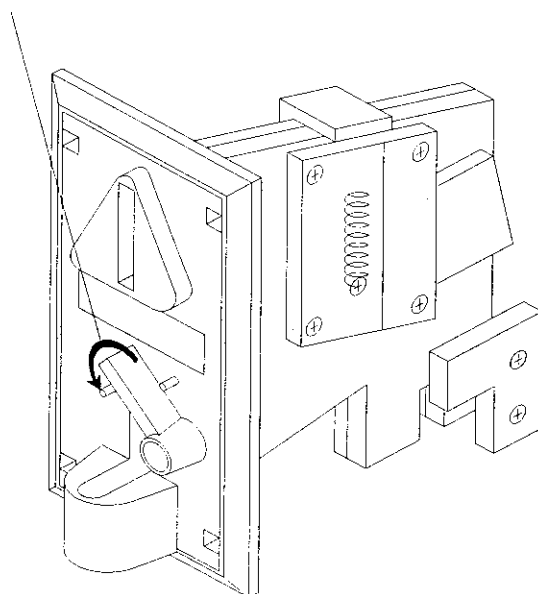


1.This game use this ticket dispenser, which drive signal and feedback signal are “L”(low).

2.The export version use TD-963CR ticket dispense, which need to install “TICKCH.PCB” convert drive signal electrical level.

11 Coin Assy

1. Push the lever (as illustration) to clear any coin jams. If it doesn't work, please take apart the Coin Assy to take out the coins.



2. How to use an Electric Comparison Coin Assy:

a. First take the plastic coins out of the Coin chute and change the coins you use.

b. Avoid inserting unsuitable coins, please loosen the screws back of the coin mouth and depending on the diameter of the coins you use to adjust the stator back of the coin mouth.

c. Adapting to the game bedplate, choose N.O(always open) or N.C(always close). Most of the games, except some games are marked, use N.O(always open).

d. Adapting to the game bedplate, choose COIN TIMER SWITCH, Long-Short/Fast-Slow. 30ms is a short-fast signal, which is suitable for machines that need to quickly insert coins. 50ms is a mid-fast signal, which is suitable for general machines. 100ms is a long-fast signal, which is suitable for machines that no need to quickly insert coins.

e. VR haft adjust sensitiveness of choosing coins. Adjust it clockwise(+), means accepting common error area is great. If inverse time(-), means accepting common error area is small, that is to say choose it strictly.

f. Connection.

1. Gray wire

Red wire-DC+12V

2. White wire-COIN signal

3. Black wire-GND

4. Gray wire

Code table

If there's any problem, please call us or welcome to our company's website:

Business call: (86-760)3886688

Service hot line: (86-760)3886188

Website: www.zs-shiyu.com or www.universal-space.com

Ocean Air Hockey

Ocean Air Hockey I/O chart

2005-5-23

UPDATE: 2005-6-8

Item	content	snap SW adjustment							
		SW11	SW12	SW13	SW14	SW15	SW16	SW17	SW18
Game/coins	1	ON	ON						
	2	off	on						
	3	on	off						
	4	off	off						
Playing times /game (s)	60			on	on	on			
	90			off	on	on			
	120			on	off	on			
	180			OFF	OFF	ON			
	240			on	on	off			
	360			off	on	off			
Win 7 score End?	7 score							ON	
	99 score							off	
Ticket/scores (Piece/Score)	No-Pay							on	on
	0.5							off	on
	1							on	off
	2							OFF	OFF

Item	content	snap SW adjustment							
		SW21	SW22	SW23	SW24	SW25	SW26	SW27	SW28
Outing ticket model	Normal	on	on						
	Win	OFF	ON						
	Win double	on	off						
The lowest tickets	>=3 out	off	off						
	0			ON	ON				
	1			off	on				
	2			on	off				
Ticket ASSY	1					on	on		
	2					OFF	ON		
	2					on	off		
Demon Music ?	1					off	off		
	Yes							ON	
	No							off	

Input:

INPUT	content	INPUT	content	INPUT	content	INPUT	content
I1	coin SW	I11		I21		I31	
I2	Ticket ASSY OK	I12		I22		I32	
I3	1#Side-SW	I13		I23		I33	
I4	1#ticketASSYsignal	I14		I24		I34	
I5	2# Side-SW	I15		I25		I35	
I6	2#ticketASSYsignal	I16		I26		I36	
I7	Sound controller	I17		I27		I37	
I8	Sound controller(change)	I18		I28		I38	
I9		I19		I29		I39	
I10		I20		I30		I40	

INPUT	content	INPUT	content	INPUT	content	INPUT	content
I41		I51		I61		I71	
I42		I52		I62		I72	
I43		I53		I63		I73	
I44		I54		I64		I74	
I45		I55		I65		I75	
I46		I56		I66		I76	
I47		I57		I67		I77	
I48		I58		I68		I78	
I49		I59		I69		I79	
I50		I60		I70		I80	

Output:

OUTPUT	content	OUTPUT	content	OUTPUT	content	OUTPUT	content
OUT1	Coin counter	OUT11	2#L-corner lamp	OUT21	1#score lamp5	OUT31	2#score lamp7
OUT2	Ticket counter	OUT12	2#R-corner lamp	OUT22	1#score lamp6	OUT32	
OUT3	1#Ticket ASSY impel	OUT13	1#Effect lamp	OUT23	1#score lamp7	OUT33	2#Side stobe
OUT4	2#TicketASSY impel	OUT14	2#Effect lamp	OUT24		OUT34	1#Side stobe
OUT5		OUT15	3#Effect lamp	OUT25	2#score lamp1	OUT35	air-blower
OUT6		OUT16		OUT26	2#score lamp2	OUT36	air-blower
OUT7		OUT17	1#score lamp1	OUT27	2#score lamp3	OUT37	
OUT8		OUT18	1#score lamp2	OUT28	2#score lamp4	OUT38	
OUT9	1#L-corner lamp	OUT19	1#score lamp3	OUT29	2#score lamp5	OUT39	
OUT10	1# R-corner lamp	OUT20	1#score lamp4	OUT30	2#score lamp6	OUT40	

NOTE: OUT33-40 output volatg220V(or 110V).

LED display:

1#Score	2#Score	Time	1#Ticket	2#Ticket	Coin
<1>1-2	<1>3-4	<1>5-7	<2>1-2	<2>3-4	<2>7-8
<1>3/4	<1>1/2	<1>5-7	<2>1-2	<2>3-4	<2>7-8

Wrong display

If the input signal is not normal when you turn on the machine, the number of the SW with wrong will be display on the LED 1#.

Enter the test program:

You can enter test program by press the "test" button on the main board.

The way of test:

When enter the test program, the LED displays the number from 1 to 9 then stop and displays "8 7 6 5 4 3 2 1" at the same time. It tests that the LED is right or not.

Press the "test" button once again, and now the LED displays "1". The LED1, LED2 of 1# station displays the condition of the snap SW.

Press the "test" button again, the LED display "2", the LED displays the number of on-off switches. Press the "test" button again, and now it displays "3". It tests the input part and output part.

a. OUT1-8: First press the IN9 button then press the input button from IN1 to IN8 button one by one.

The output part output the signal.

b. OUT9-16: First press the IN10 button then press the input button from IN1 to IN8 button one by one. The output part output the signal

c. OUT17-24: First press the IN11 button then press the input button from IN1 to IN8 one by one. The output part output the signal.

d. OUT25-32: First press the IN12 button then press the input button from IN1 to IN8 button one by one. The output part output the signal.

e. OUT33-40: First press the IN13 button then press the input button from IN1 to IN8 button one by one. The output part output the signal.

Press the "test" button again, the LED display "4". Press IN1-40 button then corresponding out1-40 will output.

