GHOST TOWN

DAWN OF WAR

Operator Manual

Ver:BHM-QH_1-00-2

Safety Notice

▶ General

- DO NOT disassemble, change and modify the machine without authorization.
- Make sure to operate the machine as instructed by this manual. Inappropriate handling of the machine will cause damage to the machine and injury threat to players and spectators.
- Please check and maintain the machine regularly.
- Make sure that the warning labels are clean to be clearly read. If the label is too dirty to be clearly read, replace a new label immediately.

▶ CAUTION Installation Sites

- This machine is designed for indoor use. DO NOT place it outdoors. Make sure the machine is not installed in the following venues:
  - Place of direct sunlight exposure, water contact, high humidity and high temperature.
  - Places where there is flammable and volatile chemicals and hazardous substances.
  - Places where the ground is sloping, uneven or there is strong vibration.
  - Places close to emergency exits and fire extinguishers.
- DO NOT obstruct the ventilation holes to avoid damage to the machine.
- Make sure the machine is separate from the wall, other machines and passages by at least 30 cm.

▶ WARNING Power

- Before connecting the machine to the mains supply, verify that the voltage is correct to avoid fires or electric shock.
- When connecting the machine to the mains supply, verity the mains outlet is a grounded outlet.
- To avoid electric shock and short circuit, DO NOT run the power cord or ground wire across passages.
- To avoid fires, DO NOT place any flammable objects close to the power cord.
- In the event of frayed power cord, please contact your dealer for replacement.
- To avoid electric shock or short circuit:
  - Make sure to turn the power OFF before attempting maintenance or repair.
  - DO NOT touch the plug with damp hands.
  - Do not insert/unplug the power plug all of a sudden.
  - When plugging/unplugging the power cord, make sure to hold plug. DO NOT pull on the power cord.

⚠ WARNING Transportation

- During transportation, ensure that the castors are fasten.
- The machine contains a LCD monitor which is fragile; avoid strong vibration or rough handling during transportation.

⚠ CAUTION Moving

- Before moving the machine, make sure to unplug it from the mains.
- When moving the machine, pay attention to obstructions and uneven surface to avoid accidents or damage to the machine.
- Make to move the machine with at least two personnel to avoid accident and injury.

⚠ CAUTION During Operation

- To avoid injury and accidents to players during operation, those falling under the following categories are not allowed to play the game:

  - People with high blood pressure or cardiovascular diseases
  - People who are injured or less mobile
  - Drunk people

- Instruct the players to read the warning labels and follow the instructions to prevent electric shock or short circuit.
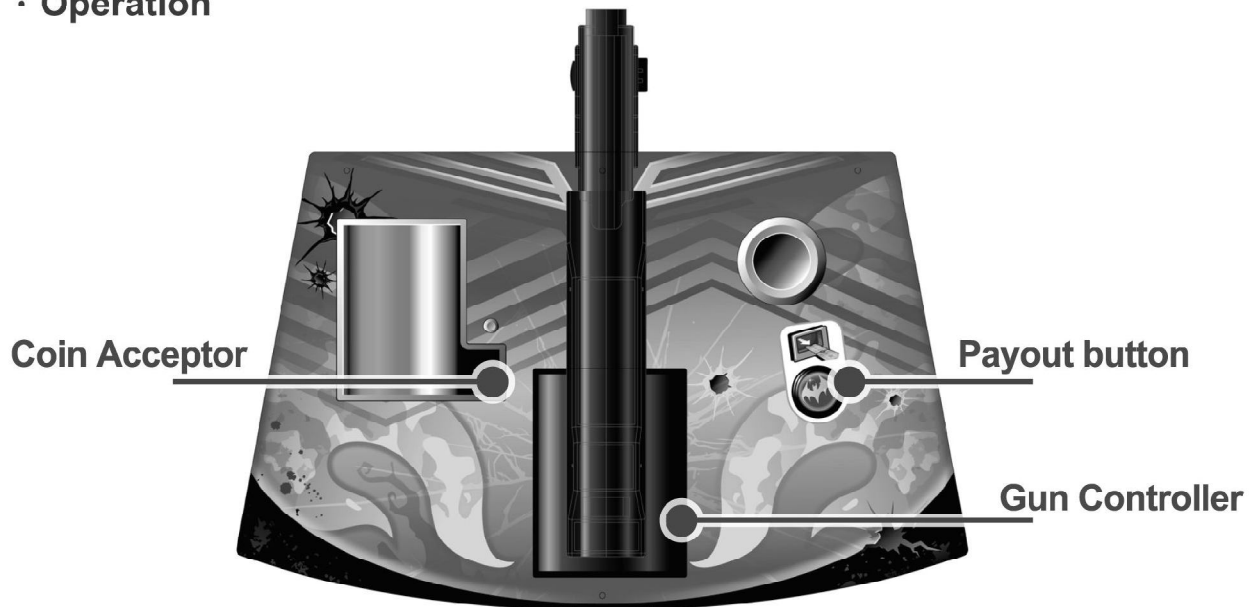
Table of Contents

1.Game Introduction
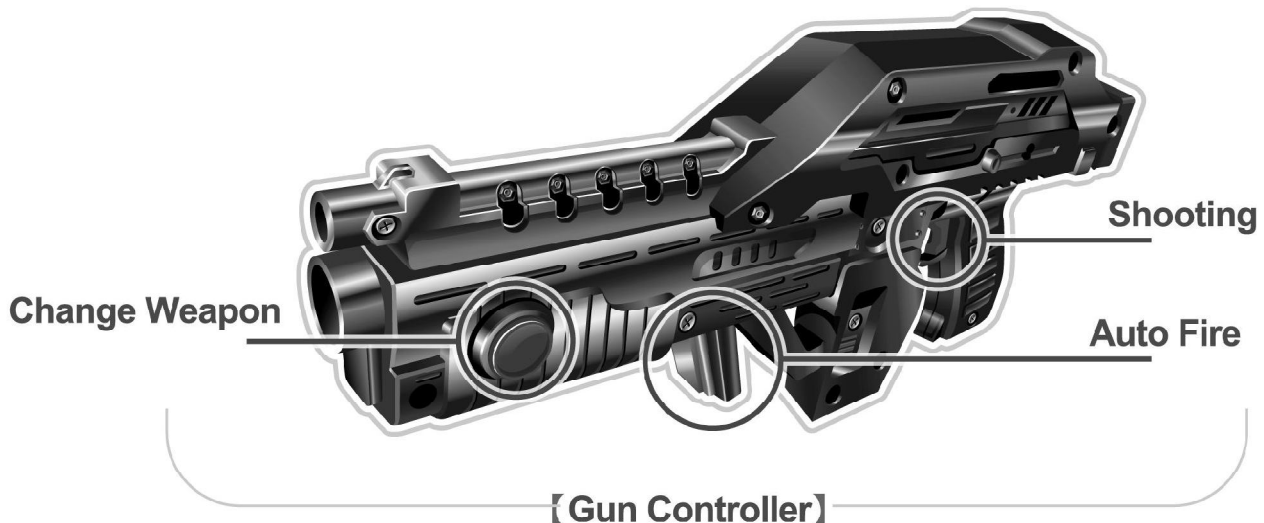
· **Operation**

Coin Acceptor ─────────── Payout button

Gun Controller

Coin Acceptor：Insert tokens to increase credits.
Payout button：Press this button for 3 seconds, token(s) or ticket(s) will be payout by accord to player's credits.
Gun Controller：The gun controller can be used in the game to move the sights across the screen and shoot.
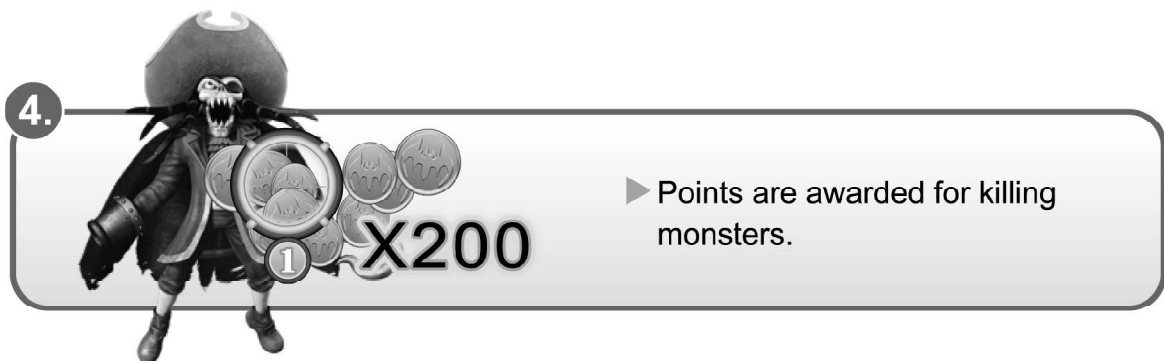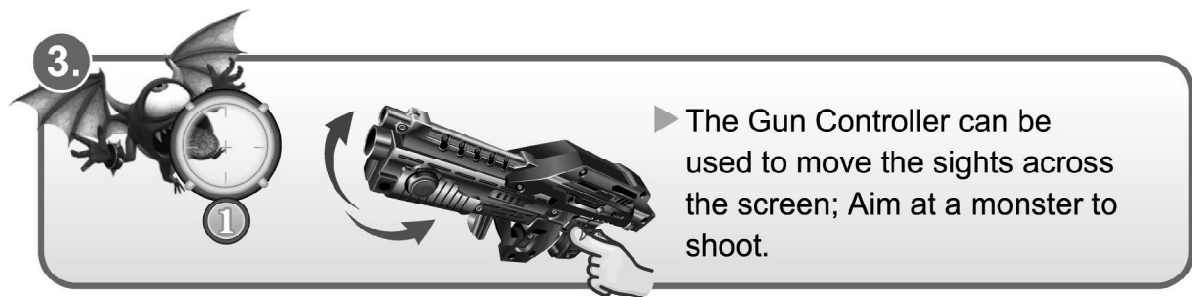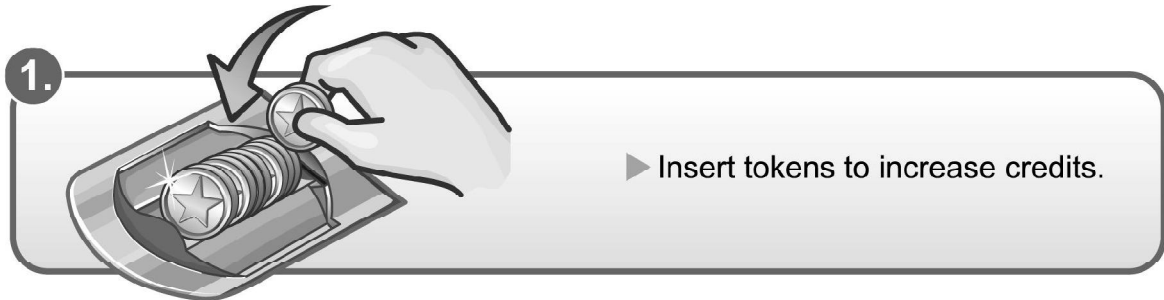
Shooting

Change Weapon

Auto Fire

【Gun Controller】

Shooting：Aim at the target then press this button to shoot at the monster.
Change weapon：Choose different weapons to increase the power of bullets.
Auto Fire: Automatically shoots at the monster in the sights. (P16. System adjustment so that Auto Fire must be set to "On")

· How to Play

1. ▶ Insert tokens to increase credits.

2. ▶ Change weapon: Choose different weapons to increase the power of bullets

3. ▶ The Gun Controller can be used to move the sights across the screen; Aim at a monster to shoot.

4. X200 ▶ Points are awarded for killing monsters.

· Introductions of monsters

1	2	3	4	5	6	7
Big Eye	Evil Fish	Onion Goblin	Jumping Mushroom	Tree Goblin	Skeleton Soldier	Clown Devil
5	5	6	7	8	10	12

8	9	10	11
Stone Man	Axe Guard	The Hook	The Dark Sorcerer
100	150	200~700	300~1000

· REVENGE GAUGE

Revenge gauge

2860

Credit

Credit ：Show the total score of player.

Revenge gauge ：Shooting enemies will increase your REVENGE GAUGE. When completely full, you can perform a FREE SHOOTING. On the contrary the REVENGE GAUGE is decreased when the enemy damages you.

· Mini game instructions

1. TIME FREEZE

▶ Randomly appears on screen during the main game .

▶ Shoot to freeze time and make all monsters on the screen stop moving.

2. FREE SHOOTING

▶ Free single player mini game.

▶ Treasure chest will randomly appear during the game. Shoot the treasure chest for chance to play FREE SHOOTING mini game.

▶ FREE SHOOTING mini game gives unlimited ammo for a limited amount of time.

3. WIN DOUBLE

▶ Single player mini game (Token required).

▶ Treasure chest will randomly appear during the game. Shoot the treasure chest for chance to play WIN DOUBLE mini game.

▶ WIN DOUBLE mini game doubles the points you earn from killing monsters for a limited amount of time.

4. MAGIC STONE

▶ Free single player mini game.

▶ Treasure chest will randomly appear during the game. Shoot the treasure chest for chance to play MAGIC STONE mini game.

▶ MAGIC STONE mini game allows the player to attack monsters with magical asteroids that blast the entire field.

5. SEA MONSTER BATTLE

▶ A free game designed for 4 players.
▶ Enter to shoot at the sea monster and piranhas before time runs out.
▶ Killing sea monsters will earn you 500 ~ 2000 points. Killing piranhas earns 5 points.

2. Using the System Utility

· Menu Navigation

Pressing the [System] key on the control box allows you to access the System utility.

```
                        ┌─────────────┐
                        │   System    │
                        └─────────────┘
                               │
        ┌──────────────────────┼──────────────────────┐
   ┌─────────┐            ┌─────────┐           ┌──────────────┐
   │ Record  │            │  Test   │           │System Setting│
   └─────────┘            └─────────┘           └──────────────┘
        │                      │                       │
   ┌──────────┐         ┌──────────────┐        ┌──────────────┐
   │Current Data│       │Gun Calibration│       │Enter Password│
   └──────────┘         └──────────────┘        └──────────────┘
        │                      │                       │
   ┌──────────┐         ┌──────────┐             ┌──────────┐
   │Daily Data│         │ Key Test │             │Total Data│
   └──────────┘         └──────────┘             └──────────┘
                               │                       │
                        ┌──────────┐         ┌──────────────────┐
                        │Sound Test│         │System Adjustment │
                        └──────────┘         └──────────────────┘
                               │                       │
                        ┌──────────┐             ┌────────────┐
                        │Screen Test│            │Time Setting│
                        └──────────┘             └────────────┘
                               │                       │
                        ┌──────────┐          ┌───────────────┐
                        │Counter Test│        │Change Password│
                        └──────────┘          └───────────────┘
                               │
                        ┌──────────┐
                        │Payout Test│
                        └──────────┘
```
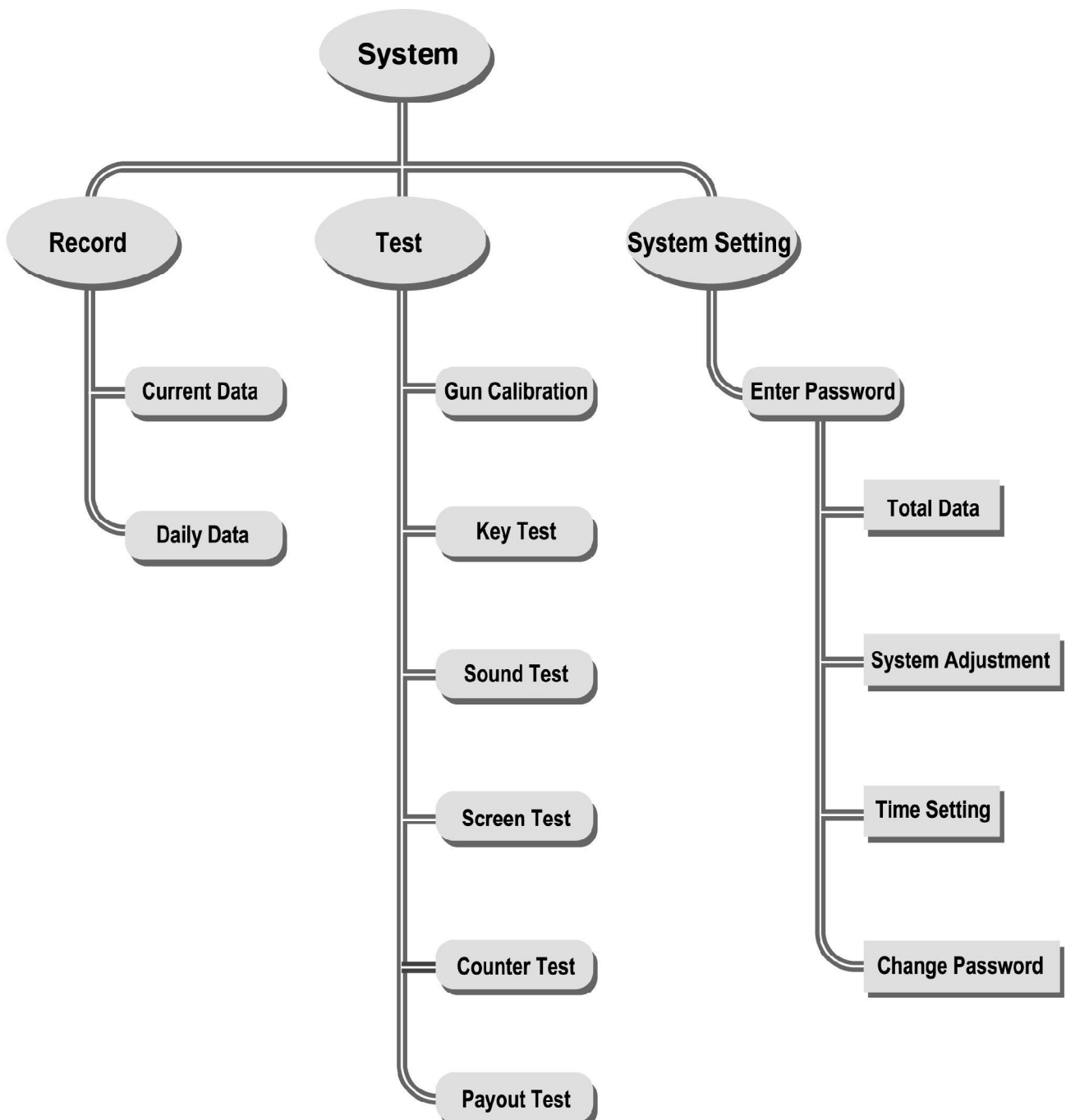
· Main Menu:

▶ To go to the page of System Utility, press the [System] button, and you will see [Main menu].

· Record

▶ **Current Data:** Operators can check their current and previous total in, total out, coin in, and coin out, etc. operators can also update their shift records.

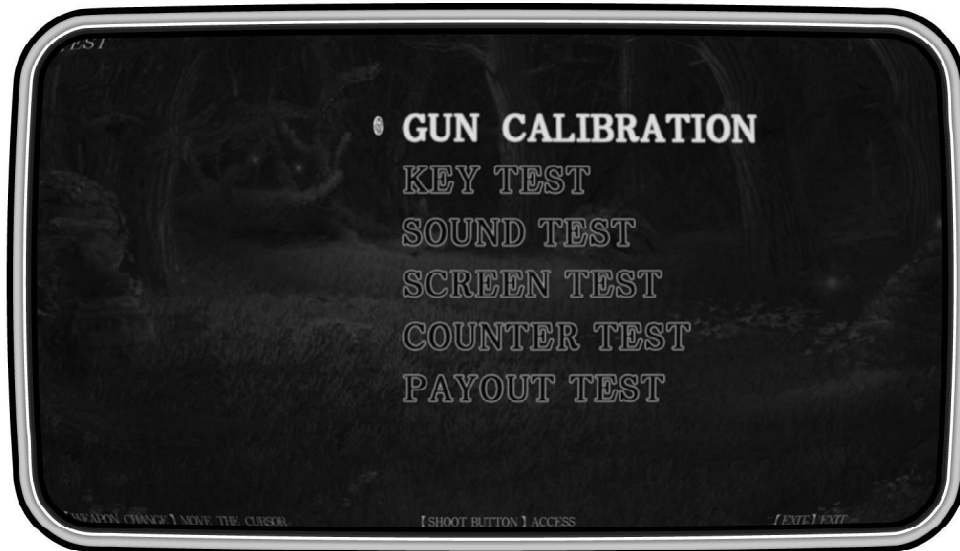▶ **Daily Data:** Provides daily data such as the total in/out number and percentage (within the last 42 days).

· Test

GUN CALIBRATION
KEY TEST
SOUND TEST
SCREEN TEST
COUNTER TEST
PAYOUT TEST

▶**Test hardware devices of the machine to ensure its normal functions.**

> ▶ **Gun Calibration:**Druing calibrate the guns, allow you to optimize and verify gun performance.
> ▶ **Key Test:**Test if input and output devices of the machine function normally.
> ▶ **Sound test:** Test whether the sound output is normal.
> ▶ **Screen test:** Check whether the screen display is normal.
> ▶ **Counter test:** Check whether each counter is functioning normally.
> ▶ **Payout test:** Check whether each coin selector, hopper and ticket dispenser is functioning normally.

· System Setting

▶ **Before players get access to the [system] page, insert password first. The default password is eight zeroes.**

PASSWORD : **0** X X X X X X X

【WEAPON CHANGE】CHANGE VALUE   【SHOOT BUTTON】ACCESS   【EXIT】CANCEL

SYSTEM

● **TOTAL DATA**
SYSTEM ADJUSTMENT
TIME SETTING
PASSWORD SETTING

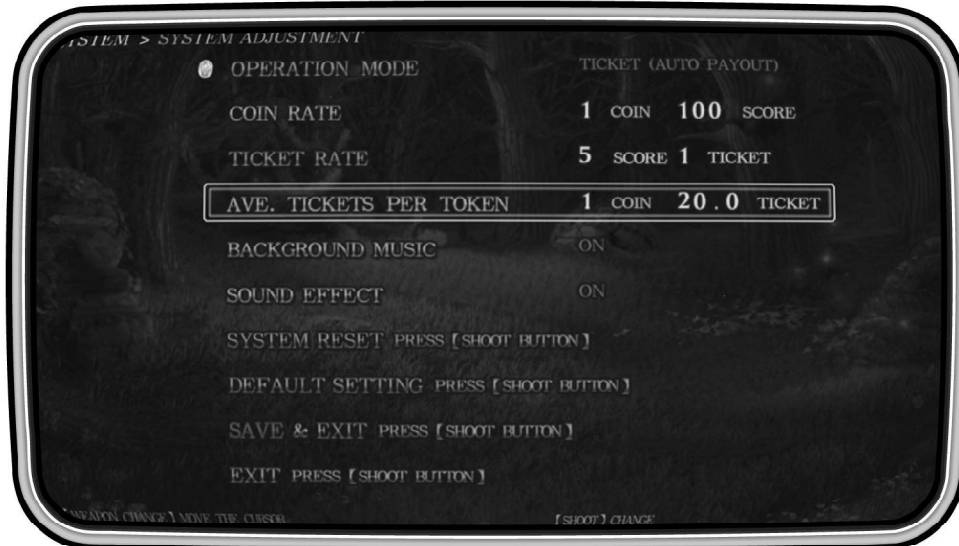【WEAPON CHANGE】MOVE THE CURSOR   【SHOOT BUTTON】ACCESS   【EXIT】EXIT
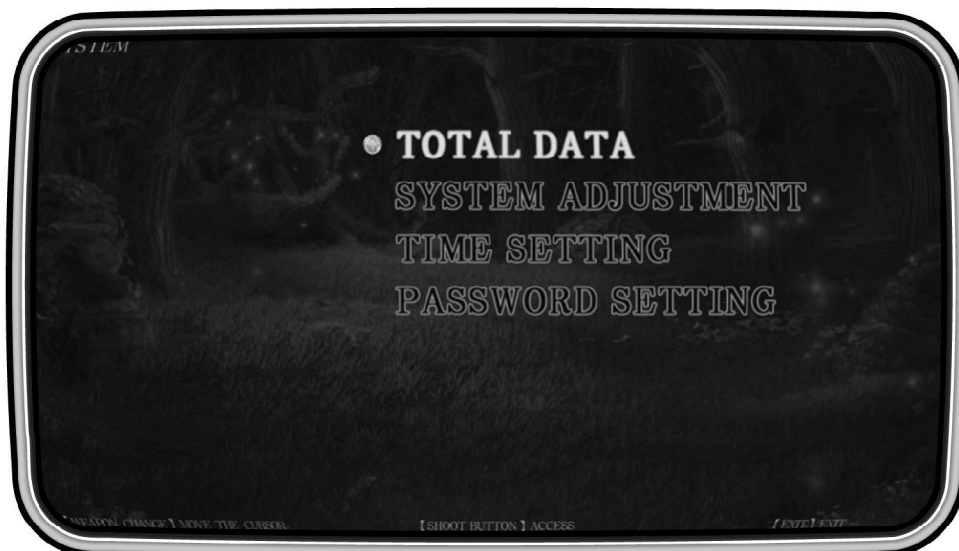
▶ **Total data:** To view a complete account and check their revenue.

▶ **System adjustment:** To set up parameter regarding the game.

▶ **Time setting:** To adjust the time.

▶ **Password setting:** Reset the password for the [system] page.

· System Adjustment

· Set as TICKET(AUTO PAYOUT)

1. Press the [Change weapon] button to move the cursor, and press the [Shooting] button to switch options.
2. **Game Settings:**

Items	Adjustable Range	Default
OPERATION MODE	TOKEN(AUTO PAYOUT), TOKEN(NORMAL PAYOUT), TICKET(AUTO PAYOUT), TICKET(NORMAL PAYOUT), TOKEN & TICKET(AUTO PAYOUT)	TICKET (AUTO PAYOUT)
COIN RATE	1 TOKEN 30，40，50，60，70，80，90，100，120，150，200，300 CREDITS	1 TOKEN 100 CREDITS
TICKET RATE	1~10 POINTS 1 TICKET、20 POINTS 1 TICKET、30 POINTS 1 TICKET、40 POINTS 1 TICKET、50 POINTS 1 TICKET	5 POINTS 1 TICKET
BACKGROUND MUSIC	ON、OFF	ON
SOUND EFFECT	ON、OFF	ON

▶**SYSTEM RESET: Erase all revenue and game data.**
▶**DEFULT SETTING:** Rest all items to the default setting.
▶**SAVE & EXIT:** to save the changes and exit. Then you will go back to the [SYSTEM SETTING] screen.
▶**EXIT:** to exit the page without saving the changes.

> **Notes!!!**
> 1. Change COIN RATE, and players' Credit, number of coins will be reset to zero.
> 2. Change TICKET RATE, and players' Credit, number of tickets will be reset to zero.
> 3. Change OPERATION MODE: This step will set players' Credit, number of coins and number of tickets to zero.

· Set as TOKEN(AUTO PAYOUT), TOKEN(NORMAL PAYOUT),
TICKET(NORMAL PAYOUT) or TOKEN & TICKET(AUTO PAYOUT)

SYSTEM > SYSTEM ADJUSTMENT	
OPERATION MODE	TICKET (NORMAL PAYOUT)
CHANCE LEVEL	99 %
COIN RATE	1 COIN 10 SCORE
KEY IN/OUT FUNCTION	OFF
KEY IN RATE	100
KEY OUT RATE	1
TICKET RATE	1 SCORE 1 TICKET
BACKGROUND MUSIC	ON
SOUND EFFECT	ON
AUTO FIRE	ON
SYSTEM RESET PRESS [SHOOT BUTTON]	
DEFAULT SETTING PRESS [SHOOT BUTTON]	
SAVE & EXIT PRESS [SHOOT BUTTON]	
EXIT PRESS [SHOOT BUTTON]	
[WEAPON CHANGE] MOVE THE CURSOR	[SHOOT] CHANGE

1. Press the [Change weapon] button to move the cursor, and press the [Shooting] button to switch options.

2. Game Settings:

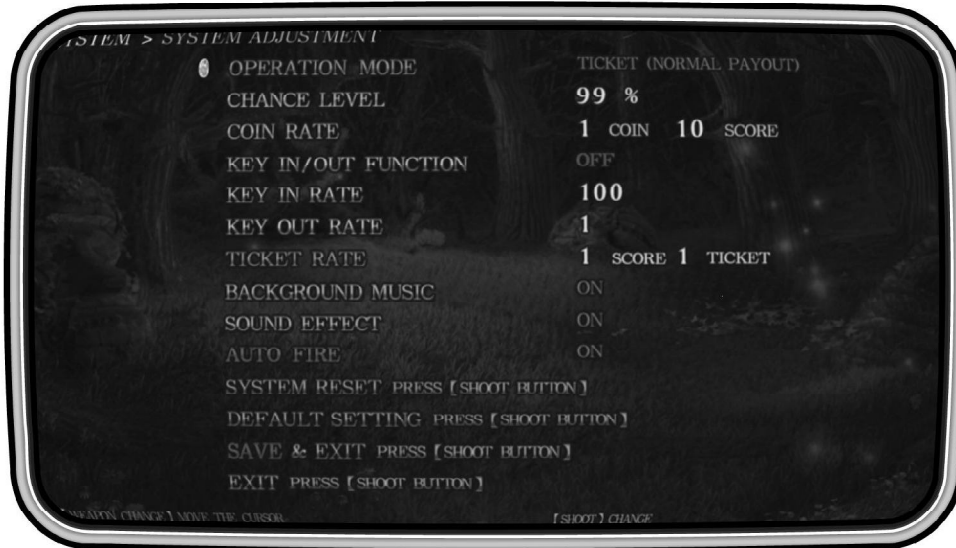| Items	Adjustable Range	Default
OPERATION MODE	TOKEN(AUTO PAYOUT), TOKEN(NORMAL PAYOUT), TICKET(AUTO PAYOUT), TICKET(NORMAL PAYOUT), TOKEN & TICKET(AUTO PAYOUT)	TICKET (AUTO PAYOUT)
CHANCE LEVEL	96、96.5、97、97.5、98、98.5、99、99.5、100	99
COIN RATE	1 TOKEN 30，40，50，60，70，80，90，100，120，150，200，300 CREDITS	1 TOKEN 10 CREDITS
KEY IN/OUT FUNCTION	ON、OFF	OFF
KEY IN RATE	10、20、50、100、200、500、1000	100
KEY OUT RATE	1、10、20、50、100、200、500、1000	1
TICKET RATE	1 POINT 1~50 TICKETS 、2~10 POINTS 1 TICKET 、20 POINTS 1 TICKET 、30 POINTS 1 TICKET 、40 POINTS 1 TICKET 、50 POINTS 1 TICKET	1 POINT 1 TICKET
BACKGROUND MUSIC	ON、OFF	ON
SOUND EFFECT	ON、OFF	ON
AUTO	ON、OFF	ON

▶ **SYSTEM RESET: Erase all revenue and game data.**

▶ **DEFULT SETTING:** Rest all items to the default setting.

▶ **SAVE & EXIT:** to save the changes and exit. Then you will go back to the [SYSTEM SETTING] screen.

▶ **EXIT:** to exit the page without saving the changes.

Notes!!!
1. Change COIN RATE, and players' Credit, number of coins will be reset to zero.
2. Change TICKET RATE, and players' Credit, number of tickets will be reset to zero.
3. Change OPERATION MODE: This step will set players' Credit, number of coins and number of tickets to zero.
4. CHANCE LEVEL: A larger number means the chances to win are smaller.
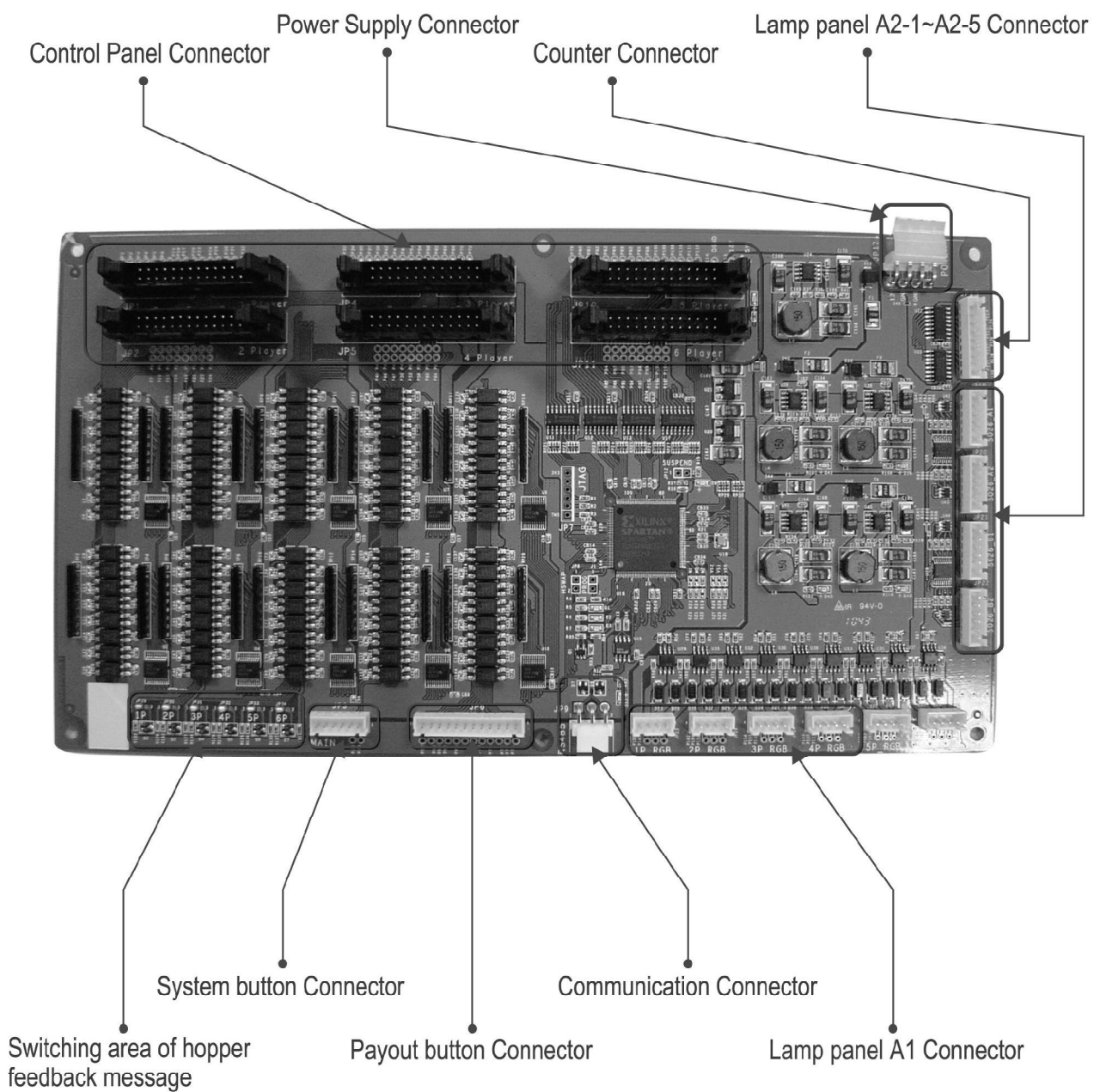
2.Installing instructions for IO board

· Instructions of Control Panel Connector

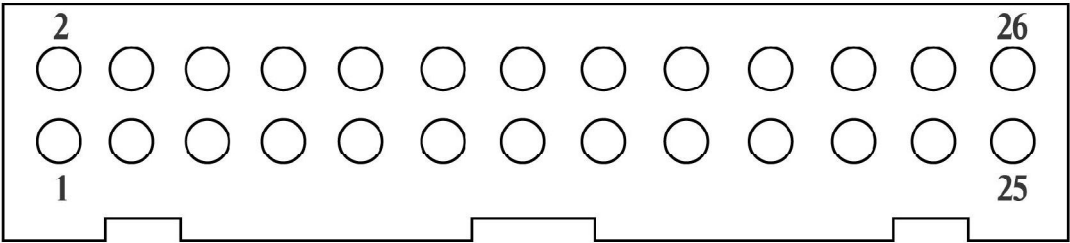**Power Supply: 12V 8.5A**   Providing power supply for IO board
Power Supply: 24V   Providing power supply for motor control panel

Power Supply Connector

Control Panel Connector   Counter Connector   Lamp panel A2-1~A2-5 Connector

System button Connector   Communication Connector

Switching area of hopper feedback message   Payout button Connector   Lamp panel A1 Connector

· Control Panel Connector :

▶ The number order on the circuit board connector

▶ The location definition of the circuit board connector

2	4	6	8	10	12	14	16	18	20	22	24	26
Direction _down	Direction _right	Shoot button	Key in	Controlling Hopper turn counterclockwise	Hopper feedback	Controlling Hopper turn clockwise	Reserved	+12V	+12V	GND	GND	GND
Direction _up	Direction _left	Change weapon button	Messages for inserting coins	Key out	ticket feedback	Controlling ticket	Reserved	+12V	+12V	+5V	GND	GND
1	3	5	7	9	11	13	15	17	19	21	23	25

▶ connector
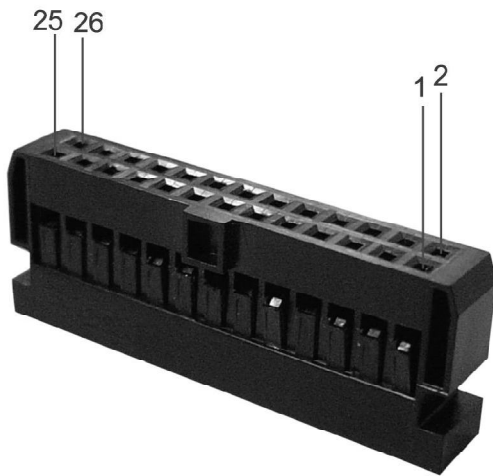
· **Power Supply Connector**：
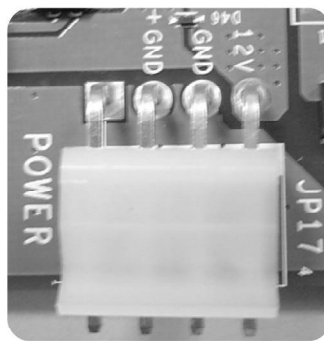
1	2	3	4
	GND	GND	+12V

JP17

· **Counter Connector**：
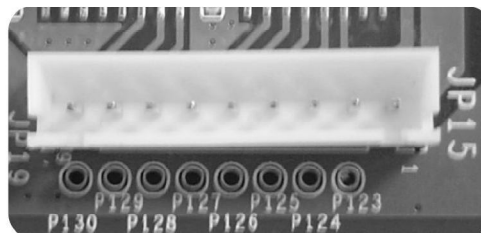
9	8	7	6	5	4	3	2	1
				Counter D	Counter C	Counter B	Counter A	+12V

JP15

· **Communication Connector**：

Apply labels "RS485"

Red
Green
(3.69VH/3PIN)

Green
Red

200CM/Telephone cord (2 wires)

(RJ11/6PIN)

Use glue or solidify materials in the connected surface Solidifying
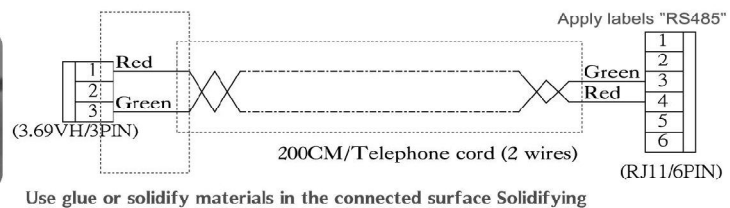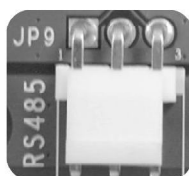
• Payout button Connector：
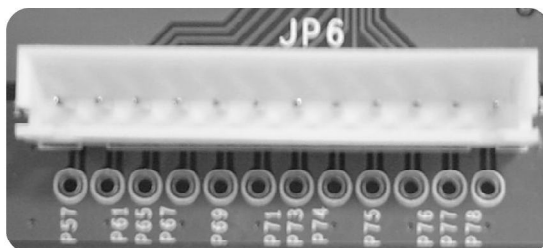
12	11	10	9	8	7	6	5	4	3	2	1
Payout button 6P	Payout button 5P	Payout button 4P	Payout button 3P	Payout button 2P	Payout button 1P						

JP6

• System button Connector：

6	5	4	3	2	1
GND					System button

JP3

· Lamp Panel :

Lamp Panel A3

Lamp panel A1

Lamp panel A2-1

Lamp panel A2-2

Lamp panel A2-3

Lamp panel A2-4

Lamp panel A2-5
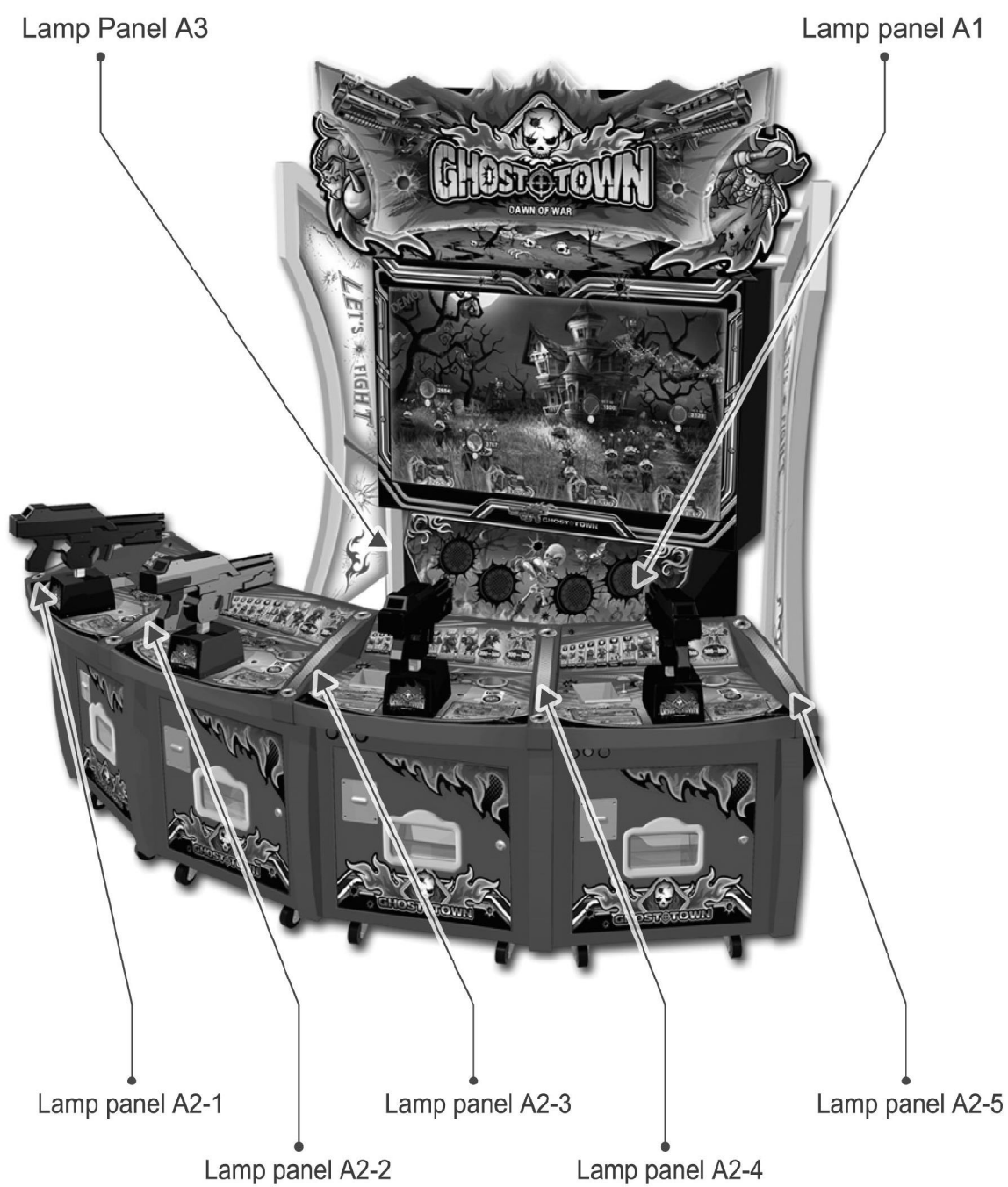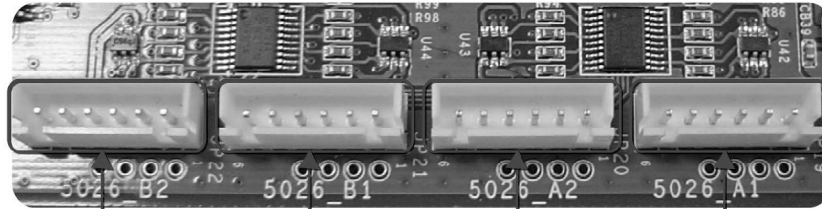
▶ A2-1~A2-5 Lamp PCBA

A2-4/A2-5 Lamp PCBA
A2-3 Lamp PCBA
A2-2 Lamp PCBA
A2-1 Lamp PCBA

5026_B2   5026_B1   5026_A2   5026_A1

▶ A2-1~A2-5 Lamp PCBA

The Top Side

The Bottom Side

CON1

CON2

1	2	3	4	5
Data	Clock	Latch	+5V	GND

CON1

1	2	3	4	5	6
Data	Clock	Latch		+5V	GND

CON2

• The wire for Lamp PCBA

C3-6P
Label: KI JP19

1	Gray	1800	1
2	Brown	1800	2
3	Purple	1800	3
4			
5	Red	1800	4
6	Black	1800	5

C3-6P
Label: KI JP20

1	Gray	1800	6
2	Brown	1800	7
3	Purple	1800	8
4			
5	Rcd	1800	9
6	Black	1800	10
			11
			12

1	Gray	1200	1
2	Brown	1200	2
3	Purple	1200	3
			4
4	Red	1200	5
5	Black	1200	6

C3-6P
Label: 1P Right

6	Gray	900	1
7	Brown	900	2
8	Purple	900	3
			4
9	Rcd	900	5
10	Black	900	6
11			
12			

C3-6P
Label: 2P Left

YL12P
Male

YL12P
Female

Lamp Panel A1 Connector
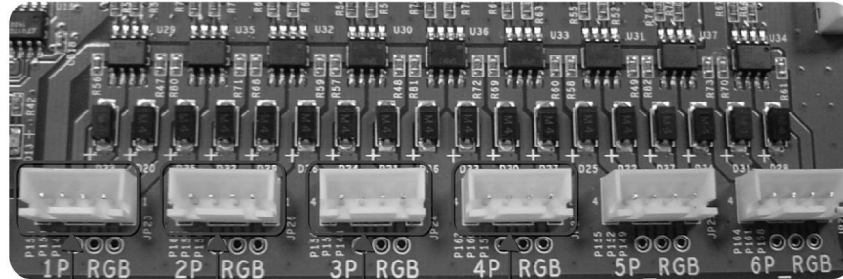
1P Lamp Panel Connector   3P Lamp Panel Connector

2P Lamp Panel Connector   4P Lamp Panel Connector

Type of Lamp Panel A1 Connector

JP1   JP2

1	2	3	4
Output 1	Output 1	Output 1	+12V

JP1/JP2

• Wires that IO Board connected to the Lamp Panel

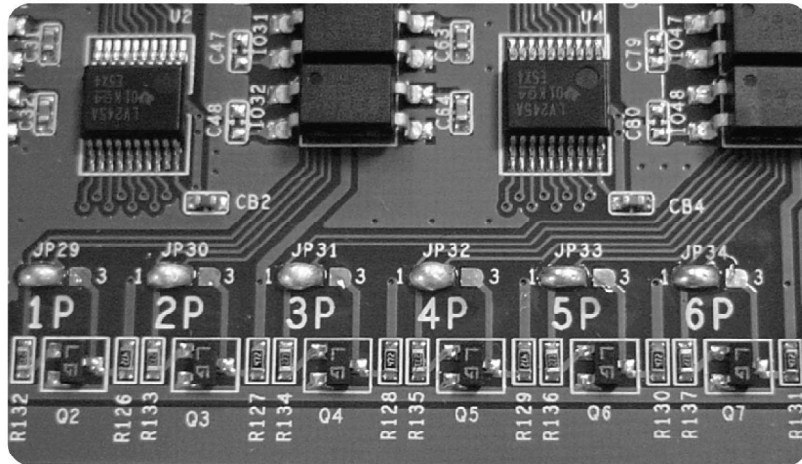| 1	Yellow	50	1
2	Blue	50	2
3	Green	50	3
4	Red	50	4

XH-4P   XH-4P

• Switching area of hopper feedback message：

▶ Switching area of hopper feedback message

▶ Definitions of jump cut

Jump cut	DEFULT	Function Instructions		Note
JP29	Jump cut 1-2	Jump cut 1-2	Switching the feedback message of 1P hopper is often on.	
		Jump cut 2-3	Switching the feedback message of 1P hopper is often off.	
JP30	Jump cut 1-2	Jump cut 1-2	Switching the feedback message of 2P hopper is often on.	
		Jump cut 2-3	Switching the feedback message of 2P hopper is often off.	
JP31	Jump cut 1-2	Jump cut 1-2	Switching the feedback message of 3P hopper is often on.	
		Jump cut 2-3	Switching the feedback message of 3P hopper is often off.	
JP32	Jump cut 1-2	Jump cut 1-2	Switching the feedback message of 4P hopper is often on.	
		Jump cut 2-3	Switching the feedback message of 4P hopper is often off.	
JP33	Jump cut 1-2	Jump cut 1-2	Switching the feedback message of 5P hopper is often on.	Suitable for six-player cabinet
		Jump cut 2-3	Switching the feedback message of 5P hopper is often off.	Suitable for six-player cabinet
JP34	Jump cut 1-2	Jump cut 1-2	Switching the feedback message of 6P hopper is often on.	Suitable for six-player cabinet
		Jump cut 2-3	Switching the feedback message of 6P hopper is often off.	Suitable for six-player cabinet

• Bridge board of the hopper：
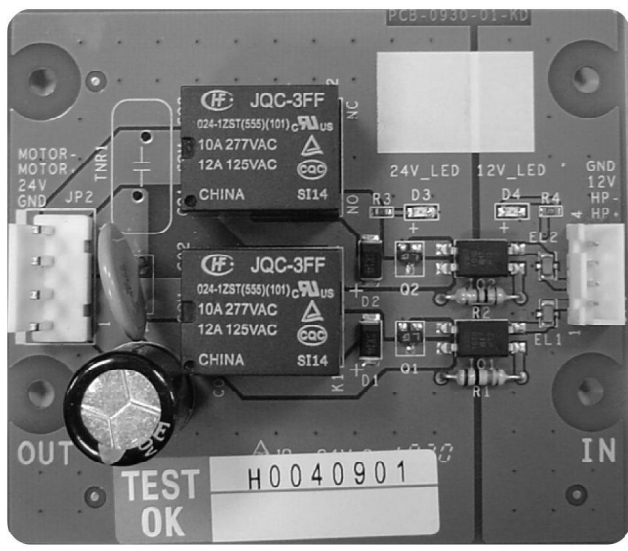
4	3	2	1
GND	+12V	Controlling motor_ turn counterclockwise	Controlling motor_ turn clockwise

JP1

4	3	2	1
Motor negative electrode	Motor positive electrode	+24V	GND

JP2

· **The IO PCBA**

Communication Connector

1P Connector

2P Connector

3P Connector

4P Connector
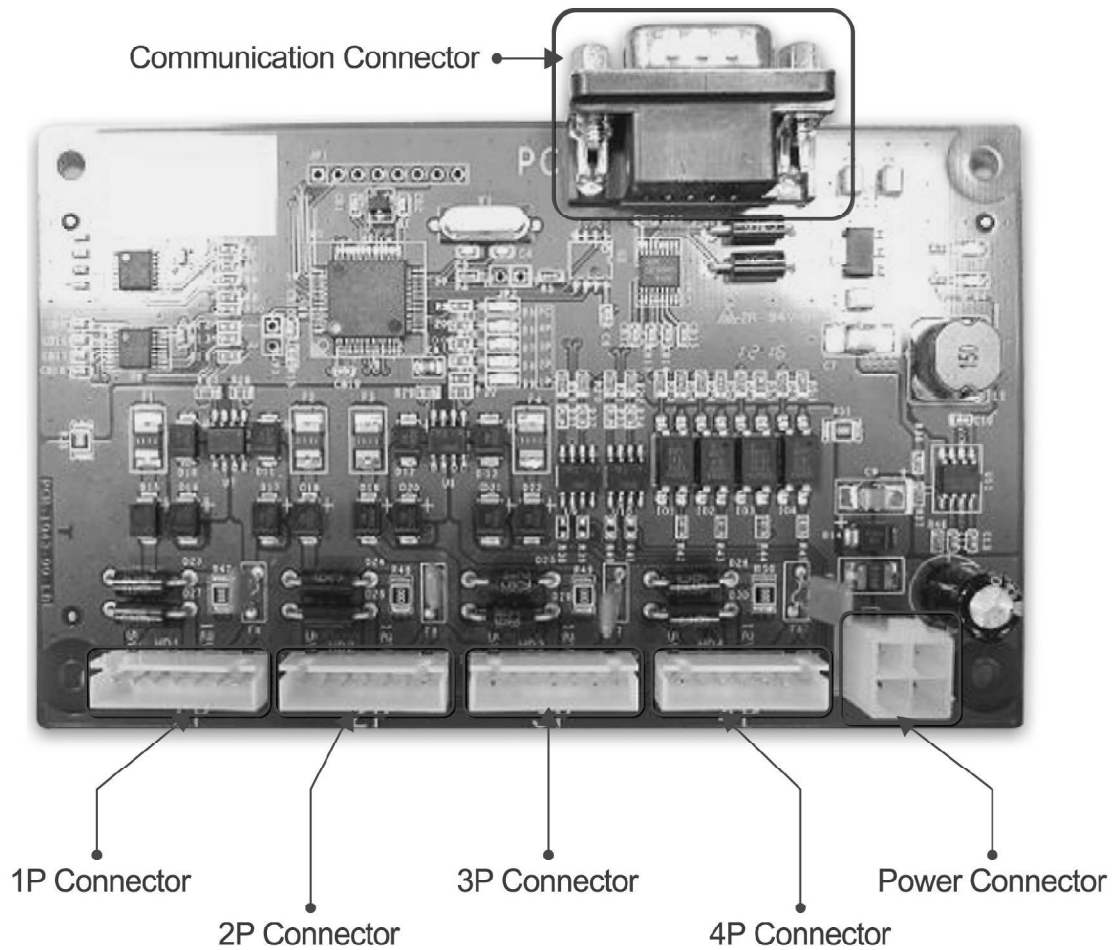
Power Connector

1	2	3	4	5	6	7
+5V	Transmit Data	Receive Data	GND	+12V	Electric Magnet Output	Lamp Output

The Signal of 1P~4P

4	3
	+12V
GND	GND
2	1

The Power Signal of IO PCBA

PCBA Top Side
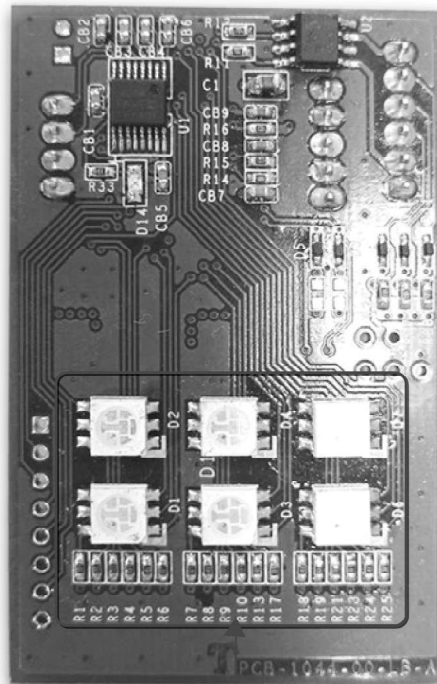
PCBA Bottom Side
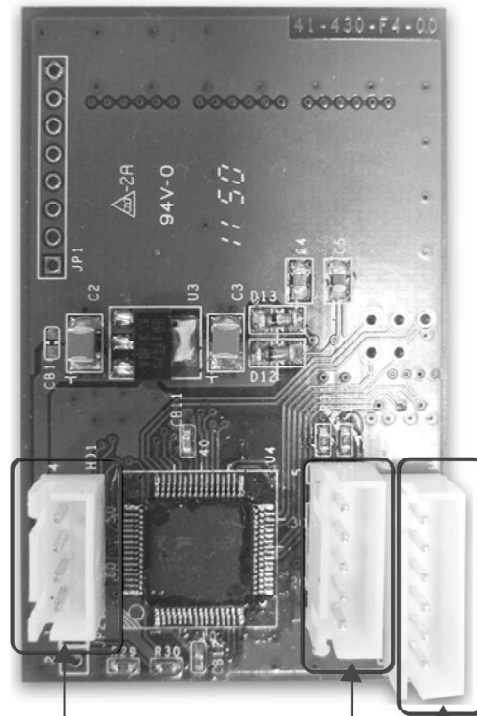
Lamp

Communication
Connector(HD1)

VR Connector(HD2)

Key & Key-Lamp
Connector(HD3)

1	2	3	4
Transmit Data	Receive Data	+5V	GND

HD1

1	2	3	4	5
+3.3V	GND	VR1	GND	VR2

HD2

1	2	3	4	5	6
Key Lamp 1	Key 1	Key 2	Key 3	Key Lamp 2	GND

HD3

4. Troubleshooting

Tip icon	Meaning
E-01 Jammed Coin selector	Check if any coin is stuck in the coin slot machine, and after this problem is solved, press the [key in] to clear error status.
E-02 Hopper Jam	Check if any coin is stuck in the hopper, especially in the opening spot. After this problem is solved, press the [Key in] to clear error status and continue having hopper out.
E-03 Hopper Empty	After the required number of coins is inserted, press the [Key in] to clear error status and continue having coins out.
E-04 Ticket Jam	Check if any ticket is stuck in the ticket dispenser, and after this problem is solved, press the [Key in] to clear error status and continue having tickets out.
E-05 Ticket Empty	After the required number of tickets is added in, press the [Key in] to clear error status and continue having tickets out.
E-06 Credit Error	An error occurred in the Credit, which means something is wrong in the memory of the main board, and the cabinet has to be restarted. The system will also automatically run the resetting.
E-07 Record limit	The records of players' account had reached their upper limits; press the [system] button to enter system's menu and run the resetting.
E-08 Control Panel Error	Check if something goes wrong in the connection of the main cabinet and the control panel.
E-09 Gun Connect Error	Please check the circuit between the Light Gun controller board and the player's Light Gun and then restart the system.
E-10 Gun Control Board Error	Please check the circuit between the Light Gun controller board and mainboard and then restart the system.
E-11 Maximum Score Error	Please use "coin out" or "key out" to clear error messages.

★ After the [Key in] is pressed to do troubleshooting, the key in function will be returned after 5 senceds.

★ The game is proceeded even if hopper jamming in Token Auto Payout mode. When the jamming is clear the payout procedure will continue automatically.

5.Notes

1. The upper limit of Credit in each operation mode

    (1) **TOKEN(AUTO PAYOUT)，TOKEN(NORMAL PAYOUT)，TOKEN & TICKET(AUTO PAYOUT):**
    When Credit Limit 9999 is reached, any extra credit will return to players.

    (2) **TICKET(AUTO PAYOUT)，TICKET(NORMAL PAYOUT):**
    When Credit Limit 9999 is reached, any extra credit will auto payout by tickets according to the ticket rate.

    (3) **TOKEN(NORMAL PAYOUT)，TICKET(NORMAL PAYOUT) :**
    When Maximum Score Limit 20000 is reached, it stops the game and error message is shown on the screen. Please refer to the troubleshooting at page 28 in the manual.

2. In the mode of "TOKEN (AUTO PAYOUT)" or "TOKEN & TICKET(AUTO PAYOUT)", when coin rate is 1:5 to 1:300, and the points players earned from shooting is not sufficient to exchange for a coin, their extra points will be deposited to their Credit.

3. After the cabinet is restarted, the system will erase previously running games, and continue with the main game.