

Operation Manual

MAKE YOUR BEST SHOT.



Universal Space Amusement (HK) Co., Ltd

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THE UNIVERSITY OF CHICAGO

CHICAGO, ILLINOIS



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1. Specifications

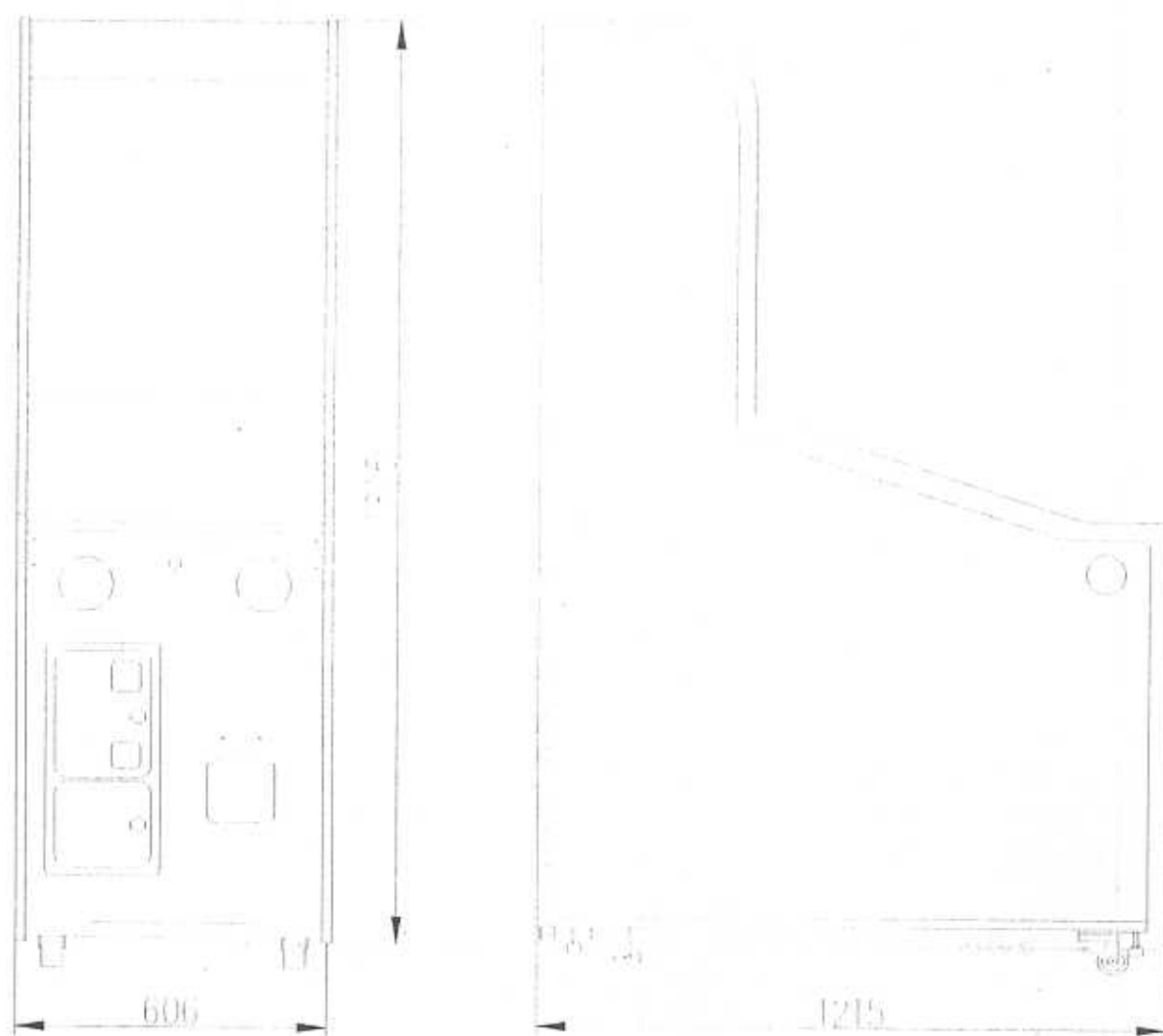
- (1) Rated power supply :AC 110V $\pm$ 5% 60Hz or
:AC 220V $\pm$ 5% 50Hz;

(Note: As the actual voltage, please refer the label of the machine.)

- (2) Power Consumption :Min power consumption: 126W;
:Max power consumption: 450W;

- (3) Dimensions :W606 $\times$ D1215 $\times$ H1815 (mm);

- (4) Weight :120kg;



Note: Game parameters are subject change without notice.

2 Package Contents

(1) Body Assembly: 1 unit

(2) Accessories:

No.	Component	Specification	Q'ty	Illustration	Note
1	Power wire	1. 5m	1		
2	Fuse	ϕ 5-20mm	3		10A For 110V
3	Keys	171	3		
4	Keys	2222	1		
5	Keys	3778	2		
4	Transistor	TIP122	1		
5	IC	HD74HC245	2		
		HD74HC374	2		
		ULN2803	2		
6	Operateion Manual		1		
7	Long arm switch				
10	Micro Switch				
11	Belt(LJ80XL)				
12	Bulb	12V/3W	2		

3. Installation

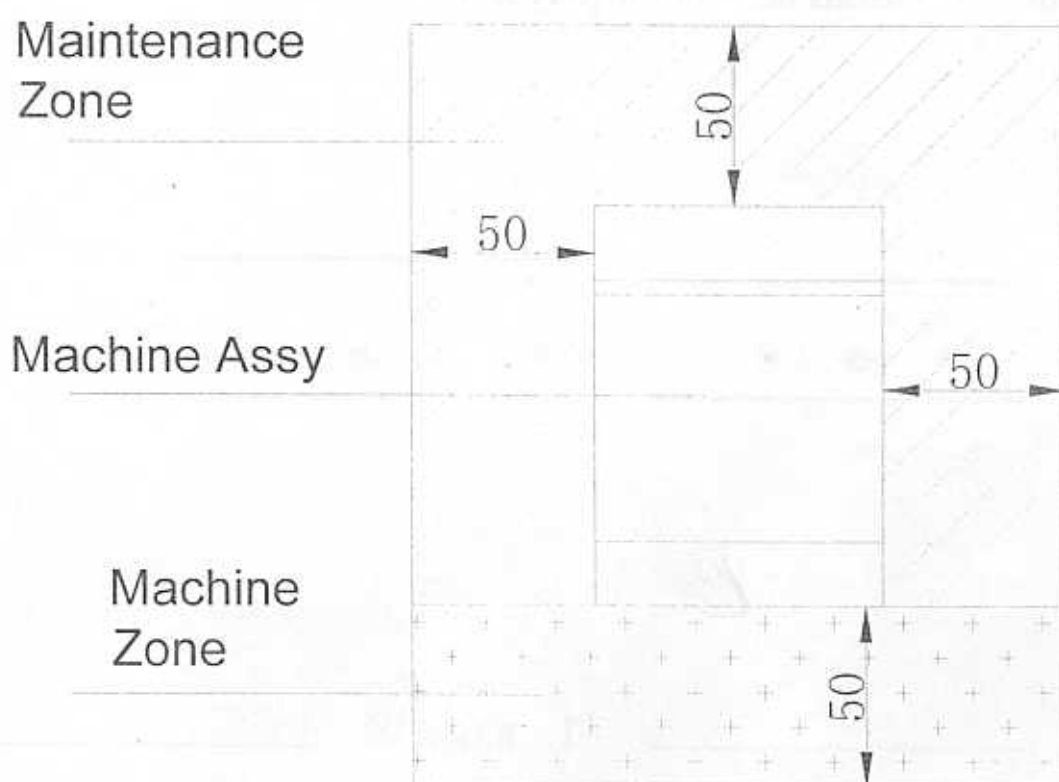
! WARNING

● For indoor use only!.

3-1. Play Zone

Space for Operation and Maintenance

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



3-2 Locations to avoid installing:

WARNING

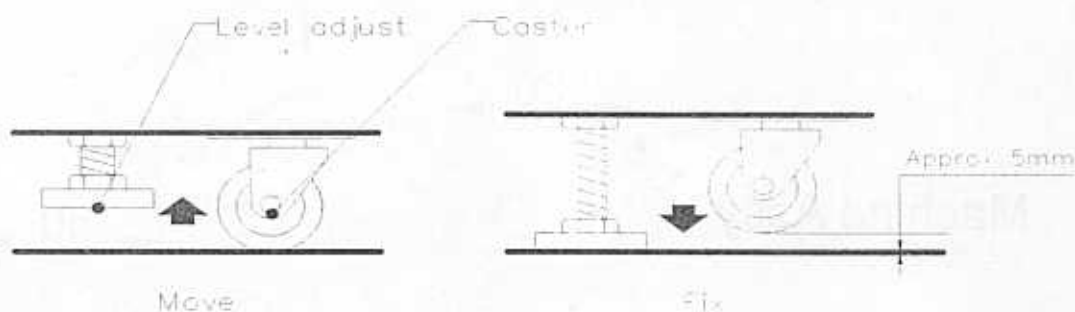
This machine is designed for indoor use. Never install this machine outdoors or at any of the following:

- Locations exposed to direct sunlight.
- Locations subjected to rain or water leakage.
- Damp, dust or hot places.
- Do not place close to a heat source.

4. Game Leveling

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

• Make sure that the machine is level with the floor. If the machine is not level medals may not be play well.



WARNING

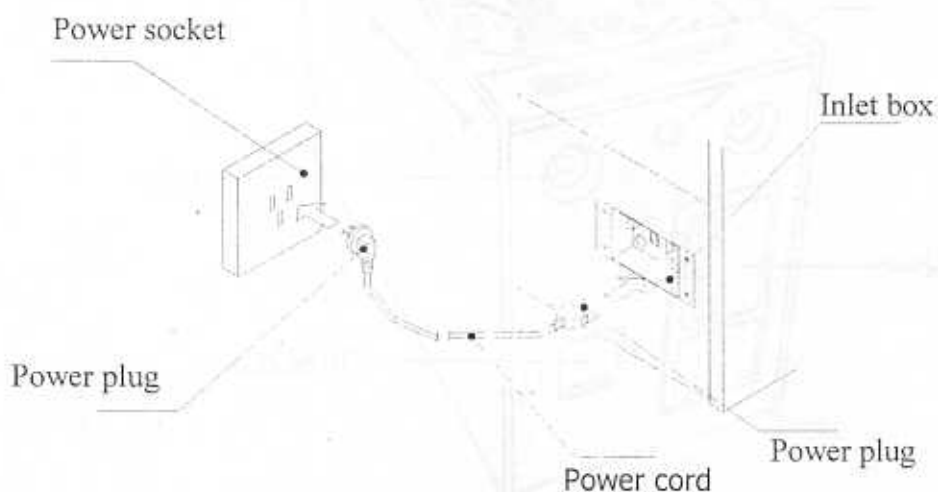
- Unplug game before moving.
- Do not lay game on side during transport.

4-1 Movement

1. Turn off the power switch.
2. Unplug the power cable and put it in the Main Assy from the maintenance door.
3. This machine must be carried by 2 or more persons.

5. Connecting the power cord and grounding

5-1 The connection:



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.

Notice: This step completes the connection of the ground wire.

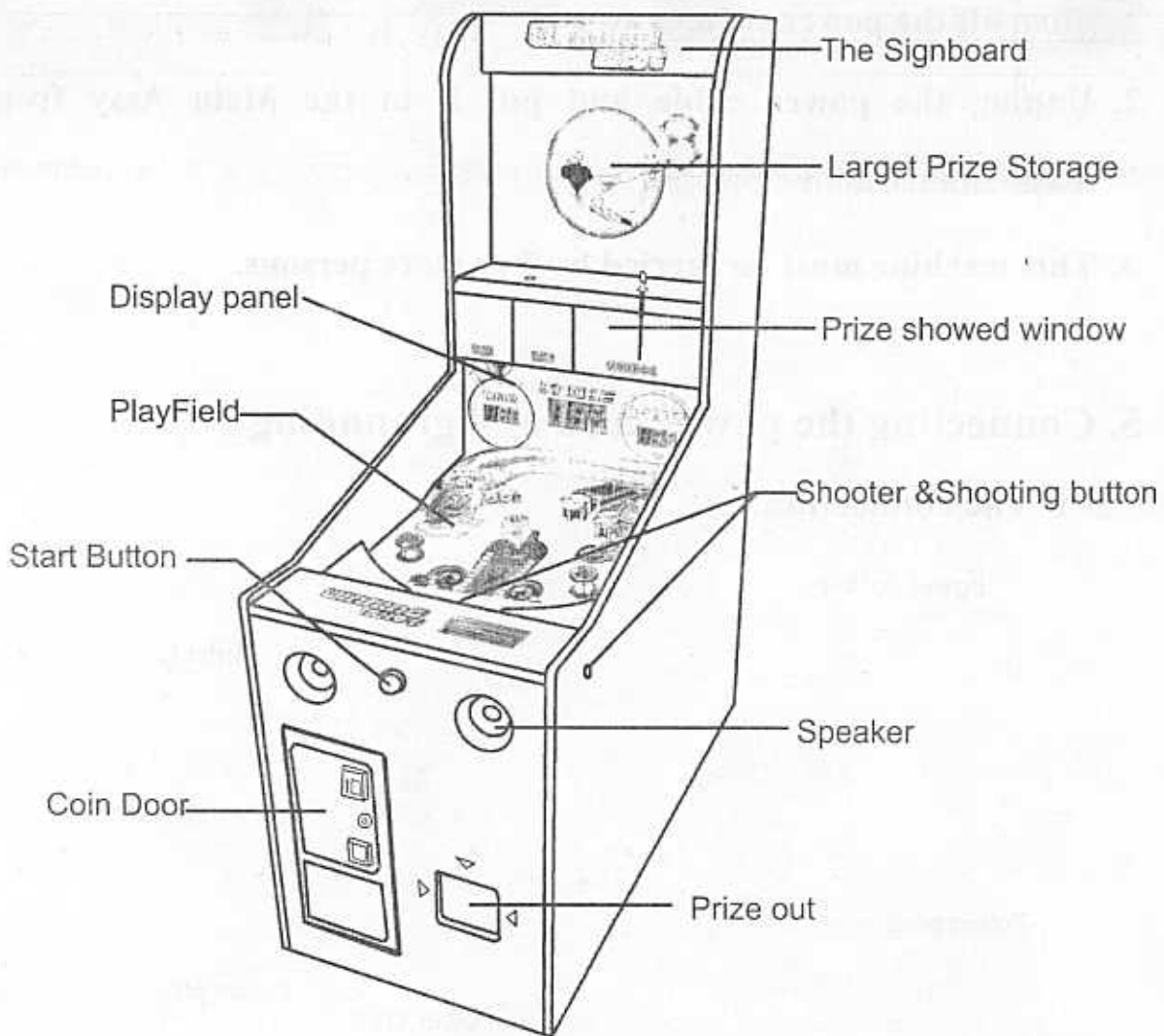


WARNING

- Do not put heavy items on power cord.
- Do not touch the power plug with a wet hand.
- Do not draw or twist the cord.
- Do not place the cord near a heat source.
- Do not place the cord where the player can easily touch or kick.
- Run this machine with the correct power configuration

6. Overall construction

6-1 The Components of the Machine



6-2 Introduce for each Part

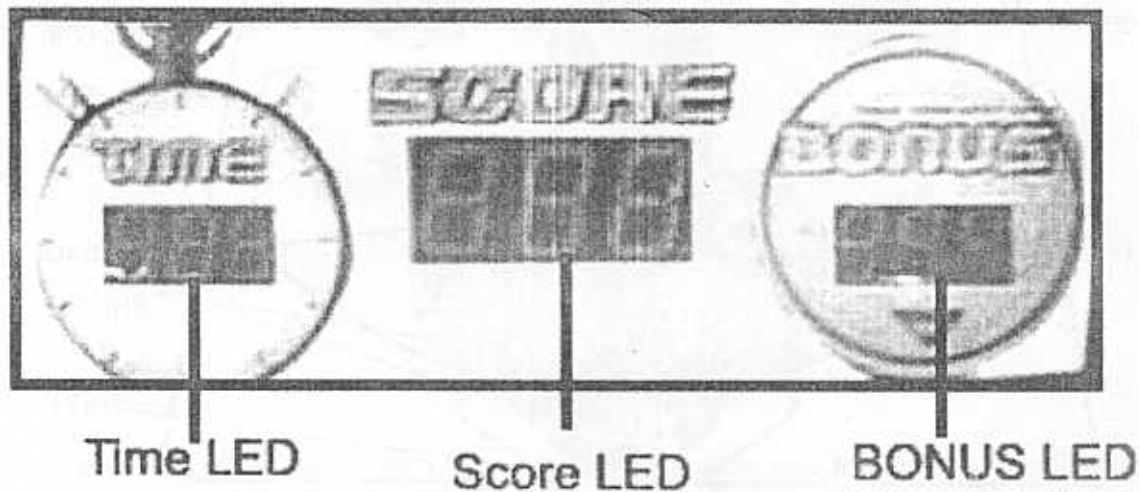
1. The Signboard: Have no function but attract the people's attention.
2. Target PrizeStorage: The target prizes are storage here.
3. Prize showed window: The 3 types prize are put some samples on the showed window, it is used to attract the player.

At the back side of the prize showed window are the prize storage for this game, the prizes are all put into a capsule. The small prize is put

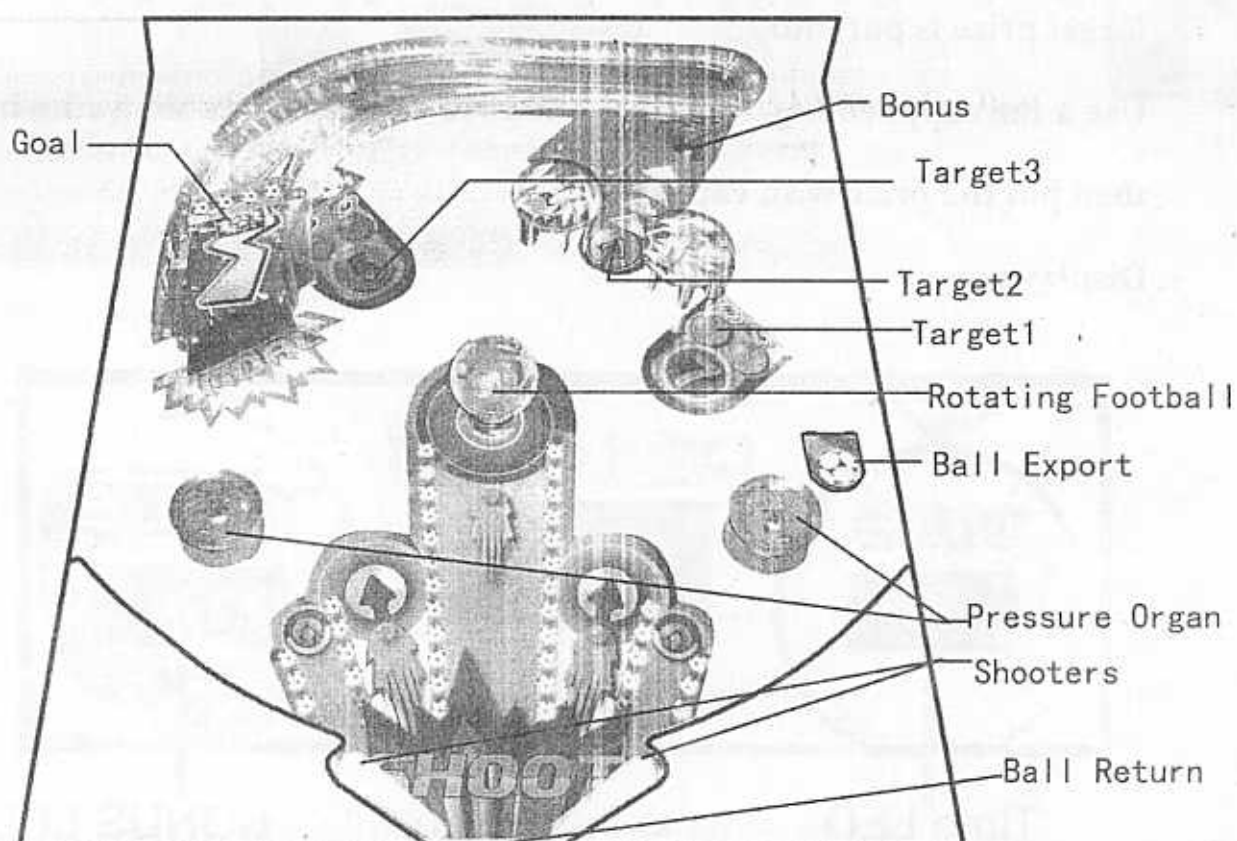
into the 1" capsule; the medial prize is put into the 2" capsule, and the target prize is put into the 4" capsule.

Use a the supplied key to unlock the cove of the prize showed window, then put the prize with capusle on.

4. Display panel:



- 1). Time LED: Display the play time of the game.
- 2). Score LED: Display the score that player got.
- 3). BONUS LED: Display the score of the BONUS premium.
4. Playfield:



- 1). **Ball Return:** The ball will be return to machine.
- 2). **Shooters:** Press the L&R button to control the shooters to hit the ball, forbid the ball going down form the ball return.
- 3). **Pressure Organ:** While ball touching it, it will give a pressure to the ball,
- 4). **Ball Export:** The ball will be played out from here; at the same time, there are 3 balls at most for player play in a game.
- 5). **Rotating Football:** This football wi rotating all the time, it has no means but make the game more exciting.
- 6). **Target1 and Target3:** Get corresponding score while ball hit on these targets; As the score of these targets can be adjustable by the DIP.
- 7). **Target 2:** Get corresponding score while the ball passing through this

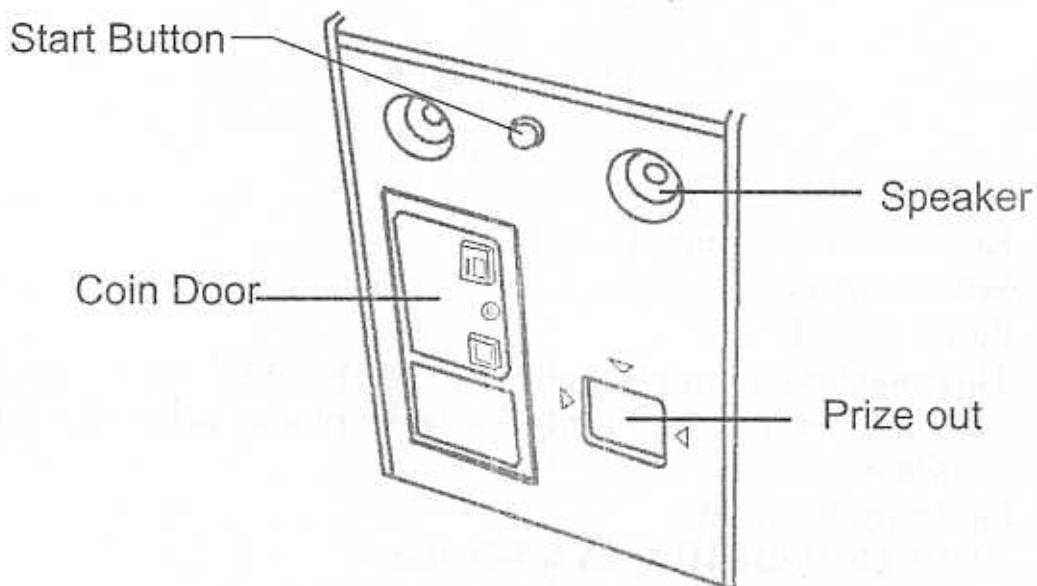
alleyway.

8). Goal: Get 10 score while ball hiting the Goal. This score is can't adjustable.

9). Bonus: Win Bonus while the ball getting into this hole.

5. Shooter & Shooting button: Press the L or R shooting button to control the shooters to hit ball.

6. The Front Door:



1). Start Button: Press this button to start the game after inserting coin.

2). The Coin Door: Inser coin from the coin solt.

Use the 171 key to open the door of the cash box to reclaim coins.

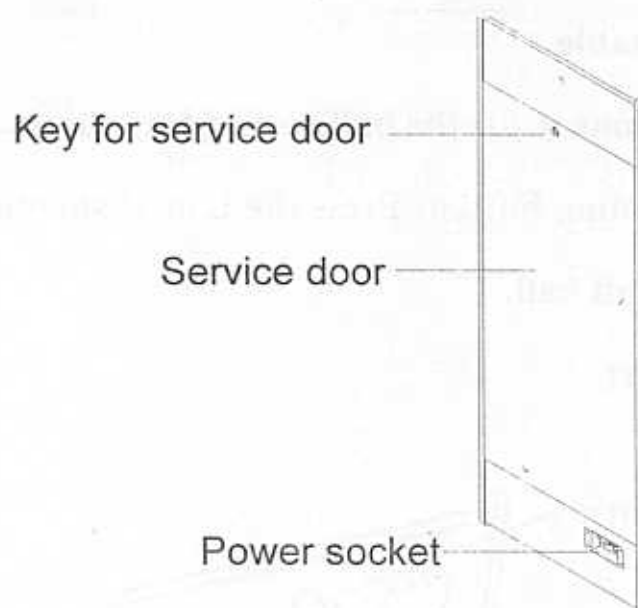
3). Speaker: play out some sound of the game.

4). Prize out: The prize will be delivered here.

Note: Remember to take out the prize after winning, if leaving so many prize inside the prize zone, it will blocked.

5. The Rear Door:

Rear Door: Open this door to maintenance the inside part of the machine, such as the PCB Board 、Sound Board and the circuit.

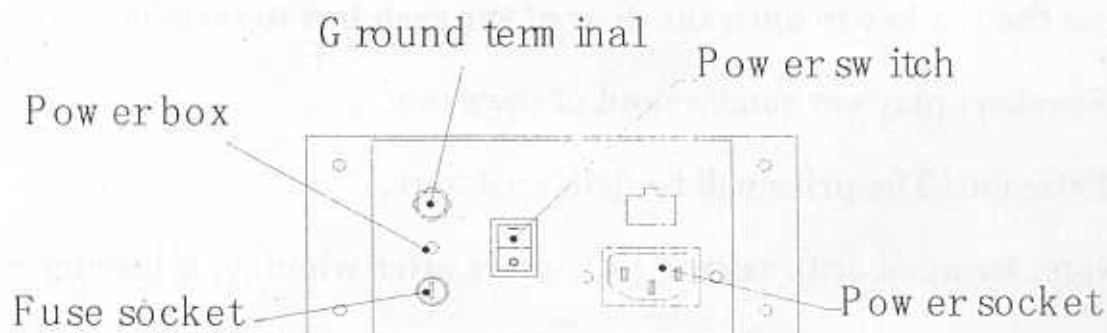


5.1 Key for service door: Lock 171.

5.2 Service door

5.3 Power socket:

- ① .This machine's supply voltage is $110V \pm 5\%$ 60Hz, or $220V \pm 5\%$ 50Hz", for actual supply voltage, please refer the label of the machine.
- ② .Fuse specifications
110V 60Hz use 110V 5A ϕ 5-20mm
220V 50Hz use 220V 3A ϕ 5-20mm
- ③ .Power switch: Main game power
- ④ .Ground terminal: Use to connect the ground cord.



7. Instructions of Play

1. In a limited time frame hit as many targets as you can to accumulate points.
2. Consecutive balls will be launched until time expire.
3. Hit the ball up the ramp to win Bonust Points.
4. Prizes dispensed will depend on score.

8. Adjustments

① Coin(s):

This switch is used for the coin mech 1, adjusting it to seting how many coin in one game. There are 4 options for user to select. It is controlled by SW11~SW12.

Coins	Options	SW11	SW12	Note
SW11 ~ SW12	1	ON	ON	Insert 1 coin play 1 games
	2	off	on	Insert 2 coin play1 games
	3	on	off	Insert 3 coin play 1 games
	4	off	off	Insert 4 coin play 1 games

② Time(s):

Adjust it to setting the playtime in one game. There are 4 options for user to select. It is controlled by SW13~SW14.

Time(s)	Options	SW13	SW14	Note
SW13 ~ SW14	60s	ON	ON	60s in one game
	75s	off	on	75s in one game
	90s	on	off	90s in one game
	120s	off	off	120s in one game

③ Target 1 Score:

Scoring this value when ball hit on this target. There are 4 Options for user to select. It is controlled by SW 15~SW16.

Target 1 Score	Options	SW17	SW18	Note
SW15	7	ON	ON	Win 7 point when ball hits on taget 1
	9	off	on	Win 9 point when ball hits on taget 1
SW16	10	on	off	Win 10 point when ball hits on taget 1
	12	off	off	Win 12 point when ball hits on taget 1

④ Target 2 Score:

Scoring this value when ball hit on this target. There are 4 Options for user to select. It is controlled by SW 17~SW18.

Target 2 Score	Options	SW17	SW18	Note
SW17	2	ON	ON	Win 2 point when ball hits on taget 2
	3	off	on	Win 3 point when ball hits on taget 2
SW18	4	on	off	Win 4 point when ball hits on taget 2
	6	off	off	Win 6 point when ball hits on taget 2

⑤ Target 3 Score:

Scoring this value when ball hit on this target. There are 4 Options for user to select. It is controlled by SW 21~SW22.

Target 3 Score	Options	SW21	SW22	Note
SW21	5	ON	ON	Win 5 point when ball hits on taget 3
	8	off	on	Win 8 point when ball hits on taget 3
SW22	9	on	off	Win 9 point when ball hits on taget 3
	10	off	off	Win 10 point when ball hits on taget 3

⑥ Small Prize:

The machine will deliver a small prize when the score reach to this value. There are 4 options for user to select. It is controlled by SW 23~SW24.

Small Prize	Options	SW23	SW24	Note
SW23 ~ SW24	160	ON	ON	Reach to 160 point Win a small prize
	200	off	on	Reach to 200 point Win a small prize
	240	on	off	Reach to 240 point Win a small prize
	280	off	off	Reach to 280 point Win a small prize

⑦ Medial Prize:

The machine will deliver a medial prize when the score reach to this value.
There are 4 options for user to select. It is controlled by SW 25~SW26.

Small Prize	Options	SW26	SW27	Note
SW26 ~ SW27	300	ON	ON	Reach to 300 point Win a medial prize
	350	off	on	Reach to 350 point Win a medial prize
	400	on	off	Reach to 400 point Win a medial prize
	150	off	off	Reach to 150 point Win a medial prize

⑧ Larget Prize:

The machine will deliver a Larget prize when the score reach to this value.
There are 4 options for user to select. It is controlled by SW 27~SW28.

Small Prize	Options	SW26	SW27	Note
SW27 ~ SW28	500	ON	ON	Reach to 500 point Win a Larget prize
	520	off	on	Reach to 520 point Win a Larget prize
	550	on	off	Reach to 550 point Win a Larget prize
	600	off	off	Reach to 600 point Win a Larget prize

⑨ Ticket /Prize:

Adjust it to setting the play model of the machine, the ticket model or the prize model.

Ticket/Prize	Options	SW31	Note
SW31	Ticket	On	Pay out ticket base on the score
	Prize	OFF	Pay out prize base on the score

⑩ Mercy:

Pay out a mercy prize though the player can't get any score or the score can't get any prize.

Mercy	Options	SW31	Note
SW32	Yes	ON	The player can get mercy prize
	No	off	No mercy prize

☐ Ticket(score/pcs)

Get a Ticket needs how many socre. There are 8 options for user to select. It is controlled by SW33~SW35.

Small Prize	Options	SW33	SW34	SW35	Note
SW33 ~ SW35	2	on	on	on	2 Score win a ticket
	5	off	on	on	5 Score win a ticket
	6	on	off	on	6 Score win a ticket
	8	off	off	on	8 Score win a ticket
	10	ON	ON	OFF	10Score win a ticket
	12	off	on	off	12 Score win a ticket
	15	on	off	off	15 Score win a ticket
	20	off	off	off	20 Score win a ticket

☐ Score (score/coin)

Adjust it to setting the pay out percentage. There are 8 options for user to select. It is controlled by SW36~SW38.

Score(score/coin)	Options	SW33	SW34	SW35	Note
SW36 ~ SW38	50	on	on	on	The player can reach 50point by insert a coin
	60	off	on	on	The player can reach 60point by insert a coin
	70	on	off	on	The player can reach 70point by insert a coin
	80	off	off	on	The player can reach 80point by insert a coin
	90	on	on	off	The player can reach 90point by insert a coin
	100	off	on	off	The player can reach 100point by insert a coin
	110	on	off	off	The player can reach 110point by insert a coin
	120	off	off	off	The player can reach 120point by insert a coin

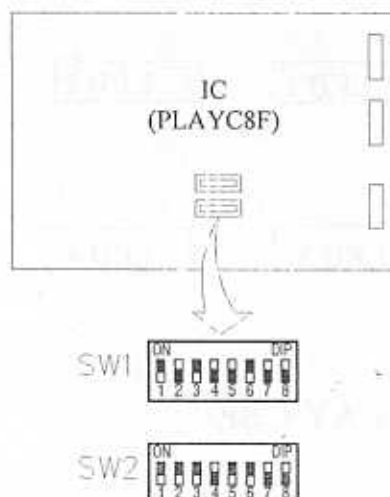
※ Please refer the I/O chart and the main board figure.

Note: The factory setting are in Caps

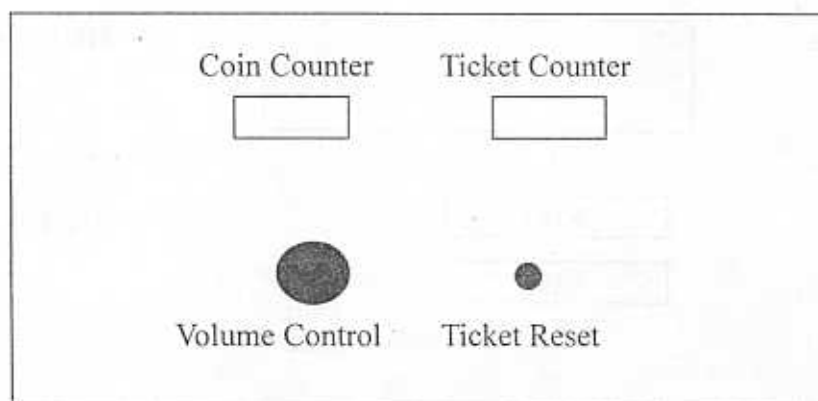
8-1 Switchs:

The DIP SW1 and SW2 Locations

Game parameters are controlled by two sets of dip switch banks labeled SW1 and SW2. Each bank has eight switches where in the SW2-2 for example refers to bank 2 switch position 2.

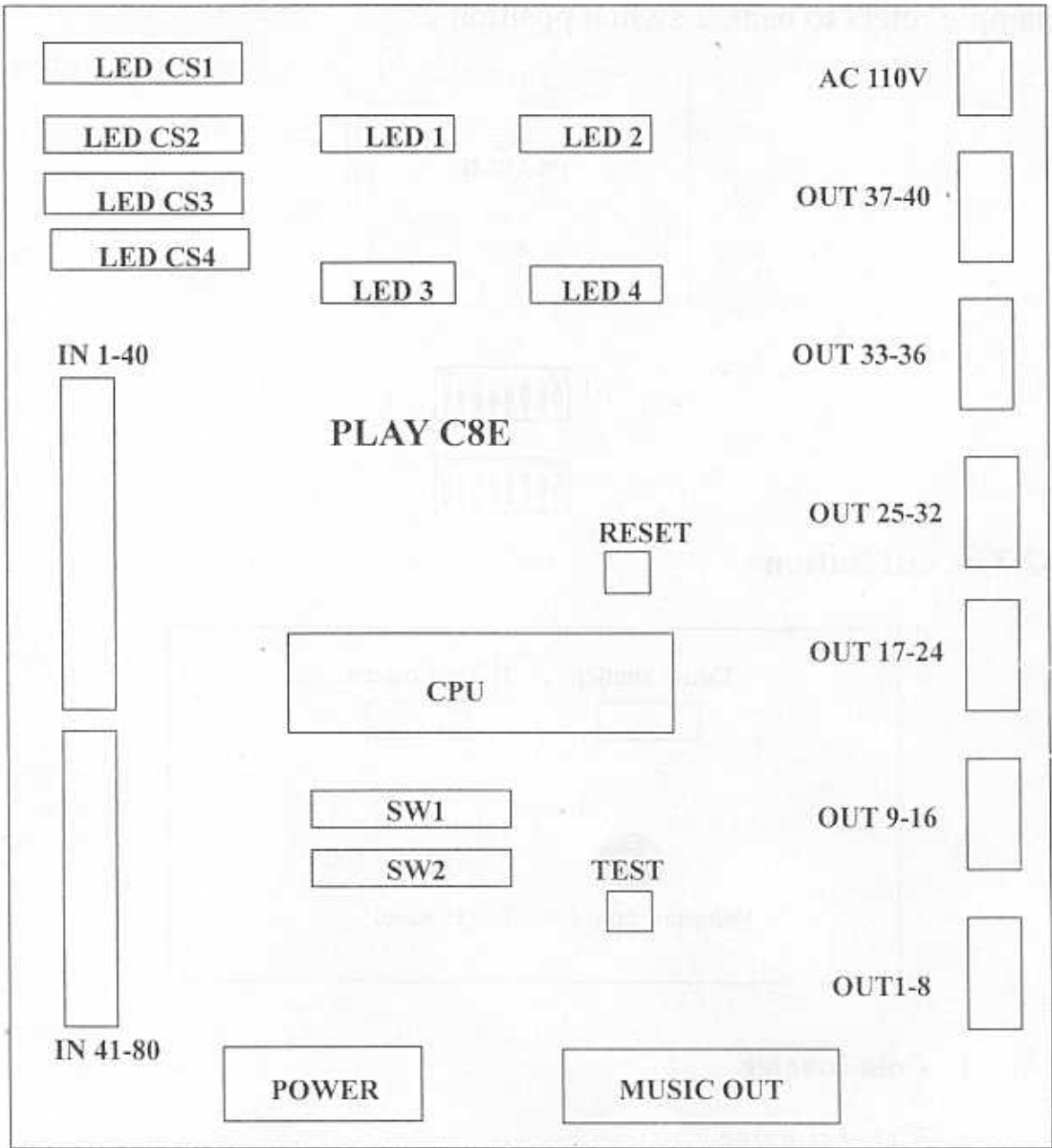


8-2.The test button



- 1 Coin counter
- 2 Ticket counter
- 3 Volume Control: Control the volume of the play music.
- 4 Ticket Reset: If the game experiences a ticket jam the game will hold the value of tickets owed and display them in the Bonus window, After the jam is cleared and the reset button is pressed the game will resume the ticket payout.

9.The plane figure of main-board



10. Maintenance and inspections

Run and check the machine before beginning service every day.

Wipe off dirt gently with a soft cloth.

The Prize should be carry out in each time, especial to the larger prize, or it will be blocked the prize outting door.

Part, Service and Technical Information

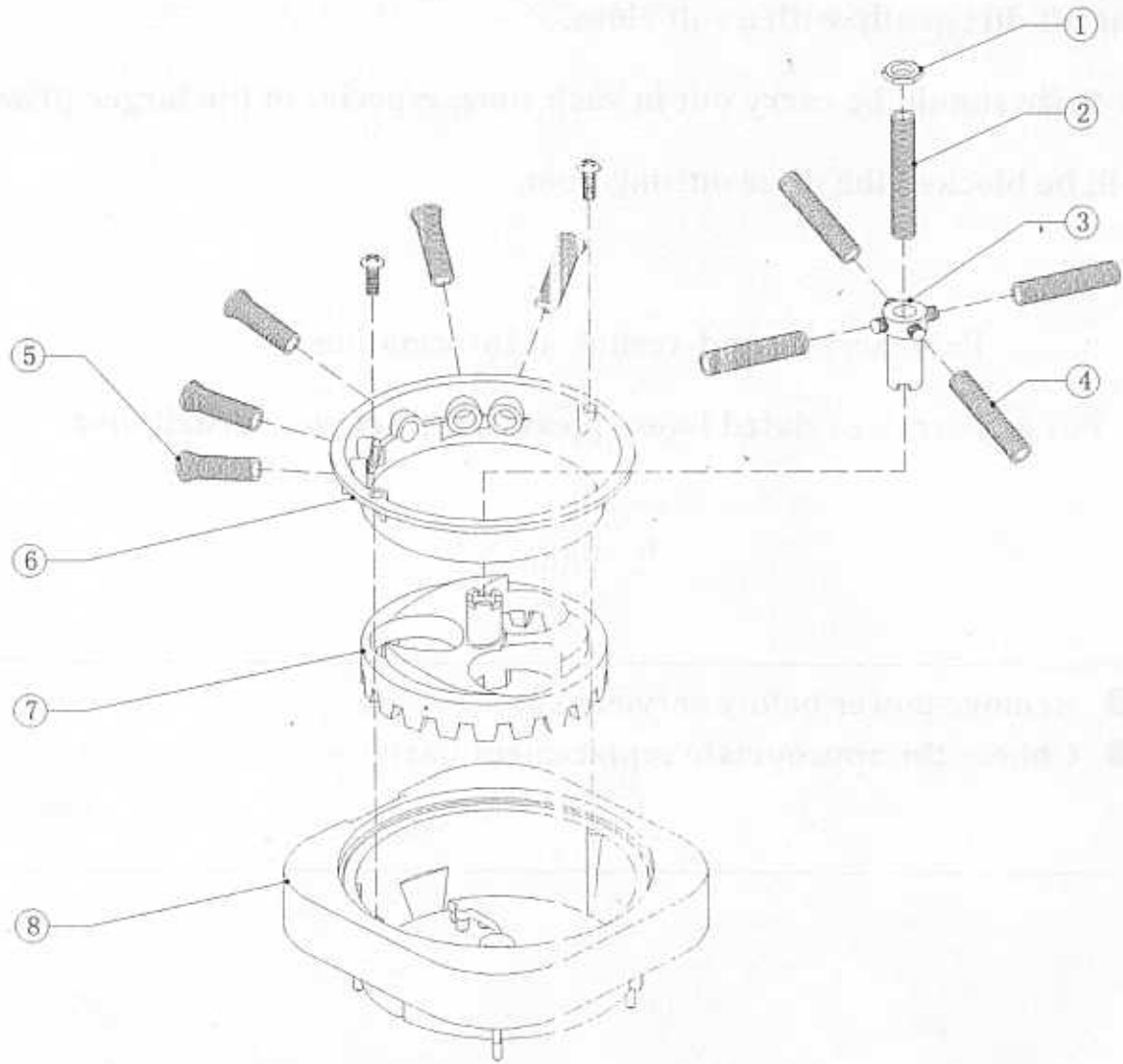
For any service related issues please contract your distributor.

WARNING

- Remove power before servicing game
- Choose the appropriate replacement parts

11.Mechanical Parts and Drawings

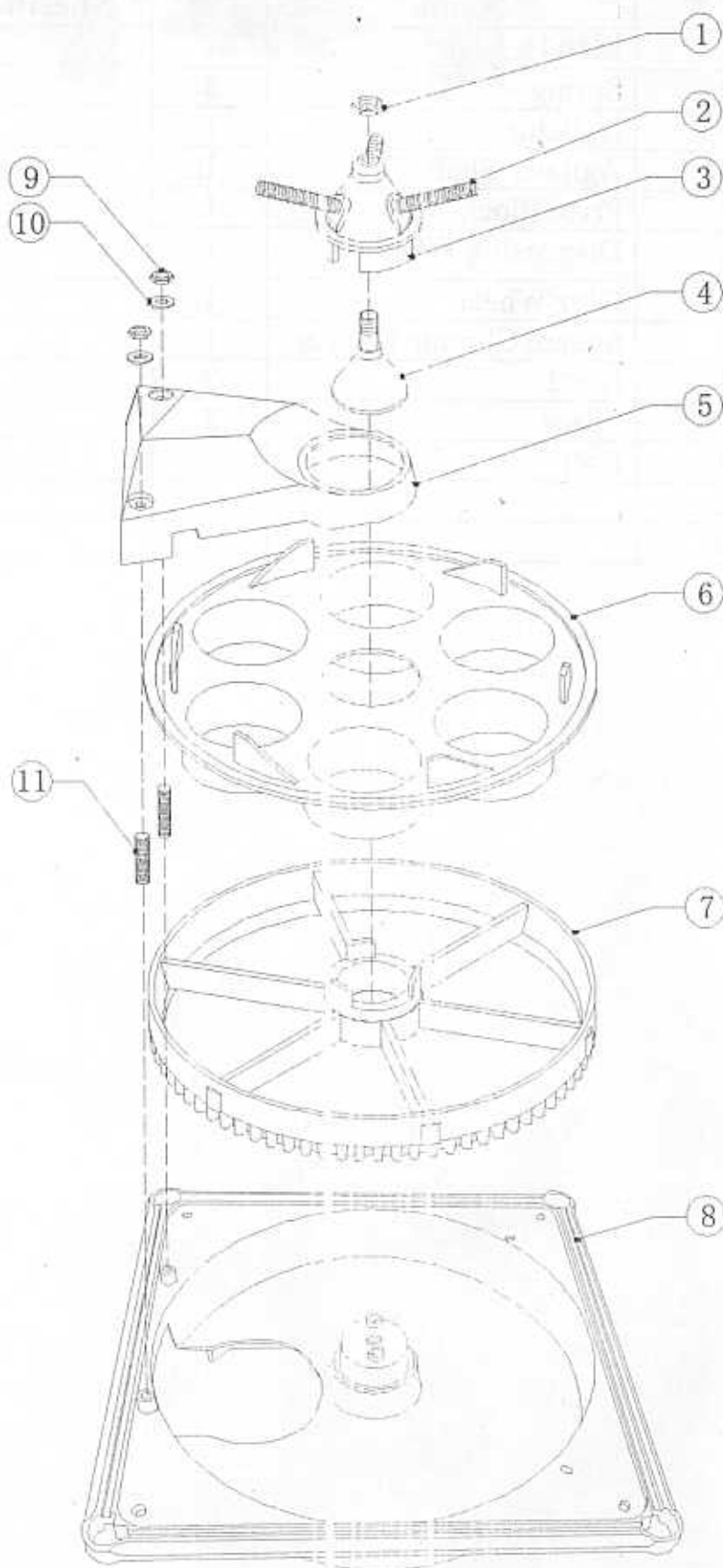
11-1. The Small Prize Organ:



11-1. The Small Prize Organ:

NO	Name	Qty	Specification	Note
ZJSS-1-1	M10 Hex Nut	1		
ZJSS-1-2	M10 Threaded Bolt	1		
ZJSS-1-3	Drived Shaft	1		
ZJSS-1-4	Spring A	4		
ZJSS-1-5	Spring B	5		
ZJSS-1-6	Capsule Housing	1		
ZJSS-1-7	Dispensing Wheel	1		
ZJSS-1-8	Round Chrome Hopper	1		

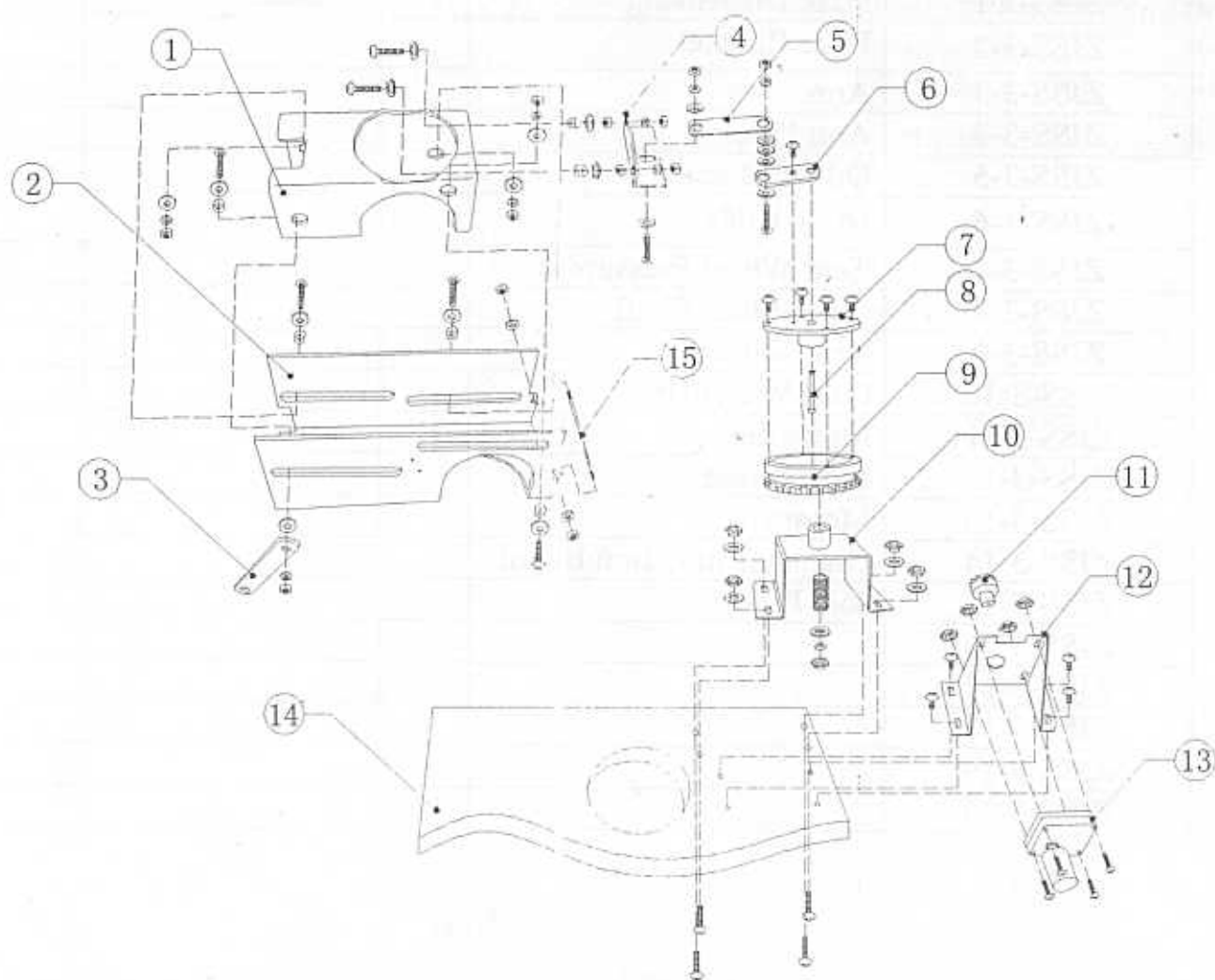
11-2. The Medial Organ:



11-2: The Medial Organ:

NO	Name	Qty	Specification	Note
ZJSS-2-1	M10 Hex Nut	1		
ZJSS-2-2	Spring	3		
ZJSS-2-3	Agitator	1		
ZJSS-2-4	Agitator Shaft	1		
ZJSS-2-5	Prize Block	1		
ZJSS-2-6	Dispensing Wheel	1		
ZJSS-2-7	Gear Wheel	1		
ZJSS-2-8	Square Chrome Hopper	1		
ZJSS-2-9	Nut 2	2		
ZJSS-2-10	Space	2		
ZJSS-2-11	Bolt	2		
ZJSS-2-12				
ZJSS-2-13				

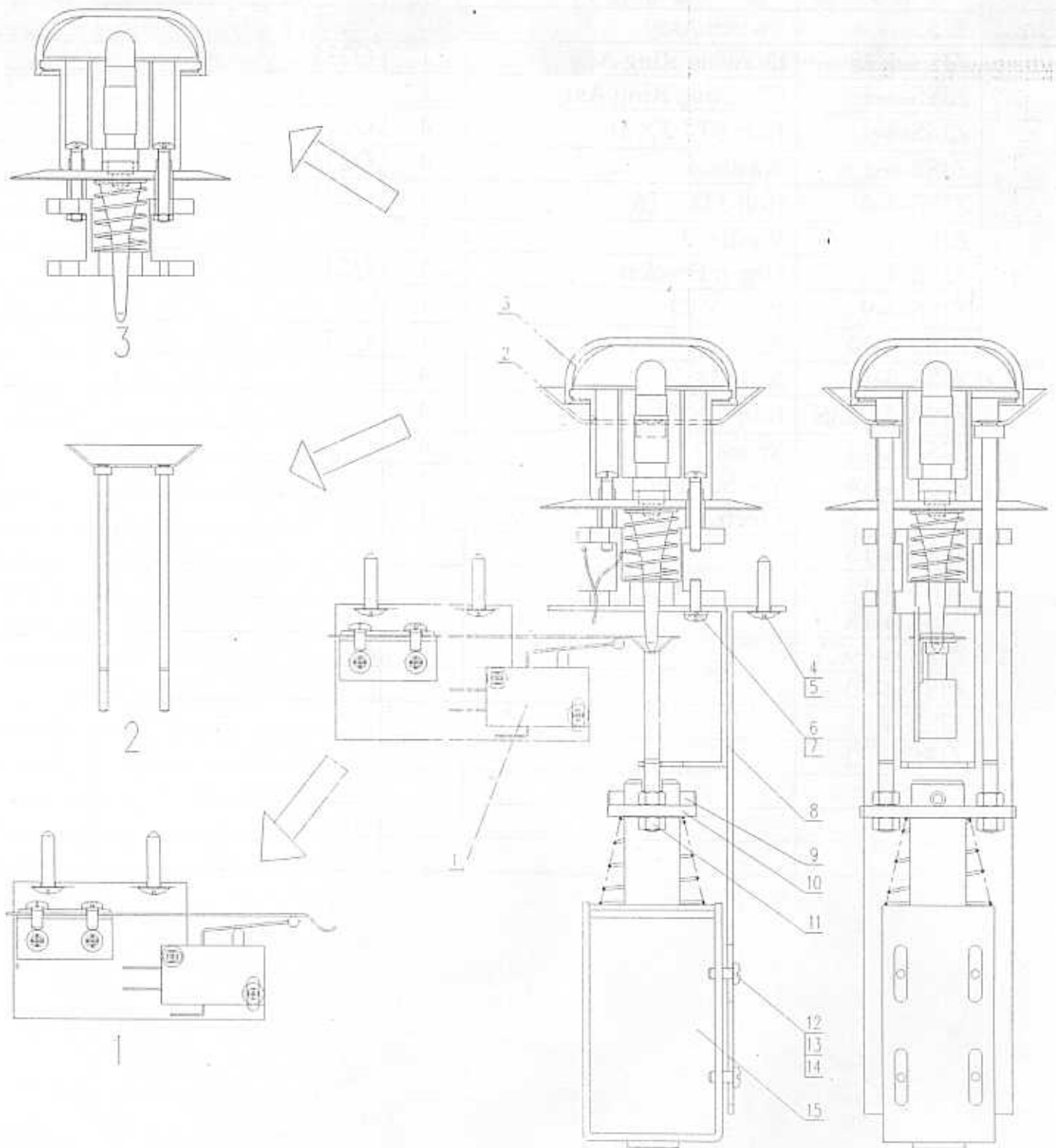
11-3. The Larger Prize Organ:



11-3. The Larger Prize Organ:

NO	Name	Qty	Specification	Note
ZJSS-3-1	Prize Dispensing			
ZJSS-3-2	Prize Bracket			
ZJSS-3-3	Arm			
ZJSS-3-4	Arm Fixer			
ZJSS-3-5	Driven Brace			
ZJSS-3-6	Drive Brace			
ZJSS-3-7	Gear Wheel Pressure Back			
ZJSS-3-8	Gear Wheel Shaft			
ZJSS-3-9	Gear Wheel			
ZJSS-3-10	Gear Wheel Base			
ZJSS-3-11	Motor Gear			
ZJSS-3-12	Motor Base			
ZJSS-3-13	Motor			
ZJSS-3-14	Organs Installation Board			
ZJSS-3-15	Join Pipe			
ZJSS-3-16				
ZJSS-3-17				
ZJSS-3-18				
ZJSS-3-19				
ZJSS-3-20				

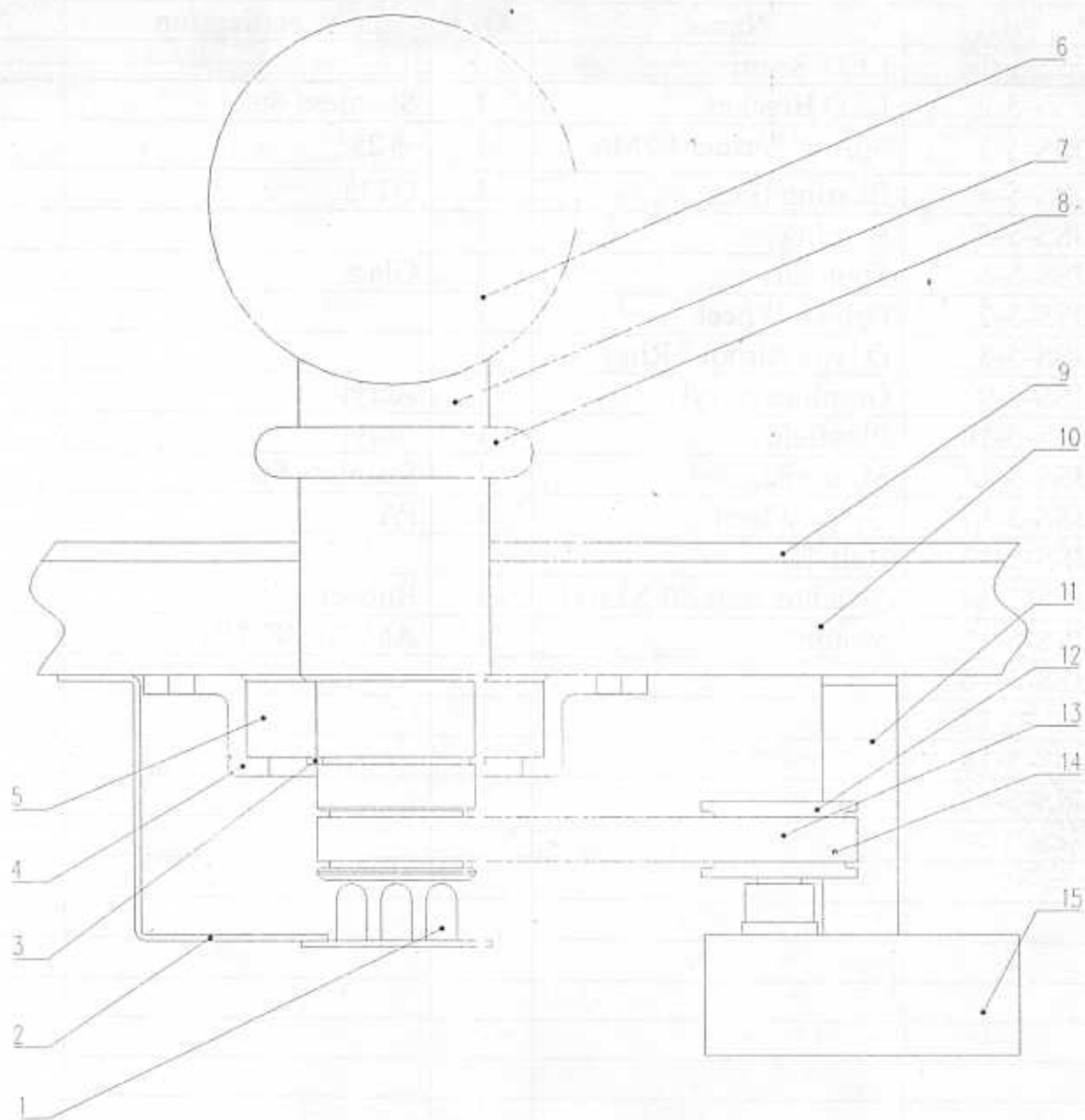
11-4. The Pressure Organ:



11-4. The Pressure Organ:

NO	Name	Qty	Specification	Note
ZJSS-4-1	Switch Assy	1	DC 24V	
ZJSS-4-2	Drawing Ring Assy	1	Q235	
ZJSS-4-3	Checking Ring Assy	1		
ZJSS-4-4	Bolt ST4.2×16	4	Q235	
ZJSS-4-5	Washer4	4	Q235	
ZJSS-4-6	Bolt M3×16	3	Q235	
ZJSS-4-7	Washer 3	3		
ZJSS-4-8	Organ Bracket	1	Q235	
ZJSS-4-9	Pin 4×22	1		
ZJSS-4-10	Pulling Block	1	Q235	
ZJSS-4-11	Nut M4	4		
ZJSS-4-ZJSS	Bolt 3×10	4		
ZJSS-4-13	Space 3	4		
ZJSS-4-14	Washer 3	4		
ZJSS-4-15	Electromagnet	1		
ZJSS-4-16				
ZJSS-4-17				
ZJSS-4-18				
ZJSS-4-19				
ZJSS-4-20				
ZJSS-4-21				
ZJSS-4-22				

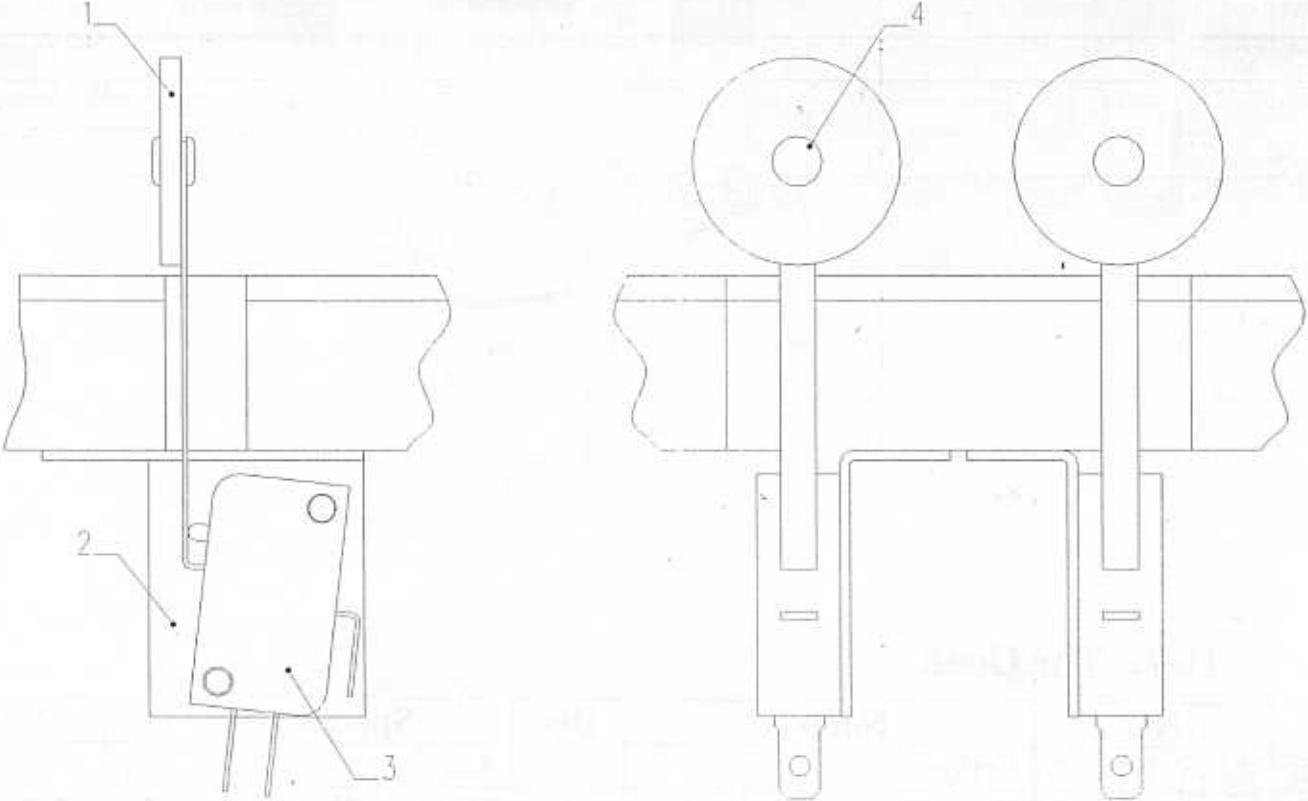
11-5. The Rotating Football:



11-5. The Rotating Football:

[illegible]

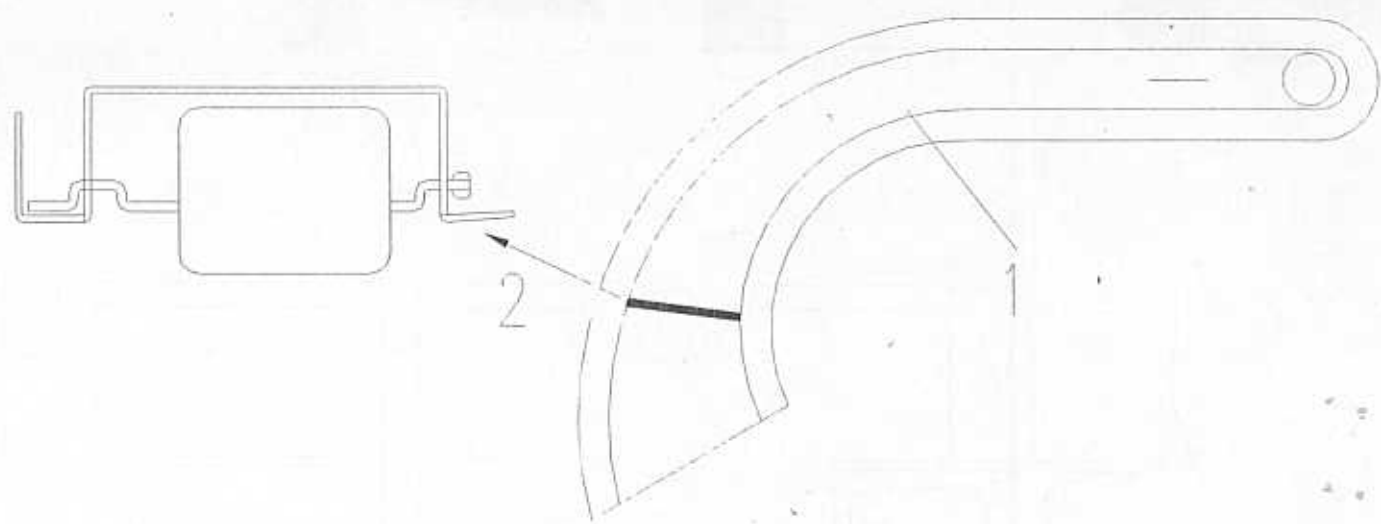
11-6. Target2 or Target3 Organ:



11-6. Target2 or Target3 Organ:

NO	Name	Qty	Specification	Note
ZJSS-6-1	Target	4	PET	
ZJSS-6-2	Switch Bracket	4	Stainless Steel	
ZJSS-6-3	Switch	4		
ZJSS-6-4	Rivet	4	Stainless Steel.	
ZJSS-6-5				
ZJSS-6-6				
ZJSS-6-7				
ZJSS-6-8				
ZJSS-6-9				
ZJSS-6-10				

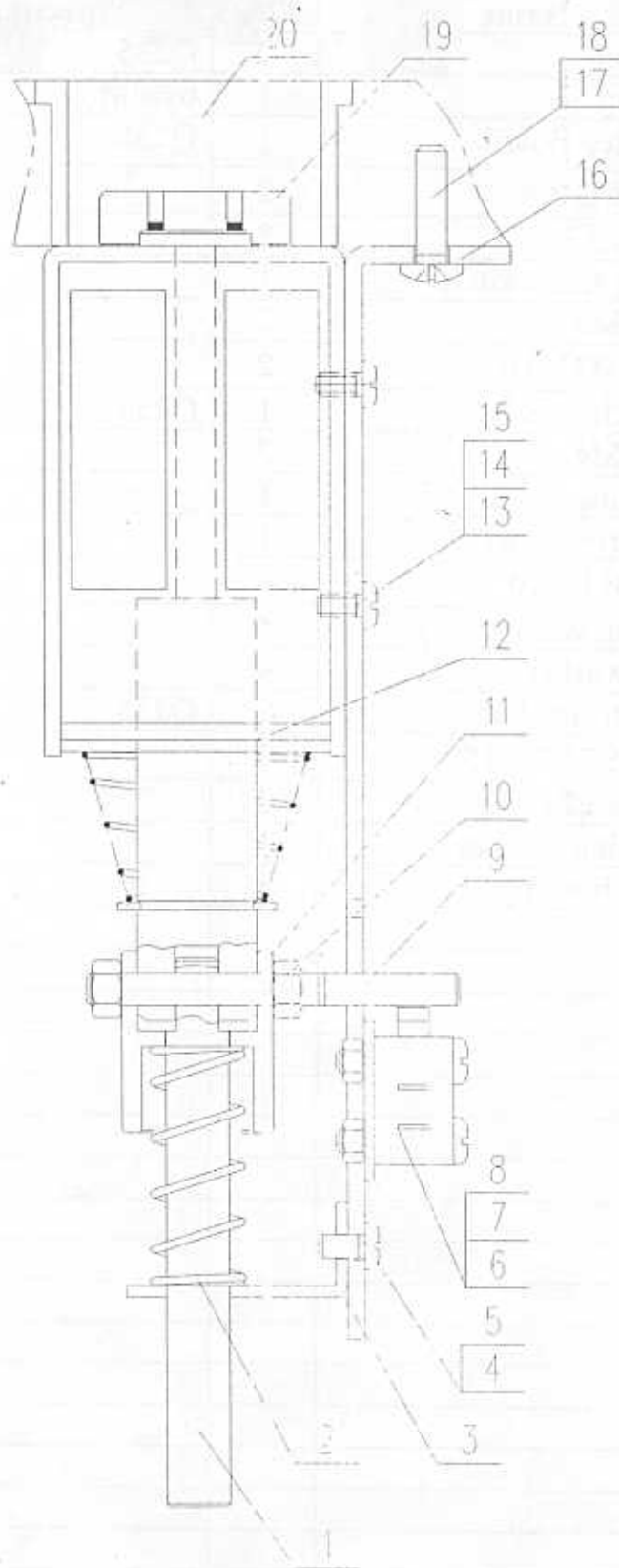
11-7. The Goal:



11-7. The Goal:

NO	Name	Qty	Specification	Note
ZJSS-7-1	Briage	1	Acryl	
ZJSS-7-2	Goal Target	1	Stainless Steel	

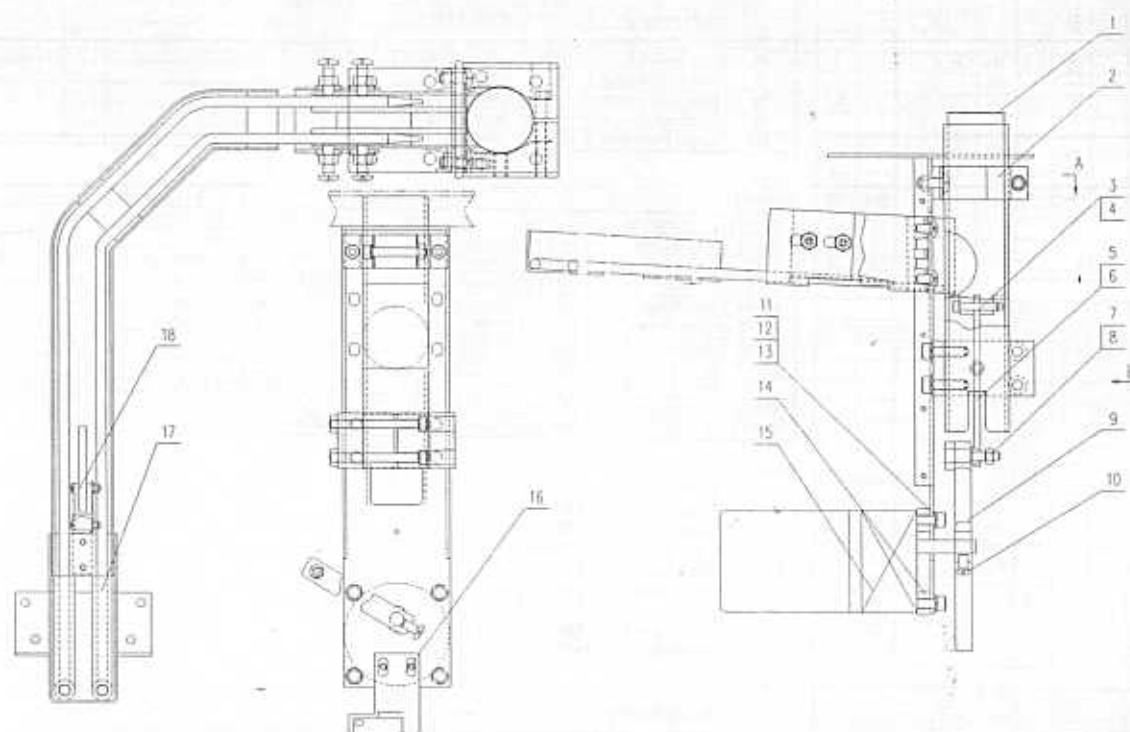
11-8. Bonus Hole Organ:



12-8 Bonus Hole Organ:

[illegible]

12-9 Carrying Ball Track:



NO	Name	Qty	Specification	Note
ZJSS-9-1	Carrying ball piston	1		
ZJSS-9-2	Steel bracket	1		
ZJSS-9-3	Piston Pin	1		
ZJSS-9-4	Pin 1.6×10	1		
ZJSS-9-5	Connecting lever	1		
ZJSS-9-6	Crankpin Bushing	1		
ZJSS-9-7	Crankpin	1		
ZJSS-9-8	Nut M5	1		
ZJSS-9-9	Carrying ball Crank	1		
ZJSS-9-10	Bolt M5×10	1		
ZJSS-9-11	Bolt M5×25	4		
ZJSS-9-12	Washer 5	4		
ZJSS-9-13	Washer 5	4		
ZJSS-9-14	Motor supporter	4		
ZJSS-9-15	Motor	1	4W 024A 110V (LINIX)	
ZJSS-9-16	Limited Switch Assy	1		
ZJSS-9-17	Checking Assy	1		
ZJSS-9-18	Steel Track Assy	1		
ZJSS-9-19				

Winning Shot (Prize)

Winning Shot I/O (Prize)

2004-11-12

Item	Content	DIP SW							
		SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
Coin	1	ON	ON						
	2	off	on						
	3	on	off						
	4	off	off						
Time	60S			ON	ON				
	75S			off	on				
	90S			on	off				
	120S			off	off				
Target 1 Score	7					ON	ON		
	9					off	on		
	10					on	off		
	12					off	off		
Target2 Score	2							ON	ON
	3							off	on
	4							on	off
	5							off	off

Item	Content	DIP SW							
		SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
Targets 3 Score	5	ON	ON						
	8	off	on						
	9	on	off						
	10	off	off						
Small Prize	160			ON	ON				
	200			off	on				
	240			on	off				
	280			off	off				
Medial Prize	300					ON	ON		
	350					off	on		
	400					on	off		
	150					off	off		
Target Prize	500							ON	ON
	520							off	on
	550							on	off
	600							off	off

Content	Content	DIP SW							
		SW3	SW33	SW333	SW34	SW35	SW36	SW37	SW38
Ticket Prize	Ticket	on							
Prize	Prize	OFF							
Mercy	Yes		ON						
	No		off						
Ticket (Score/Prize)	2			on	on	on			
	5			off	on	on			
	6			on	off	on			
	8			off	off	on			
	10			ON	ON	OFF			
	12			off	on	off			
	15			on	off	off			
	20			off	off	off			
Score	50					on	on	on	
	60					off	on	on	
	70					ON	OFF	ON	
	80					off	off	on	
	90					on	on	off	
	100					off	on	off	
Score/Coin	110					on	off	off	
	120					off	off	off	

SW3Input from the 1141-46 of INPUT item.

Input :		INPUT		INPUT		INPUT		INPUT	
INPUT	Content	INPUT	Content	INPUT	Content	INPUT	Content	INPUT	Content
11	Coin 1	111	Medial Prize SW	121	Pressure Organ SW(L)	131			
12	Coin 2	112	Small prize SW	122	Pressure Organ SW(R)	132			
13		113	Dispenser Ball SW	123	Ball return SW	133			
14	Ticket Assy OK	114	Target 1 SW	124		134			
15	Ticket Assy Signal	115		125		135			
16	Start Button	116		126		136			
17	ShooterButton(L)	117	Target 2 SW	127		137			
18	ShooterButton(R)	118	BONUS SW	128		138			
19	ShooterButton(R)	119	Target 3 SW	129		139			
110	Target Prize SW	120	GOAL SW	130		140			

Output:		OUTPUT		OUTPUT		OUTPUT		OUTPUT	
OUTPUT	Content	OUTPUT	Content	OUTPUT	Content	OUTPUT	Content	OUTPUT	Content
OUT1	Coin Counter	OUT11	Shooter Coil(R)	OUT21	GOALLamp	OUT31	Football Lamp 3		
OUT2	Ticket Counter	OUT12	Shooter Coil(R)	OUT22	Pressure Organ Lamp(L)	OUT32	Middle lamp		
OUT3	Ticket Assy Impel	OUT13	Pressure Organ Coil(L)	OUT23	Ball Track 1 Lamp	OUT33	Large Prize Motor		
OUT4	Start Button Lamp	OUT14	Pressure Organ Coil(R)	OUT24	Ball Track 2 Lamp	OUT34	Medial Prize Motor		
OUT5	Large Prize Motor	OUT15	Target 1 Lamp	OUT25	Ball Track 3 Lamp	OUT35	Small Prize Motor		
OUT6	Medial Prize Motor	OUT16	Target 3 Lamp	OUT26	Ball Track 4 Lamp	OUT36	Dispense ball Motor		
OUT7	Small Prize Motor	OUT17	Route1 Lamp1	OUT27	Ball Track 5 Lamp	OUT37	Shooter Coil(L)		
OUT8	Small Prize Motor	OUT18	Route1 Lamp2	OUT28	Pressure Organ Lamp(R)	OUT38	Shooter Coil(R)		
OUT9	Shooter Coil(L)	OUT19	Route1 Lamp3	OUT29	Football Lamp 1	OUT39	Dispense ball Coil		
OUT10	Shooter Coil(L)	OUT20	Route1 Lamp4	OUT30	Football Lamp 2	OUT40			

LED:

BONUS	LED<1>1-3
Time	LED<1>4-6
Score	LED<2>1-3
Effect Lamp 1	LED<3>1
Effect Lamp 2	LED<3>2
Effect Lamp 3	LED<3>3-4
Effect Lamp 4	LED<3>5-6
Effect Lamp 5	LED<3>7
Effect Lamp 6	LED<3>8

Wrong display

If the input signal is not normal when you open 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 sw.
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 button 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.
Press the "test" button again, The LED display "5", the out1-40 output with lighting.