# Set up and Service Manual

## Version: PXP-A2-01

**PROJECT X-PHER**

⭐ Please read this manual before operating your game.

⭐ Please keep this manual in good condition for future reference.

**injoy**
**Injoy Motion**

Need parts or service, please contact us:

**Injoy Motion Corp.**



Technical support: +886-2-2267-6317

Fax: +886-2-2267-5906

E-mail: support@injoymotion.com

Note:
- The product specifications are subject to change without notice.
- This game content, equipment and design protected by law, including patents, copyrights and intellectual property rights.
- Unauthorized reproduction of this document or any of its contents is strictly prohibited.

# SGS

# VERIFICATION OF COMPLIANCE

*to the requirements of*

## EMC Directive 2004/108/EC

| | | |
|---|---|---|
| Verification Report No. | : | RD/2013/70013C |
| Representative Model | : | PROJECT X-PHER AIR TWIN |
| Series Model(s) | : | X AIR TWIN-Z<br>(X=ALLIED TANK ATTACK, PROJECT X-PHER,<br>TOP GUNNER; Z=1, 2, 4) |
| Product Name | : | AIR Series Motion Simulator |
| Applicant | : | Injoy Motion Corp. |
| Address of Applicant | : | 48, Yongping Street, Tucheng District, New Taipei City 236, Taiwan |
| Test Report Number | : | RD/2013/70013 |
| Date of Issue | : | July 26, 2013 |
| Applicable Standards | : | SGS Onsite Test Standard: 2012<br>EN 61000-6-2: 2005, EN 61000-6-4: 2009 |

## Conclusion

In the opinion of SGS, the equipment complies with the principle requirement of the above standards and following directive:

*Electromagnetic Compatibility Directive 2004/108/EC*

*Note: The verification is only valid for the equipment and configuration tested and in conjunction with the test data described in the Test Report.*
*The CE mark as shown below can be used, under the responsibility of the manufacture, after completion an EC Declaration of Conformity and compliances with all relevant EC Directives.*

**Authorized Signatory:**

*Jason Lin*

**SGS TAIWAN LTD.**
**Jason Lin**
**Technical Manager**

CE

SGS Taiwan Ltd. | 134, Wu Kung Road, Wu Ku District, New Taipei City, Taiwan / 新北市五股區五工路134號
台灣檢驗科技股份有限公司 | t (886-2) 2299-3939    f (886-2) 2298-2698    www.sgs.tw
Member of SGS Group

TWB1139795

1008

**ASP**

ADVANCED SAFETY PRODUCT
ASP TECHNOLOGY CORP

8F.-1,No.1, Zhongzheng Rd., Tucheng Dist., New Taipei City 23670, Taiwan(R.O.C.)
TEL:886-2-22613919, FAX:886-2-22613918, E-mail:ASP.twn@gmail.com

# VERIFICATION OF CONFORMITY

### We Hereby Certify that

The following mentioned product has been tested in typical configuration by ASP.

Applicant:

**INJOY MOTION CORP.**
**NO. 48, YONGPING ST., TUCHENG DIST.,**
**NEW TAIPEI CITY 236, TAIWAN(R.O.C.)**

Product Type:

**AIR SERIES MOTION SIMULATOR**

Model Name:

**X AIR TWIN-Z**
**(X=TOP GUNNER, PROJECT X-PHER, ALLIED TANK ATTACK; Z=1, 2, 4)**

### Is in compliance with the European Council Directive 2006/95/EC.

The submitted samples comply with the requirements of the following standard(s):

### EN 60950-1:2006+A12:2011

# CE

This verification refers only to the units submitted for test. The CE mark as shown above can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

Signed for and on behalf of ASP Technology Corp.

_____
Kevin Ku/ Manager.
ASP Technology Corp.
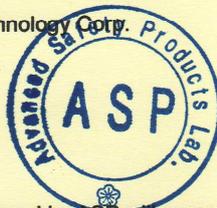
Oct. 14, 2013
Date.

The technical report issued by ASP will support you affix the CE marking.

TCF No.: 3731

# EC DECLARATION OF CONFORMITY

INJOY MOTION CORP.
No. 48, YONGPING ST., TUCHENG DIST.,
NEW TAIPEI CITY 236, TAIWAN(R.O.C.)
(Name / Address)

We herewith declare that the following designated product type:

Product Type:

AIR SERIES MOTION SIMULATOR

Product Name:

X AIR TWIN-Z
(X=TOP GUNNER, PROJECT X-PHER, ALLIED TANK ATTACK; Z=1, 2, 4)

Conform with the essential requirement of the relevant European Directive:
- LVD Directive: 2006/95/EC

They are based on the following standards :

- EN 60950-1:2006+A12:2011 - Information technology equipment – Safety - Part 1: General requirements..

MANUFACTURER / IMPORTER

(Surname, forename )
(Company Stamp)

2013.11.05 , Taiwan
(Date and place)

C E

# Index

# 1. General Information

## 1.1 Safety Notes

Please read the following instructions carefully before using the game.

**Using separate power supply for this machine**

**Handling with care**
The game contains glass and fragile electronic equipment, should be very careful when handling

**Be sure to turn off the power before maintenance**

**Earth Connection**
To avoid electrical shock! Please use earth connection.

**Using connectors properly**
Check direction before connect

**Move PC with care**

## 1.2 Specifications

| Installed Dimensions ( LxWxH ) | 227x159x196cm |
| --- | --- |
| Approximate Weight | 733kg |
| Voltage & Power Requirement | (1)   AC 110VAC, 50/60Hz, 2000W<br>(2)   AC 220VAC, 50/60Hz, 2000W |

Note: The power cord should be connected to a dedicated 15A/220V circuit. No other game should share the circuit with this game.

# 2. Installation

## 2.1 Checklist

| Item (For 1 machine) | Q'ty |
| --- | --- |
| TV cabinet (monitor base) | 1 |
| Cockpit (seat base) | 1 |
| Accessories<br>(top/ right corner/ left corner/ left side/ right side metal plate) | 5 |
| Service manual (with CD) | 1 |
| Other parts kit (plug adapter, keys) | 1 |

**Note:** This machine must be installed indoor, need to maintain a distance of 1 m with the wall. Make sure the unit stands are placed flat on the ground and the machine is not moving when playing.
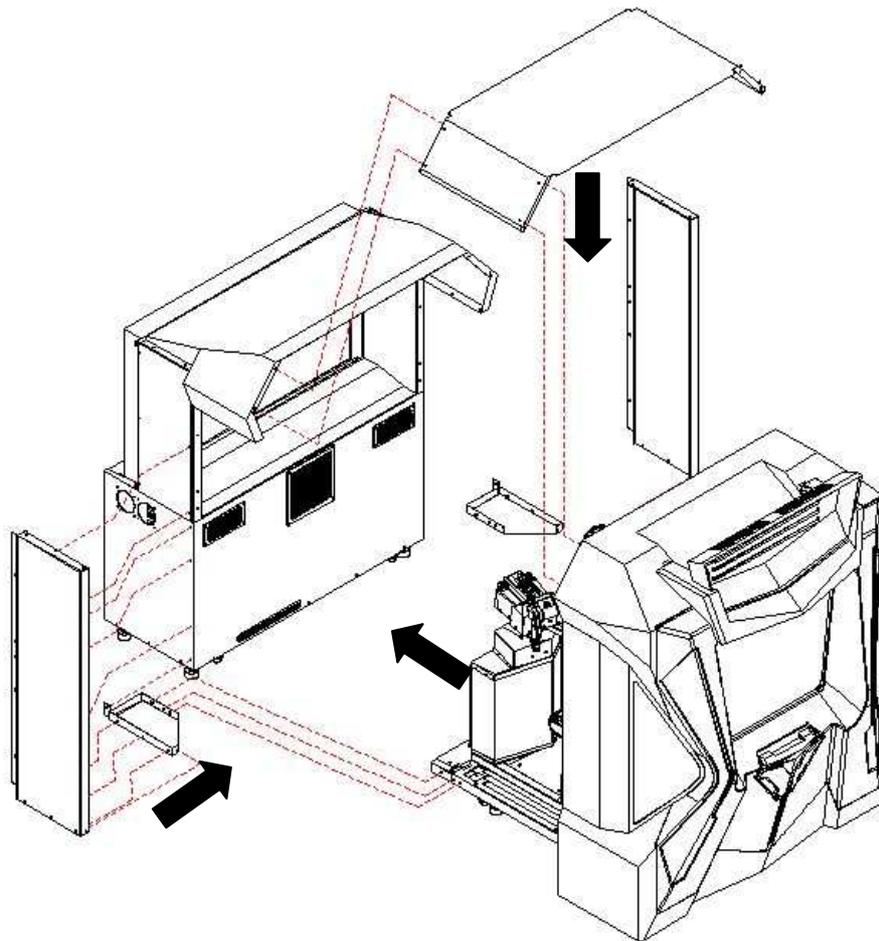


Assembly Diagram

## 2.2 Installation

**Step1**： Inspect the exterior of the cabinet for any damage.

**Step2**： Open case Ⓐ until horizontal position. Then open case cover Ⓑ, and take out tubes and all connectors Ⓒ.
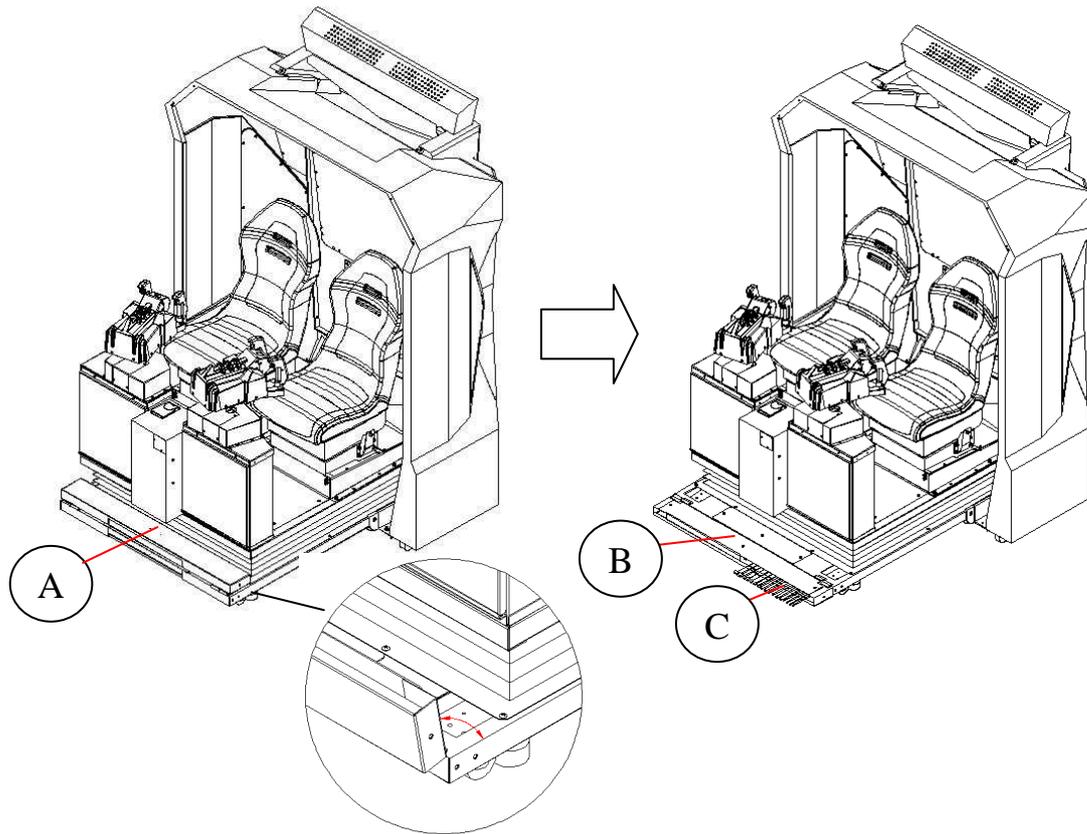
**Step3:** Connecting the tubes

Move the cockpit close to TV cabinet, and connect the tubes①~⑩ from TV cabinet to cockpit according to the same color and size.
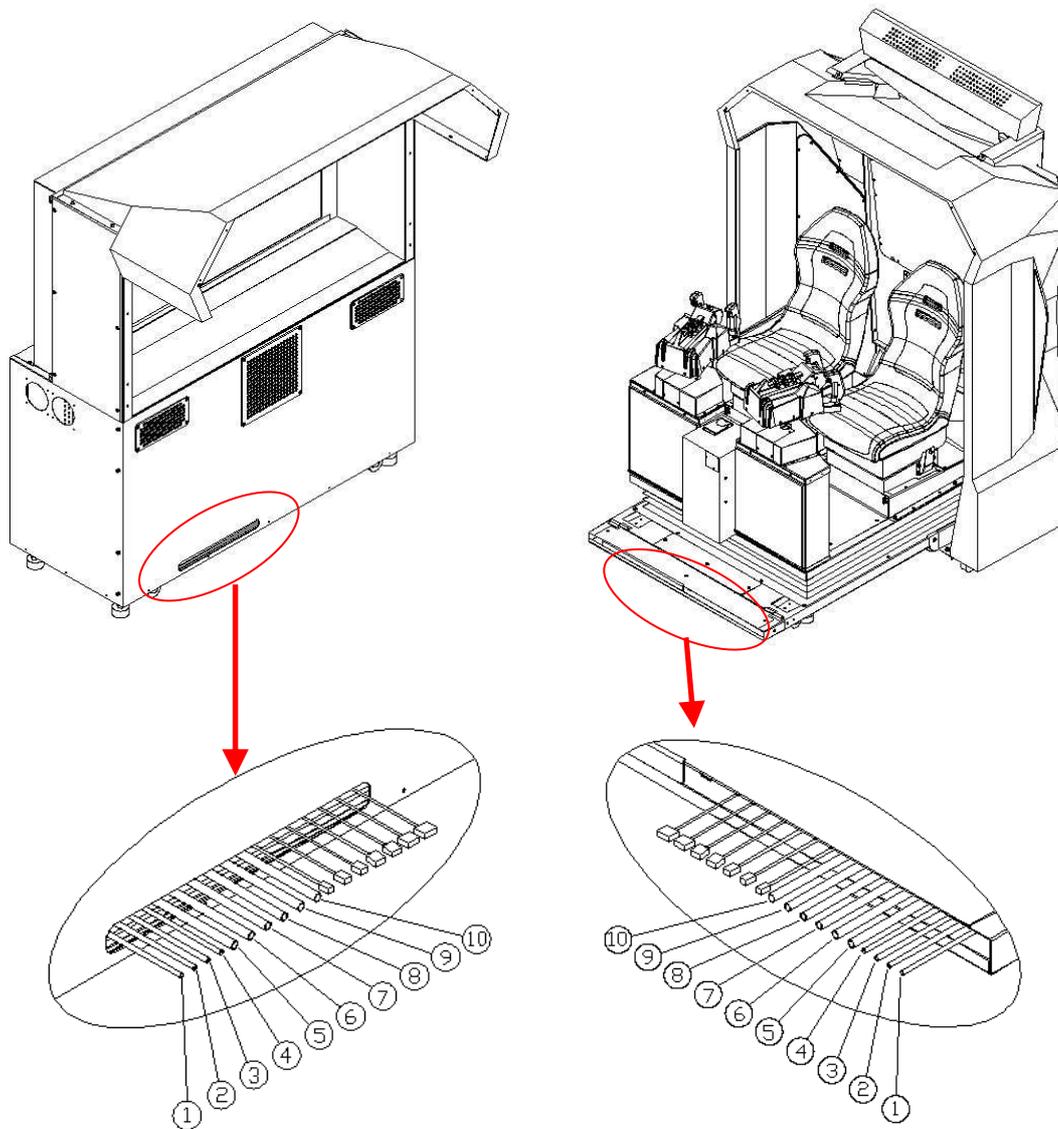


| ① | ψ6 Black Tube | ⑥ | ψ10 Orange Tube |
|---|---|---|---|
| ② | ψ6 Orange Tube | ⑦ | ψ10 Blue Tube |
| ③ | ψ6 Blue Tube | ⑧ | ψ10 Red Tube |
| ④ | ψ6 No-color Tube | ⑨ | ψ10 No-color Tube |
| ⑤ | ψ10 Black Tube | ⑩ | ψ10 Transparent-Blue Tube |

**Step4：** Connecting the connectors ①~⑦ from TV cabinet to cockpit by the same pin-number and the same name tag.
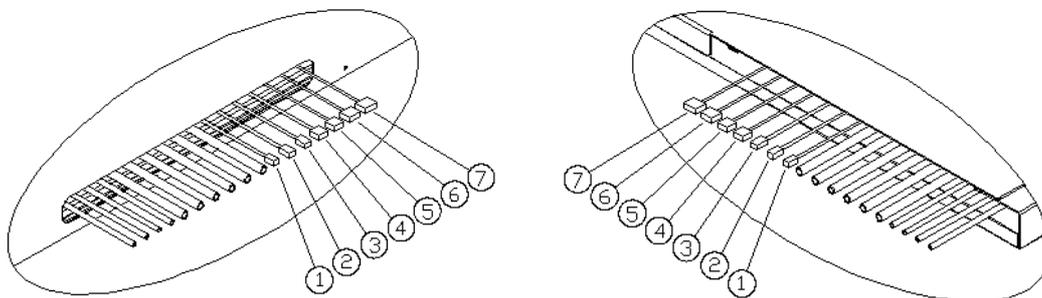


| Number | Shape | Pin | Tag name |
|--------|-------|-----|----------|
| ① | 4 3 / 2 1 / 2 / 1 | 4 | SysGH |
| ② | 6 5 4 / 3 2 1 / 2 / 1 | 6 | Coin Power |
| ③ | 6 5 4 / 3 2 1 / 2 / 1 | 6 | BL |
| ④ | 8 7 6 5 / 4 3 2 1 | 8 | Coin EX |
| ⑤ | 8 7 6 5 / 4 3 2 1 | 8 | START |
| ⑥ | 14 13 12 11 10 9 8 / 7 6 5 4 3 2 1 | 14 | VR |
| ⑦ | 16 15 14 13 12 11 10 9 / 8 7 6 5 4 3 2 1 | 16 | BTN&SB |
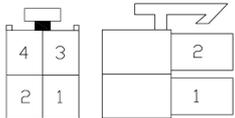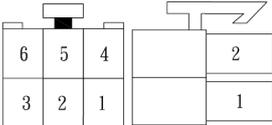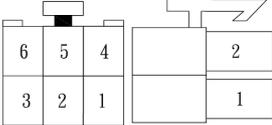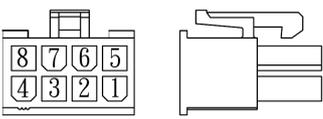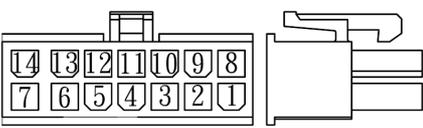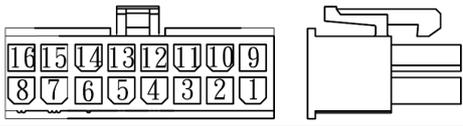
**Step5：** Move the cockpit close to TV cabinet. Use screws③④ to combine left/right corner plate①② to the machine.



| ① | Left corner plate |
|---|---|
| ② | Right corner plate |
| ③ | SHCS M6*16L With double washer |
| ④ | SHCS M8*20L With double washer |
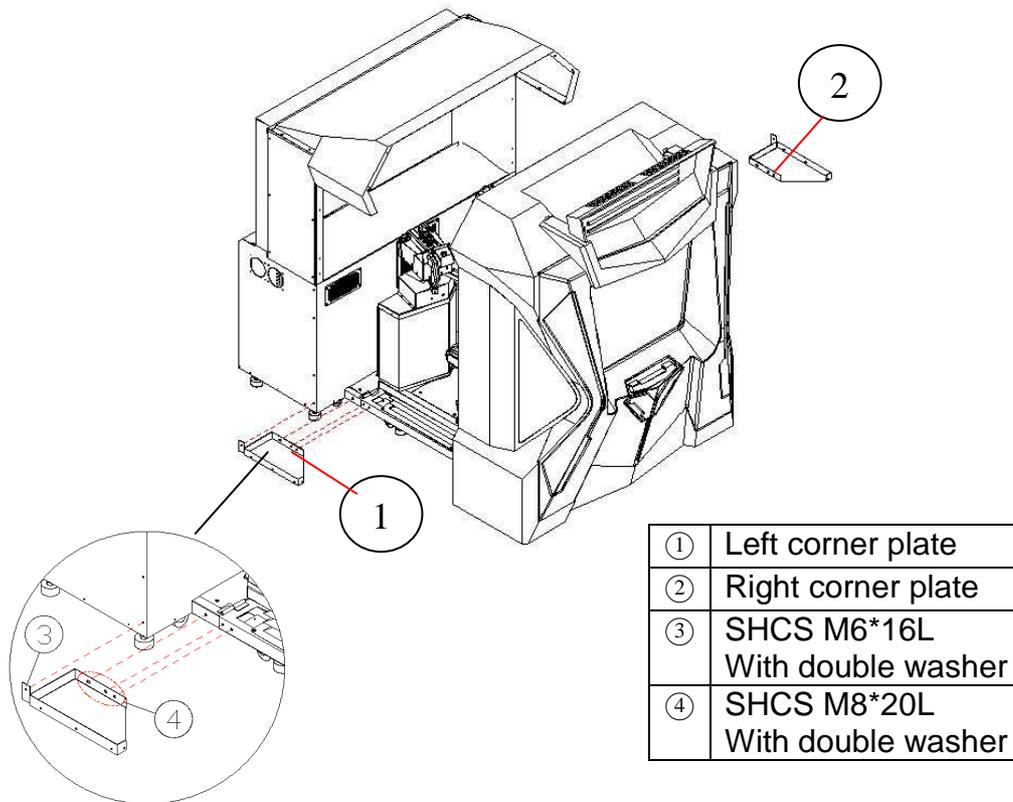
**Step6：** Remove acrylic cover⑤⑥, and keep their screws
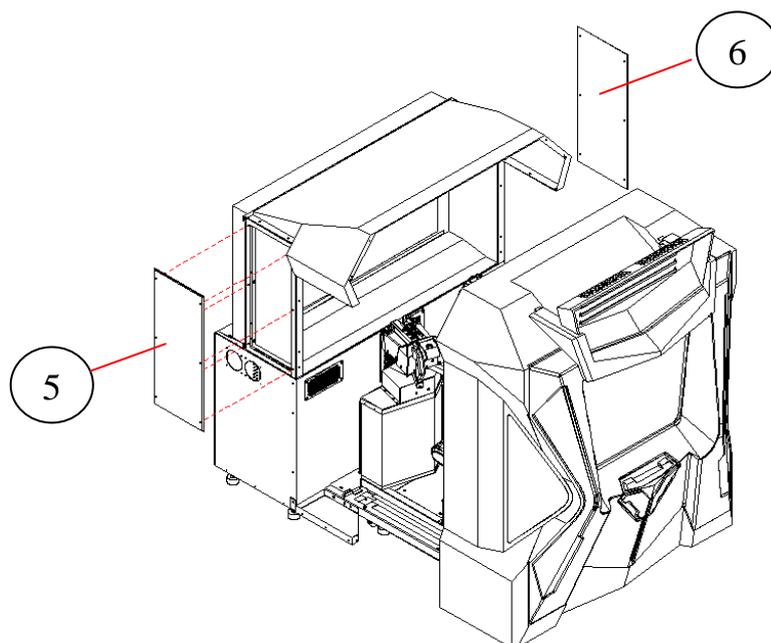
**Step7：** Use screws⑨⑩ to combine the left/right side metal plate⑦⑧ to the machine.

| | |
|---|---|
| ⑦ | left side metal plate |
| ⑧ | right side metal plate |
| ⑨ | SHCS M6*16L With double washer |
| ⑩ | Phillips screws M6*16L |
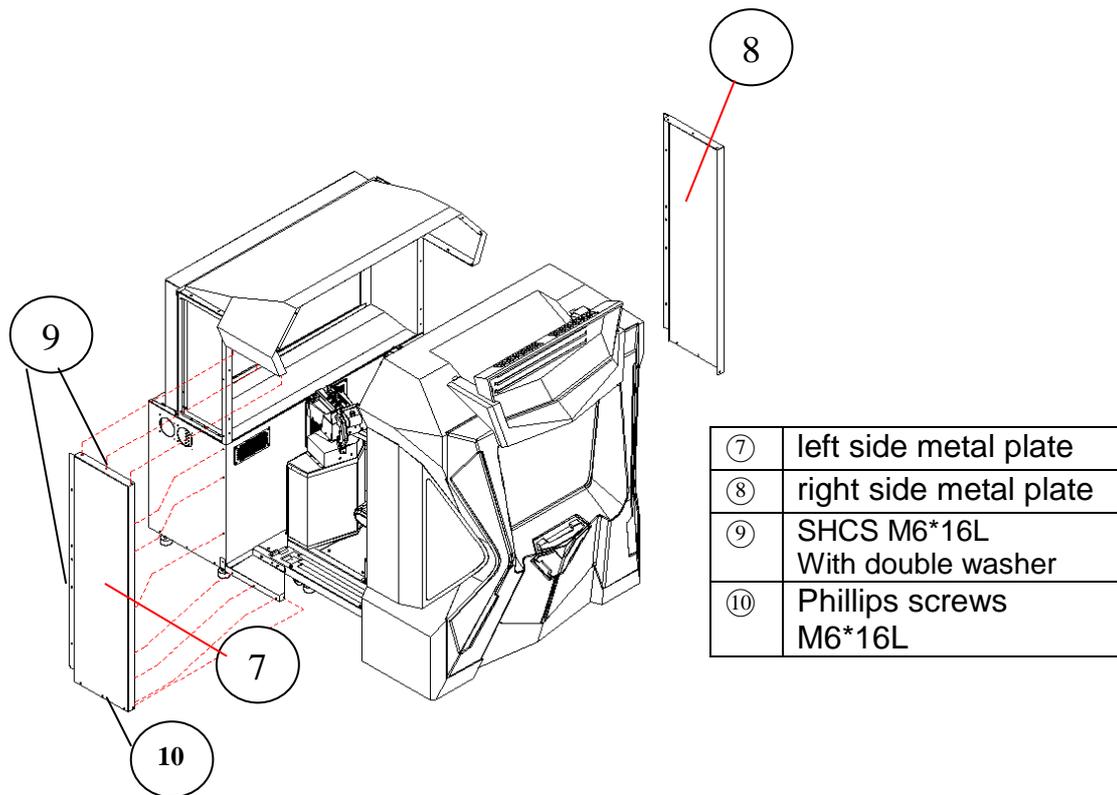
**Step8：** Attach the acrylic cover⑤⑥ to the machine, and use the screws in step6 to fix it.
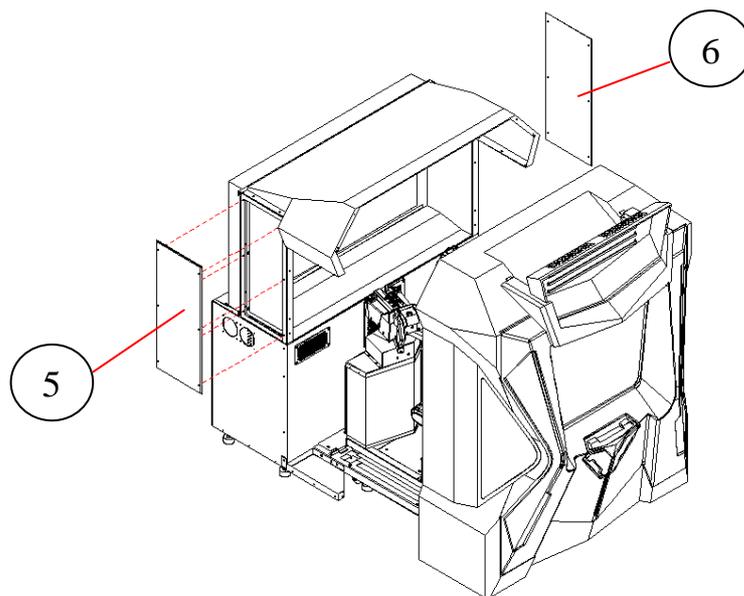
**Step9**：  Use screws⑫  to combine top metal plate⑪  with the machine.



| ⑪ | Top metal plate |
| ⑫ | SHCS M6*16L With double washer |
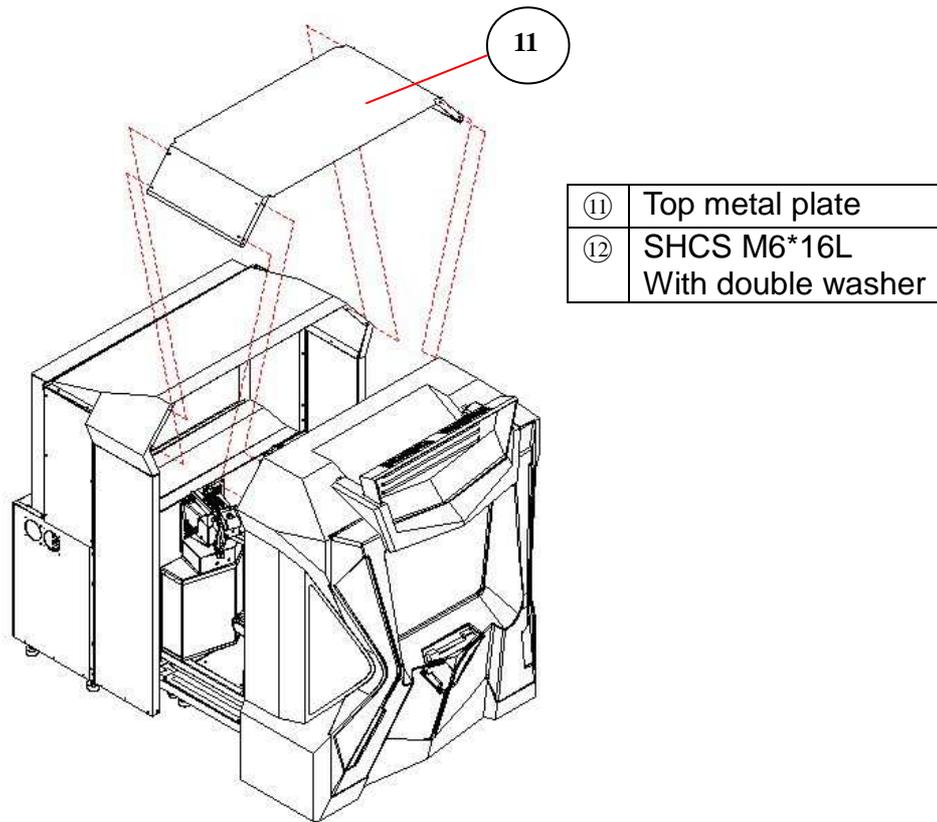
**Step10**：  Assembly done.
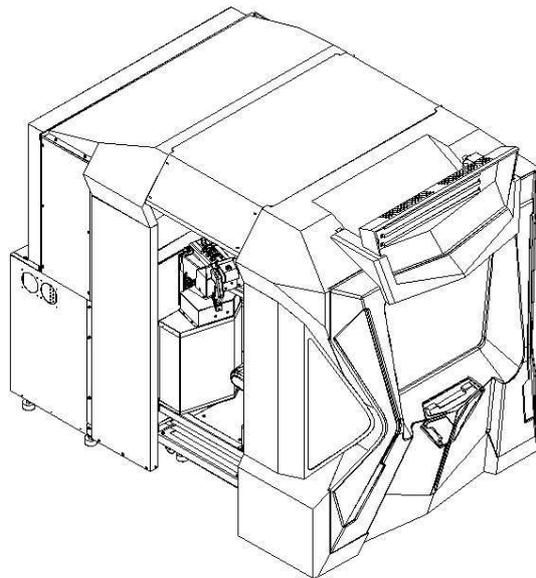
**Step11**：  Move the cabinet to the installation site, check that the width of the pathway need to be more than 1m.

**Step12**：  When the cabinet is in it's final position, adjust the unit stands with the spanner, so that all casters are raised from the floor. Then fix the lock nut with the spanner to ensure the stands do not move.
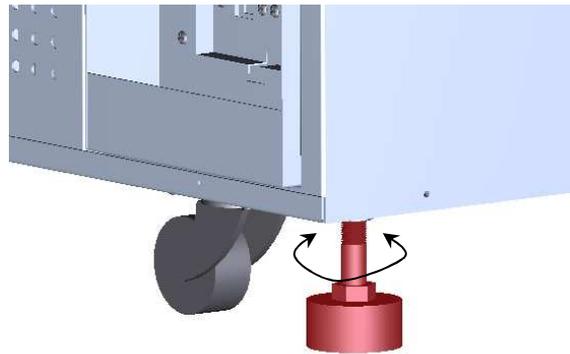
**Step13**：  Connect the AC power cord from the cabinet to the AC wall outlet.

**Caution**

1. The power cord should be connected to a dedicated 15A /220Vcircuit.
2. No other game should share the circuit with this game

## Coin Acceptor Setting

**Step14**：  Pull up the slider of the coin acceptor and insert the coin into the coin acceptor. Release the slider to fix the coin acceptor.
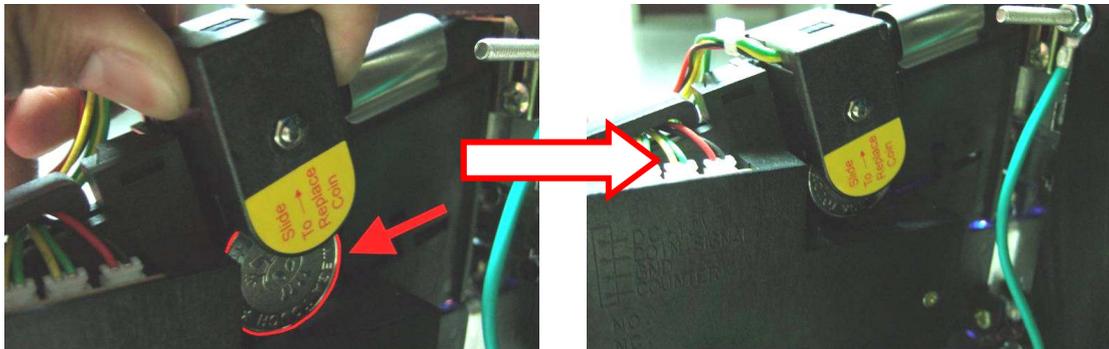


**Step15**：  Check the Coin Acceptor Setting. (Select "NO" on top switch, "SLOW" on bottom switch)

## Placement for external plate

**Step16**：  Put a plate on the floor and right under the drain valve.
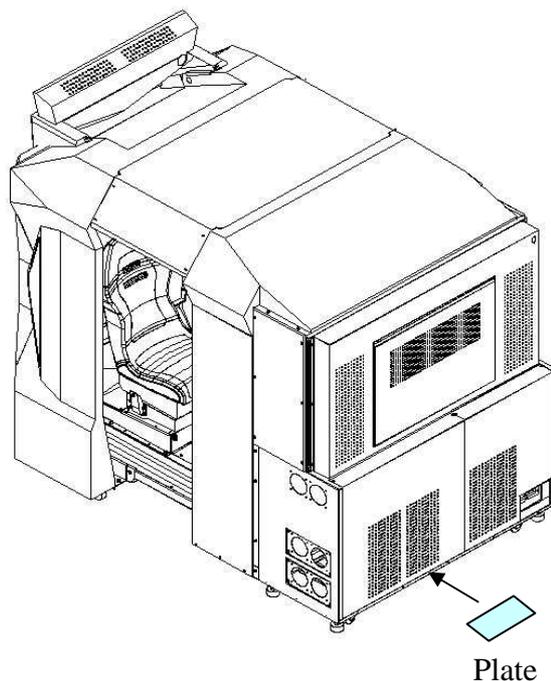


Plate

Note: The air compressor tank drains water after machine power off. So it is suggested to put a container on the floor and right under the drain valve to catch the water. Generally, a plastic plate around 25x20x3 cm (LxWxH) is suggested.

# 3. Game setting (Operator menu)

To access Operator Menu, after the Power is switched ON and the screen shows "insert coin", find the red operator menu switch located inside the coin box, switch it to "I" position to enter.



Then you will see below screen.
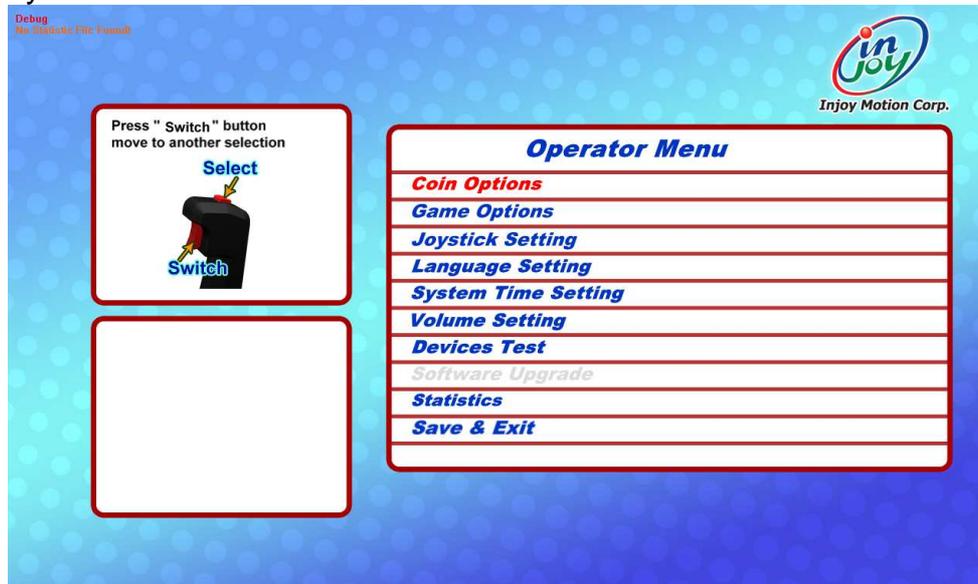
## 3.1 Coin Options

1. **"*Coins per Play*"** allows you to set how many coins it will take for a player to start a game. The factory default setting value is 4 coins per play.

2. **"*Coins per Continue*"** allows you to charge a different price for continue-play from the first game play. The factory default setting value is 4 coins per play.

3. **"*Currency Type*"** is not to select the currency of a country, but allows selection of the forms of currency

4. **"*Coins per Pulse (Coin Acceptor 1)*"** allows you to adapt different currency acceptors. The default value is 1.

5. **"*Coins per Pulse (Coin Acceptor 2)*"** allows you to adapt different currency acceptors. The default value is 1.



*Injoy Motion Corp.*

Click " Exit " button to Save & Exit

**Exit**

**Switch**

| Coin Options | |
|---|---|
| Coin per Play | 4 |
| Coin per Continue | 2 |
| Currency Type | Coin |
| Coin per Pulse(Coin Acceptor 1) | 1 |
| Coin per Pulse(Coin Acceptor 2) | 1 |
| Coin Acceptor Training | |
| Save & Exit | |
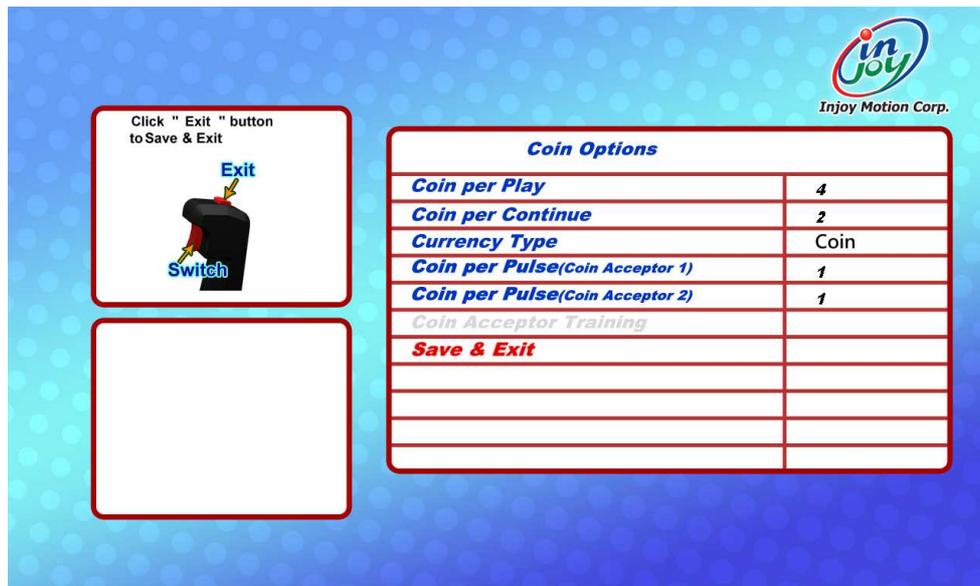
## 3.2 Game Options

1. "*Continue Timer Length*" no function.

2. "*Game Show Operation" - Enable* sets free game play. Click "+" or "-" button to "Enable" or "Disable" this function.

# 3.3 JOYSTICK SETTING

If the potentiometer value is out of safe range after installation, it will result in error. Please fine tune the potentiometer values to make it work in the safe range and do the calibration.

To calibrate the joystick, follow the directions on the screen and go through the steps below.

**Step1.** Hold the "Calibrate" button on the shooting gun to calibrate it.
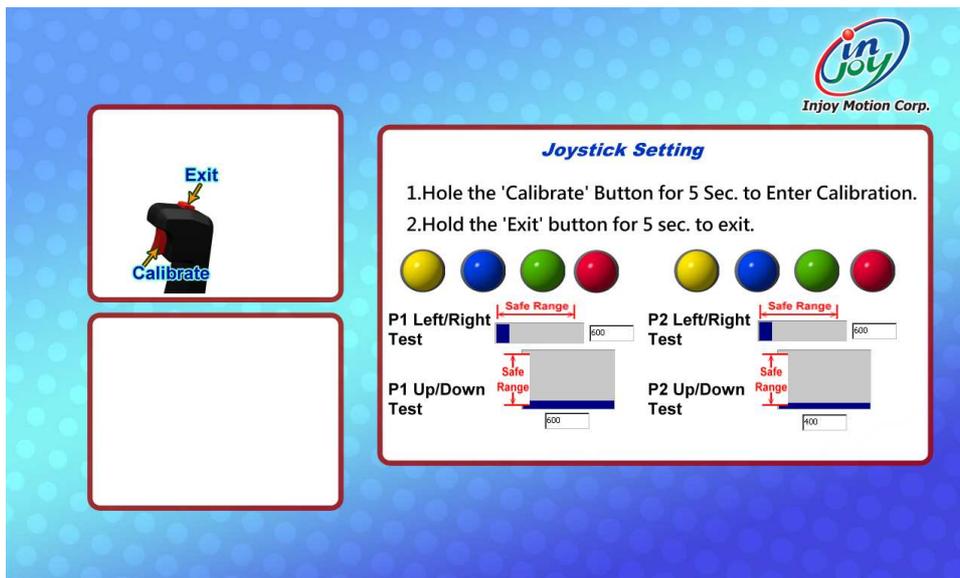


**Step2.** Release the shooting gun, then press "Next" button.
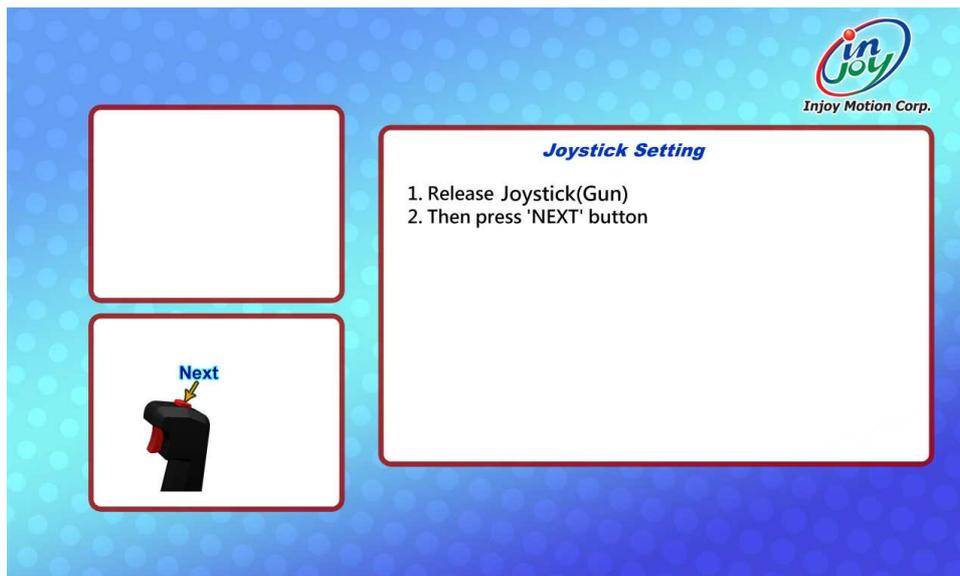
**Step3.** Turn the shooting gun to the up, down & left, right limit and then press "Next" button.
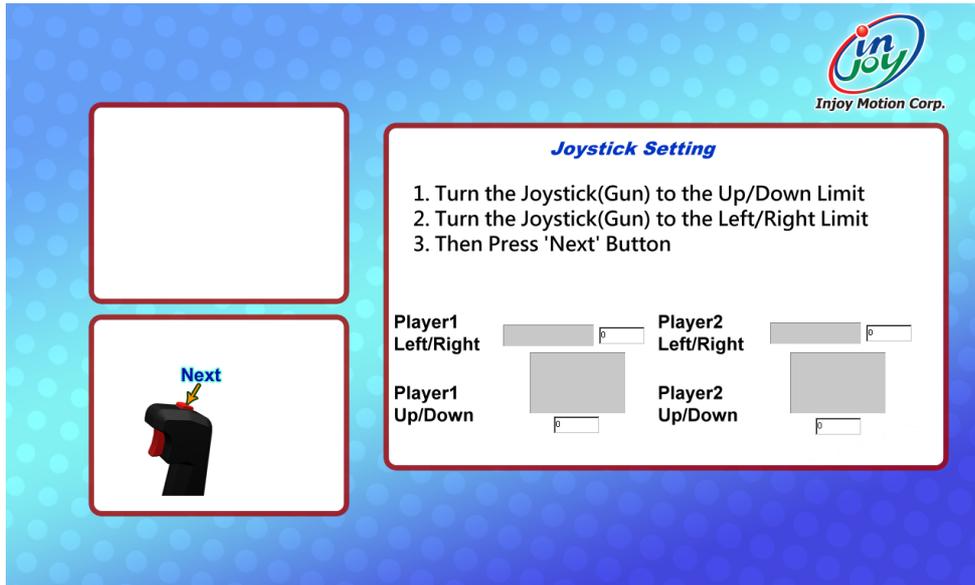


**Step4.** After finish the calibration, press "Exit" button to finish.
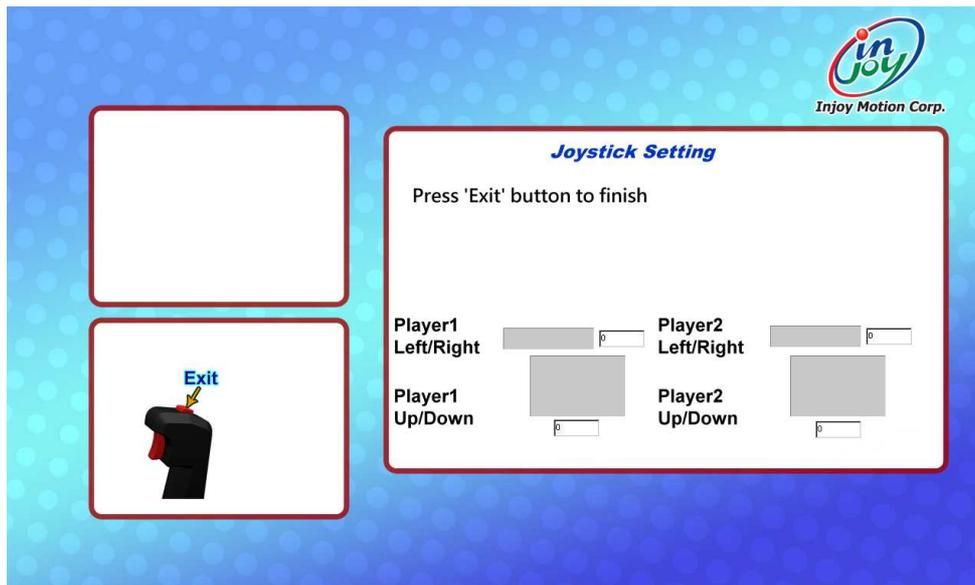
## 3.4 Volume setting

"Game Volume" can adjust the system volume, suggestion 75~85.
"Idle Movie Volume" can adjust Idle Movie volume, suggestion 15~35.



## 3.5 Device Test

After entering device test, all airbags will be aerated，and we can check their conditions.

| Normal(Full) | Broken(Soft) |
| --- | --- |

Check if all device (coin accepter, emergency stop button, left seat belt, right seat belt, gun effect) work properly as well.



## 3.6 Save & Exit

After the setup is completed, please select "Save & Exit", and then select "Yes". Lastly, switch the red operator menu switch back to "O" position and turn off the machine. Then wait for 30secs and turn on machine power.
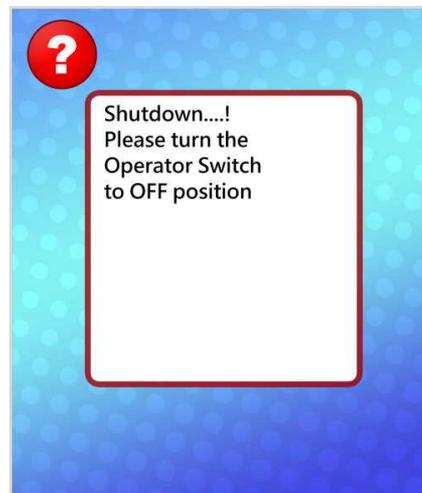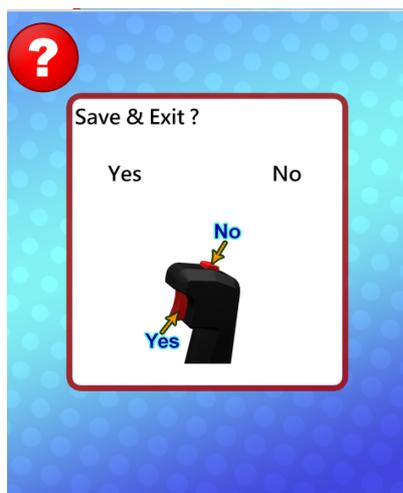
# 3.7 System Recovery



Recovery switch


OFF          ON
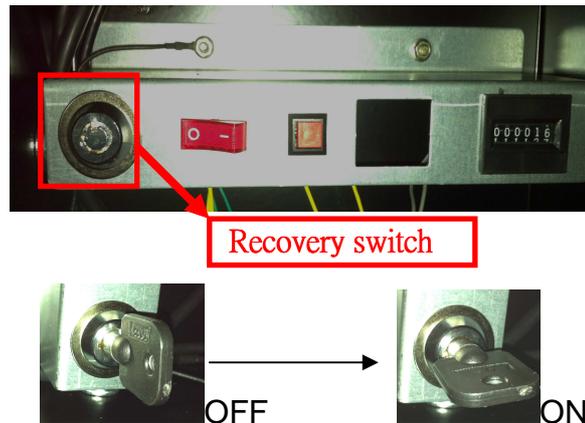
**Step1**：When the screen shows "insert coin", Use the key specified for recovery switch and turn it right.

**Step2**：Turn the machine off, wait for 30 seconds

**Step3**：Turn on the power, and you will see the screen as below. When recovery is in progress, do not turn off the power, or the system will be destroyed permanently.
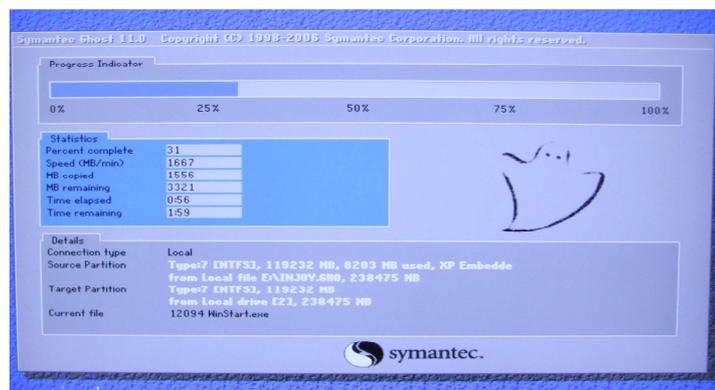


**Step4**：If success, will see screen as below.



Please pull out USB flash disk
Then turn off the power!!

C:\>_

**Step5**：Turn the key left and take it out.

**Step6**：Turn the machine off, wait for 30 seconds

**Step7**：Turn on the power. <Finish>

# 4. Trouble shooting

## 4.1 Error code

### EC001

| Description | Calibration fail on left gun's X axis | |
|---|---|---|
| **Cause** | | **Troubleshooting** |
| 1. potentiometer exceed dead zone | | Make sure the potentiometer is working in the operating range, value increase/decrease smoothly, and then re-enter the game operation menu to do the calibration again. |
| 2. faulty potentiometer | | Change the potentiometer of the gun and enter the game operation menu to calibrate again. |

### EC002

| Description | Calibration fail on left gun's Y axis | |
|---|---|---|
| **Cause** | | **Troubleshooting** |
| 1. potentiometer exceed dead zone | | Make sure the potentiometer is working in the operating range, value increase/decrease smoothly, and then re-enter the game operation menu to do the calibration again. |
| 2. faulty potentiometer | | Change the potentiometer of the gun and enter the game operation menu to calibrate again. |

### EC003

| Description | Cockpit card can not be recognized | |
|---|---|---|
| **Cause** | | **Troubleshooting** |
| 1. faulty USB cable | | Replace the USB cable |
| 2. faulty USB port on the motherboard | | Plug the USB cable to another USB port on the motherboard |
| 2. faulty cockpit card | | Replace the cockpit card. |

## EC005

| Description | Calibration fail on right gun's X axis |
| --- | --- |

| Cause | Troubleshooting |
| --- | --- |
| 1. potentiometer exceed dead zone | Make sure the potentiometer is working in the operating range, value increase/decrease smoothly, and then re-enter the game operation menu to do the calibration again. |
| 2. faulty potentiometer | Change the potentiometer of the gun and enter the game operation menu to calibrate again. |

## EC006

| Description | Calibration fail on right gun's Y axis |
| --- | --- |

| Cause | Troubleshooting |
| --- | --- |
| 1. potentiometer exceed dead zone | Make sure the potentiometer is working in the operating range, value increase/decrease smoothly, and then re-enter the game operation menu to do the calibration again. |
| 2. faulty potentiometer | Change the potentiometer of the gun and enter the game operation menu to calibrate again |

## 4.2 General issues

| Problem | Solution |
|---|---|
| No power | Make sure the power cord is connected and voltage is correct. |
| | Make sure the breaker is "ON". |
| No motion | Make sure the power switch of the air compressor is "ON". |
| | Make sure the output valve of the air compressor is "ON". |
| | Make sure the green light on all pneumatic valves light up. |
| | Go to operator menu *Device Test* to test all airbags. |
| PC shut down suddenly | Make sure no other game share the power circuit with this game. |
| | Make sure the computer's power cord is well connected. |
| | Reconnect memory stick, graphic card in the computer. |
| | Change the PC power supply. |
| PC Crash | Restart the PC. |
| Machine overheat | Check all fans work properly. |
| | Ensure no objects block the vents. |
| Can not insert coin | Remove stuck coins. |
| | Go to operator menu check *Coin Setting*. |
| | Reinstall reference coin. |
| Can not recover system | Make sure recovery USB disk is connect in the PC. |
| | Contact Injoy Motion Corp. to change the hard disk. |
| Can not enter operator menu | Check the connection between cockpit card and OP switch. |
| | Recover the system. |
| | Contact Injoy Motion Corp. to change the cockpit card. |

## 4.3 Display

| Problem | Solution |
|---------|----------|
| No screen | Update graphic card's driver. |
| | Check the connection for the monitor. |
| | Clean and reconnect the graphic card. |
| | Contact Injoy Motion Corp. to change the graphic card. |
| | Contact Injoy Motion Corp. to change the LCD. |
| No screen and no sound | Check the power cord and power switch on the PC. |
| | Take out the PC and test it on the desk with external monitor and keyboard. |
| | Contact Injoy Motion Corp for more information. |
| White screen | Make sure USB cable between cockpit card and pc is well connected. |
| Lag problem | Update graphic card's driver and restart the PC. |
| | Contact Injoy Motion Corp. to change the graphic card. |
| Resolution is not right | Change resolution to1280x768. |
| LCD abnormal | Contact Injoy Motion Corp. to change the LCD. |

## 4.4 Sound

| Problem | Solution |
|---------|----------|
| No sound in game | Go to operator menu and change *Volume Setting*. Adjust amplifier volume. |
| | Check the connection for audio amplifier and speaker. |
| | Contact Injoy Motion Corp. to change the audio amplifier. |
| Poor sound in game | Contact Injoy Motion Corp. to change the audio amplifier. |
| air leak could be heard | Listen carefully to the air compressor, air bags, tubes, drain valve and water filter to find out where's air leak. Then check if the connection is loose or something broken. |
| | Put your hand under the control cabinet, right under the drain valve and water filter to feel if there's air leak. |

## 4.5 Control

| Problem | Solution |
|---------|----------|
| Button failure | Change micro switch. |
| | Check wire connecting. |
| | Contact Injoy Motion Corp. to change the cockpit card. |
| The moving for the target on the screen is abnormal | Go to operator menu *Joystick Setting* and do the calibration. |
| | Check the potentiometer for the joystick. |
| Airbag does not work properly in the game. | Go to operator menu *Device Test* and check if all airbags work fine. |
| | Make sure the power switch of the air compressor is "ON". |
| | Check if air compressor works properly. |
| | Make sure all green lights on pneumatic valves light up. |
| | Contact Injoy Motion Corp. for further support. |

# Main Parts
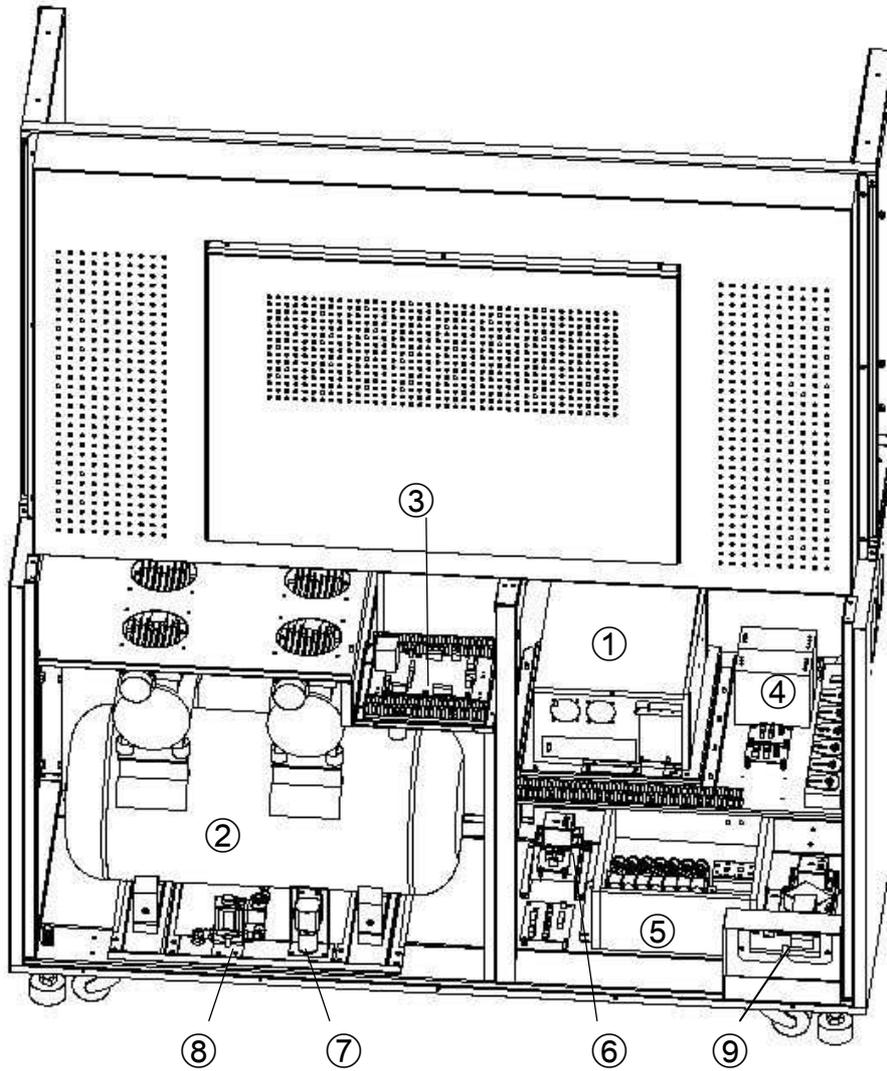


| ① | PC | ⑥ | Air control card |
|---|---|---|---|
| ② | Air compressor | ⑦ | Water filter |
| ③ | Cockpit card | ⑧ | Drain valve |
| ④ | Power supply | ⑨ | Input AC power |
| ⑤ | Pneumatic valve | | |

## 4.6 Technical Support

Service center: Injoy Motion Corp.

Phone: +886-2-2267-6317

Fax: +886-2-2267-5906

Time: 9:00AM~6:00PM (GMT+8), Monday to Friday

E-mail: support@injoymotion.com

When you contact technical support, please provide the following information so that we can understand the situation and solve your problem as soon as possible, thank you for your cooperation:

1、Machine serial number _____

2、Software version _____

3、Error code _____

4、Problem Description _____

5、Any changes to the system _____

# Appendix A: How to connect tubes

## 1. Insert

A. Insert the tube to the end.
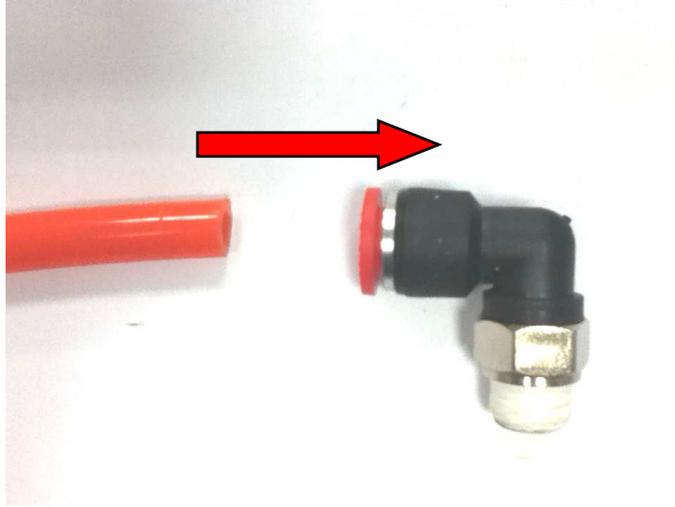


B. Finish

## 2. Pull out

A. Push the releasing ring in the front of the quick coupler.
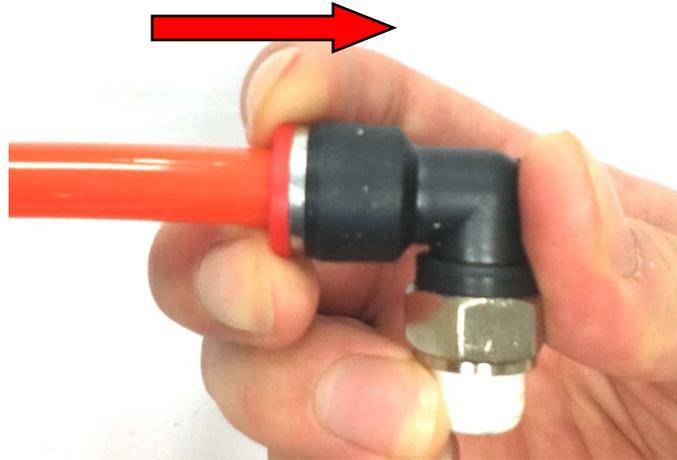
B. Pull out the tubes

# Appendix B: Clean the two-way drain valve
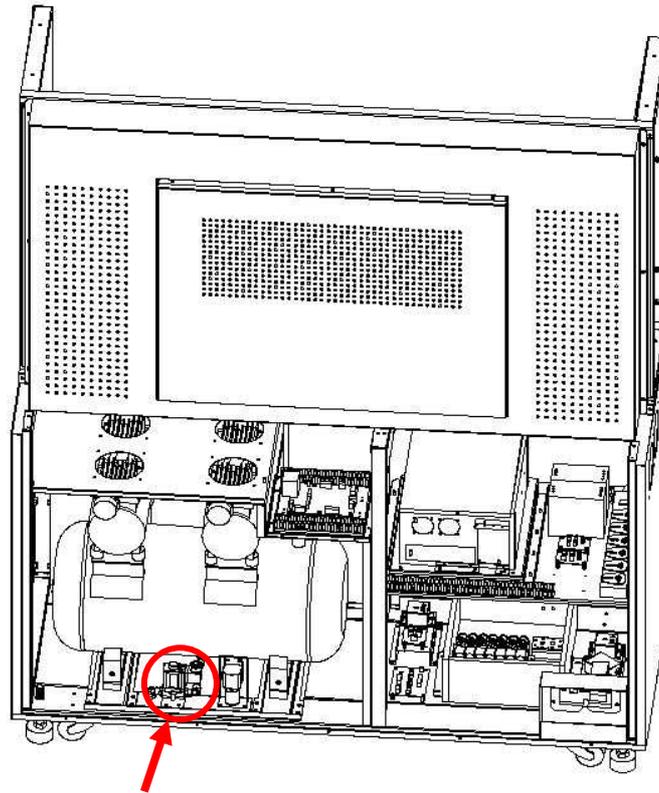


**Two-way drain valve**

Follow the steps below to clean the pathway inside the drain valve:

1. Remove the metal piece

2. Remove the body-part



3. Remove 4 screws



4. Remove the core-part

5. Clean the two-way valve inside



6. Install the core-part



7. Install 4 screws

8. Install the body-part



9. Install the metal piece <Finish>

# Appendix C: Connection for coin accepter

**LINE-AP-COIN** is the main cable for the coin accepter. There are three branches for LINE-AP-COIN:
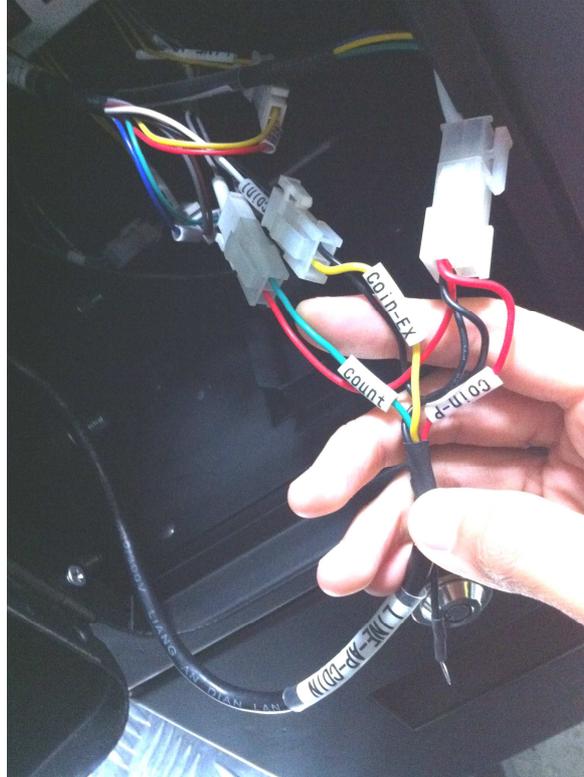


1. *"Coin-P"* input power 12V to the coin accepter.

   Connector assignment:
   Pin1: 12VDC (red)
   Pin2: ground (black)
   Pin3: none
   Pin4: none
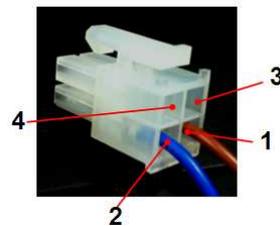


2. *"Coin-Ex"* output credit signal from the coin accepter

   Connector assignment:
   Pin1: credit pulse
   Pin2: ground (black)
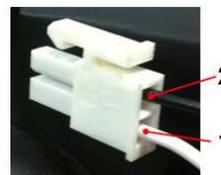


3. *"Count"* output coin count to the counter

   Connector assignment:
   Pin1: coin count
   Pin2: 12VDC (red)