SMART HAMMER

Manual

Please read this User Manual carefully before you installing this product.

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Content

1. Brief description

SMART HAMMER is one of the carnival items for indoor use. Insert coin(s) to start the game, properly use mallet to smash the hitting pad. The harder you hit, the more points & tickets you will earn. Its character: easy to play, player just masters the simple skills. It is so funny that fit for different ages to play.

2. Caution

·Check the socket and wires before switching the power on. Check the voltage.

·Switch the power off when the personnel are off duty.

·Switch the power off when inspecting and maintenance.

·Only qualified personnel can inspect and maintain it.

·Do not put in the machine in humidity places. Keep the surroundings clean.

3. Accessories

Name	Quantity	Remark
Manual	1	
(6*30)5A Fuse	2	
(5*20)3A Fuse	2	
4.8 diameter blue lights	5	
408 diameter green lights	5	
Reflect sensor board	2	
Magnet	1	
Wire	1	
Hammer	1	

4. Technical parameter

·Dimensions: W680*D900*H2250mm
·Power supply: AC220/110v
·Player: 1

5. Principle and Structure

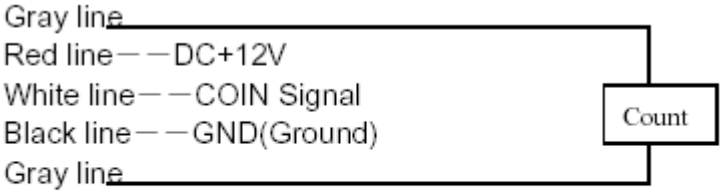
Comprises of coin tower unit, Controller system, payout unit, lights, etc.

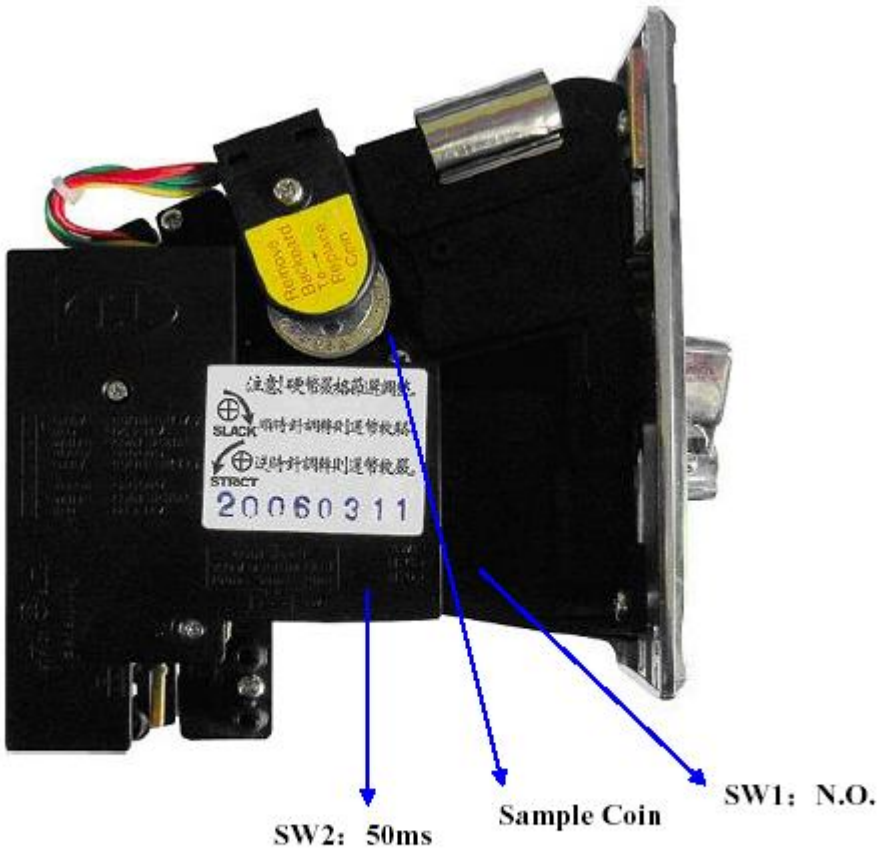
5-1. The structure of whole machine

5-2. Coin tower unit (picture 2, picture 3)

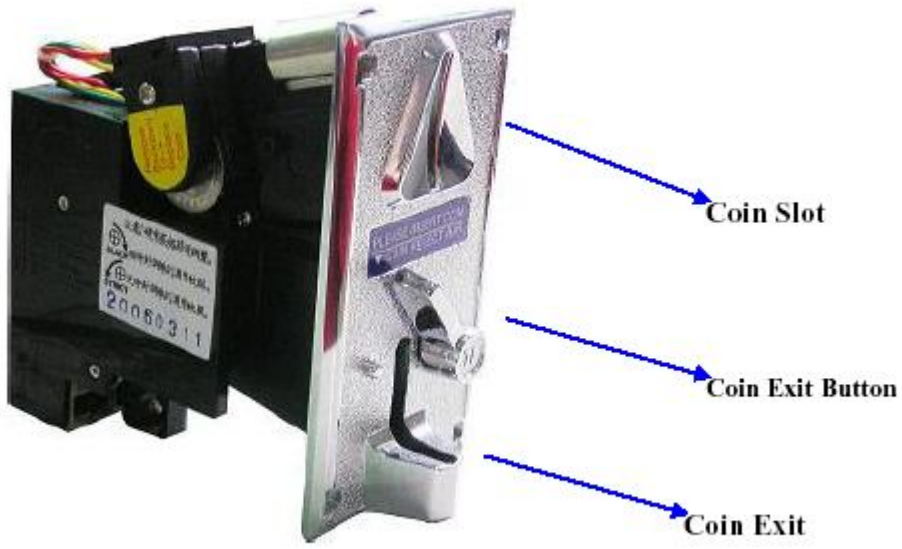
The coin tower unit comprises coin selector and coin box. Coin box is used to collecting coins. Its capability is 500-1000 coins.

1. Remove the factory installed plastic token from the coin sampling clamp.
2. Slide the coin clamp backward & insert a right coin into the clamp slot then pinch the coin.
3. Adjust the insert slot opening size by loosening the screw in the back side of front panel to fit your coin's diameter if necessary that can prevent the bigger invalid coins from inserting.
4. Select the right mode between Normal Open & Normal Close. Choosing the right speed of coin acceptance among 100 ms (Slow speed/ Long pulse) & 50ms(Medium speed/ Medium pulse) & 30(Fast speed/ Short pulse) by TIMER SWITCH for synchroinizing with your software.
5. VR turning for sensicity of coin acceptance turn clockwise(+) for slack coin selection against slugs.
6. Lines guide of 5 lines with 4 pins connector:





PIC2



PIC3

5-3. Controller system (picture 4)

The controller system comprises main board and periphery control circuit.

1. Control system (Picture 4)

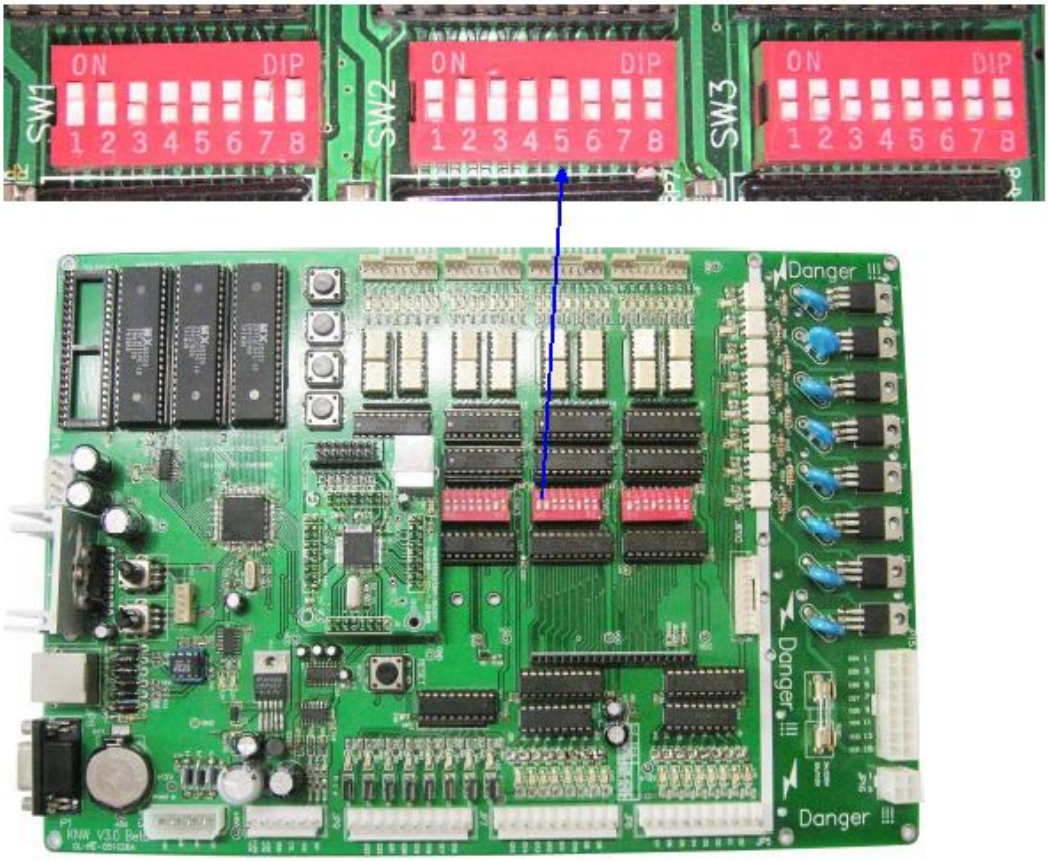
Main board: It is a program control system. It controls the work of all components.

SW1, SW2, SW3: Selection switches are used for adjusting the coins, tickets, the dispenser, the base tickets, the way of counting scores and music, etc.

Press the restart button after adjustment. For more detail about the adjustment, refer to Main board Selection Switches and Their Functions.

Restart button: Press it to restart the machine.

Volume knob: Use the screwdriver to adjust the volume. It has been adjusted well and needn't adjusting in general instance.



PIC4

5-4. Ticket dispenser (picture 5, picture 6)

Ticket dispenser is controlled by main board. It dispenses the tickets corresponding to how many scores you would get.

1. The rear of front door (pictur 5)

(1). Using key to open the dispenser then you can see a ticket dispenser (there are two kinds, one is import, another is made in China.). The color of blue is made in China, make the driver motor on state of “5”, choosing state of “NO” from “NO, NC”, then put the tickets in the tickets box, pressing the button “SW1” let one ticket come out. If it is an import one then dose not need to adjust, just let one ticket come out. LED monitor will display error information and alarm no ticket, just repeat then press the button of “Token button” when no tickets.

(2). Voltage of the dispenser is DC12V±20%, width for the ticket is 28mm-30mm,

thickness for the ticket is 0.2mm-0.4mm.

PIC5

8

2、Selection button(picture 6)

Record the total number of coin insertion since the machine has been used.

Ticket dispensing record：Record the total number of dispensed ticket since the machine has been used.

Token button： When the game has run out of tickets, replenish tickets and press this button. The game will then payout any owed tickets.

Test button：The test mode is entered from attract mode by pressing the test button during the course of 10 seconds count down of resetting.

Service：press this button for one time then the game start, but Coin insertion record does not work.

Volume：Used to adjust the speaker's sound level.

PIC6

6. Display connection

Refer to Main board Pins and Their Functions table.

7. How to play

Insert coin(s) to start the game, properly use mallet to smash the hitting pad. The harder you hit, the more points & tickets you will earn.

WAENING:

a. The game is not suitable for players who suffer from hypertension heart disease and alcoholic addiction.

b. Stay away from safe distance in case of possible injuries.

c. Do not use hands to hit the pad in case of injuries.

d. Use proper force to hit the pad in case of physical injuries.

e. Do not use other objects to hit the pad.

f. This mallet is in tended for SMART HAMMER game on.

8. Operation

8-1. Check Accessories after buying.

8-2. Check the power if hit for this item. (AC220V OR AC110V)

8-3. Insert coin(s) to start the game, properly use mallet to smash the hitting pad. The harder you hit, the more points & tickets you will earn.

8-4. Adjustment and function of Coin tower unit. (see above)

8-5. Function of Ticket dispenser. (see above)

9. Errors & troubleshooting

Error description	Cause	Solution
1、The whole machine not working and all lights off.	1、Power Switch damaged. 2、5A FUSE damaged.	1、Replace power switch. 2、Replace 5A fuse.
2、Machine not working when inserting coins.	1、Coin switch damaged. 2、No connection between coin signal and INO of main board.	1、Replace coin switch. 2、Reconnect.
3、Machine can work but no sound.	1、VR1 or VR2 of main board damaged. 2、Speaker damaged. 3、TDA1519 of main board damaged. 4、No DC12V to TDA1519.	1、Replace VR1 or VR2. 2、Replace speaker. 3、Replace TDA1519. 4、Fix DC12V.
4、No hitting pad after inserting coins.	1、Fuse of main board damaged. 2、Magnet of the hitting pad damaged.(220V) 3、TI（BTA12）of the main board damaged.	1、Replace fuse. 2、Replace magnet. 3、Replace BTA12.
5、Insert coins, but no power displays when hitting the hitting pad or hitting automatically.	1、Power OPTO-sensor damaged. 2、No DC5V for up and down power sensor. 3、OPTO-SENSOR BLOCKER LOOSE	1、Replace sensor. 2、Fix DC5V. 3、Fix it.
6、Insert coins, getting points without hitting.	1、Power OPTO-sensor damaged. 2、Hitting pad can not up again.	1、Replace sensor. 2、Fix magnet of the hitting pad and control signal.
7、No tickets after game over and display “E1” with alarming.	1、Ticket dispenser damaged. 2、124(2803) of main board damaged. 3、No connection between driver signal of ticket dispenser to main board port.	1、Replace a new ticket dispenser then press ticket button. 2、Replace 2803。 3、Reconnect.

《SMART HAMMER》DIP Switch and their function

CODE	BIT								FUNCTION	
	8	7	6	5	4	3	2	1		
SW1	ON								Ticket out	
	OFF								No ticket	
		ON							Power off protection "OFF"	
		OFF							Power off protection "ON"	
			ON	ON					hardest	Game option
			ON	OFF					harder	
			OFF	ON					normal	
			OFF	OFF					easy	
					ON	ON			Base ticket = 0	
					ON	OFF			Base ticket = 1	
					OFF	ON			Base ticket = 3	
					OFF	OFF			Base ticket = 5	
							ON	ON	1 coin per time	
							ON	OFF	2 coins per time	
							OFF	ON	3 coins per time	
							OFF	OFF	4 coins per time	
SW2						ON	ON	ON	10Kg / TICKET	
						ON	ON	OFF	20Kg / TICKET	
						ON	OFF	ON	30Kg / TICKET	
						ON	OFF	OFF	40Kg / TICKET	
						OFF	ON	ON	50Kg / TICKET	
						OFF	ON	OFF	60Kg / TICKET	
						OFF	OFF	ON	80Kg / TICKET	
						OFF	OFF	OFF	100Kg/ TICKET	
				ON	ON				beginning record=80	
				ON	OFF				beginning record=100	
				OFF	ON				beginning record=150	
				OFF	OFF				beginning record=200	
			ON						free game	
			OFF						Insert coin for game	
	ON	ON							record-breaking ticket =5	
	ON	OFF							record-breaking ticket =10	
	OFF	ON							record-breaking ticket =20	
	OFF	OFF							record-breaking ticket =30	

Having effect because of turning on or restart after resetting the DIP.

Error Code:

E1: Ticket dispenser damage or alarm for no ticket (Press KEY 4 to continue after solving the problem)

《SMART HAMMER》Main board Pins and Their Functions

Port	Port NO.	Programme Resource	Direction	Function
IN0			I	Insert coin（connect to coin selector output）
IN1			I	
IN2	JP1		I	power calculation UP position OPT-sensor
IN3			I	power calculation down position OPT-sensor
IN4			I	Feedback for ticket dispenser calculation
IN5			I	
IN6			I	
IN7			I	
IN8			I	
IN9			I	
IN10			I	
IN11	JP2		I	
IN12			I	
IN13			I	
IN14			I	
IN15			I	
IN16			I	
IN17			I	
IN18			I	
IN19	JP3		I	
IN20			I	
IN21			I	
IN22			I	
IN23			I	
IN24			I	
IN25			I	
IN26			I	
IN27	JP4		I	
IN28			I	
IN29			I	Coin Switch
IN30			I	Hardware switch for testing
IN31			I	Switch of alarm for no ticket (press this button when error occurs)
DO	JP9		O	display data output (connect to JP1-1 of serial extended board) **（GL-RE-060413A）**

CLK			O	display clock(connect to JP1-2 of serial extended board) (**GL-RE-060413A**)
CTL			O	Display data lock (connect to JP1-3 of serial extended board) (**GL-RE-060413A**)
+5V	**JP13**			+5V
GND				GND
GND				GND
+12V				+12V
1	**JP14**		O	Speaker +
2			O	Speaker -
3			O	Speaker -
4			O	Speaker +

《SMART HAMMER》Main board Pins and Their Functions

Port	Port NO.	Programme Resource	Direction	Function
O0	**JP5 ULN2803**		O	Coin meter drive
O1			O	Ticket meter drive
O2			O	
O3			O	
O4			O	Ticket Dispenser drive
O5			O	
O6			O	
O7			O	
O8	**JP6 ULN2803**		O	display data output（入 connect to data input of LED BOARD） J13_23 CLOSE
O9			O	display clock（connect to clock of LED BOARD） J14_23 CLOSE
O10			O	Display data lock（connect to LED BOARD LOCK） J15_23 CLOSE
O11			O	
O12			O	
O13			O	
O14			O	
O15			O	

O16	JP7 IRF024 TIP122		O	light for the first waiting hitting(circle LED light#1)
O17			O	light for the second waiting hitting(circle LED light#2)
O18			O	the uppermost LED light#1
O19			O	the uppermost LED light#2
O20			O	
O21			O	
O22			O	
O23			O	
O24	JP15 BTA12		O	magnet
O25			O	
O26			O	
O27			O	
O28			O	
O29			O	
O30			O	
O31			O	
L(1)	JP16			AC live wire connect
L(3)				AC live wire connect
N(2)				AC neutral wire connect
N(4)				AC neutral wire connect
Pin1	JP8		485Y	
Pin2			485Z	
Pin3			485B	
Pin6			485A	
PIN2	P1	RS232 communication	O	output RS232 logic level
PIN3			I	input RS232 logic level
PIN5			GND	GND
PIN1.4.6.7.8.9				

Serial output： MAIN BOARD JP9➔ SERIAL EXTENDED BOARD #1➔ SERIAL EXTENDED BOARD #2➔ SERIAL EXTENDED BOARD #3➔ SERIAL EXTENDED BOARD #4
MAIN BOARD JP6➔2 bits 2.3 inch➔2 bits 2.3 inch➔3 bits 3inch

《SMART HAMMER》SERIAL EXTENDED BOARD#1 (GL-RE-060413A) CONNECTION

Port	Port NO.	Programme Resource	Direction	Function
1	JP1			data input，connect to JP9-1 of main board （GL-RE-051028A）
2				clock input， connect to JP9-2 of main board （GL-RE-051028A）
3				Data lock， connect to JP9-3 of main board （GL-RE-051028A）
1	JP4			+5V
2				GND
3				GND
4				+12V
1	JP2			data output, connect to JP1-1 of SERIAL EXTENDED BOARD #2 （GL-RE-051028A）
2				clock output, connect to JP1-2 of SERIAL EXTENDED BOARD #2 （GL-RE-051028A）
3				data lock, connect to JP1-3 of SERIAL EXTENDED BOARD #2 （GL-RE-051028A）
1	JP3	OUT0		Left LED1（from the down to up）
2		OUT1		Left LED2
3		OUT2		Left LED3
4		OUT3		Left LED4
5		OUT4		Left LED5
6		OUT5		Left LED6
7		OUT6		Left LED7
8		OUT7		Left LED8
9		+12V		Max:2A, if >2A, please connect to +12Vof power supply
10		+12V		

《SMART HAMMER》SERIAL EXTENDED BOARD#2

(GL-RE-060413A) CONNECTION

Port	Port NO.	Programme Resource	Direction	Function
1	JP1			data input, connect to JP2-1 of SERIAL EXTENDED BOARD #1
2				clock input, connect to JP2-2 of SERIAL EXTENDED BOARD #1
3				data lock, connect to JP2-3 of SERIAL EXTENDED BOARD #1
1	JP4			+5V
2				GND
3				GND
4				+12V
1	JP2			data out
2				clock out
3				data lock
1	JP3	OUT0		Left LED9
2		OUT1		Left LED10
3		OUT2		Left LED11
4		OUT3		Left LED12
5		OUT4		Left LED13
6		OUT5		Left LED14
7		OUT6		Left LED15
8		OUT7		Left LED16
9		+12V		Max:2A, if >2A, please connect to +12Vof power supply
10		+12V		

《SMART HAMMER》SERIAL EXTENDED BOARD#3

(GL-RE-060413A) CONNECTION

Port	Port NO.	Programme Resource	Direction	Function
1	JP1			data input, connect to JP2-1 of SERIAL EXTENDED BOARD #2
2				clock input, connect to JP2-2 of SERIAL EXTENDED BOARD #2
3				data lock, connect to JP2-3 of SERIAL EXTENDED BOARD #2
1	JP4			+5V
2				GND
3				GND
4				+12V
1	JP2			data output
2				clock output
3				data lock
1	JP3	OUT0		Right LED1（from down to up）
2		OUT1		Right LED2
3		OUT2		Right LED3
4		OUT3		Right LED4
5		OUT4		Right LED5
6		OUT5		Right LED6
7		OUT6		Right LED7
8		OUT7		Right LED8
9		+12V		Max:2A, if >2A, please connect to +12V of power supply
10		+12V		

《SMART HAMMER》SERIAL EXTENDED BOARD#4

(GL-RE-060413A) CONNECTION

Port	Port NO.	Programme Resource	Direction	Function
1	JP1			data input, connect to JP2-1 of SERIAL EXTENDED BOARD #3
2				clock input, connect to JP2-2 of SERIAL EXTENDED BOARD #3
3				data lock, connect to JP2-3 of SERIAL EXTENDED BOARD #3
1	JP4			+5V
2				GND
3				GND
4				+12V
1	JP2			data output
2				clock output
3				data lock
1	JP3	OUT0		Right LED9（from down to up）
2		OUT1		Right LED10
3		OUT2		Right LED11
4		OUT3		Right LED12
5		OUT4		Right LED13
6		OUT5		Right LED14
7		OUT6		Right LED15
8		OUT7		Right LED16
9		+12V		Max:2A, if >2A, please connect to +12V of power supply
10		+12V		

《SMART HAMMER》2.3 inch LED CONNECTION (SECOND POWER)

Port	Port NO.	Programme Resource	Direction	Function
1	JP1			DATA input ,connect to JP6-O8 of main board
2				clock input, connect to JP6-O9 of main board
3				data lock, connect to JP6-O10 of main board
1	JP2			+5V
2				GND
3				GND
4				+12V
1	JP3			data output, connect to next LED data input
2				clock output, connect to next LED clock
3				data lock, connect to next LED data lock

《SMART HAMMER》2.3 inch LED CONNECTION (FIRST POWER)

Port	Port NO.	Programme Resource	Direction	Function
1	JP1			data input, connect to last LED data output
2				clock input, connect to last LED clock
3				data lock, connect to last LED data lock
1	JP2			+5V
2				GND
3				GND
4				+12V
1	JP3			data output, connect to next LED data input
2				clock output, connect to next LED clock
3				data lock, connect to next LED data lock

《SMART HAMMER》2.3 inch LED CONNECTION (TOTAL POWER)

Port	Port NO.	Programme Resource	Direction	Function
1	JP1			data input, connect to last LED data output
2				clock input, connect to last LED clock
3				data lock, connect to last LED data lock
4				data output
5				
6				+12V
7				GND
8				+5V

Note: We have the right to improve our products but not notify users!