

# SERVICE MANUAL



ISSUE DATE: Dec. 22, 2010



- ▶ Please read the manual carefully and keep it in mind before using this machine.
- ▶ Put this manual within touch of your reference in anytime.

# PRECAUTIONS FOR USE

The following safety precautions are given throughout this manual. They must be strictly followed to protect those who install, use or maintain this product as well as to protect players, visitors and property.

For safety reasons.

- The following suggestions should be adhered to:



## WARNING

Disregarding could result in serious injury.



## CAUTION

Disregarding could result in injury or product damage.

- The following graphic suggestions describe the types of precautions to be followed.



Indicates a care should be taken.



Forbidden.



Indicates a matter which must be performed.

- Precautions to be followed:

**Certain procedures require a qualified in-shop maintenance person or industry specialist. For such instructions, a qualified person must take care of the jobs.**

- Otherwise an electric shock, machine trouble, or a serious accident may result.
- Replacing the machine parts, inspecting and maintaining the machines, and troubleshooting must be assigned only to a qualified in-shop maintenance person or industry specialist. This booklet gives instructions that hazardous jobs in particular must be handled by an industry specialist. Qualified in-shop maintenance person and industry specialist are defined as follows.

### **Qualified in-shop maintenance person**

- A service staff shall have experience in operations of game machines. The staff shall be responsible for assembly, installation, inspection and maintenance of the machine.

### **Industry specialist**

- An industry specialist must be engaged in designing, manufacturing, inspecting and servicing amusement machines. He or she must have an education in electrical, electronic and mechanical engineering, and routinely maintain and repair amusement machines.

# PRECAUTIONS FOR USE

## WARNING

**Be sure to consult an industry specialist when setting up, moving or transporting this product.**

- This product should not be set up, moved or transported by any one other than an industry specialist.
- When installing this product, set the 4 leg levelers evenly on the floor and make sure that the product is installed stably in a horizontal position. Unstable installation may result in injury or accident.
- When installing this product, do not apply undue force on movable parts. Otherwise, injury and accident may result, or the product may be damaged.

**The machine for indoor usage only does not install outside.**



**Do not set the game machine up near emergency exits.**



**Protect the game machine from:**

- Rain or moisture.
- Direct sunlight.
- Direct heat from air-conditioning and heating equipment, etc..
- Hazardous flammable substances.
- Otherwise an accident or malfunction may result.



**Do not place containers holding chemicals or water on or near the game machine.**



**Do not place objects near the ventilating holes.**



**Do not bend the power cord by force or place heavy objects on it.**



**Never plug or unplug the power cord with wet hands.**



**Never unplug the game machine by pulling the power cord.**



## CAUTION

**Be sure to use indoor wiring within the specified voltage requirements. For extension cord, use the specified rating or more.**

**Be sure to use the attached power cord.**

**Never plug more than one cord at a time into the electrical receptacle.**



**Do not lay the power cord where people walk through.**



**Be sure to ground this product.**



**Do not exert excessive force when moving the machine.**




**For proper ventilation, keep the game machine 100mm(4") away from the walls.**

**Do not alter the system related dipswitch settings.**

# PRECAUTIONS FOR USE


## WARNING

**If there is any abnormality such as smoke, bad smell or abnormal noise being emitted from the machine, immediately turn OFF the main power switch and unplug the power cord from the receptacle to stop operating it.** 

- Using the machine in abnormal conditions could result in fire or accidents.


### In case of abnormality

1. Turn OFF the main power switch.
2. Unplug the power cord from the receptacle.
3. Contact your nearest dealer.

**Do not leave the power cord plugged in improperly or covered with dust.** 

- Doing so could result in the power cord periodically.


## CAUTION

**Do not use this product anywhere other than industrial areas.** 

- Using in a residential area or an area next to a residential area could affect signal reception of radios, television sets, telephones, etc..
- Do not give shock the surface of glass products.

- Please do not play this game if
  - When you do drinking;
  - When your physical condition is not normal;
  - When you are in pregnancy;
  - When you have on a pulse controller;
  - When you have recently experienced a cramp or fainting away while watching TV.
- Avoid excessive force/shock while playing/moving the game.
- While do games, pay attention to surrounding.

**Do not plug or unplug the power cord with wet hands.** 

**In handling the power cord, follow the instructions below.** 

- |   |  |
|---|--|
| • Do not damage the power cord.           | • Do not modify the power cord.            |
| • Do not bend the power cord excessively. | • Do not twist the power cord.             |
| • Do not heat the power cord.             | • Do not pull the power cord.              |
| • Do not bind the power cord.             | • Do not stand on the power cord.          |
| • Do not sandwich the power cord.         | • Do not drive a nail into the power cord. |

**If the power cord or power plug becomes damaged, stop using the machine immediately and ask your nearest dealer to replace the parts.**



# PRECAUTIONS FOR USE

## WARNING

Be sure to turn OFF the main power switch and unplug the power cord from the receptacle before inspecting or cleaning the machine.



When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.



Opening inside the machine shall be done by machine specialist only as high electric current is being sent inside. For game machine with monitor, a care should be taken while opening its back door. If not, a damage to the inside parts or the monitor may occur.



If the sub power switch of the service panel is turned OFF without turning OFF the main power switch of the power supply unit, some parts in the units remain live. When opening the back door, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.



Strictly refrain from disassembly and repair of parts which are not indicated in this manual, as well as settings and remodeling.



To clean the game machine, wipe it with a soft cloth dampened in a neutral detergent.

- Using thinner or other organic solvent or alcohol may decompose the material.
- Electrical shock or equipment failure could be caused by water entering the inside of the machine.

## CAUTION

Components in the game are sensitive to vibrations and impact. Care should be used when moving and transporting the game machine.



Be sure not to let the machine tip over.

Before moving the machine, be sure to turn OFF the main power switch, unplug the power cord from the receptacle and remove the power cord from the machine.



Before moving take the machine, off the levelers and move it on the casters.

Avoid excessive force while moving the machine.

## PRECAUTIONS IN HANDLING

- When setting up, inspecting, maintaining, moving or transporting this product, follow the procedures and instructions set forth in this manual and perform such work safely.
- Do not set up, handle, inspect, maintain, move or transport this product under conditions equivalent to the condition of "WARNING" or "CAUTION" specified in this manual.
- If a new owner is to have this product as a result of transfer, etc., be sure to give this manual to the new owner.

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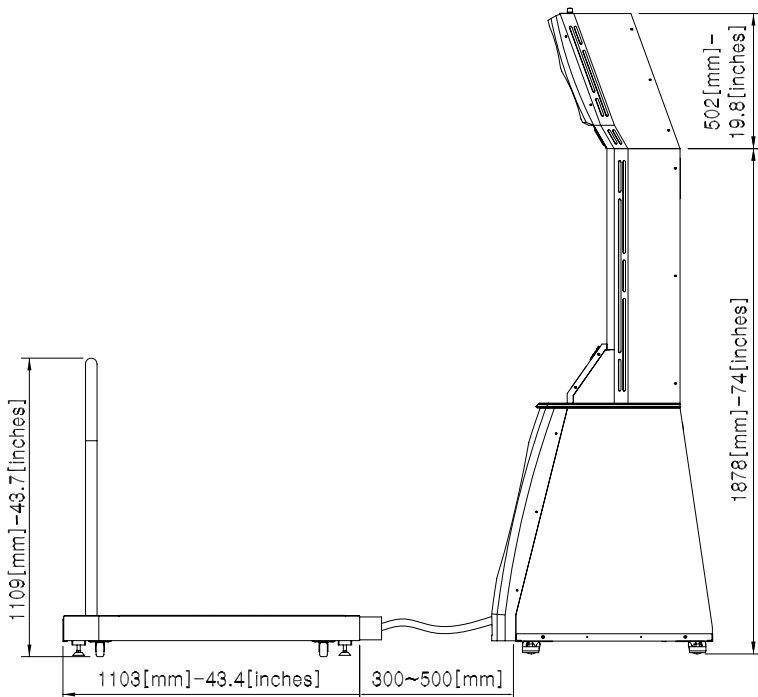
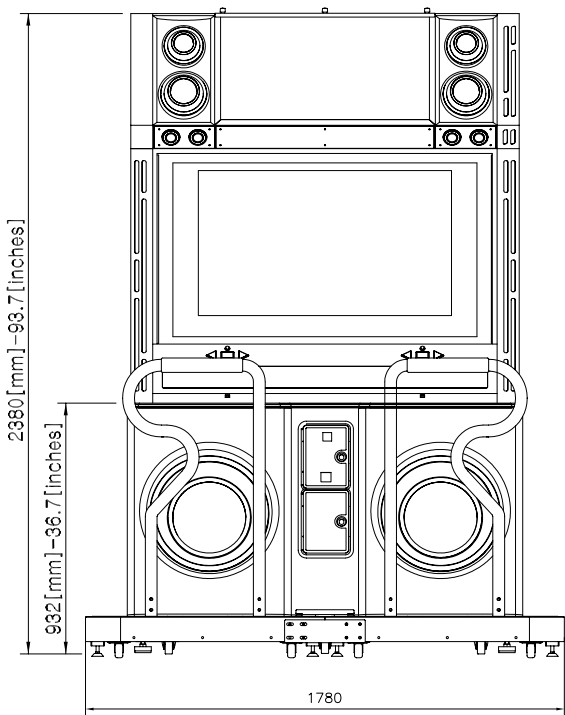
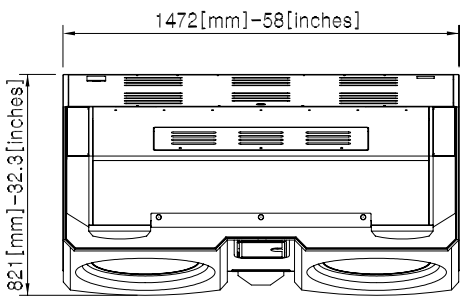
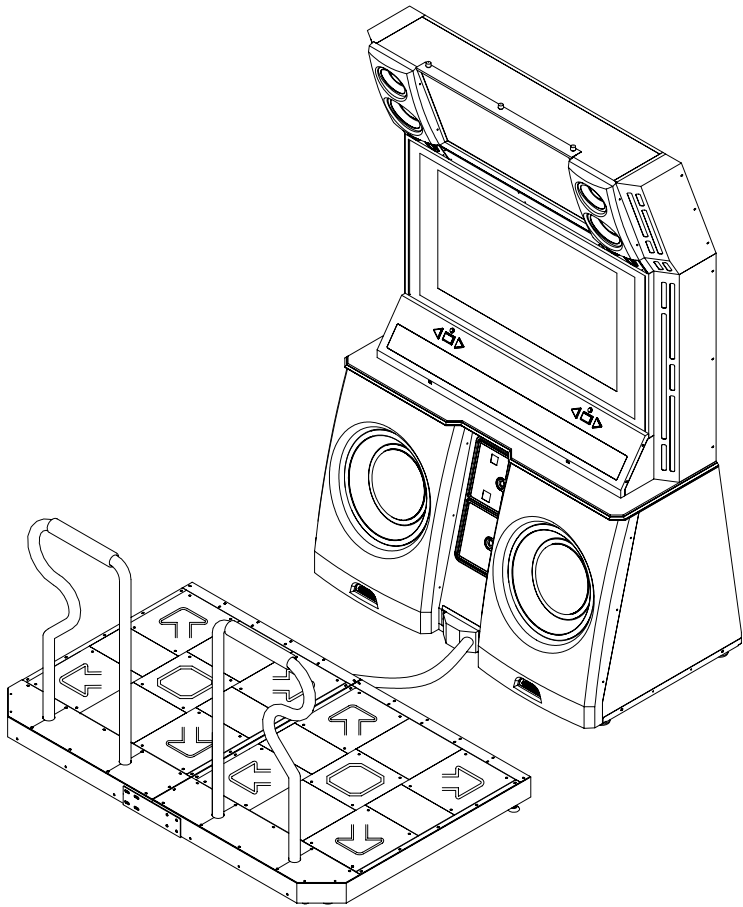
7-2. LIST

7-3. PICTURE

## **8. WIRING DIAGRAM**

# 1. SPECIFICATION AND DIMENSION



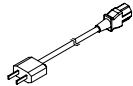














## 1-1. DIMENSION



## 1-2. SPECIFICATION

DIMENSIONS (W x D x H)	BODY	1472 x 821 x 2380 (mm)
	STEP	1780 x 1103 x 93 (mm)
WEIGHT (kg)	BODY	350 kg
	STEP	135 kg
SCREEN SIZE		PDP 52"
POWER RATED VOLTAGE RANGE		AC 110V / AC 220V
POWER RATED FREQUENCY RANGE		60 Hz ~ 50 Hz
CONSUMPTION	<b>110V</b>	<b>220V</b>
TOTAL	1200 W	1200 W
AMP	500 W	500 W
MAIN BOARD	300 W	300 W
SMPS	200 W	200 W
PDP	200 W	200 W

# COMPOENTS

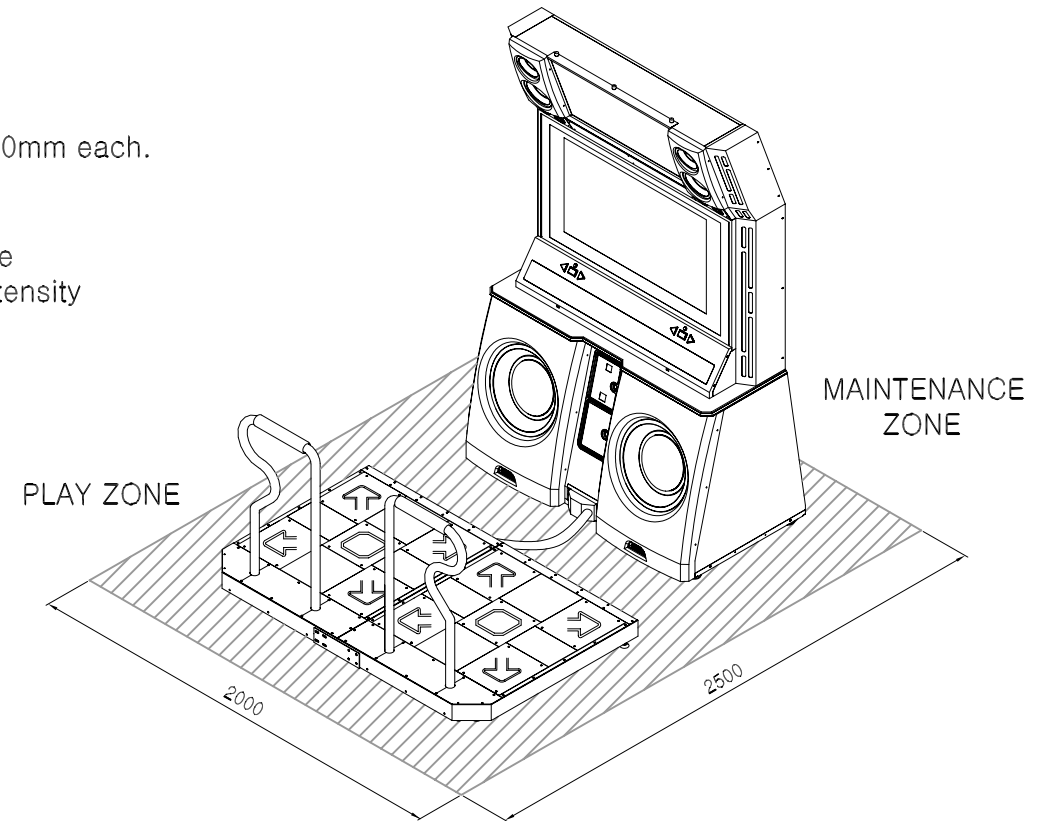
NO.	PART NAME	SPEC.		QTY
1	CASH BOX KEY	6001		2
2	FRONT DOOR KEY	7001		2
3	AC POWER CORD	110V or 220V		1
4	WIRING	–		1
5	CONNECTOR BRACKET-[CABINET]	–		1
6	CONNECTOR BRACKET-[STEP]	–		1
7	JOINT BRACKET	–		2
8	STEP STICKER	–		1
9	RENCH	5mm, 6mm, 8mm		One apiece
10	RENCH BOLT	M8x15L		18
11	RENCH BOLT	M10x16L		20
12	BOLT	M4x25		8
13	WASHER	M10, M8		20,18
14	SPRING WASHER	M10		20
15	PDP REMOTE CONTROL	–		1
16	PDP MANUAL	–		1
17	PRODUCT MANUAL	–		1

## 2. INSTALLATION

- Need to have installation place.  
Maintenance Zone & Play zone should have at least 2000mm x 2500mm each.

### IMPORTANT

- Please do not install the equipment in the place where it is exposure to direct sunlight in order to avoid malfunction of sensor. Indoor intensity of illumination need to be 200lux~300Lux.

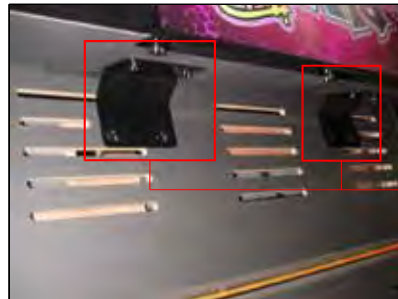


## [ How to Installation ] – MAIN CASE

1



2



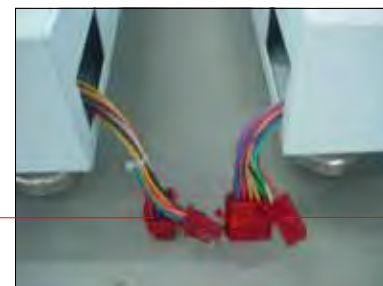
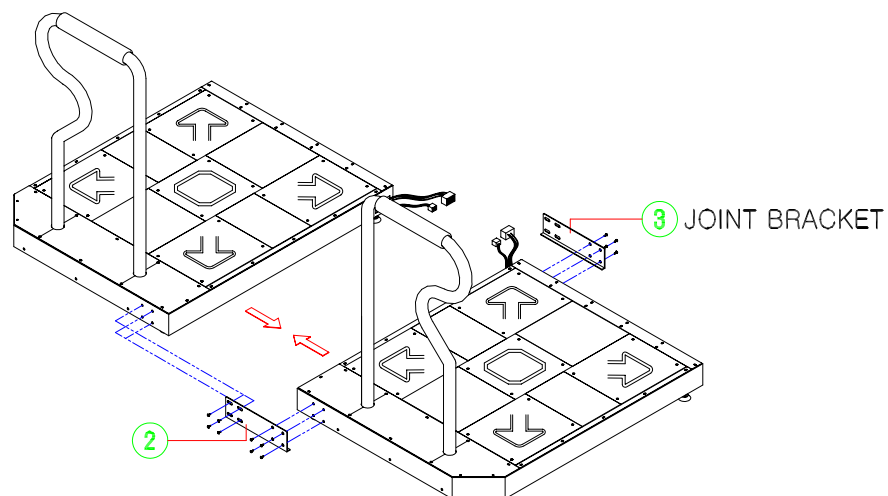
3



- ① Billboard box is put on the back of the cabinet body in the factory.
- Please remove two ② "Support bracket" by using hand bolt and build up "Billboard". (M6 hand bolt \*4ea)  
Please be careful of two ③ connectors from Billboard while you are working on this job.

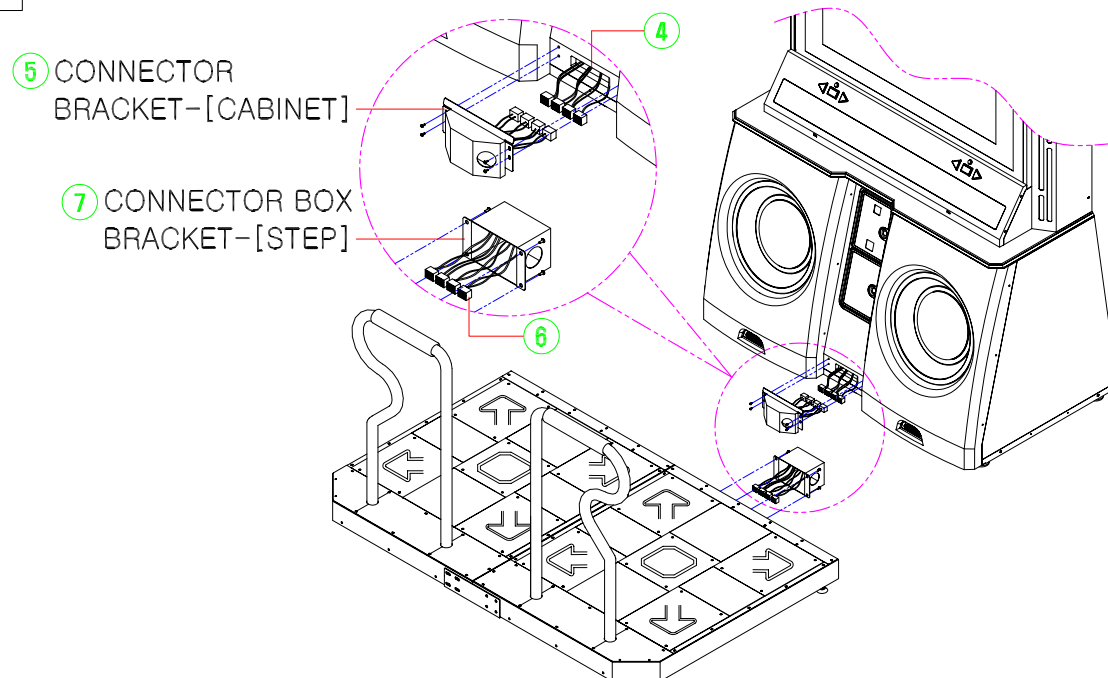
## – STEP

4



- ① As a picture, please connect connectors between Foot Ass'y 1P and Foot Ass'y 2P and fix them using ② ③ Joint bracket (M8boltx16ea)

5

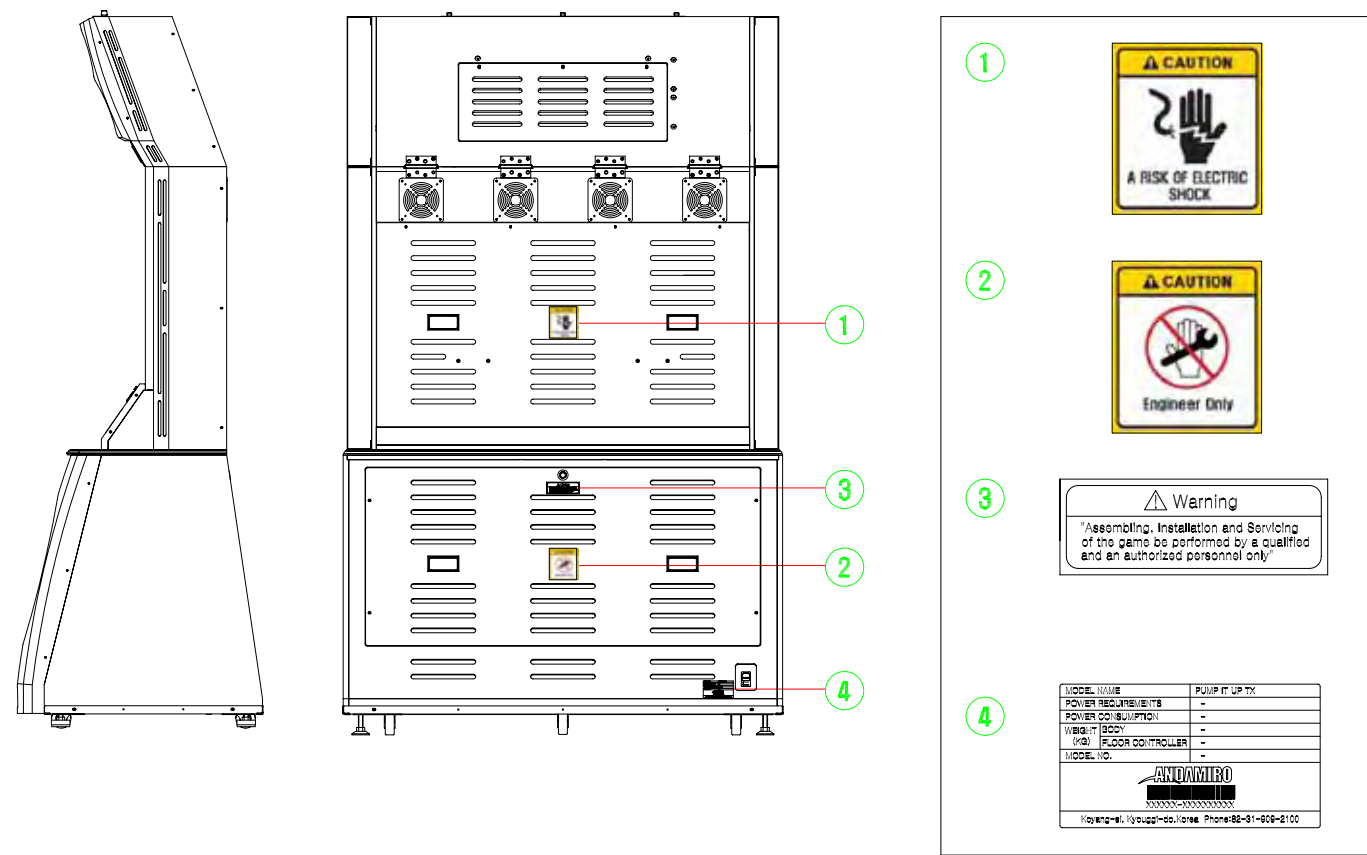


- After completing those ④ connections, Please connect ⑤ "Connector bracket and cabinet" (Bolt M4x 4ea). Please ⑥ connect ⑦ "Connector box bracket and Step" (Bolt M6x4ea) after link connector with connector box.

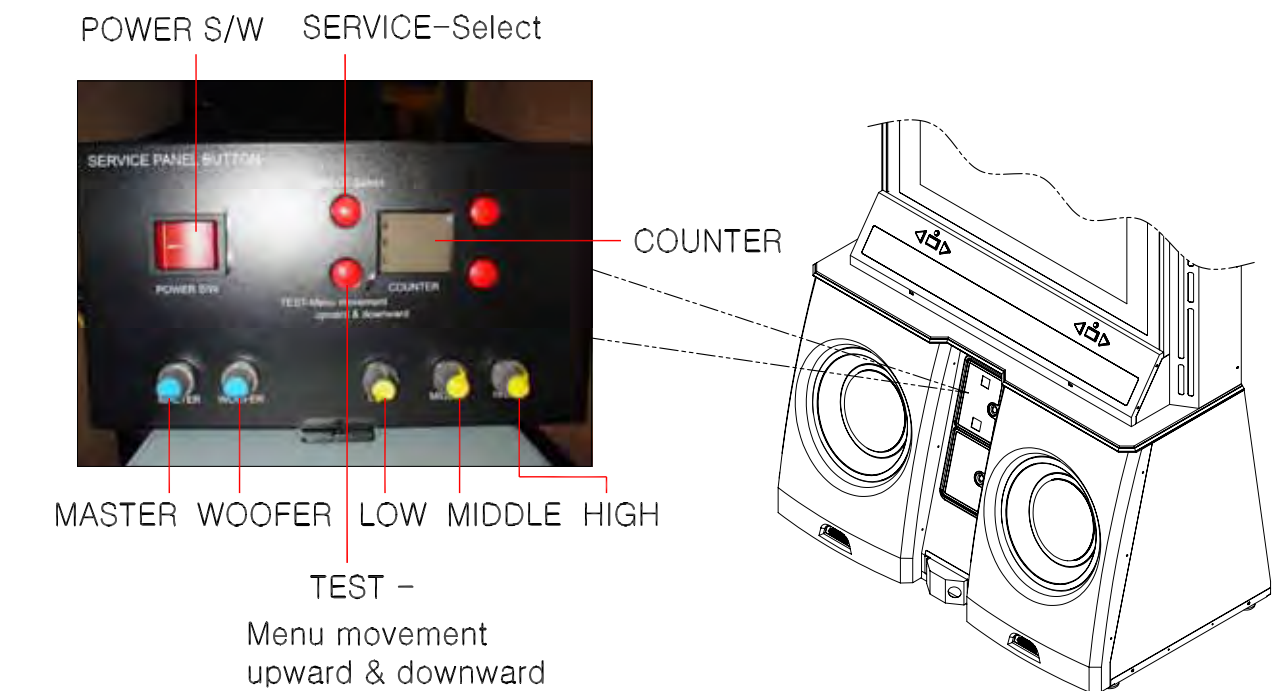




### 3. STICKER LOCATION



### [ SERVICE PANEL BUTTON EXPLANATION ]



## 4. SETUP MENU

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Setup the machine proper for your own game center.

### Service Options

Test the hardware and set options before using the game.

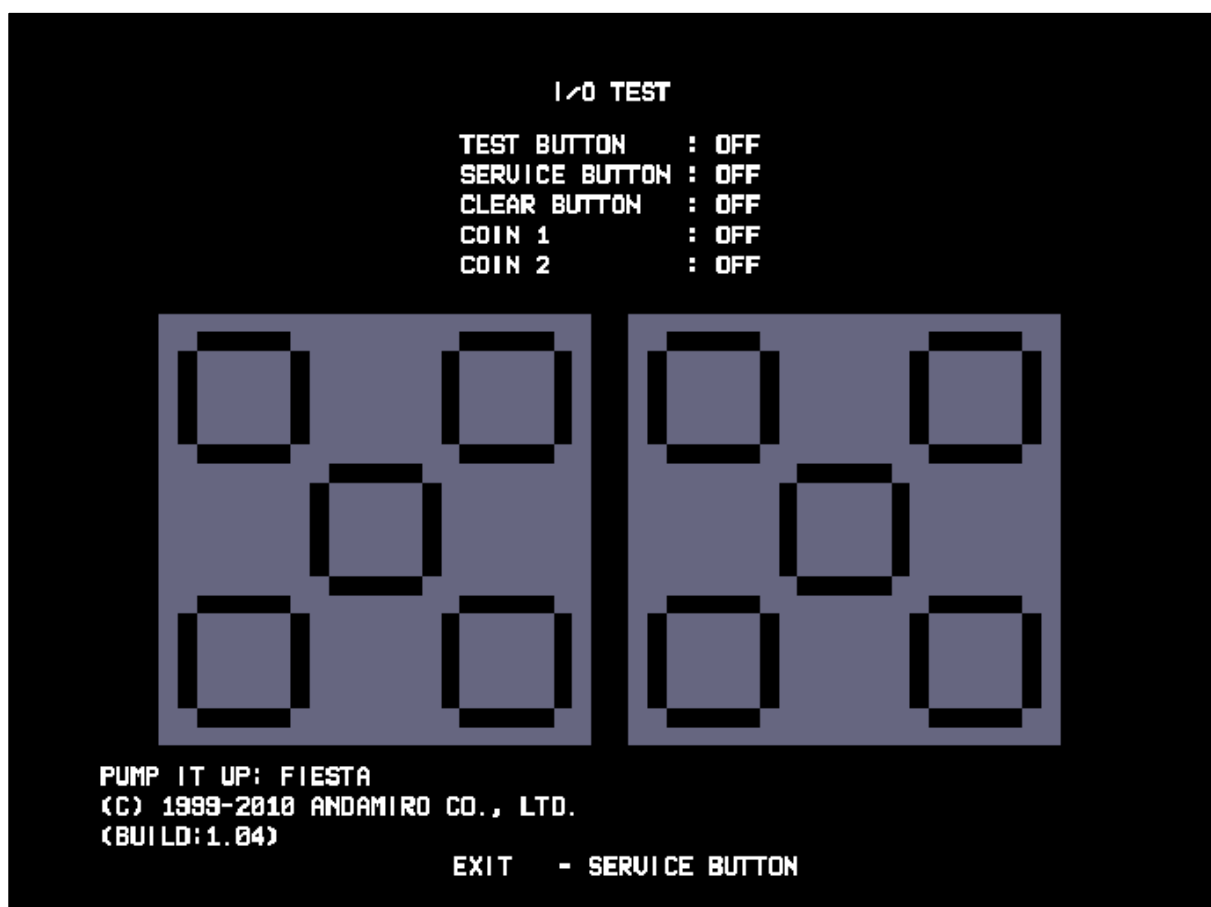
Press the "Test" button ( O TEST ) located in the service box at any time.  
The Service Options menu will appear.



## 4-1. I/O TEST

You can test pad sensors and lamps and buttons located on the body of the machine.

1. Press the "Test" button (O test) to enter I/O TEST in SET UP MENU.
2. Press each button in order to check each button function. If it is normal, "OFF" on the screen is changed to "ON".



"If it does not work well, contact the service center for advice or repair."

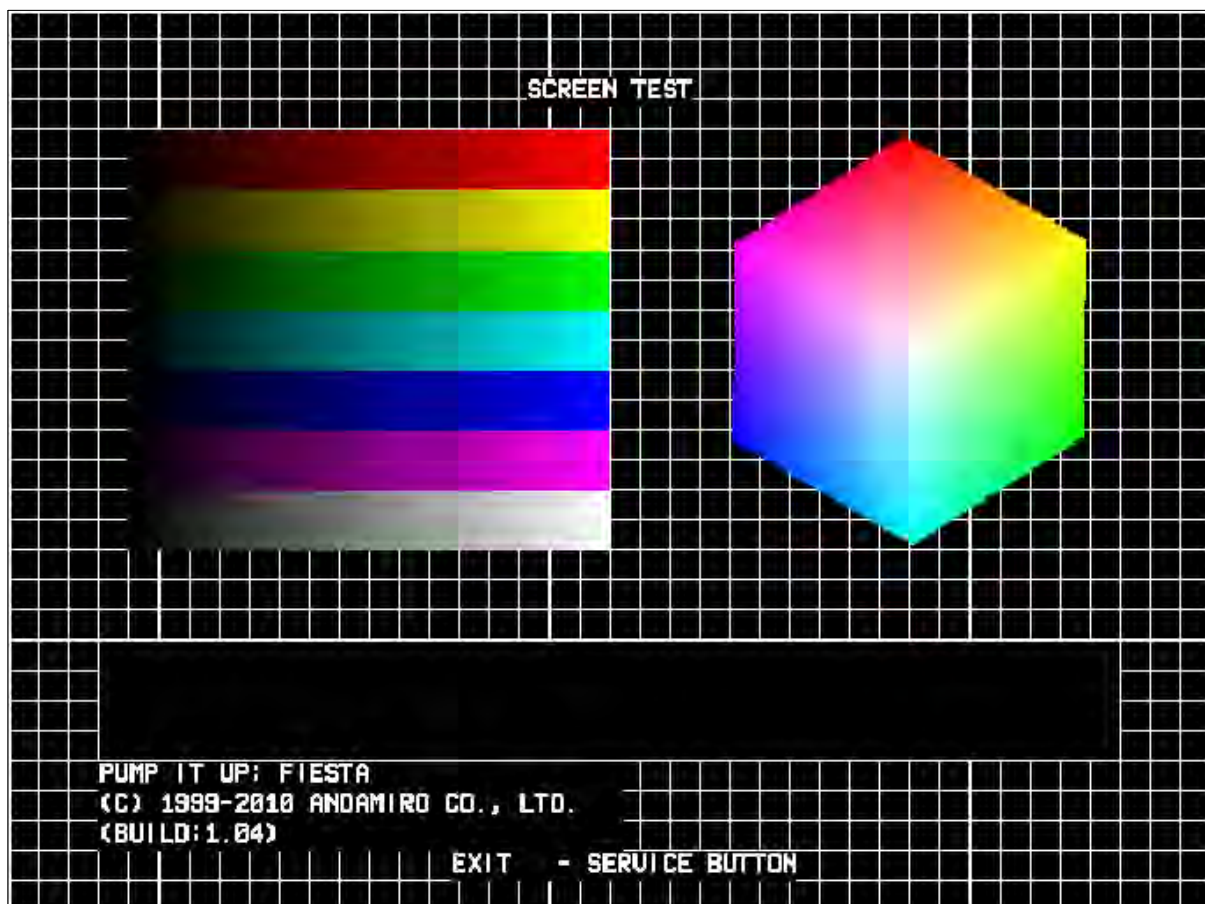
3. Press the "Service" Button(O service) to exit from I/O TEST.

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## 4-2. SCREEN TEST

Check out the status of monitor screen.

1. Press the "Test" button (O test) to enter SCREEN TEST in SET UP MENU.



"If color and linearity of latticed pattern is not normal, contact the service center for advice or repair."

2. Press the "Service" Button(O service) to exit from SCREEN TEST.

## 4-3. GAME SETTING

Set the degree of game difficulty and stage option.

1. Press the "Test" button (O test) to enter GAME OPTION in SET UP MENU and move the cursor to each GAME OPTION.
2. Press the "Service" button in order to change option of each GAME OPTION.



### a. GAME MODE

Select "Normal" or "Event".

### b. INITIAL LIFE

Please make a choice for player's initial life between "4" and "5".

### c. LEVEL

Set the degree of difficulty of game.

The degree of difficulty is set in three steps, including Easy/Normal/Hard.

d. STAGE BREAK

Set up that a stage break is applied from which stage.

Available setting : OFF/Stages 1~4

d. DEMO SOUND

DEMO Sound ON/OFF

f. DEFAULT SETTING

Return to Factory Default Setting

g. EXIT

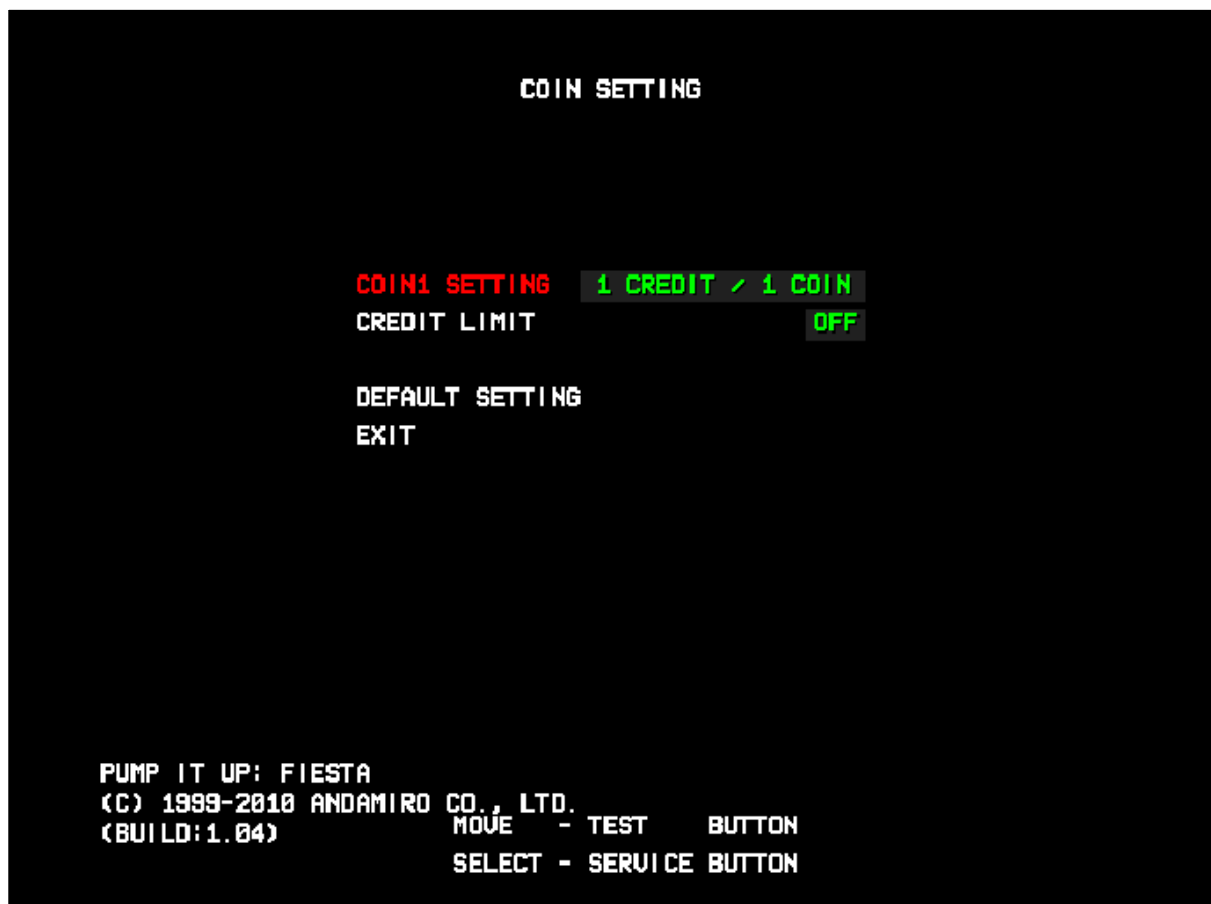
Exit to the game screen with saving the changed setting

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## 4-4. COIN SETTING

You can set up number of coins for a credit.

1. Press the "Test" button (O test) to enter COIN OPTION in SET UP MENU and move the cursor to each COIN OPTION.
2. Press the "Service" button in order to set up number of coins for a credit.





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## 4-5. USB DRIVE

1. Press the "Test" button(O test) to enter USB DRIVE in SET UP MENU.
2. Player 1 menu and press the Service Button after inserting USB memory Stick into the 1P port of USB Cover BOX Ass'y.
3. Proceed the same steps for Player 2.



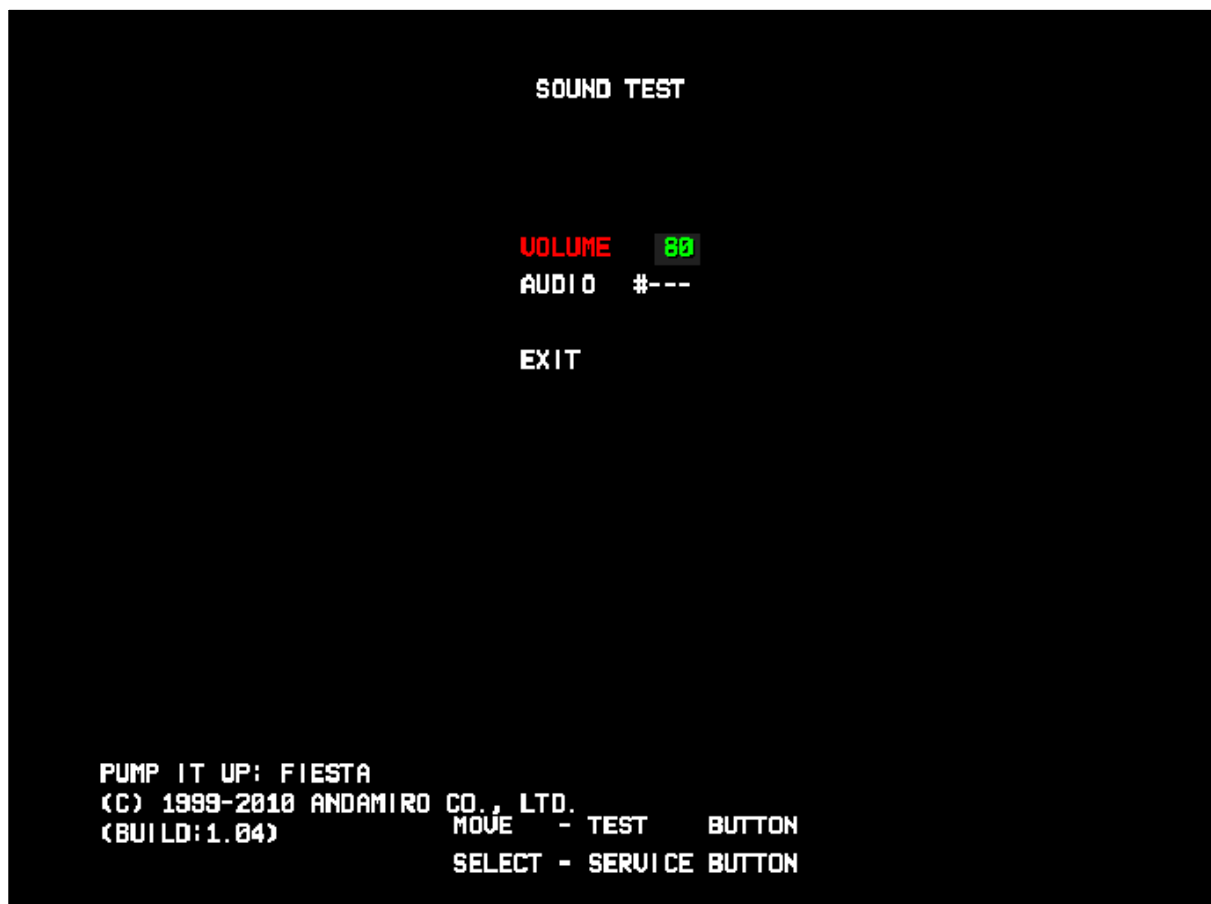
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## 4-6. SOUND TEST

In order to achieve better sound track & sound effect.

You may check status of speaker & woofer, and adjust volume as well.

1. Move into sound test in setting mode. After Pushing Test(O test) button, please move a cursor to "Volume" or "Audio"
2. In order to adjust volume, please press "Service (O service) button in volume menu.
3. In order to choose a song. Please press "Service (O service) button in Audio menu.



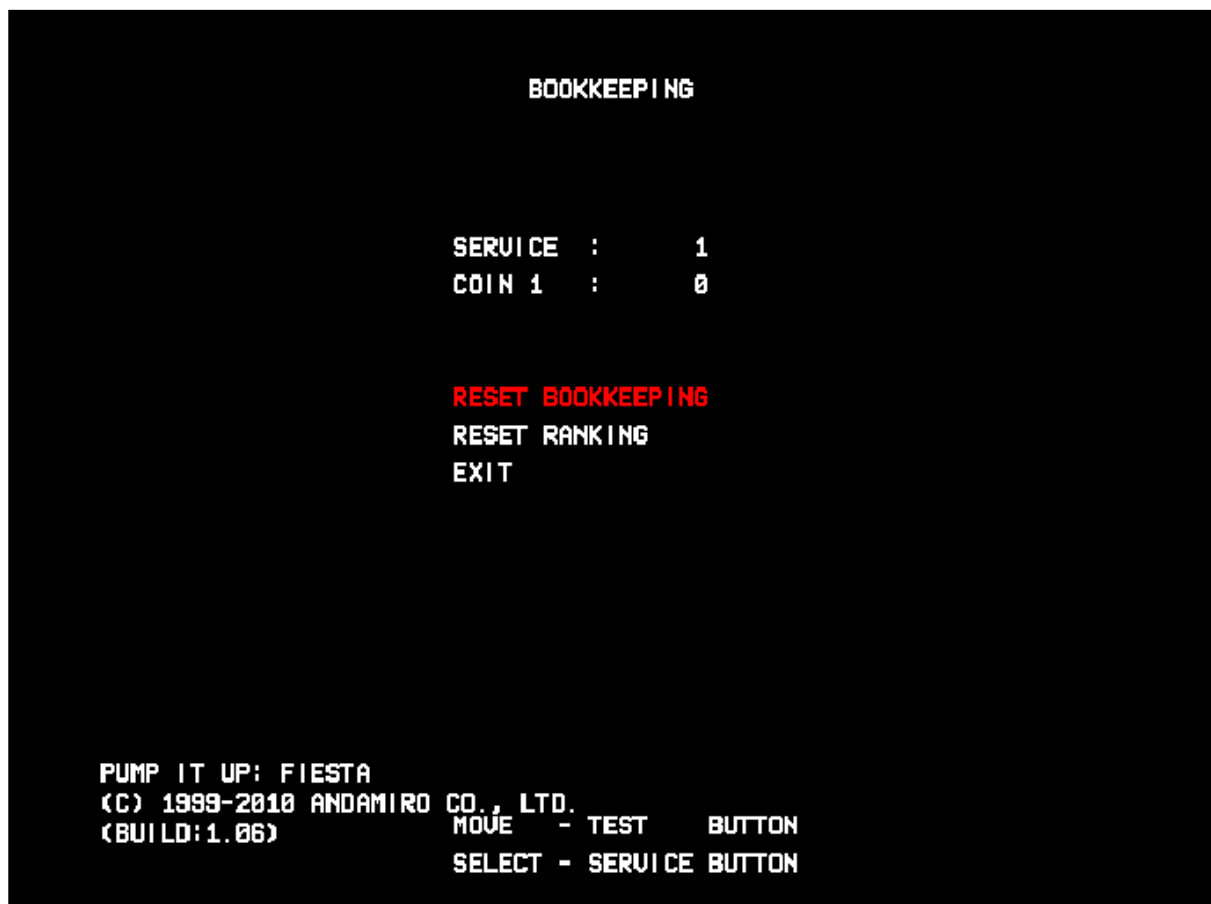
It's not recommendable to adjust this value because it may damage woofer in case set volume become higher than default value.

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## 4-7. BOOKKEEPING MENU

You can check the number of coins and service coins put into the machine.

1. Press the "Test" button (O test) to enter BOOKKEEPING in SET UP MENU and move the cursor to each BOOKKEEPING.
2. Press the "Service" button in order to make the record of BOOKKEEPING reset.

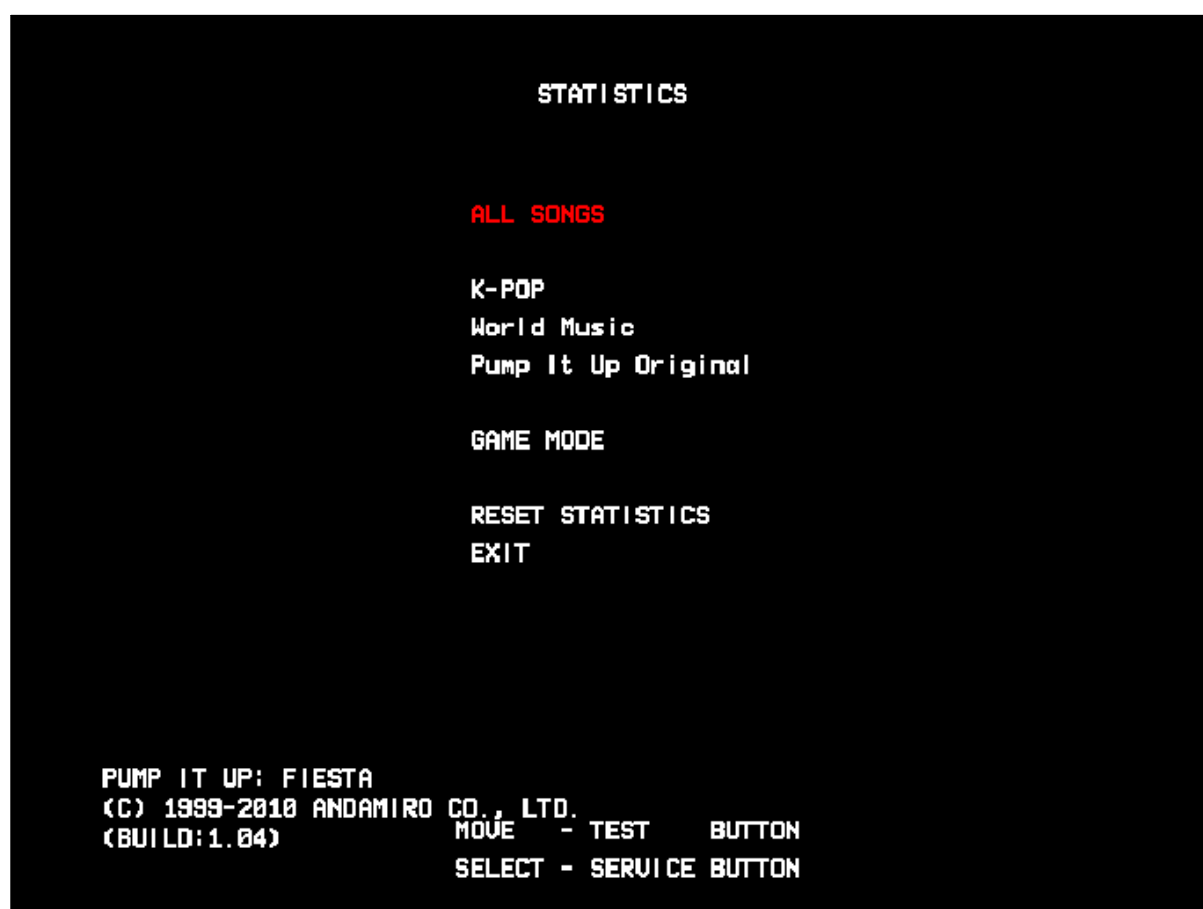


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## 4-8. STATISTICS MENU

It indicates the number of the play on each song.

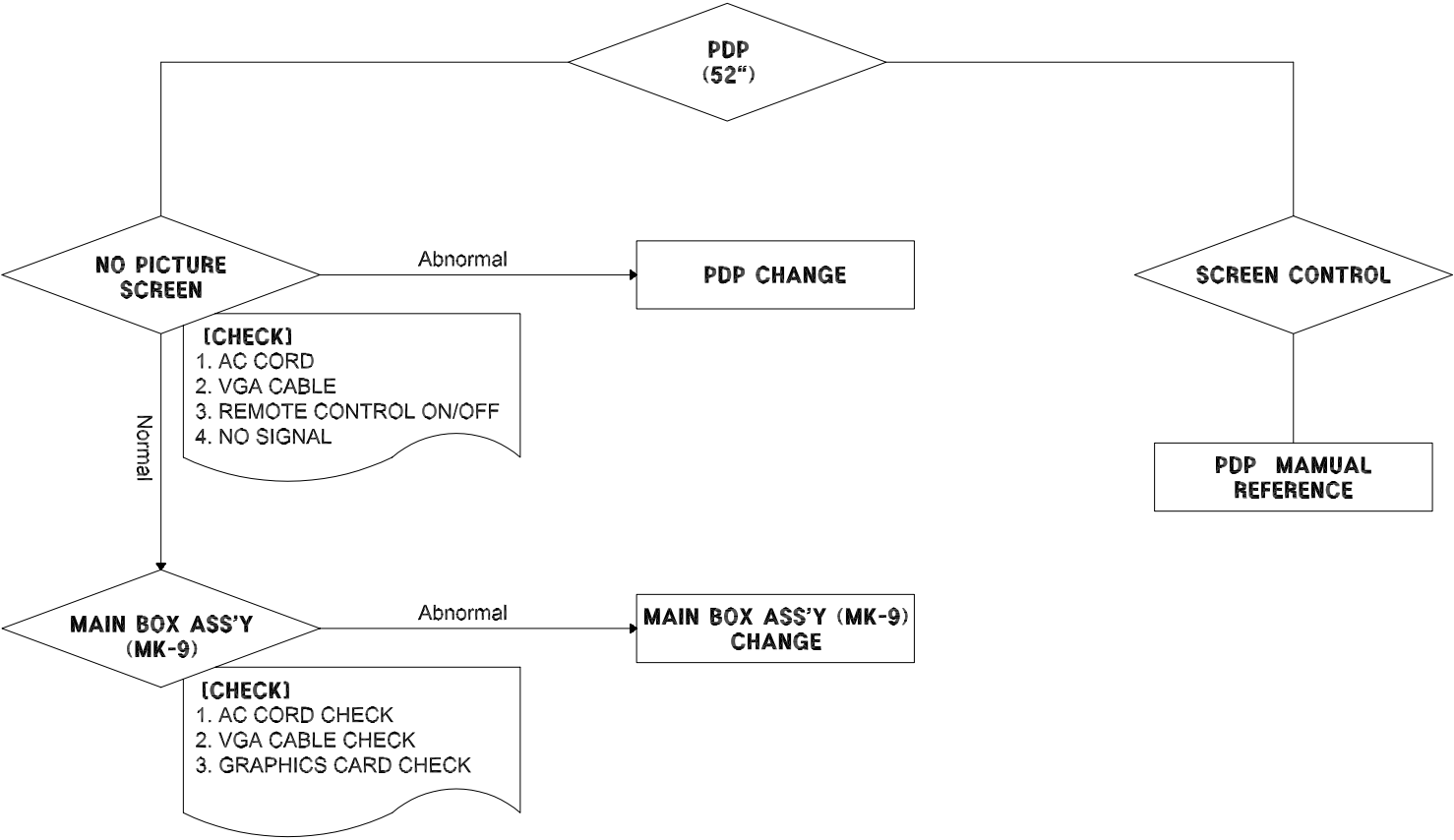
1. Press the "Test" button (O test) to enter STATISTICS in SET UP MENU. Keep pressing the "Test" button" to move the cursor to the end of the song list.



# 14. TROUBLESHOOTING

## 14-1. NO PICTURE

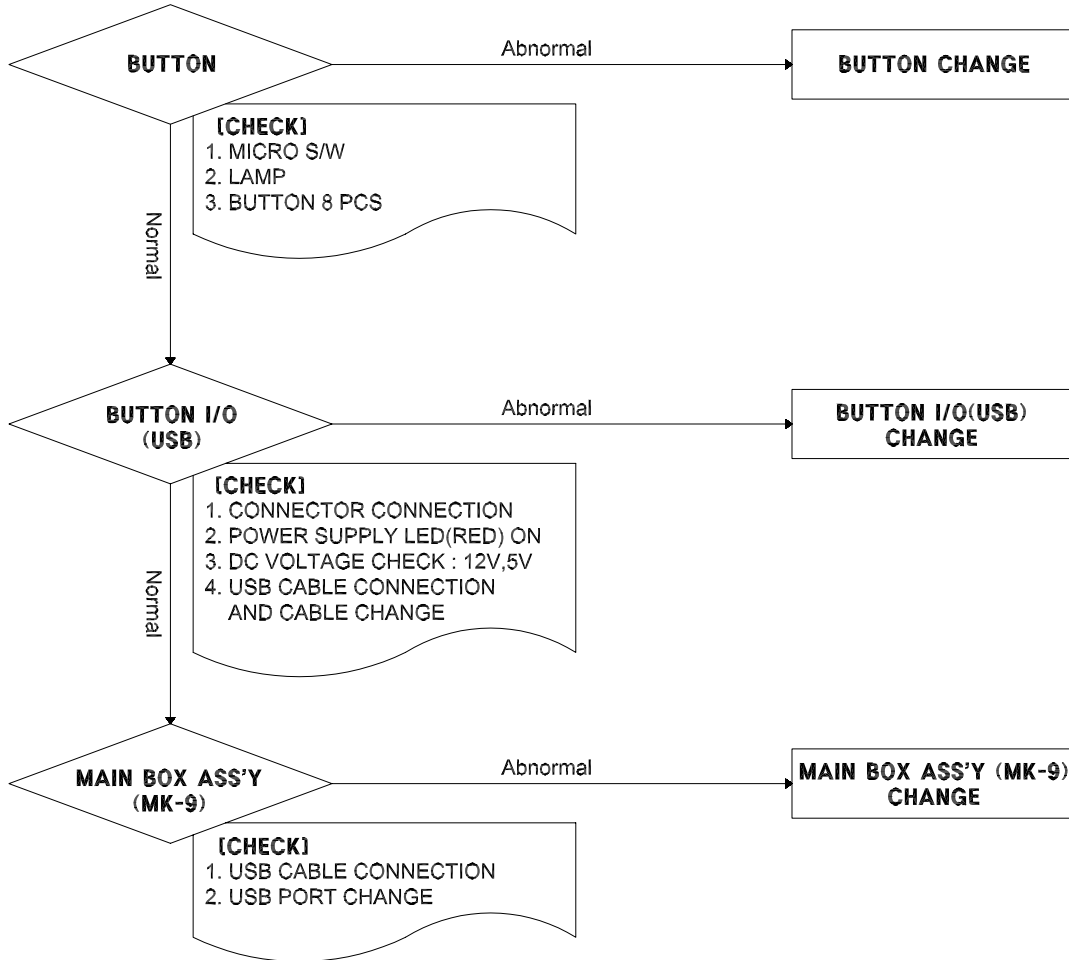
\* COMMON : INPUT VOLTAGE CHECK  
WIRING CONNECTION CHECK



## 14-2. CONTROL

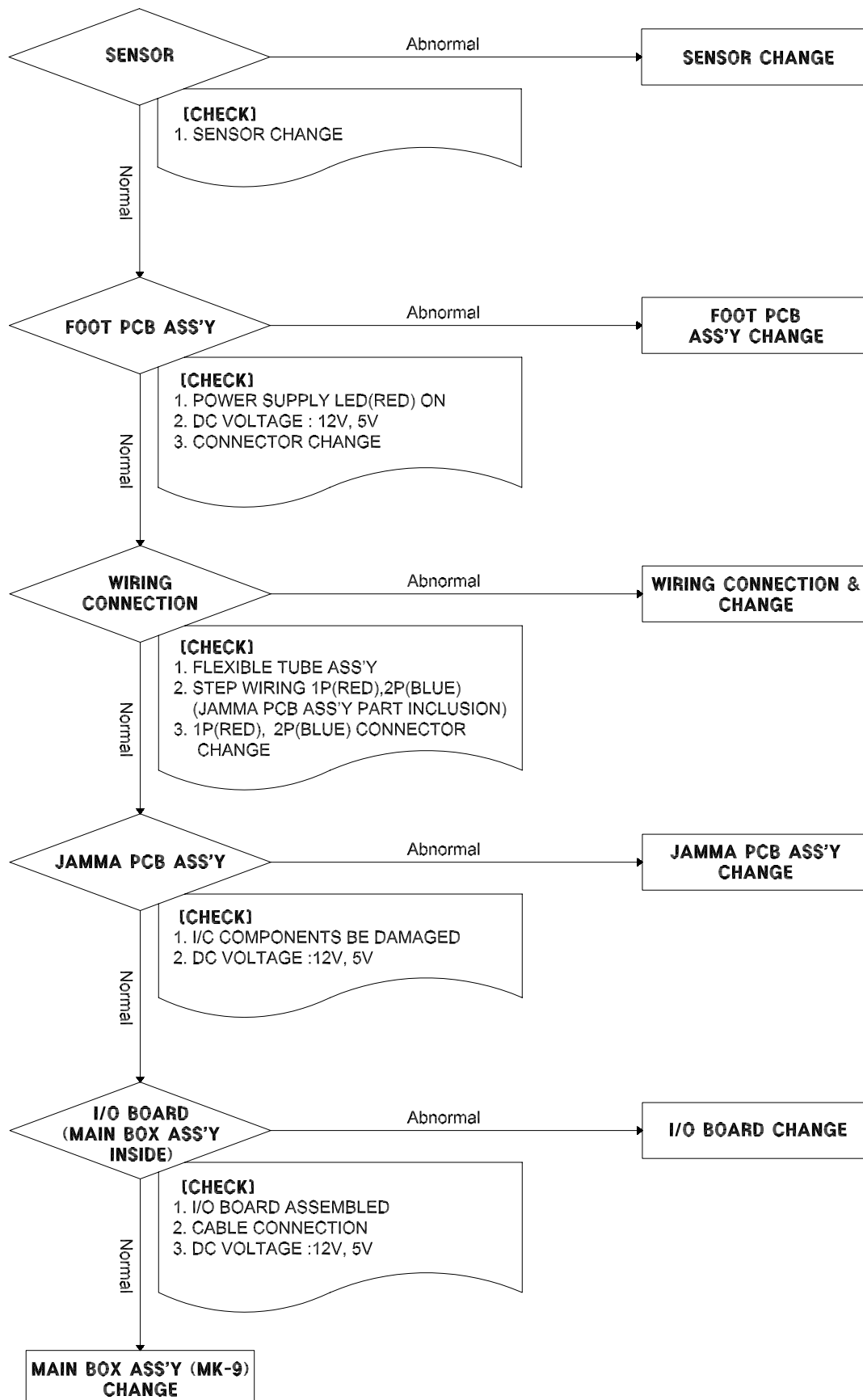
### 14-2-1. BUTTON ERROR

\* COMMON : INPUT VOLTAGE CHECK  
WIRING CONNECTION CHECK



## 14-2-2. STEP SENSOR ERROR

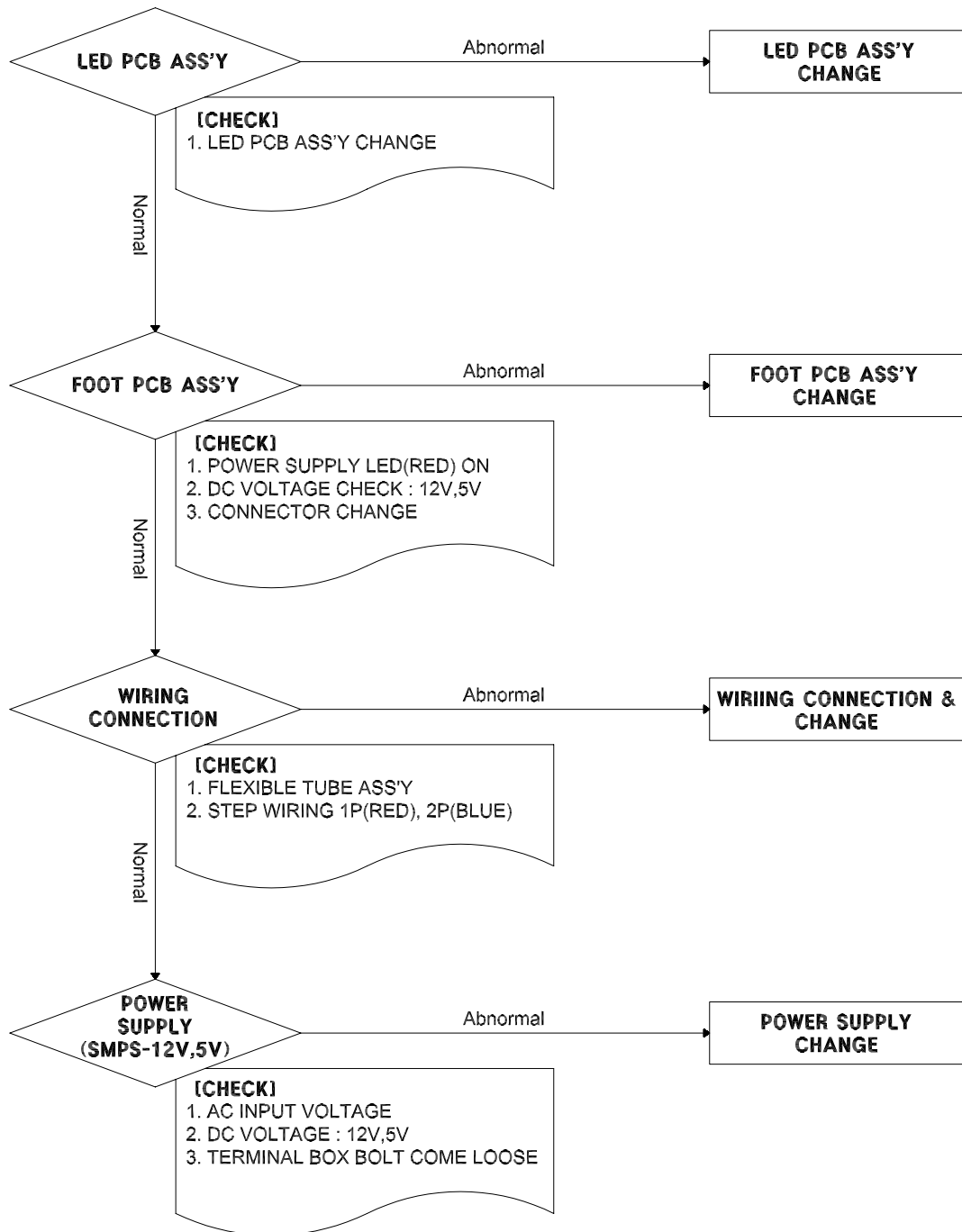
\* COMMON : INPUT VOLTAGE CHECK  
WIRING CONNECTION CHECK





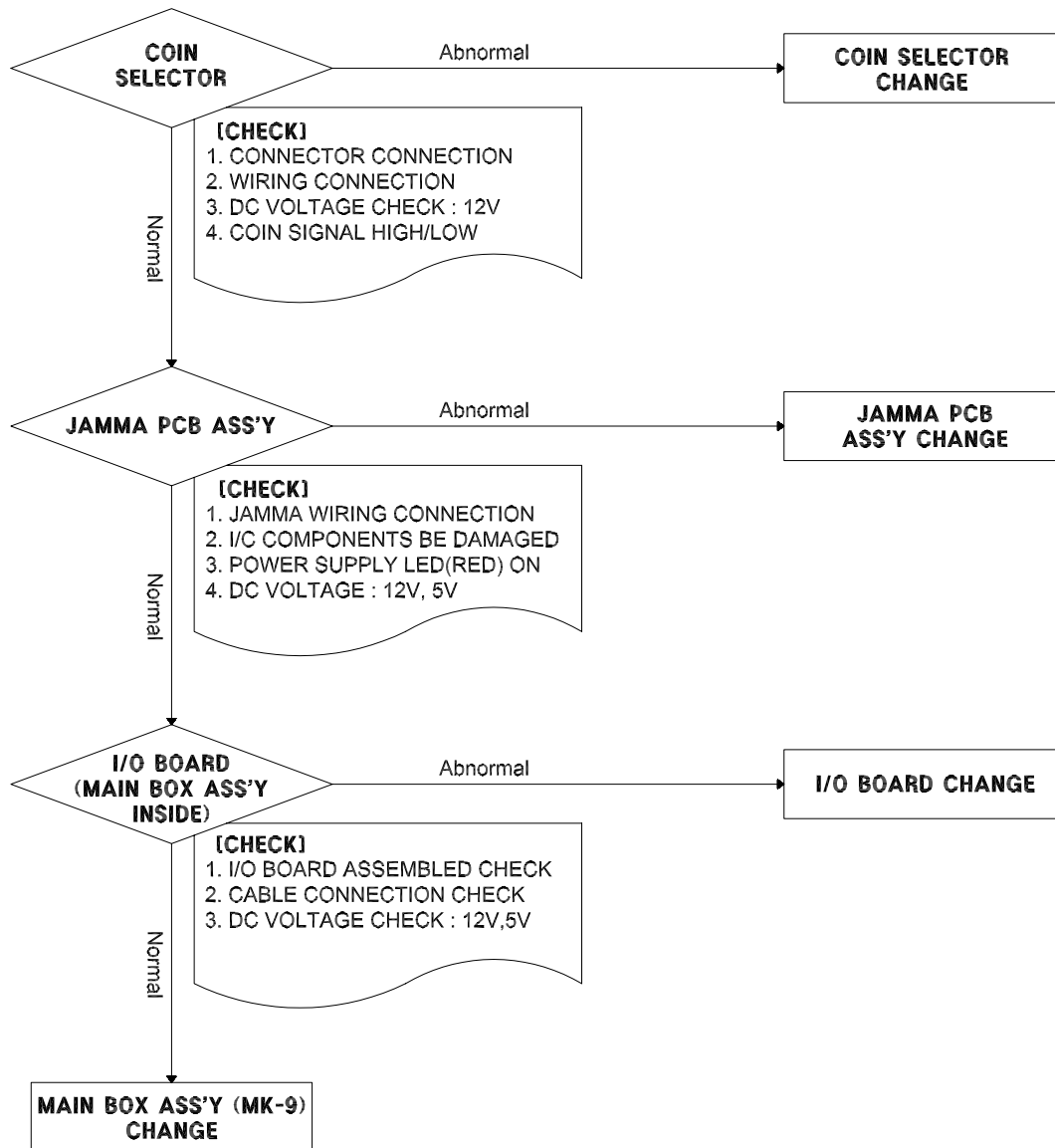
### 14-2-3. STEP LED ERROR

\* COMMON : INPUT VOLTAGE CHECK  
WIRING CONNECTION CHECK



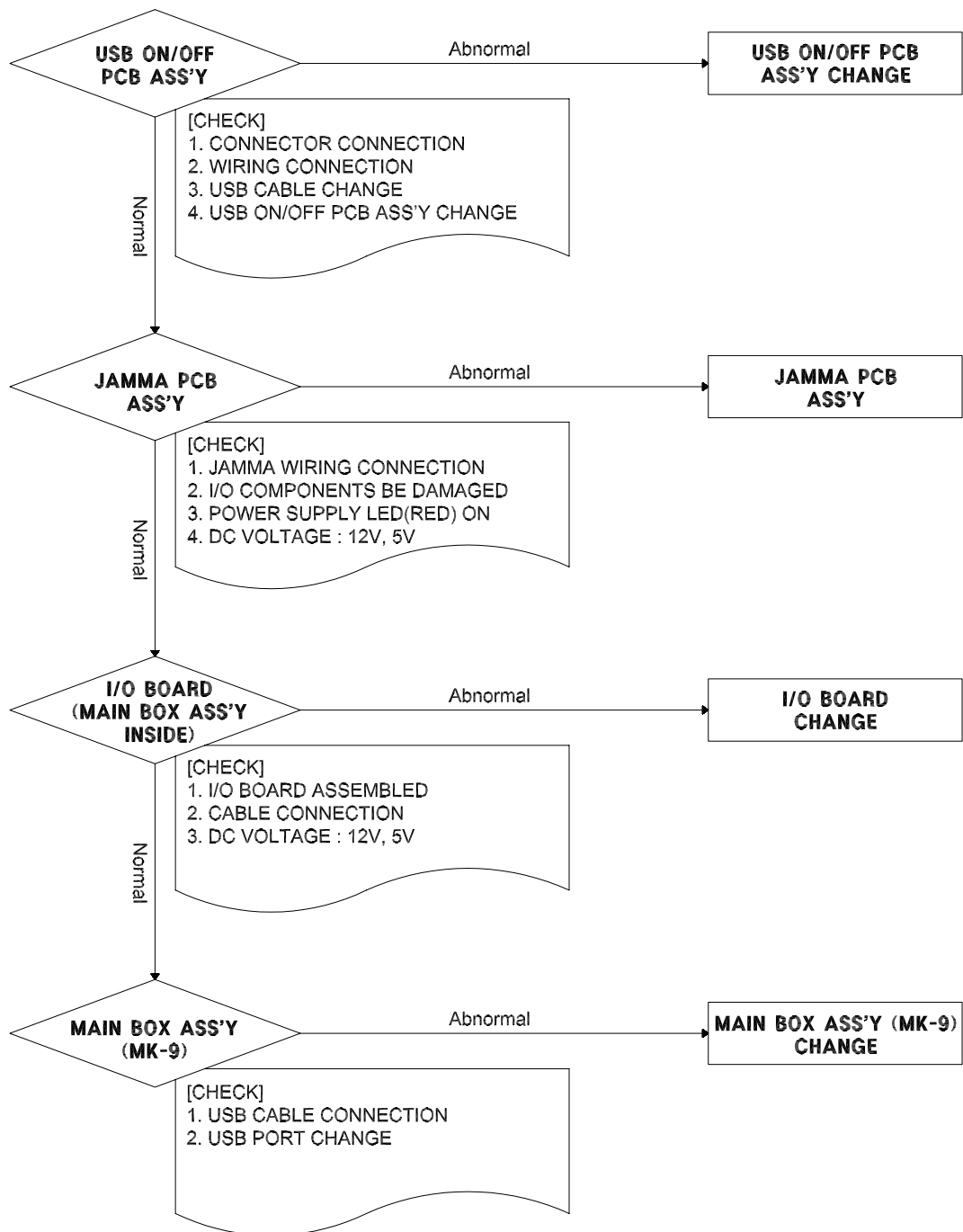
#### 14-2-4. COIN SELECTOR ERROR

\* COMMON : INPUT VOLTAGE CHECK  
WIRING CONNECTION CHECK



## 14-2-5. USB ON/OFF ERROR

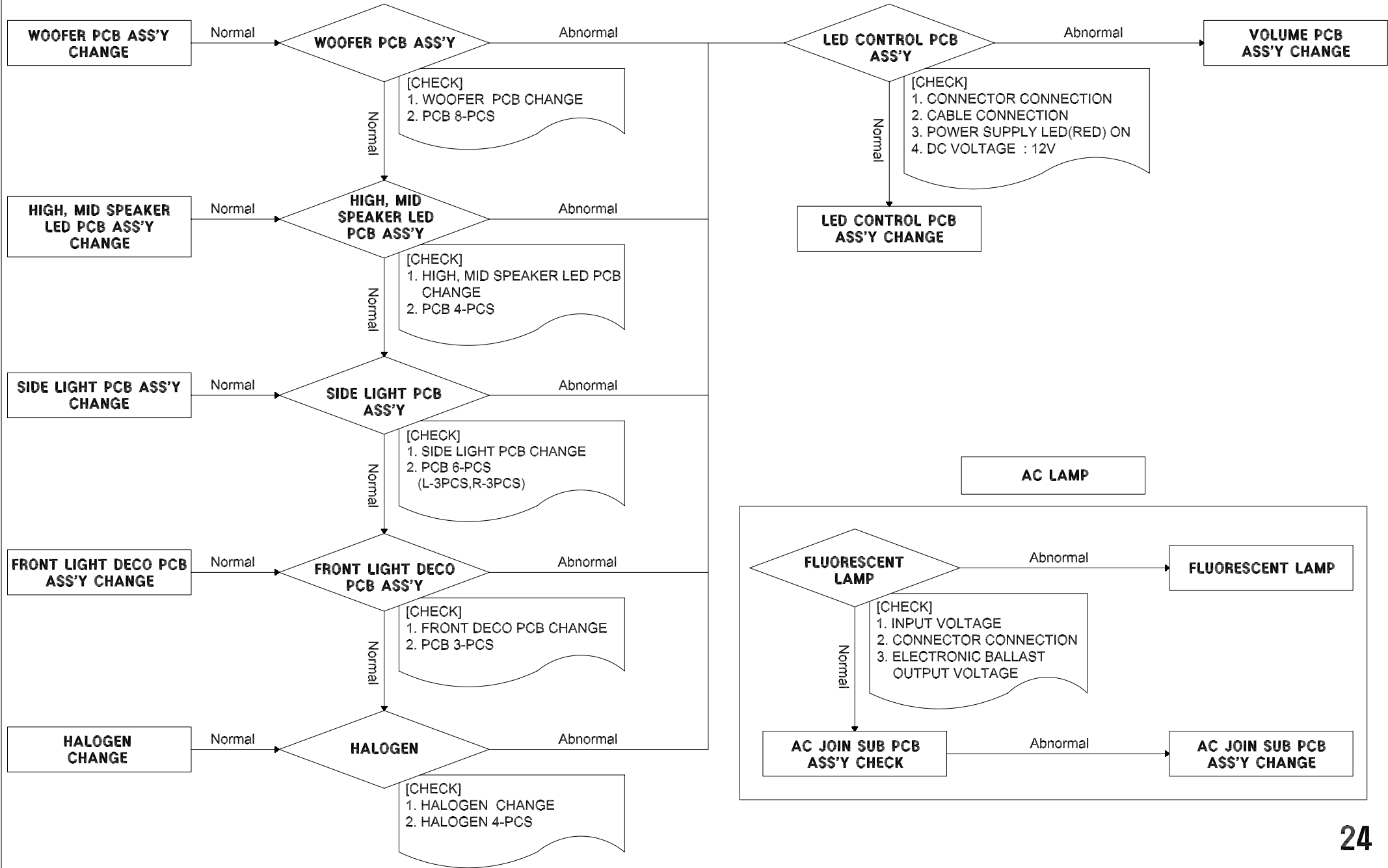
\* COMMON : INPUT VOLTAGE CHECK  
WIRING CONNECTION CHECK



# 14-3. LAMP

## 14-3-1. LAMP ERROR

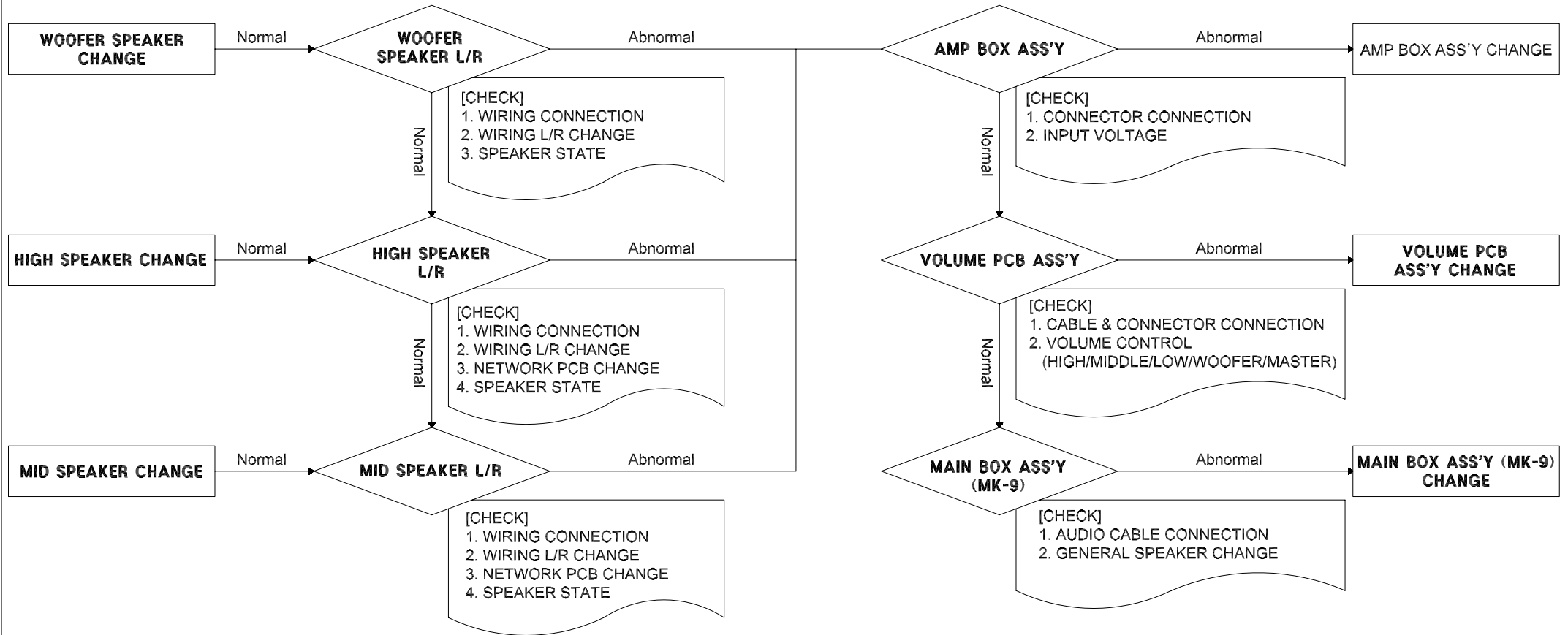
\* COMMON : INPUT VOLTAGE CHECK  
WIRING CONNECTION CHECK



## 14-4. SOUND

### 14-4-1. SOUND ERROR

\* COMMON : INPUT VOLTAGE CHECK  
WIRING CONNECTION CHECK



1. IN CASE NOISE  
2. L/R BALANCE — AMP BOX & MAIN BOX ASS'Y FG CONNECTION CHECK

## 7. REPLACEMENT METHOD OF CONSUMABLE PARTS

### 7-1. LED LAMP

1



그림 A

- There are two ① LED lamps in Billboard.

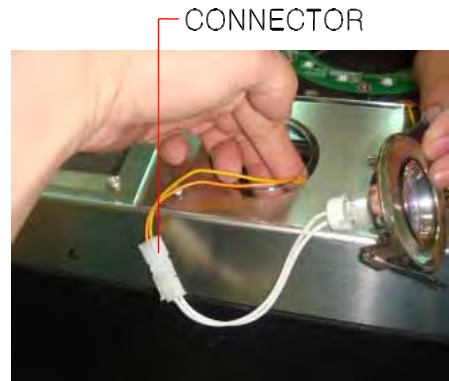


그림 B

- LED Lamp can be replaced in the front.  
Carefully handle two connection wires.

### 7-2. BILLBOARD LAMP

1

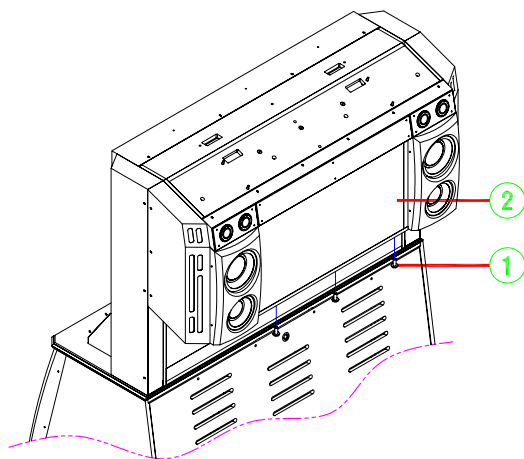


그림 A

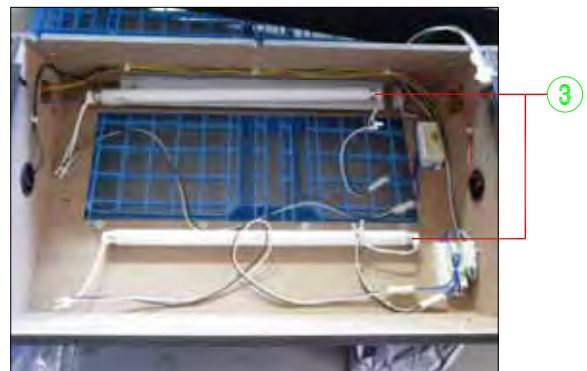


그림 B

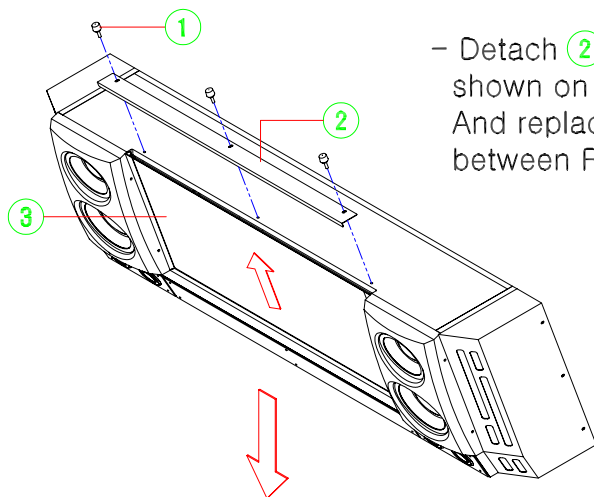
(1) Using billboard hinge, install them as Picture A.  
After loosen ① "Hand bolt"(3ea), Disassemble  
② billboard sheet and Acryl.

(2) Please change ③ lamp after disconnecting ④ connector.

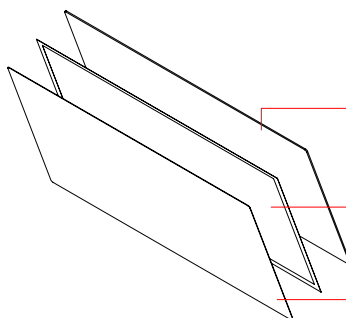
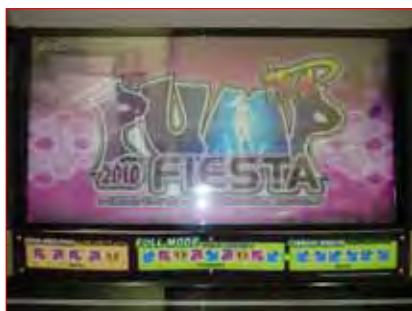
NO.	PART NAME	SPEC.	CODE NO.
③	FLUORESCENT LAMP	FL20SD-20W	MELE0LAM002

## 13-3. BILLBOARD SHEET

1



- Detach (2) billboard PC cover after screwing out (1) 3 bolts as shown on the picture.  
And replace (3) billboard sheet. The new billboard should be in between Rear cover and Front cover as shown on the picture.



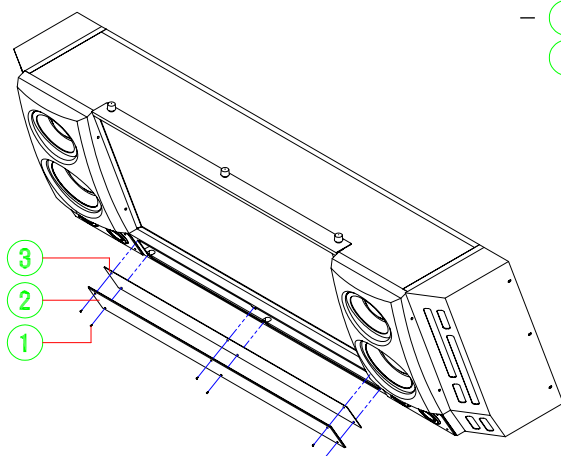
BILLBOARD REAR PC

BILLBOARD FRONT SHEET

BILLBOARD FRONT ACRYL

## 13-3. SHEET FOR "HOW TO PLAY"

1



- (2) Detach 6 M4 (1) bolts. And replace explanation (3) sheet for "How to play"