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1. Brief instruction

Ultimate Big Punch (CPLQ02-01) is a kind of new indoor amusement machine of our company. This machine has been improved both in appearance and play mode base on Boxing Power (CPLQ01). The sculpt of the machine is succinct and particular. Its color is pleasing to both the eye and the mind. And it has easy and interesting play mode. There is no doubt that this new amusement machine will give you a new surprise!

2. Caution

2-1. Notice for installation

- | This machine is only for indoor use, is not suitable for outdoor use.
- | When the machine has been installed well, place the bottom of the machine on the floor to make sure it is steady.
- | Do not take it apart, make it up or move it arbitrarily.
- | Switch off the power and pull out the plug before moving it.
- | Place it on even floor, not the smoothie, unsteady or seriously vibrating place.
- | Do not place it near any high temperature or easily sparkling equipment.
- | Do not place any sundries on the machine or let any heavy press the power wire.
- | Do not expose the circuit part in the machine to the air.

2-2. Notice for operation

- | Check whether the power plug and power wire are good, whether the voltage is suitable for the machine before switching the power on.
- | Voltage of power supply should be accord to the voltage on the back cover of it.
- | Switch off the power before you maintain or inspect the machine.
- | Only qualified personnel are allowed to inspect the electric control device of it.
- | Use suitable accessories to displace parts of apparatus.
- | Hold the plug instead of the wire to unplug the power wire.
- | Do not to plug or unplug the plug with wet hand, do not pull or twist the power wire.

3. Accessories

Check whether the following accessories are ready before using it:

Name	Qty	Remark
Manual	1	Copy
Keys	2	1888
Door lock	2 sets	8830(1), 8840(1)
Fluoreslent Pen	1	
Power supply wire	1	Piece

4. How to play

- I Insert a coin to the coin selector or insert cash to the cash acceptor to begin the game.
- I Pull down the ball and punch it, be sure to punch it within stated time.
- I The display will displays dispenses corresponding scores according to strength.
- I Prize payout according to the score.
- I If the score exceed the current BONUS score, the player can get the BONUS.
- I Game over.

5. Technical parameters

Mode: CP.LQ02-01

Environmental requirement: temperature from -10°C to $+40^{\circ}\text{C}$, low radiation, low humidity.

Dimension: 1400 mm×1400 mm × 2080 mm

Weight: 160KG

Power supply: see the back cover of the machine.

Maximum power: 180W

Players: one person

6. Appearance

HIGE Score LED: displays highest score players got and so on.

Credit LED: displays the coin Qty, BONUS and so on.

Score LED: displays the score you got and so on.

LED flute: has LED in it for decoration.

Dollar bill acceptor cover: Player can not only insert coins to play the game, but also use dollar.

When he wants to use dollar bill to play the game, he just has to clear the cover and install the dollar bill acceptor.

Instruction for playing: it is a piece of paper notifying player how to play the game. It has been put up above the display board.

Coin entrance/coin exit button: The left rectangle hole of the device is coin entrance. the right red square is coin exit. When the coin gets blocked, press the button, the coin drops into the coin exit.

Coin exit: When player inserts unsuitable coin or the coin gets blocked and he press the coin exit button, the coin will drops into the coin exit. Player can get the coin back from the exit.

Coin selector: Refer to the latter "Coin selector" part.



7. All parts distribution

Power supply: supplies the whole machine with power supply. It has +5V/+12V DC output.

Main board: main program operation system, it controls all parts working.

Controllable silicon board: drives motor.

Power convert plate: supplies +5V/+12V power supply connect.

8. All parts structure

8-1. Counter board

Service: press it once equals to inserting one coin, but the coin Qty do not note it.

Coin Qty: records the total actually coin Qty since the machine has been used.

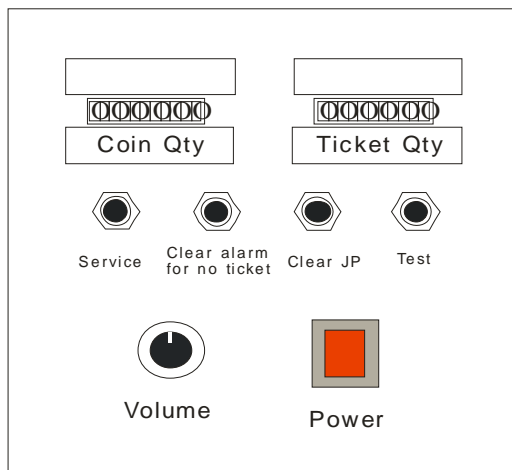
Prize Qty: records the total prize out Qty since the machine has been used.

Clear alarm for no Prize: when the prize have been used up, put prize in and press it, the machine pays out the unpaid prize.

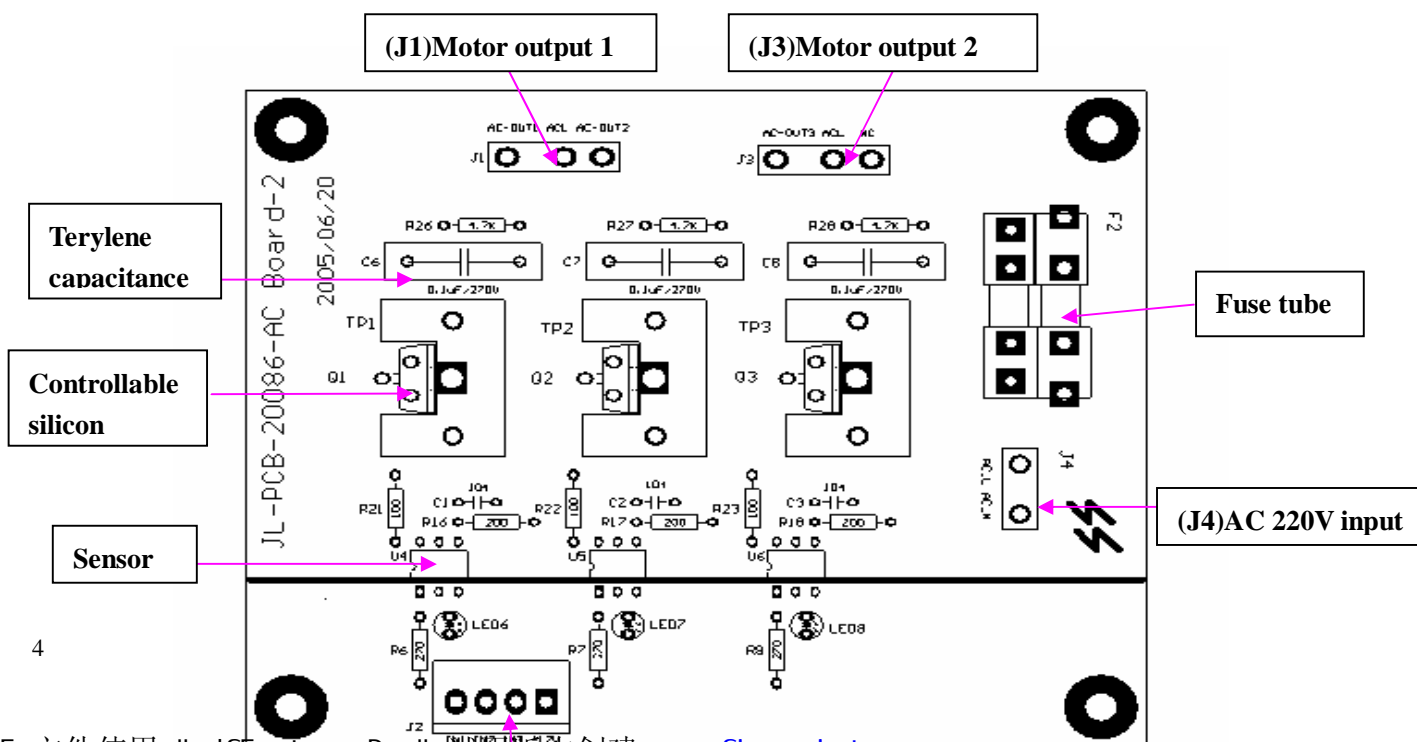
Clear JP: press it over three seconds, all the data in the memory chip will be cleared.

Test button: press it to get the machine into test state.

Volume knob: it controls volume.



8-2. Controllable silicon board



J1: controlled by IN1 and IN2 of J2 to supply AC voltage output. It controls AC load.

J2: controls AC output of J1 and J3. When the pin IN1 of it is in low currency, AC-OUT1 of J1 has AC voltage output, while when it is in high currency, AC-OUT1 of J1 has no AC voltage output. When the pin IN2 of it is in low currency, AC-OUT2 of J1 has AC voltage output, while when it is in high currency, AC-OUT2 of J1 has no AC voltage output. When the pin IN3 of it is in low currency, AC-OUT3 of J3 has AC voltage output, while when it is in high currency, AC-OUT2 of J3 has no AC voltage output. The +12V input of J1 is power supply input part.

J3: controlled by IN2 and IN3 of J2 to supply AC voltage output. It controls AC load.

J4: AC voltage input.

Fuse tube: $\varnothing 5\text{mm} \times 20\text{mm}$. The maximum current is 5A.

8-3. Main board

J1: main power supply input connector.

J4: LED serial output connector.

J5: ticket out connector.

J6: base function connector.

J11: volume control, adjusts volume.

J12: speaker connector.

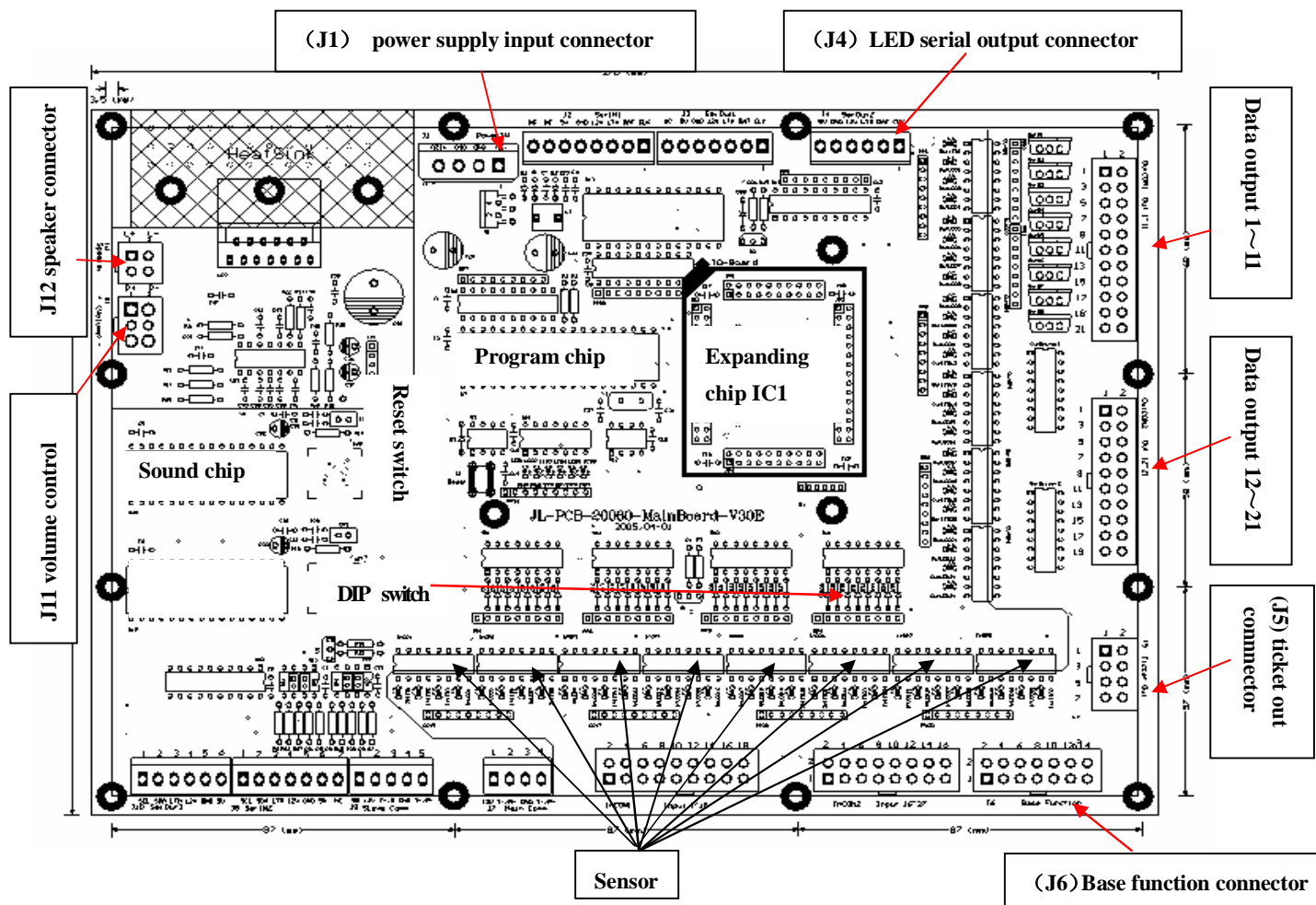
Memory chip: records the total coin Qty, prize Qty and so on.

INCON1: # 1 ~ # 15 INPUT.

OUTCON1: # 1 ~ # 11 OUTCON.

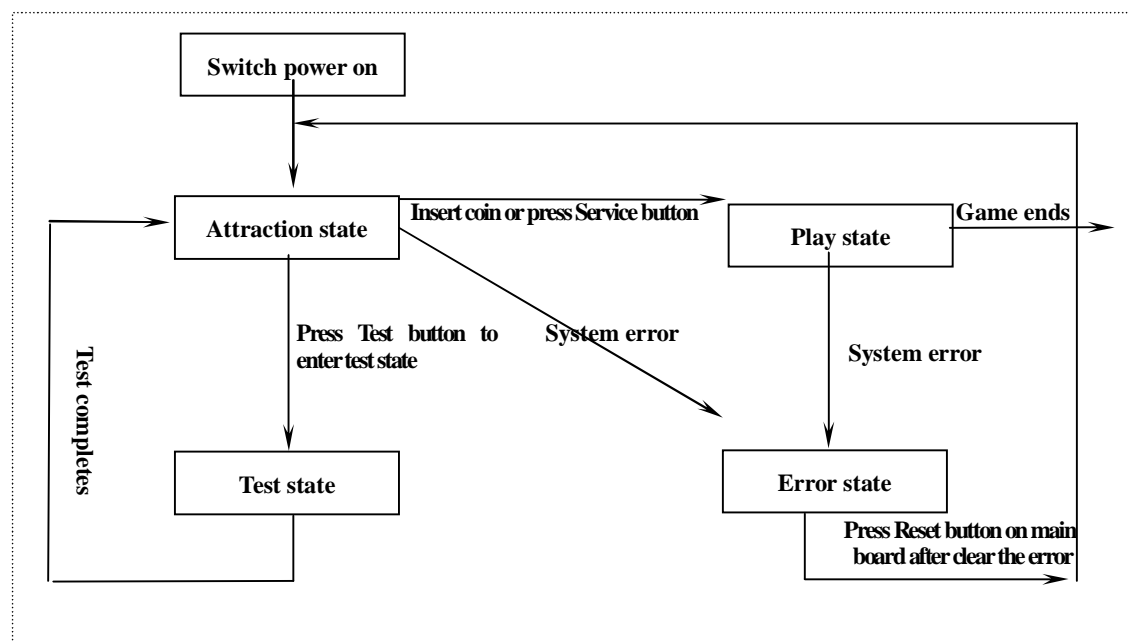
OUTCON2: #12 ~ # 21 OUTCON.

(Note: other connectors haven't been used in this machine.)



9. Operation

The machine is in coin play mode, it can be in one of the four states: attraction state, test state, game state or error state. The flow chart is as follows:




9-1. Switch power on

Check the plug and cord. Be sure that it has been set to the correct voltage for the machine, and then switch the power on.

9-2. Play state

The HIGH Score displays the highest score the players got. The Credit displays the coin Qty and the prize Qty when player get BONUS. And the Score displays the score you got.

9-3. Attraction state

The HIGH Score displays the highest score the players got changelessly. the Credit displays  and changes ceaselessly. And it is going with music. Press TEST button in the front cabinet over 0.5 second, the machine enters Test state. Then press the Service button or insert coin, the machine enters Play state.

9-4. Test state

Detect whether LED is full, whether LED, the setup for ball returning and other input/output port can work normally, whether music is normal. When machine is in Attraction state, press test button, music stops, machine enters test state. LED displays version No. →LED sequence → LED all turn off →LED all turn on → tests input →tests output →tests prize dispenser→ tests music → test completes.

9-5. Error state

When machine works, if system gets error, machine enters error state. Alarm rings and machine displays error code: EX, X stands for error No 1, 2, 3, 4, 5,. you can find out error reason according to the No. after you clear the error, reset the machine. See more information from “Error Code Table”.

10. Appendix

10-1.DIP connect on main board

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DIP connect on main board:

Plug code	Pin code	Pin color	Function	I/O code	Function of I/O
J1 (output)	PIN 1	0.3—Brown	Speaker + (Speaker+);	-----	
	PIN 2	0.3—White	Speaker - (Speaker-);	-----	
	PIN 3	0.3—Blue	Speaker_PWR (speaker input);	-----	+8—+18V
	PIN 4	0.3—Blue	Speaker_PWR (speaker input);	-----	+8—+18V
	PIN 5	0.3—Yellow	+12V Input (+12V power input);	-----	
	PIN 6	0.3—Yellow	+12V Output (+12V power output);	-----	
	PIN 7	0.3—Brown	MCU control output #1(0---+5V)	-----	
	PIN 8	0.3—Yellow	+12V Output (+12V power output);	-----	
	PIN 9	0.3—Pink	MCU control output #2(0---+5V)	-----	
	PIN 10	0.3—Yellow	+12V Output (+12V power output);	-----	
	PIN 11	0.3—Red	Main MCU PWM1output	-----	
	PIN 12	0.3—Yellow	+12V Output (+12V power output);	-----	
	PIN 13	0.3—Green	Main MCU PWM2 output	-----	
	PIN 14	0.3—Yellow	+12V Output (+12V power output);	-----	
	PIN 15	0.3—Blue	Main MCU PWM3 output	-----	
	PIN 16	0.3—Yellow	+12V Output (+12V power output);	-----	
	PIN 17	0.3—Pink	MCU PWM1output	-----	
	PIN 18	0.3—Yellow	+12V Output (+12V power output);	-----	
	PIN 19	0.3—Green	MCU PWM2 output	-----	
	PIN 20	0.3—Yellow	+12V Output (+12V power output);	-----	
	PIN 21	0.3—Blue	MCU PWM3output	-----	
	PIN 22	0.3-Black	GND	-----	
	PIN 23	0.3-Black	GND	-----	
	PIN 24	0.3-Black	GND	-----	
	PIN 25	0.3-Black	GND	-----	
	PIN 26	0.3-Black	GND	-----	
	PIN 27	0.3—Brown	Output	OUT0	Coin enter meter
	PIN 28	0.3—Pink	Output	OUT1	Prize meter
	PIN 29	0.3—Orange	Output	OUT2	Ticket meter

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	PIN 30	0.3—SkyBlue	Output	OUT3	
	PIN 31	0.3—Green	Output	OUT4	prize led(left)
	PIN 32	0.3—Blue	Output	OUT5	prize led(middle)
	PIN 33	0.3—Purple	Output	OUT6	prize led #1 (right)
	PIN 34	0.3—Gray	Output	OUT7	coin enter LED
	PIN 35	0.3—Brown	Output	OUT8	Light belt#1
	PIN 36	0.3—Pink	Output	OUT9	Light belt #2
	PIN 37	0.3—Orange	Output	OUT10	Ball down electromagnetism
	PIN 38	0.3—SkyBlue	Output	OUT11	Ball pulling electromagnetism
	PIN 39	0.3—Green	Output	OUT12	Ball pushing electromagnetism
	PIN 40	0.3—Blue	Output	OUT13	Left light(red)
	PIN 41	0.3—Purple	Output	OUT14	Left light (blue)
	PIN 42	0.3—Gray	Output	OUT15	Left light (green)
	PIN 43	0.3—Brown	Output	OUT16	right light (red)
	PIN 44	0.3—Pink	Output	OUT17	right light (blue)
	PIN 45	0.3—Orange	Output	OUT18	right light (green)
	PIN 46	0.3—SkyBlue	Output	OUT19	Ticket drive board
	PIN 47	0.3—Green	Output	OUT20	
	PIN 48	0.3—Blue	Output	OUT21	
	PIN 49	0.3—Purple	Output	OUT22	
	PIN 50	0.3—Gray	Output	OUT23	
J2 (input)	PIN 1	0.3—Brown	MCUcontrol output(0---+5V)	-----	
	PIN 2	0.3—Pink	MCUcontrol output (0---+5V)	-----	
	PIN 3	0.3—Orange	MCUcontrol output (0---+5V)	-----	
	PIN 4	0.3—SkyBlue	MCUcontrol output (0---+5V)	-----	
	PIN 5	0.3—Purple	MCU SPI_MISOinput(0---+5V)	-----	
	PIN 6	0.3—Brown	MCU SPI_LATCHoutput(0---+5V)	-----	Bunch output saving lock
	PIN 7	0.3—White	MCU SPI_MOSIoutput(0---+5V)	-----	Bunch output saving lock (16 bits light board) display board connector: 1、score display board (4bits); 2、plays display board (2bits); 3、hight score display board (4bits)
	PIN 8	0.3—Green	MCU SPI_CLKoutput(0---+5V)	-----	bunch output clock(connect display board)
	PIN 9	0.3—Purple	MCU TXDoutput(0---+5V)	-----	
	PIN 10	0.3—Green	MCU TXD (0---+5V)	-----	

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PIN 11	0.3-Gray	MCU RXDi nput (0---+5V)	-----	:
PIN 12	0.3-Bl ue	MCU RXDi nput (0---+5V)	-----	
PIN 13	0.3-Brown/whi te	Input (signal input)	IN0	
PIN 14	0.3-Red/whi te	Input	IN1	
PIN 15	0.3-Orange/whi te	Input	IN2	
PIN 16	0.3-Yel low/whi te	Input	IN3	Score sensor 1 (upper)
PIN 17	0.3-Green/whi te	Input	IN4	Score sensor 1 (down)
PIN 18	0.3-Bl ue/whi te	Input	IN5	
PIN 19	0.3-Purple/whi te	Input	IN6	
PIN 20	0.3-Gray/whi te	Input	IN7	
PIN 21	0.3-Brown/whi te	Input	IN8	enter coin button
PIN 22	0.3-Red/whi te	Input	IN9	data clear button
PIN 23	0.3-Orange/whi te	Input	IN10	MENUbutton
PIN 24	0.3-Yel low/whi te	Input	IN11	OPTIONbutton
PIN 25	0.3-Green/whi te	Input	IN12	
PIN 26	0.3-Bl ue/whi te	Input	IN13	
PIN 27	0.3-Purple/whi te	Input	IN14	
PIN 28	0.3-Gray/whi te	Input	IN15	
PIN 29	0.3-Brown/whi te	Input	IN16	enter coin signal input
PIN 30	0.3-Red/whi te	Input	IN17	Prize test input
PIN 31	0.3-Orange/whi te	Input	IN18	Ticket board input
PIN 32	0.3-Yel low/whi te	Input	IN19	
PIN 33	0.3-Green/whi te	Input	IN20	
PIN 34	0.3-Bl ue/whi te	Input	IN21	Stop ball limits swi tch(back)
PIN 35	0.3-Purple/whi te	Input	IN22	Stop ball limits swi tch(mi ddle)
PIN 36	0.3-Gray/whi te	Input	IN23	Stop ball limits swi tch(front)
PIN 37	0.3-Brown/whi te	Input	AD7	
PIN 38	0.3-Red/whi te	Input	AD6	
PIN 39	0.3-Orange/whi te	Input	AD5	
PIN 40	0.3-Yel low/whi te	Input	AD4	
PIN 41	0.3-Green/whi te	Input	AD3	
PIN 42	0.3-Bl ue/whi te	Input	AD2	
PIN 43	0.3-Purple/whi te	Input	AD1	
PIN 44	0.3-Gray/whi te	Input	AD0	
PIN 45	0.3-Whi te	+3.3V Output	-----	

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	PIN 46	0.3-Black	GND	-----	
	PIN 47	0.3-Red	+5V Output	-----	
	PIN 48	0.3-Black	GND	-----	
	PIN 49	0.3-Red	+5V Output	-----	
	PIN 50	0.3-Black	GND	-----	
J3 (program me connecto r)	PIN 1	0.3-White	+3.3V Output	-----	
	PIN 2	0.5-Green	RST/C2CK	-----	
	PIN 3	0.5-Blue	C2D	-----	
	PIN 4	0.3-Black	GND	-----	

Error code		
NO	code	signification
1	E1	Coin blocked
2	E2	no prize out after time
3	E3	U12 ERROR
4	E4	Upper score abnormal
5	E5	down score abnormal
5	E6	Ticket equipment error

Parameter setting:

Press clear data button anytime, all the data cleared. (Only clear coin QTY, ticket QTY data, other data in system won't be changed)

Attraction mode, Press menu button enter test mode, the HIGH SCORE display menu P000, score display board is NO and showing 0000. Press MENU to enter different menu. During P000, in 5 seconds no operation, it will quit test mode, and showing attraction mode. When the menu is flashing and press it to change menu option, press option button the NO. will be changed, right now the option can change NO.

Attraction mode, press option button enter volume, the high score board shows nothing, CREDIT shows the volume, press menu to increase, press OPTION button to reduce.

MENU INFORMATION AS BELOW:

MENU OPTION

P000 XXXX (XXXX version NO.) 5 seconds delay to attraction mode

P001 0000 No enter coins

P001 0001 1coin/game

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P001	0002	2 coins/game
P001	0003	3 coins/game
P001	0004	4 coins/game
P001	0005	5 coins/game
P001	0006	6 coins/game
P001	0007	7 coins/game
P001	0008	8 coins/game
P001	0009	9 coins/game
P001	0010	10 coins/game
P002	0000	No music during attraction mode
P002	0001	Music on each 15 S
P002	0002	Music on each 30 S
P002	0003	Music on each 45 S
P002	0004	Music on each 60 S
P002	0005	Music on each 90 S
P002	0006	Music on each 120 S
P002	0007	Music on each 180 S
P002	0008	Music on each 300 S
P002	0009	Music on each 600 S
P003	0000	Alarm sounds continually
P003	0001	Alarm once
P003	0002	Alarm twice
P003	0003	Alarm 3 times
P004	XXXX	play times(0030--0060)
P005	XXXX	Music volume(0000--0024)
P006	0000	No prize
P006	0001	Prize out
P007	XXXX	Prize return(0010--0200), press option once increase 10
P008	XXXX	Prize option score(0200--1000) (FTY SET300), 50 Press option once increase 50
P009	XXXX	Break record scores(0300--1000) (FTY SET500), Press option once increase 50
P010	XXXX	Break high score prize QTY(0001--0003) (FTY 2)
P011	0000	Game not difficult

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P011	0001	Game very difficult
P012	0000	No ticket
P012	0001	ticket out
P013	XXXX	No prize out, break record award ticket(0010-50)(FTY 10)
P014	XXXX	Each ticket needs score(0010-0200)(FTY 100) press option once increase 10
P015	0000	resume FTY SET not valid
P015	0001	resume FTY SET valid
P888	0000	test :all light flashing
P888	0001	test: enter coin music on (CREDIT SHOWS valid, not valid shows -)
P888	0002	test: score switch music on (CREDIT SHOWS VALID, NOT VALID SHOWS-)
P888	0003	TEST: prize out test(1 prize out)
P888	0004	TEST: ticket drive test(3 ticket)
P888	0005	TEST: Ball push test
P888	0006	TEST: Ball pull test

10-2.Function of DIP switch on main board

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Note: These options with gray background are factory settings of DIP switch. Please adjust the volume control to middle (volume well situated).