KONAMI®

ORIGINAL VIDEO GAME

OPERATOR'S MANUAL

■ HELL NIGHT ■

■ EVIL NIGHT ■

TM

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TM

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- ●Failure to operate the machine correctly could result in malfunction or accidents,so please read this manual carefully before commencing operation. Be sure to operate the machine as described in this manual.
- ●Keep this manual carefully so as to be ready for use when necessary.

PN.0000055533 GQ810-TB

KONAMI®

About this product

Thank you for purchasing this KONAMI product.   This manual explains how to operate your game machine correctly and safely.

- **Failure to operate the machine correctly could result in malfunction or accidents, so please read this manual carefully before commencing operation.   Be sure to operate the machine as described in this manual.**
- **Keep this manual carefully so as to be ready for use when necessary.**
- **If the machine still fails to display or to get started, immediately turn OFF the main power switch and contact your nearest dealer.**

•This manual covers the following models:

•GQ810-TB **•GQ810-UC**

•GQ810-SD

The specifications of GQ810-TB may be somewhat different from GQ810-SD and GQ810-UC. In such a case, read the descriptions of the model which applies to the game machine you are operating.

- The specifications of this product are subject to change without notice for reasons such as improving the performance.

- The contents of this game, its main data and design are protected by copyright law and industrial property law.

- Unauthorized reproduction of this document or any of its contents is strictly forbidden.

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Precautions for use

In this manual, the precautions to be followed without fail in order to prevent damage to persons to install, use or maintain “HELLNIGHT™ (EVILNIGHT™)” or other persons or to properties are shown as follows.

Be sure to read the following

- **The following suggestions show the degree of danger and damage caused when the product is used improperly with the suggestions disregarded.**

⚠ **WARNING**	**Indicates a situation where disregarding the suggestions could result in death or serious injury.**
⚠ **CAUTION**	**Indicates a situation where disregarding the suggestions could result in injury or product damage.**

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

⚠	**Indicates a matter of which care should be taken.**
🚫	**Indicates a matter which is forbidden.**
🔌	**Indicates a matter which should be performed without fail.**

- **Definitions of qualified in-shop maintenance persons and industry specialist who handle this product.**

- **In this instruction manual, some 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 persons and industry specialist are defined as follows.

Qualified in-shop maintenance persons

· A qualified in-shop maintenance person must have experiences in maintaining amusement machines, money changers and the like. Under the supervision of an amusement machines shop owner or manager, he or she routinely assembles, installs, inspects and maintains the amusement machines, or replaces their component units and consumable parts, in the amusement machines workshop and/or shop.

Jobs handled by qualified in-shop maintenance persons

· Assembling, installing, inspecting and maintaining amusement machines and money changers, and replacing their component units and consumable parts.

Industry specialist

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

Jobs handled by industry specialist

· Assembling and installing amusement machines and money changers, and repairing and adjusting their electrical, electronic and mechanical component parts.

Setting Up

WARNING

- **Be sure to consult your nearest dealer when setting up, moving or transporting this product.**
  - ·This product should not be set up, moved or transported by anyone other than industry specialist. Doing so could result in injury or product damage.
  - ·When installing the machine, make sure that all the 4 adjusters are tight on the floor and that the machine is placed stably and horizontally. Unstable set-up may get the machine shaky and result in personal injury or machine trouble.
  - ·When setting up this product, take care that no undue force is applied to the opening / closing sections or moving sections of the game machine. Failure to do so could cause injury, accidents or product damage.

- **This product is an indoor game machine. Never set up the game machine outside.**
  - ·Setting up this product outside could result in accidents or equipment failure.

- **Do not set up the game machine near emergency exits.**
  - ·Doing so could block exits in time of emergency and could result in death or serious injury.

- **Do not set up the game machine.**
  - ·Otherwise an accident or malfunction may result.
    - ·In a place exposed to rain or moisture.
    - ·In a place exposed to direct sunlight.
    - ·In a place exposed to direct heat from air-conditioning and heating equipment, etc..
    - ·Near hazardous flammable substance such as thinner and kerosene.
    - ·On an inclined or uneven floor.
    - ·Near fire extinguishing equipment.
    - ·In a place exposed to strong vibration.
    - ·In a place exposed to excessive dust.
    - ·Near equipment generating strong magnetism or electric waves.

- **Do not place containers holding chemicals or water on or near the game machine.**
  - ·Electrical shock or damage could be caused by water or foreign matter entering the inside of the machine.

- **Do not place objects near the ventilating holes.**
  - ·Doing so could cause the internal temperature to rise excessively, resulting in fire or equipment failure.

- **Do not bend the power cord by force or place heavy objects on it.**
  - ·Doing so could result in electric leakage or fire.

- **Never plug or unplug the power cord with wet hands.**
  - ·Doing so could result in electrical shock.

- **Never unplug by pulling the power cord.**
  - ·Doing so could damage the cord, resulting in electric leakage or fire.

Setting Up

CAUTION

- **Be sure to use indoor wiring for within the specified voltage range. For extension cord, use indoor wiring of the specified rating or more.**
  ·Failure to do so could result in fire or equipment failure.
- **Be sure to use the attached power cord.**
  ·Otherwise a fire or machine trouble may result.
- **Never plug more than one cord at a time in the electrical receptacle.**
  ·Doing so could result in fire or electrical shock.
- **Do not lay the power cord where people walk through. You may tread on or stumble over them.**
  ·You may stumble down and get injured, or damage the power cord or the cable.
- **Be sure to ground this product.**
  ·Otherwise an electric shock or machine trouble may be caused.
- **When moving the units, be careful not to apply undue force.**
  ·An accident or machine damage may result.
- **When moving the machine, do not hold the gun unit or gun cable.**
  ·Otherwise you could get injured or the machine damaged.
- **Clearance of 100 mm (3.94in) or more should be created between the game machine and walls.**
  ·Otherwise the machine (s) cannot be ventilated well, resulting in malfunction.

Operation

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 improperly or covered with dust.**
  ·Doing so could result in electrical shock or fire, so inspect the power cord periodically.
- **Never disassemble, repair or modify any section other than those specified in this manual.**
  ·Doing so could result in fire, malfunction or equipment failure.
  ·Ask your nearest dealer to perform repairing, etc..
  ·We do not assume any responsibility for any damages that would be caused by tampering with the machine.

Operation

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..
- **The following users should not play the game.**
  ·Doing so could cause accidents or illness.

·Those under the influence of alcohol.
·Those suffering from or being treated for arm or wrist ailments.
·Those suffering high blood pressure or heart ailments.
·Those in bad shape.
·Those pregnant or probably pregnant.

- **Ask players not to roughly handle or wave the gun unit.**
  ·An injury or machine trouble may result. A forceful pull of the gun cable may also break the cable.
- **Do not plug or unplug the power cord with wet hands.**
  ·Doing so could result in electrical shock.
- **In handling the power cord, follow the instructions below.**
  ·Otherwise an electric leak, fire or electric shock may result. Normal communication play may also be impossible.

·Do not damage the power cord.
·Do not bend the power cord excessively.
·Do not heat the power cord.
·Do not bind the power cord.
·Do not sandwich the power cord.
·Do not modify the power cord.
·Do not twist the power cord.
·Do not pull the power cord.
·Do not tread on 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.**
  ·Using a damaged power cord or power plug could result in fire or electrical shock.
- **After the play is over, make sure the gun unit is back in the specified position.**
  ·Hitting against the gun may cause an injury.

Inspection and cleaning

WARNING

- **Be sure to turn OFF the main power switch and unplug the power cord from the receptacle before inspecting or cleaning the machine.**
  ·Failure to do so could result in electrical shock.
- **When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.**
  ·Using improper parts could result in fire or equipment failure.
- **The machine has some high-voltage parts inside. Only a qualified industry specialist is allowed to open the back door of the machine. With this back door open, be very careful not to touch unnecsessary parts.**
  ·Otherwise an accident or electric shock may result.
- **Before opening the back door, be sure to turn OFF the main power switch on the power unit and unplug the power cord. If the sub-power switch on the service panel is turned OFF but the main power switch on the power unit is still ON, some parts inside are still on power.**
- **Never disassemble, repair or modify any section other than those specified in this manual.**
  ·Doing so could result in fire, malfunction or equipment failure.
  ·Ask your nearest dealer to perform repairing, etc..
  ·We do not assume any responsibility for any damages that would be caused by tampering with the machine.
- **To clean the game machine, wipe it with a soft cloth dampened in a neutral detergent and wrung out.**
  ·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.

Moving and transportation

⚠ CAUTION

- **The game machine contains parts such as the monitor, electronic components and precision components which are sensitive to vibrations and impacts. Great care therefore should be taken 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.**
  ·Stepping on or tripping over the power cord may result in an accident or damage the machine.

- **Before moving the machine, be sure to fully screw up all the adjusters. Move the machine on the casters.**
  ·An accident, machine damage or trouble may result.

- **When moving the units, be careful not to apply undue force.**
  ·An accident or machine damage may result.

PRECAUTION IN HANDLING

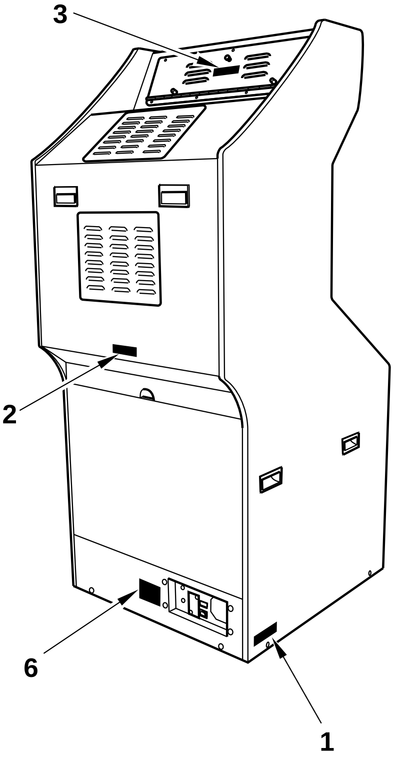
- When setting up, inspecting, maintaining, moving or transporting this product, follow the procedures and instructions set forth in this manual and perform such work safely.

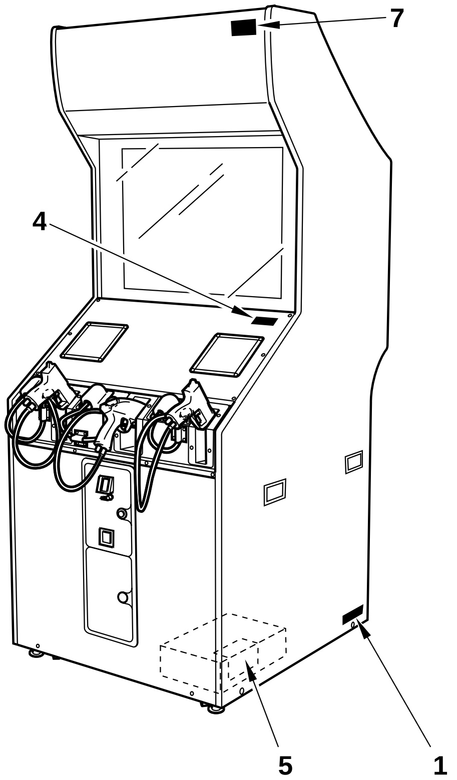
- Do not remove labels of “WARNING”, “CAUTION”, etc. attached to the product.

- 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.

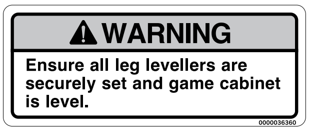
Locations of warning and other safety labels





Types of warning and other safety labels

1

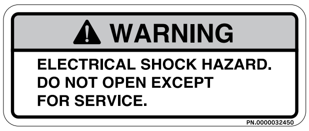


WARNING

Ensure all leg levellers are securely set and game cabinet is level.

0000036360

2

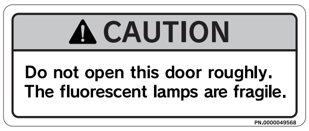


WARNING

ELECTRICAL SHOCK HAZARD.
DO NOT OPEN EXCEPT
FOR SERVICE.

PN.0000032450

3

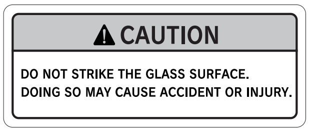


CAUTION

Do not open this door roughly.
The fluorescent lamps are fragile.

PN.0000049568

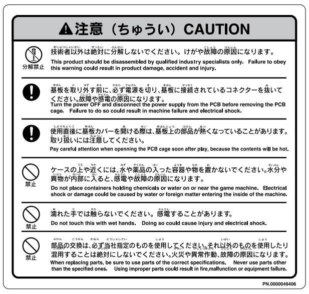
4



CAUTION

DO NOT STRIKE THE GLASS SURFACE.
DOING SO MAY CAUSE ACCIDENT OR INJURY.

5



注意（ちゅうい）CAUTION

分解禁止 技術者以外は絶対に分解しないでください。けがや故障の原因になります。
This product should be disassembled by qualified industry specialists only. Failure to obey this warning could result in product damage, accident and injury.

基板を取り外す前に、必ず電源を切り、基板に接続されているコネクターを抜いてください。故障や感電の原因になります。
Turn the power OFF and disconnect the power supply from the PCB before removing the PCB cage. Failure to do so could result in machine failure and electrical shock.

使用直後に基板カバーを開ける際は、基板上の部品が熱くなっていることがあります。取り扱いには注意してください。
Pay careful attention when openning the PCB cage soon after play, because the contents will be hot.

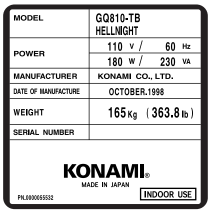
禁止 ケースの上や近くには、水や薬品の入った容器や物を置かないでください。水分や異物が内部に入ると、感電や故障の原因になります。
Do not place containers holding chemicals or water on or near the game machine. Electrical shock or damage could be caused by water or foreign matter entering the inside of the machine.

禁止 濡れた手では触らないでください。感電することがあります。
Do not touch this with wet hands. Doing so could cause injury and electrical shock.

禁止 部品の交換は、必ず当社指定のものを使用してください。それ以外のものを使用したり混用することは絶対にしないでください。火災や異常作動、故障の原因になります。
When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones. Using improper parts could result in fire,malfunction or equipment failure.

PN.0000049406

6

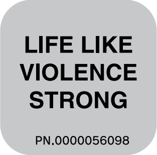


MODEL	GQ810-TB HELLNIGHT
POWER	110 V / 60 Hz 180 W / 230 VA
MANUFACTURER	KONAMI CO., LTD.
DATE OF MANUFACTURE	OCTOBER.1998
WEIGHT	165 Kg (363.8 lb)
SERIAL NUMBER	

KONAMI®
MADE IN JAPAN
PN.0000055532
INDOOR USE

- The above is an example. The entries are different from destination to destination.

7



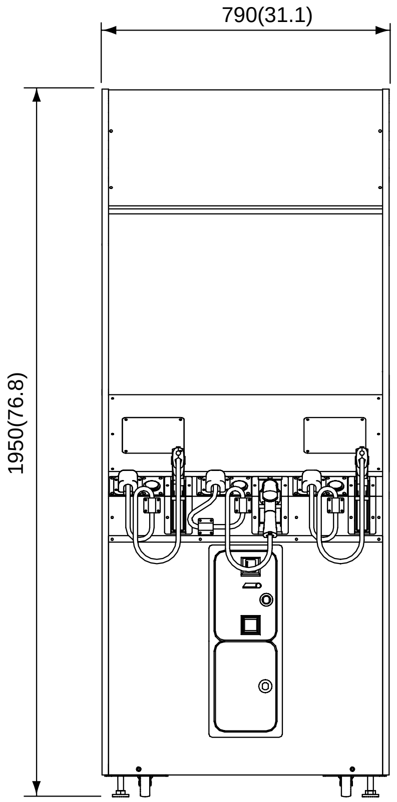
LIFE LIKE VIOLENCE STRONG

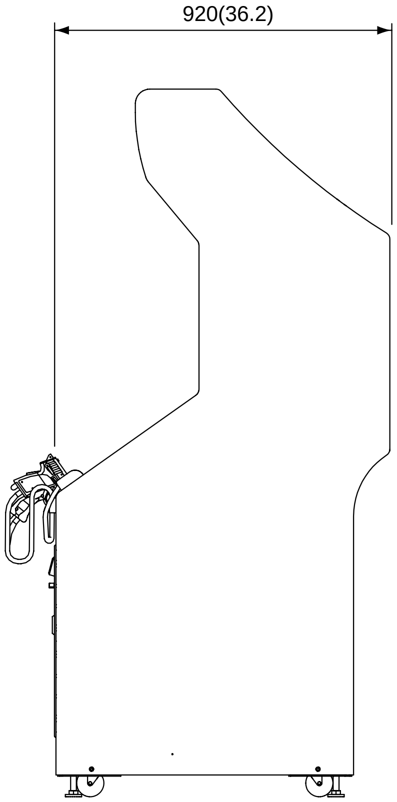
PN.0000056098

- GQ810-UC only

MEMO

1 Specifications



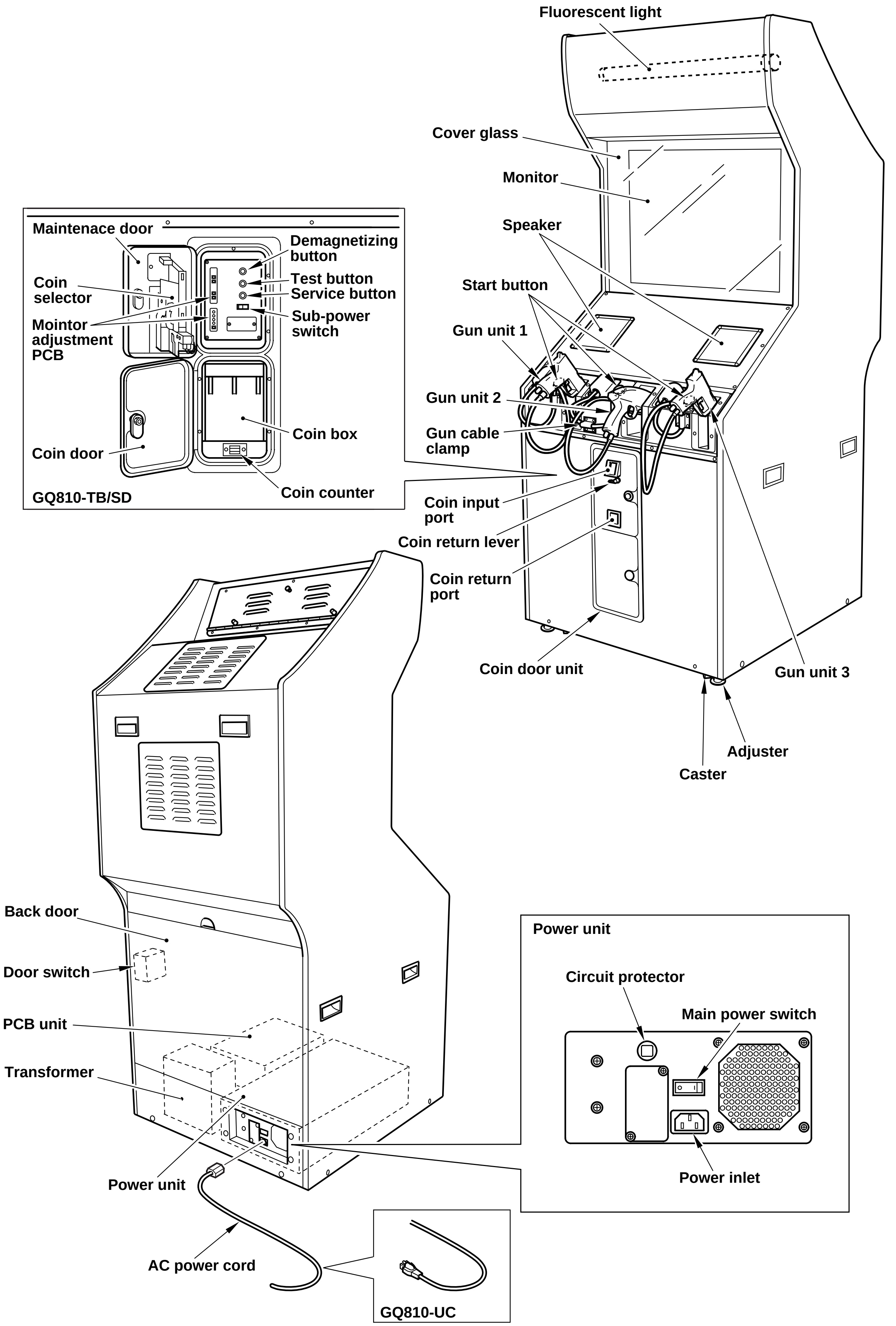


Specifications

Dimensions	Refer to the figure above : mm (in)
Total weight	Approx. 165 kg (363.8lb)
Rated power consumption /actual power	GQ810-TB : 180W / 230VA GQ810-SD / UC : 150W / 210VA
Monitor	29-inch color monitor
Service condition	Temperature 5 to 40°C (41 to 104°F), Humidity 20 to 70% (No dewing is allowed.)
Attachments	·Instruction manual ………………………… This manual ·Keys for coin door ………………………… 2 ·Keys for maintenance ………………………… 2 ·AC power cord ………………………… 1

- If any part is defective or not found, contact your nearest dealer.
- The specifications of this product are subject to change without notice for reasons such as improving the performance.

2 Names of parts


Fluorescent light
Cover glass
Monitor
Speaker
Start button
Gun unit 1
Gun unit 2
Gun cable
clamp
Coin input
port
Coin return lever
Coin return
port
Coin door unit
Gun unit 3
Adjuster
Caster
Maintenace door
Coin
selector
Mointor
adjustment
PCB
Coin door
Demagnetizing
button
Test button
Service button
Sub-power
switch
Coin box
Coin counter
GQ810-TB/SD
Back door
Door switch
PCB unit
Transformer
Power unit
AC power cord
Power unit
Circuit protector
Main power switch
Power inlet
GQ810-UC

3 How to play

The “HELLNIGHT™ (EVILNIGHT™)” is a horror gun shooting game that one, two or three people can simultaneously play in cooperation. Shoot down your enemies, appearing one after the other, to get a high score.

How to play

1 Put coin(s) in the slot. Press the start button and the course selection screen shows up.
- There are two types of guns to choose from.
  - Handgun (1P, 3P)..... The force of each shot is inferior to the shotgun, but bullets can be fired in rapid succession.
  - Shotgun (2P)............ Bullets cannot be fired in rapid succesion, but the force of each shot is nearly double the handgun.

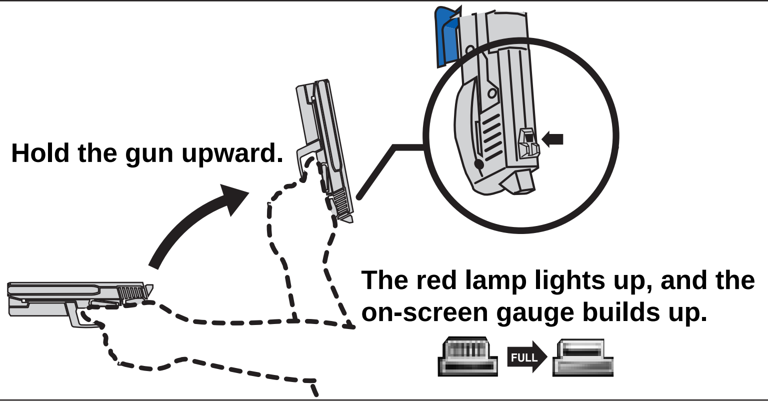
2 Select one from the 3 courses. Fire the gun within 10 seconds, and the game starts itself. (If no particular course is selected, the game starts with “COURSE **B**”.)

3 Shoot enemies who appear one after the other on the screen.
- The guns of 1P and 3P players are of automatic type and can deliver 6 shots in rapid succession. When the 6 bullets are out, direct the gun muzzle out of the screen and pull the trigger. The gun is now fully loaded again. (The guns can be reloaded no matter how many bullets remain in them.)
- The gun of 2P player is a shotgun that can be fired up to 4 bullets one after the other. When the bullets are out, pull the slide handle. The gun is now fully loaded again. (The gun can be reloaded no matter how many bulets remain in it.)

4 When you get shot by the enemies and lose all your life points, the game is over.

Power shooting

The handguns may be used for power shooting.
The power shot is more than twice as forceful as usual.
Hold the gun upward and the red lamp on the gun barrel lights up. The gauge located below the remaining bullets display on the game screen builds up, enabling the power shooting.



Setting the enemies’ blast-out styles

In the “HELLNIGHT™ (EVILNIGHT™)” game, there are 4 blast-out styles of the enemies to choose from. (Refer to “GAME OPTIONS” on page 18.)
- BLUE .... Blast out in blue flashes.
- RED .... Blast out in red flashes.
- DARK BLUE ... Blast out in navy-blue flashes.
- LIGHTNING .... Blast out in sky-blue flashes of lightning. (Factory setting)

Joining the game halfway

- You can join the game anytime during the play.

Continuing the game

- You can continue the game if you take the procedure within about 20 seconds before the game is over.

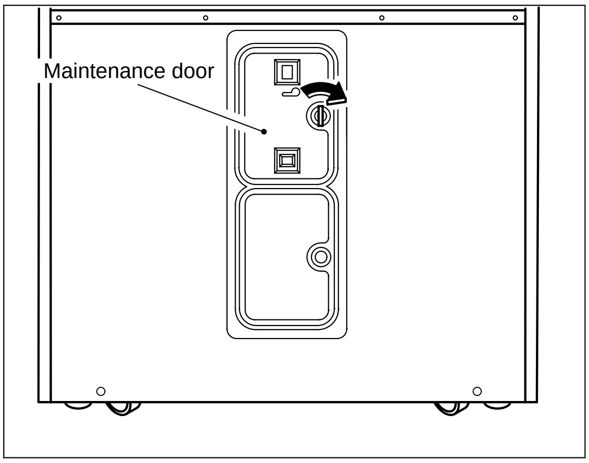
4 Opening and closing the doors

4-1 Opening and closing the maintenance door

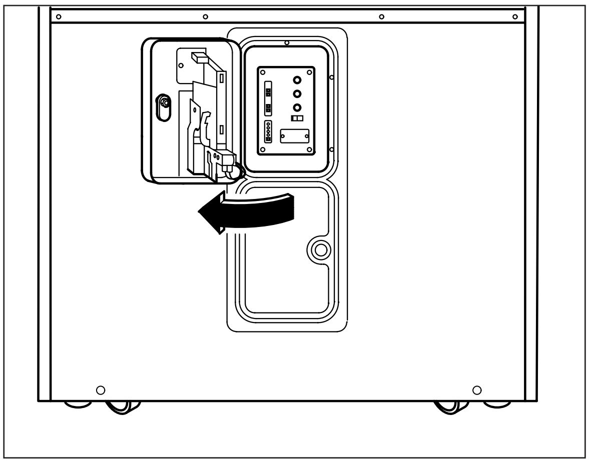
How to open the maintenance door

- **Take care not to apply any load or impact to the maintenance door when it is open.**
- **After closing the maintenance door, be sure to check that the door is locked securely.**

1 Insert the attached maintenance key in the maintenance door and turn it clockwise.



2 Open the maintenance door.



How to close the maintenance door

1 Close the maintenance door.

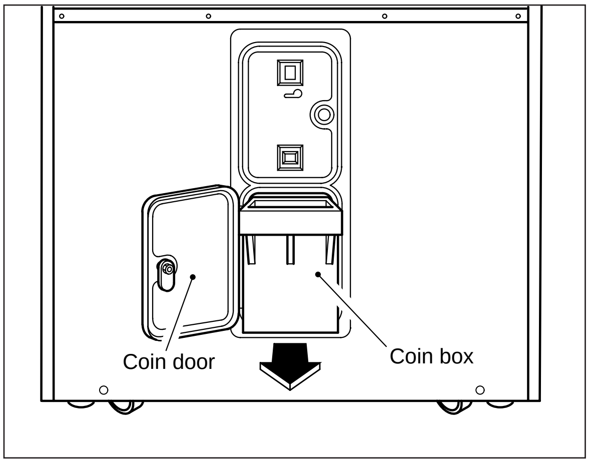
2 Turn the maintenance key counterclockwise and draw it out.

4-2 Opening and closing the coin door

Opening and closing the coin door and removing the coin box

•Take care not to apply any load or impact to the coin door when it is open.
•Securely lock the door for protection against burglaries.
•Note that the coin box is considerably heavy to take out if it is full of coins.

1. Insert the attached coin door key in the coin door and turn it clockwise.
2. Open the coin door and take out the coin box.

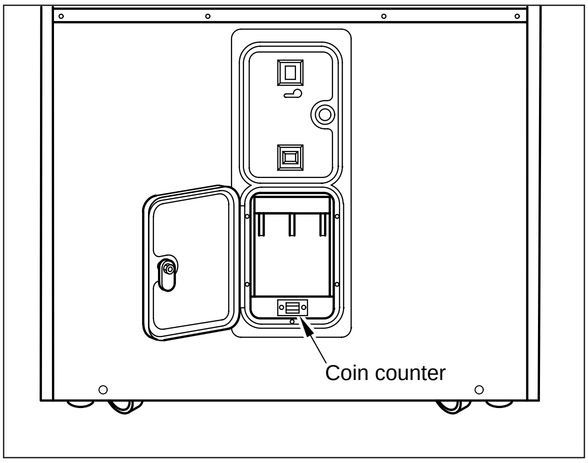


Coin counter

You will find the coin box when the coin door is opened.
The coin counter is located under the coin box.

•To move the coin counter onto the service panel, see page 27.

MEMO



5 PCB settings

5-1 PCB start-up check (self test)

When the power switch is turned ON after installation of machine, the performance of game Printed Circuit Boards (PCB) is checked automatically and the result is displayed on the screen. If the power is not turned ON, make sure that the main power switch and sub-power switch are both at the ON position. (See pages 24 and 25)

- **Be sure to check the PCB unit (self test) before using the machine.**
- **When the machine has been set up or moved to another place, turn ON the power switch and press the demagnetizing button on the service panel to demagnetize the monitor. If the monitor is still magnetized, the gun unit may respond well or the target points may get out of position.**
- **When the machine has been set up or the PCB unit or the gun unit has been repaired or replaced, be sure to position the target points, referring to "CALIBRATION" on page 22.**
- **When the settings have been brought back to the factory ones, be sure to position the target points, referring to "CALIBRATION" on page 22.**
- **If an abnormality persists or the machine does not operate properly, immediately turn OFF the main power switch, unplug the power cord from the receptacle and contact your nearest dealer.**

■Result of test

If test is OK

·The machine goes to the game mode and the demonstration game gets started.

If any abnormality is detected

· "BAD" appears on the screen, and the checking is repeated.

If "BAD" appears on the "RTC CHECK" or "EEP ROM CHECK" screen, once turn OFF the power switch and turn it ON again while holding down the test button on the service panel.
(The settings made in the manual test will return to the factory settings.)

If an abnormal display continues or the machine does not operate normally, immediately turn OFF the main power switch, unplug the power cord and contact your nearest dealer.

5-2 Adjusting the game environment (manual test)

Manually check and change the settings for the screen displays and game contents and change them as reguired.

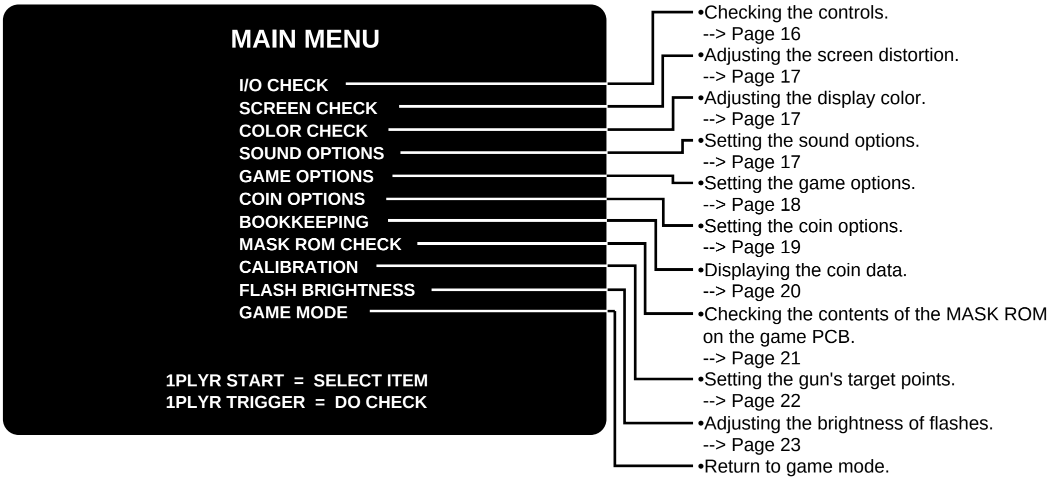
Starting the manual test mode

1 Turn ON the power switch.
2 While the demonstration game is playing, press the test button on the service panel. (Do not turn ON the power switch with the test button held down. The current settings will be erased and the machine will have the factory settings.)
·The unit is set in the manual test mode and the main menu is displayed on the screen.

Quit the manual test mode

1 Press the 1P start button to select “GAME MODE” on the main menu screen.
2 Pull the trigger of the 1P gun.
·The screen goes back to the game mode.

Main menu screen (basic items)


MAIN MENU
I/O CHECK
SCREEN CHECK
COLOR CHECK
SOUND OPTIONS
GAME OPTIONS
COIN OPTIONS
BOOKKEEPING
MASK ROM CHECK
CALIBRATION
FLASH BRIGHTNESS
GAME MODE
1PLYR START = SELECT ITEM
1PLYR TRIGGER = DO CHECK

•Checking the controls.
--> Page 16
•Adjusting the screen distortion.
--> Page 17
•Adjusting the display color.
--> Page 17
•Setting the sound options.
--> Page 17
•Setting the game options.
--> Page 18
•Setting the coin options.
--> Page 19
•Displaying the coin data.
--> Page 20
•Checking the contents of the MASK ROM on the game PCB.
--> Page 21
•Setting the gun's target points.
--> Page 22
•Adjusting the brightness of flashes.
--> Page 23
•Return to game mode.

Selecting each mode

How to select each mode from the main menu

·SELECT --> Press the 1P start button.

·SET --> Pull the trigger of the 1P gun.

After selecting a mode, refer to the page on which that mode is described in details.

5-3 Mode descriptions

■The original factory settings are displayed in green; the changed settings are displayed in red.

·Press the 1P start button to select a setting to be modified. Pull the 1P gun trigger to change the setting.

·After the setting has been changed, select "SAVE AND EXIT" and pull the 1P gun trigger.

"NOW SAVING" will appear, the modified settings will be saved, and the screen returns to the main menu.

·If "EXIT" is selected after the modification of the settings, the following message will appear.

"YOU DID NOT SAVE. DO YOU WANT TO SAVE? YES/NO" select "YES" or "NO".

Press the 1P start button to select "YES" or "NO". Pull the 1P gun trigger to enter the decision.

If "YES" is selected, the new settings will be saved with "NOW SAVING" displayed and the screen will return to the main menu.

If "NO" is selected, the message "NO MODIFICATION" will appear, the modified settings will not be saved, but the main menu will show up again on the screen.

•If "FACTORY SETTINGS" is selected and the trigger of the 1P gun is pulled, all the settings of the mode will be back to the factory ones.

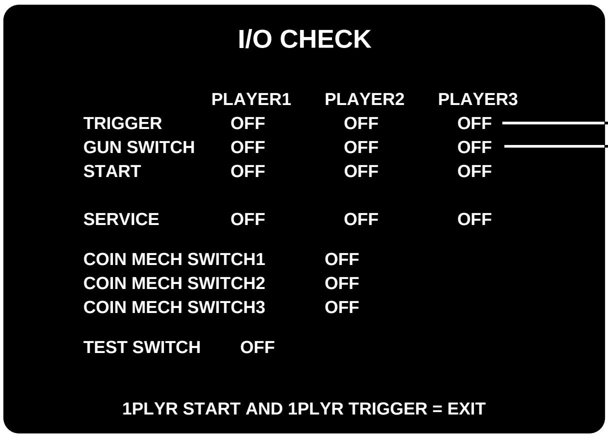
MEMO

I/O CHECK

Checking the controls

■Mode for checking the performance of the controls.

To return to the main menu screen, hold down the 1P start button and pull the 1P gun trigger.



```
                         I/O CHECK

                 PLAYER1     PLAYER2     PLAYER3
TRIGGER            OFF         OFF         OFF
GUN SWITCH         OFF         OFF         OFF
START              OFF         OFF         OFF

SERVICE            OFF         OFF         OFF

COIN MECH SWITCH1              OFF
COIN MECH SWITCH2              OFF
COIN MECH SWITCH3              OFF

TEST SWITCH         OFF

          1PLYR START AND 1PLYR TRIGGER = EXIT
```

•Pull each gun trigger and see if "ON" shows up in red.

•Hold the 1P and 3P gun muzzles just upward and see if "ON" shows up in red.
Pull the 2P gun slide handle to see if "ON" shows up in red.

•This screen is just an example.

SCREEN CHECK

Adjusting the screen distortion

■ Mode for checking the screen display.
Adjust the focus, distortion and size of the image on the screen while watching the crosshatch pattern. Use the monitor adjustment PCB (See page 34) to make adjustments.
To return to the main menu screen, press the 1P start button.

COLOR CHECK

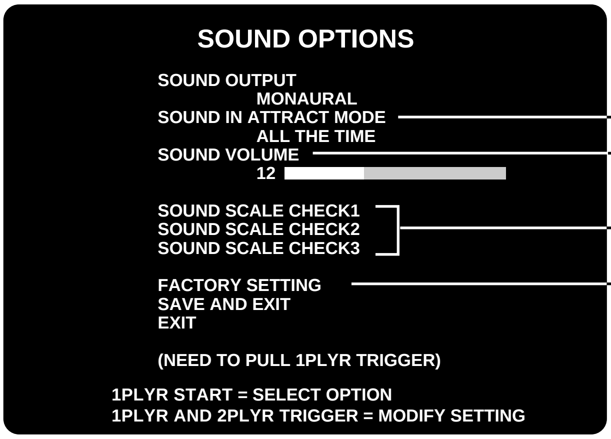
Adjusting the display color

■ Mode for checking the display color.
Make the adjustment using the monitor adjustment PCB (See page 34) so that the colors of the color bars should appear properly graduated and the background should become black sufficiently.
To return to the main menu screen, press the 1P start button.

SOUND OPTIONS

Setting the sound options

■ Mode for setting and checking the sound options.
Press the 1P start button to select an item. Pull the 1P or 2P gun trigger to change the setting.
To return to the main menu screen, select "SAVE AND EXIT" or "EXIT" and pull the trigger of the 1P gun.



```
        SOUND OPTIONS

    SOUND OUTPUT
              MONAURAL
    SOUND IN ATTRACT MODE
              ALL THE TIME
    SOUND VOLUME
              12

    SOUND SCALE CHECK1
    SOUND SCALE CHECK2
    SOUND SCALE CHECK3

    FACTORY SETTING
    SAVE AND EXIT
    EXIT

    (NEED TO PULL 1PLYR TRIGGER)

1PLYR START = SELECT OPTION
1PLYR AND 2PLYR TRIGGER = MODIFY SETTING
```

•Turns on and off the demo play sound.
·ALL THE TIME................Sound always on.
·ONCE EVERY 4 CYCLES......Sound on every 4 cycles.
·COMPLETELY OFF ....Sound always off.

•Adjusts the volume level of voice and sound effects in the range of 0 (mute) to 30 (maximum.).
*To raise the sound level, pull the trigger of the 2P gun.
*To lower the sound level, pull the trigger of the 1P gun.

•Three different "do, re, mi ... do" musical scales are heard from the right and left speakers.

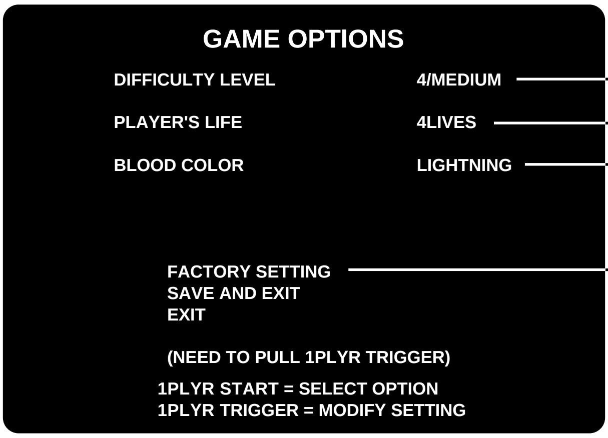
•Pull the 1P gun trigger to see if all the settings in this mode go back to the factory ones.

•This screen is just an example.

GAME OPTIONS

Setting the game options

■Mode for setting and checking the game options.
Press the 1P start button to select an item. Pull the 1P or 2P gun trigger to modify the setting.
To return to the main menu screen, select “SAVE AND EXIT” or “EXIT” and pull the trigger of the 1P gun.



GAME OPTIONS

DIFFICULTY LEVEL 4/MEDIUM

PLAYER'S LIFE 4LIVES

BLOOD COLOR LIGHTNING

FACTORY SETTING
SAVE AND EXIT
EXIT

(NEED TO PULL 1PLYR TRIGGER)

1PLYR START = SELECT OPTION
1PLYR TRIGGER = MODIFY SETTING

•This screen is just an example.

•Sets a difficulty level (from the 8 levels).
1/EASIEST Easier
2/VERY EASY ⇧
3/EASY
4/MEDIUM ----------- Standard
5/MEDIUM HARD
6/HARD ⇩
7/VERY HARD
8/HARDEST Harder
*To raise the difficulty level, pull the trigger of the 1P gun.
*To lower the difficulty level, pull the trigger of the 2P gun.

•Sets the player’s life points.
(Presettable to 2 to 5 for one credit)

•Sets the enemies’ blast-out styles
·RED .... Blast out in red flashes.
·BLUE .... Blast out in blue flashes.
·DARK BLUE ..... Blast out in navy-blue flashes.
·LIGHTNING ...... Blast out in sky-blue flashes of lightning. (Factory setting)

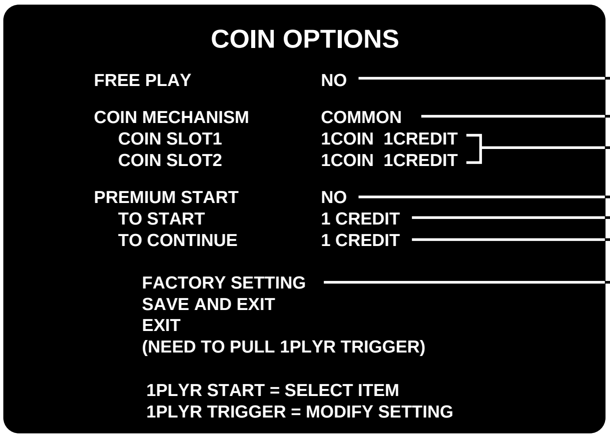
•Pull the 1P gun trigger to see if all the settings in this mode go back to the factory ones.

COIN OPTIONS

Setting the coin options

■Mode for setting and checking the coin options.
Press the 1P start button to select an item. Pull the 1P gun trigger to change the setting.
To return to the main menu screen, select “SAVE AND EXIT” or “EXIT” and pull the trigger of the 1P gun.

•The coin setting options are not displayed when “FREE PLAY” is set to “YES”. In such case, remember the games will be free.



```
                COIN OPTIONS

FREE PLAY                 NO

COIN MECHANISM            COMMON
   COIN SLOT1             1COIN  1CREDIT
   COIN SLOT2             1COIN  1CREDIT

PREMIUM START             NO
   TO START               1 CREDIT
   TO CONTINUE            1 CREDIT

      FACTORY SETTING
      SAVE AND EXIT
      EXIT
      (NEED TO PULL 1PLYR TRIGGER)

       1PLYR START = SELECT ITEM
       1PLYR TRIGGER = MODIFY SETTING
```

•This screen is just an example.

•Selects a free play.
YES..........Available for free play.
NO............Not available for free play.

•Sets which mode the 1P, 2P and 3P credits are common or independent in.
·COMMON .... Total of all credits is counted regardless of the number of coin slots.
·INDEPENDENT ..... Each credit is counted separately for each coin slot.
*Make the same setting for COIN SLOT1 and COIN SLOT2 when COMMON is selected.

•Sets the number of credits for the coin.
(Make the settings referring to the table below.)

•Sets the premium start.
Choose from “NO”, “YES1”, “YES2”, “YES3” and “YES4”.
(See the figure below)

•Sets the number of credits (1 to 5) required to start the game.

•Sets the number of credits (1 to 5) required to continue the game.

•Pull the 1P gun trigger to see if all the settings in this mode go back to the factory ones.

•This game machine is equipped with just one coin slot. Keep “COMMON” for the “COIN MECHANISM” entry on the above screen. Also make the same setting for the “COIN SLOT 1” and “COIN SLOT 2” entries.

MEMO

■The relationship between the number of coins and the number of credits.

SETTING	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COIN(S)	1	1	1	1	1	1	1	2	2	2	3	3	3	4	4	4
CREDIT(S)	1	2	3	4	5	6	7	1	3	5	1	2	4	1	3	5

■“PREMIUM START” Setting

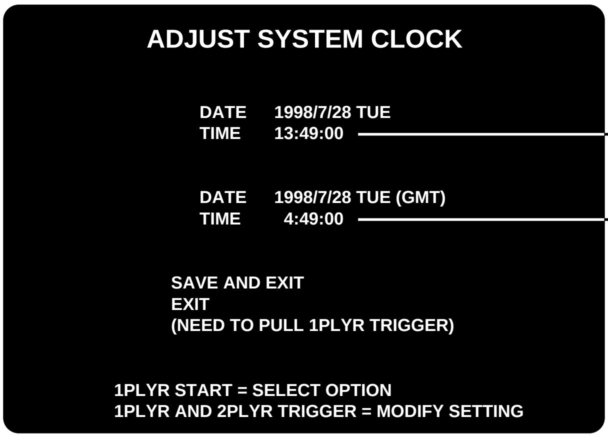
•It is possible to set the different numbers of credits for the start of the game and for its continuation. First, select a difference in the number of credits between the start and the continuation among “YES1” to “YES4”, and set the number of credits for continuation. The number of credits for start is automatically set as the addition of the number of credits for continuation and the above selected difference. When “PREMIUM START” is not set, the number of credits required for start and that for continuation become the same.

Example: “PREMIUM START YES1” selected
Credit 1 at continuation + Difference in the number 1 = Credit 2 at start

BOOKKEEPING

Displaying the coin data

■ Mode for displaying the total data on the number of coins put in the machine.
If the time is preset in this mode, the total data on the number of coins put into the machine can be viewed by coin slot.
To return to the main menu screen, select "SAVE AND EXIT" or "EXIT" and pull the trigger of the 1P gun.



```
ADJUST SYSTEM CLOCK

    DATE   1998/7/28 TUE
    TIME   13:49:00

    DATE   1998/7/28 TUE (GMT)
    TIME     4:49:00

  SAVE AND EXIT
  EXIT
  (NEED TO PULL 1PLYR TRIGGER)

1PLYR START = SELECT OPTION
1PLYR AND 2PLYR TRIGGER = MODIFY SETTING
```

- Displays the current date and time in 24-hour system. (July 28, 1998, Tuesday, 13:49:00 indicated here)
- Displays the current time (GMT) in the 24-hour system. (July 28, 1998, Tuesday, 4:49:00 indicated here)

•This screen is just an example.

■ Setting the current time

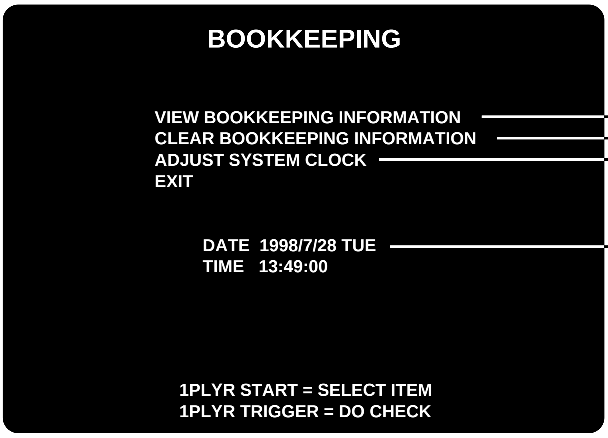
1. Press the 1P start button. Pull the 1P or 2P gun trigger to set the hour.
2. Press the 1P start button again. The "minute" figures turn red. Do the same to set the minute.
3. Press the 1P start button once more. The "second" figures turn red. Do the same to set the second.
4. Now press the 1P start button and select "SAVE AND EXIT". Finally pull the 1P gun trigger.

- If the time setting has not been made — for example, after the machine has been set up or initialized —, the "ADJUST SYSTEM CLOCK" screen shows up.
- When the time setting has been modified, the bookkeeping information is automatically cleared. With the current time not set, the total of received coins and other bookkeeping data are not displayed.

MEMO

■ BOOKKEEPING menu screen

When the time setting has been made and "BOOKKEEPING" is selected on the main menu, the "BOOKKEEPING" menu screen shows up.



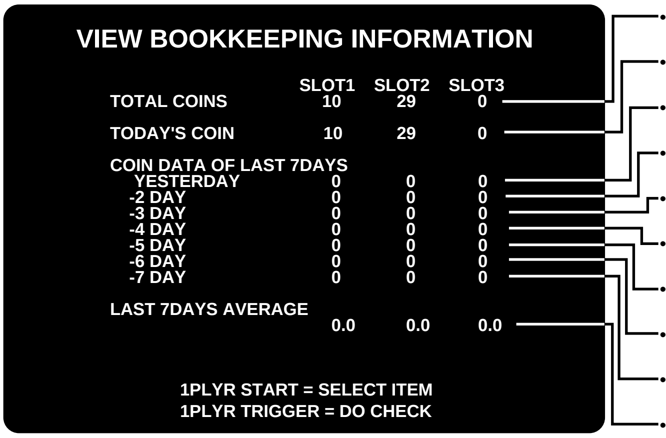
```
BOOKKEEPING

  VIEW BOOKKEEPING INFORMATION
  CLEAR BOOKKEEPING INFORMATION
  ADJUST SYSTEM CLOCK
  EXIT

    DATE  1998/7/28 TUE
    TIME  13:49:00

1PLYR START = SELECT ITEM
1PLYR TRIGGER = DO CHECK
```

- Displays the bookkeeping information by coin slot.
- Clears the bookkeeping information.
- Sets the current time.
- Displays the current time and the date (year/month/day) in 24-hour system. (July 28, 1998, Tuesday, 13:49:00 indicated here)

•This screen is just an example.

■VIEW BOOKKEEPING INFORMATION

In this mode, the bookkeeping information is displayed. The number of coins for each of the items can be viewed by coin slot.



```
VIEW BOOKKEEPING INFORMATION

                       SLOT1   SLOT2   SLOT3
TOTAL COINS              10      29      0

TODAY'S COIN             10      29      0

COIN DATA OF LAST 7DAYS
  YESTERDAY               0       0      0
  -2 DAY                  0       0      0
  -3 DAY                  0       0      0
  -4 DAY                  0       0      0
  -5 DAY                  0       0      0
  -6 DAY                  0       0      0
  -7 DAY                  0       0      0

LAST 7DAYS AVERAGE
                        0.0     0.0    0.0


      1PLYR START = SELECT ITEM
      1PLYR TRIGGER = DO CHECK
```

- •Total number of coins after the time being set.
- •Number of coins of today.
- •Number of coins of yesterday.
- •Number of coins of 2 days ago.
- •Number of coins of 3 days ago.
- •Number of coins of 4 days ago.
- •Number of coins of 5 days ago.
- •Number of coins of 6 days ago.
- •Number of coins of 7 days ago.
- •Average number of coins of last 7 days.

•This screen is just an example.

Pull the 1P gun trigger and the total coin data of the past 12 weeks are displayed for each week.

■CLEAR BOOKKEEPING INFORMATION

In this mode, the total coin data is cleared. Before clearing, you are asked to confirm “YES” or “NO” twice. After the data is cleared, the BOOKKEEPING menu screen shows up again.

MASK ROM CHECK

Checking the MASK ROM

■Mode for checking the MASK ROM on the game PCB.

If the MASK ROM is not in trouble, “OK” is displayed: if in trouble, “BAD” is displayed. Call the MASK ROM CHECK screen and pull the 1P gun trigger, and the checking gets started. If the 1P start button is pressed before getting this checking started, the main menu shows up again on the screen. To return to the main menu screen after this checking, press the 1P start button.

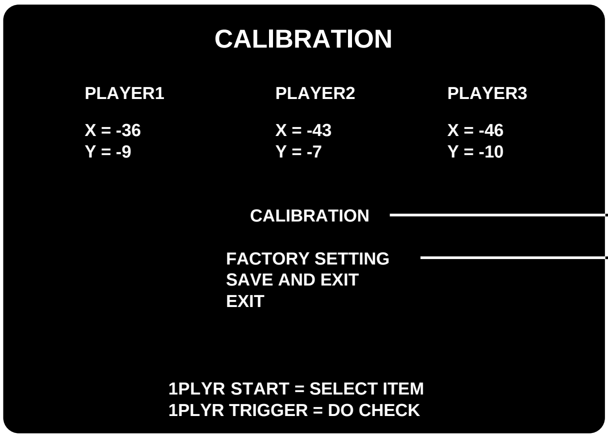
- If “BAD” appears, immediately turn OFF the main power switch, unplug the power cord from the receptacle and contact your nearest dealer.

CALIBRATION

Setting the gun's target points

■Mode for setting and checking the shooting target positions.
Readjust and check the shooting target positions.
To return to the main menu screen, select "SAVE AND EXIT" or "EXIT" and pull the trigger of the 1P gun.

•After the gun unit has been repaired or replaced, be sure to reposition the target points on the "CALIBRATION" screen.
•Do not pull the trigger of the gun again after the "CALIBRATION". The target points will be repositioned again.



```
                CALIBRATION

   PLAYER1        PLAYER2        PLAYER3

   X = -36        X = -43        X = -46
   Y = -9         Y = -7         Y = -10


             CALIBRATION

           FACTORY SETTING
           SAVE AND EXIT
           EXIT


        1PLYR START = SELECT ITEM
        1PLYR TRIGGER = DO CHECK
```

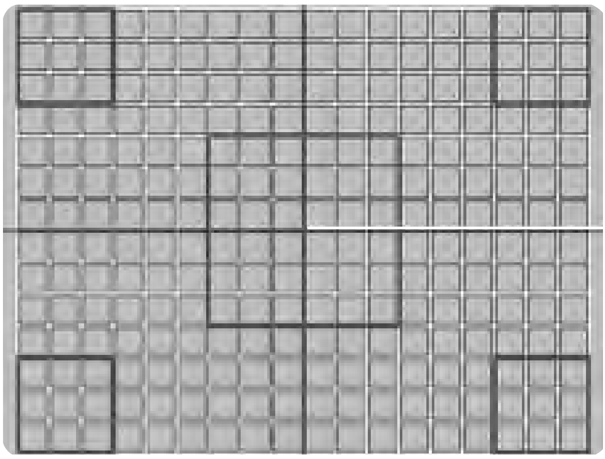
•Setting the target point of the gun.

•Pull the 1P gun trigger to see if all the settings in this mode go back to the factory ones.

•This screen is just an example.

•How to position the target points

1. Select "CALIBRATION" and pull the trigger of the 1P gun.
2. A crosshatched pattern appears on the screen. Aim the 1P gun at the screen center and pull its trigger. (If the target point is out of position, the target point on the screen automatically goes to the screen center.) The first pull of the trigger leaves no bullet mark, but the second and following ones leave the bullet marks.



•Center marker
Sets the target points of the 1P, 2P and 3P guns.

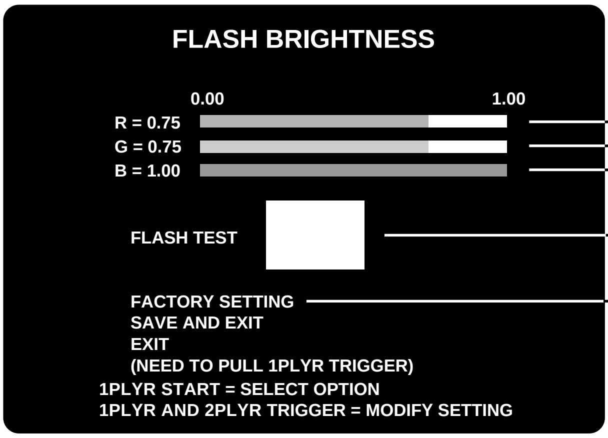
3. Check and make the same settings for the 2P and 3P guns.
4. To return to the "CALIBRATION" screen, hold down the 1P start button and pull the 1P gun trigger.

FLASH BRIGHTNESS

Adjusting the brightness of flashes.

■Mode for adjusting the flash brightness on the screen.
Press the 1P start button to select an item. Pull the 1P or 2P gun trigger to modify the setting.
To return to the main menu screen, select “SAVE AND EXIT” or “EXIT” and pull the trigger of the 1P gun.

•It is advisable to adjust the brightness depending on the brightness of the installation place.



FLASH BRIGHTNESS

0.00 1.00
R = 0.75
G = 0.75
B = 1.00

FLASH TEST

FACTORY SETTING
SAVE AND EXIT
EXIT
(NEED TO PULL 1PLYR TRIGGER)
1PLYR START = SELECT OPTION
1PLYR AND 2PLYR TRIGGER = MODIFY SETTING

- •Adjusts the red color brightness.
- •Adjusts the green color brightness.
- •Adjusts the blue color brightness.
- •Displays the color brightness adjusted. Pull the 1P gun trigger to do the flash test.
- •Pull the 1P gun trigger to see if all the settings in this mode go back to the factory ones.

•This screen is just an example.

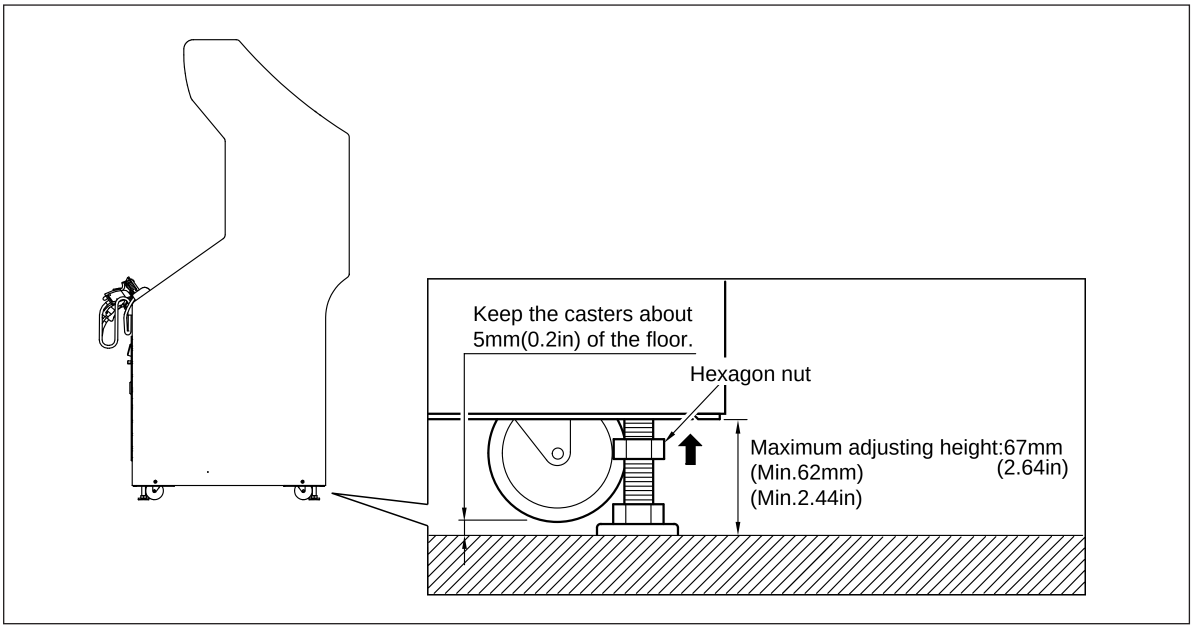
6 Setting up the game machine

6-1 Fastening the adjusters

How to fasten the adjusters

•Adjust the adjusters so that the casters do not touch the floor. Take care not to exceed the maximum adjusting height of the adjuster.

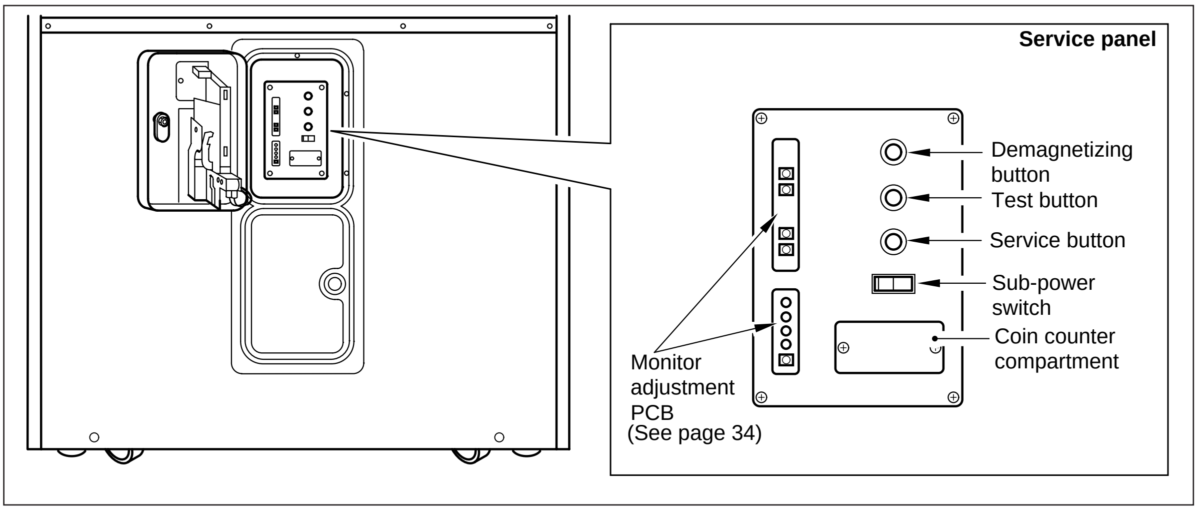
•Lower the 4 adjusters onto the floor. Make sure that the machine is stable and in a horizontal position. Tighten up the hexagon nuts upward.


Keep the casters about 5mm(0.2in) of the floor.
Hexagon nut
Maximum adjusting height:67mm (2.64in)
(Min.62mm)
(Min.2.44in)

6-2 Service panel

Service panel

Using the accompaying maintenance key, open and detach the maintenance door to access the service panel inside.

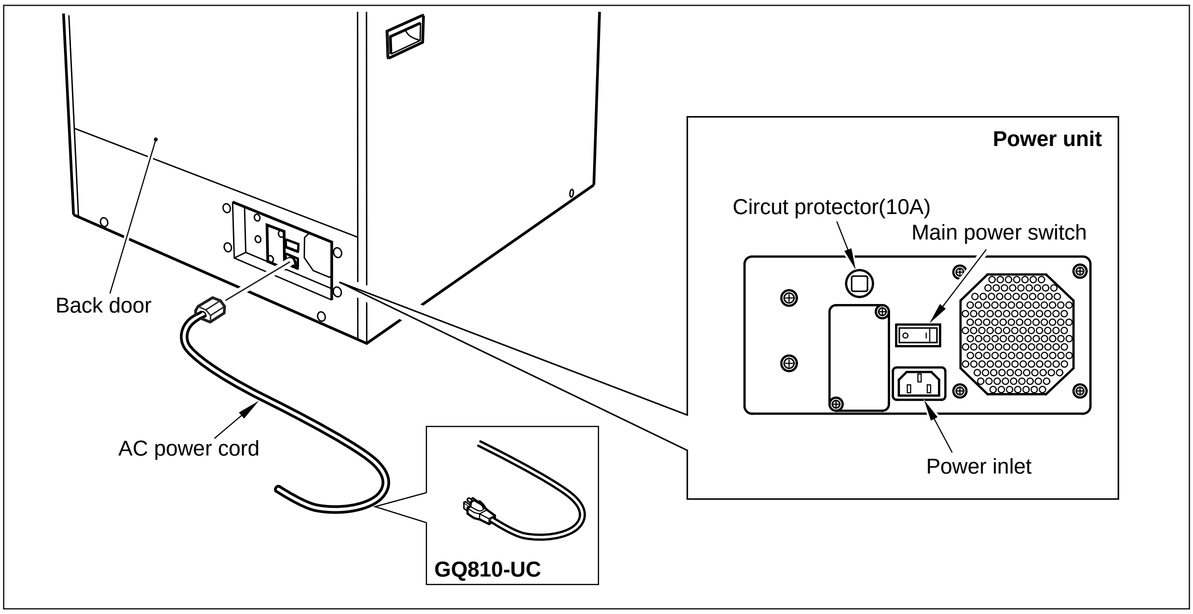

Service panel
Demagnetizing button
Test button
Service button
Sub-power switch
Coin counter compartment
Monitor adjustment PCB
(See page 34)

6-3 Power unit

■Power unit

The power unit is located on the back of the machine.

- **Be sure to use the attached AC power cord.**
- **Be sure to ground to the machine. Never connect the grounding wire to gas pipe, water pipe or telephone ground terminal.**
- **The machine has some high-voltage parts inside. Only a qualified industry specialist is allowed to open the back door of the machine. With this back door open, be very careful not to touch unnecessary parts.**
- **Before opening the back door, be sure to turn OFF the main power switch on the power unit and unplug the power cord. If the sub-power switch on the service panel is turned OFF but the main power switch on the power unit is still ON, some parts inside are still on power.**

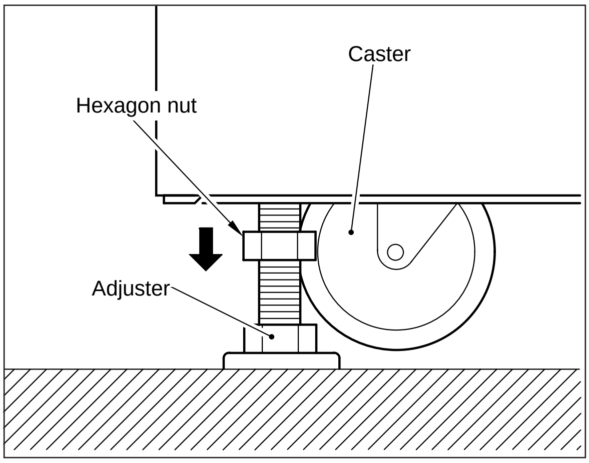

Power unit
Circut protector(10A)
Main power switch
Back door
AC power cord
Power inlet
GQ810-UC

6-4 Moving the game machine

How to movement

- **Before moving the machine, be sure to turn OFF the main power switch and unplug the power cord.**
- **Before moving the machine, be sure to fully screw up all the adjusters. Move the machine on the casters.**
- **When moving the units, be careful not to apply undue force.**
- **When moving the machine, do not hold the gun unit or gun cable.**
- **When the machine has been set up or moved to another place, turn ON the power switch and press the demagnetizing button on the service panel to demagnetize the monitor. If the monitor is still magnetized, the gun unit may respond well or the target points may get out of position.**

1. Be sure to turn OFF the main power switch and unplug the power cord from the receptacle.
2. Disconnect the AC power cord from the machine.
3. Loosen the four adjusters and move the machine on its casters.



6-5 Moving the coin counter

How to move the coin counter

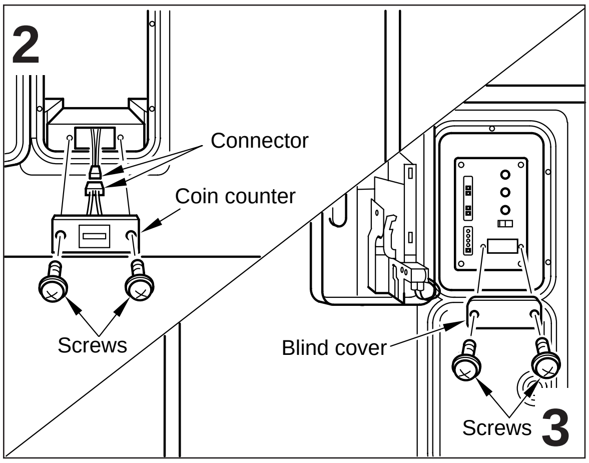
The coin counter was installed in the coin box when the machine left the factory, but it can be moved onto the service panel.

•Before moving the coin counter, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.

1 Be sure to turn OFF the main power switch and unplug the power cord from the receptacle.

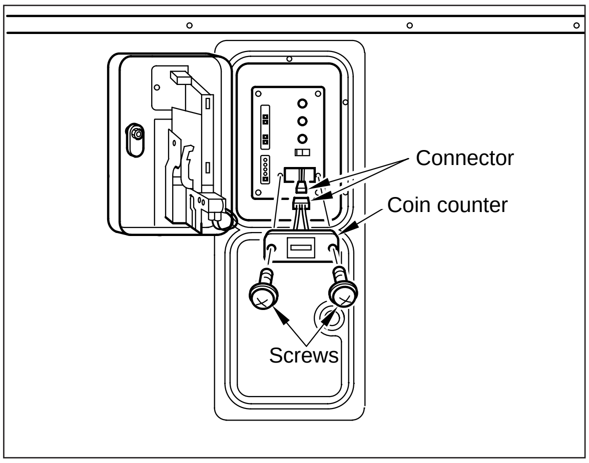
2 Open the coin door, take out the coin box, remove the screws and take out the coin counter. In the meanwhile, disconnect the connector.

3 Remove the maintenance door and unscrew the blind cover to remove it from the service panel.

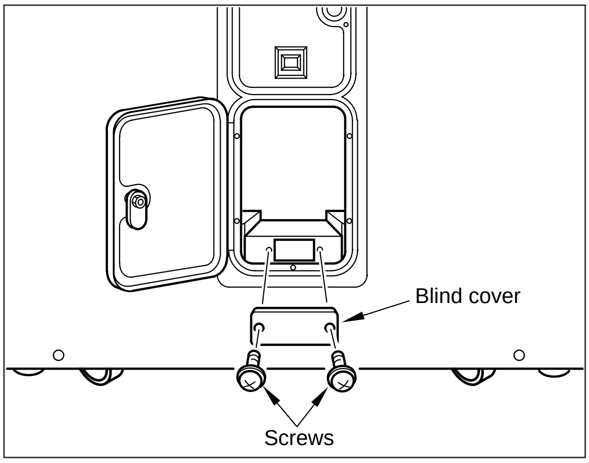

2
Connector
Coin counter
Screws
Blind cover
Screws
3

4 Draw the connector out of the opening of the service panel and connect this connector to the coin counter's connector.

5 Attach the coin counter on the service panel with the screws.


Connector
Coin counter
Screws

6 Attach the blind cover (detached in Step **3** above) back in position on the coin counter using the screws.


Blind cover
Screws

7 Maintenance

7-1 Replacing the coin selector

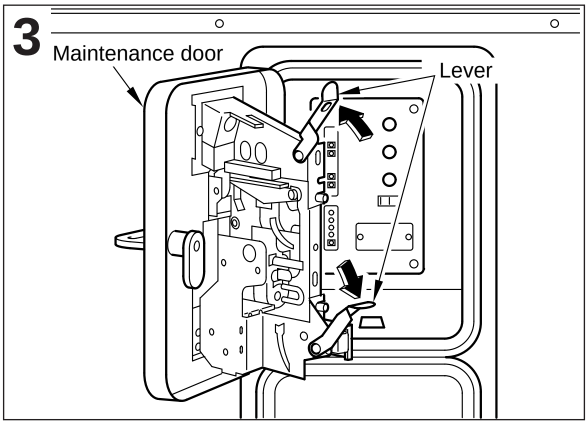
■How to replace the coin selector

- **Before replacing the coin selector, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.**
- **When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.**
- **Never disassemble, repair or modify any section other than those specified in this manual.**

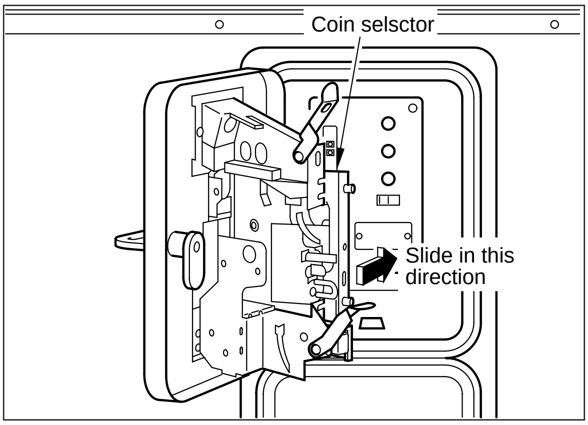
1 Be sure to turn OFF the main power switch and unplug the power cord from the receptacle.

2 Open the maintenance door.

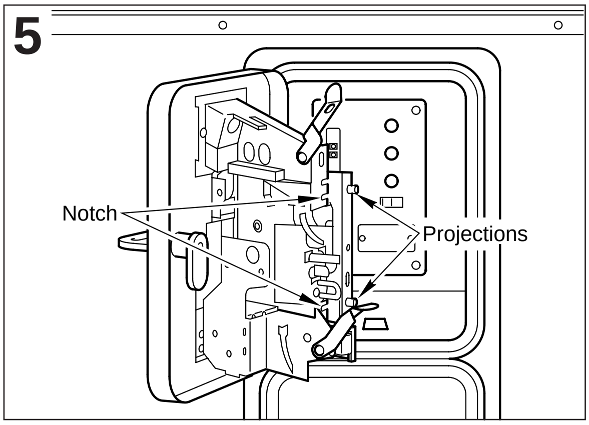
3 Release the levers that fix the coin selector. See at right.



4 Slide the coin selector to the right, and take it out.



5 **To reattach the coin selector**
Fit the 2 projections of the coin selector to their mating notches.



6 Lock the levers (in Step **3** above) again, and close the maintenance door.

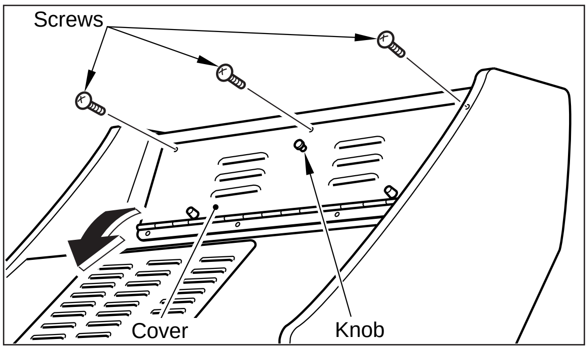
7-2 Replacing the fluorescent light

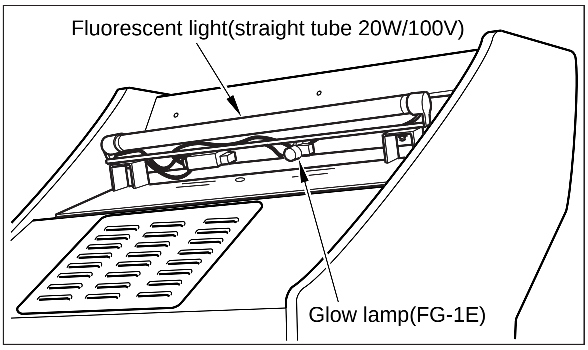
How to replace the fluorescent light

- **Before replacing the fluorescent light, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.**
- **Open and close the fluorescent light cover gently.**
- **The florescent light is hot just after the power switch is turned off. Wait until it cools down and then replace it with a new one of the same type (straight tube20W / 100V).**
- **When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.**
- **Never disassemble, repair or modify any section other than those specified in this manual.**

1 Be sure to turn OFF the main power switch and unplug the power cord from the receptacle.

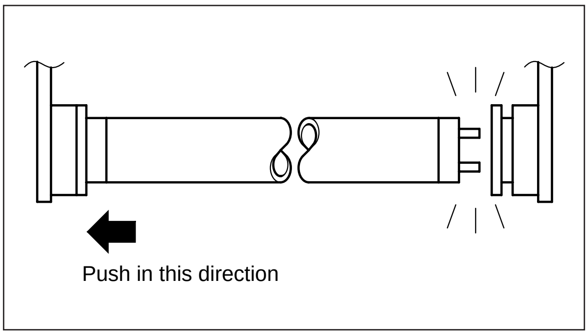
2 Remove the screws off the back cover, and hold the knob and gently open the cover.





3 Push one end of the fluorescent light in the direction of the socket. The other end of the fluorescent light will be detached from the opposite socket.

4 Install a new fluorescent light in the reverse order and close the cover.



- It is recommended to replace the glow lamp at the same time.

MEMO

7-3 Replacing the start button

How to replace the start button

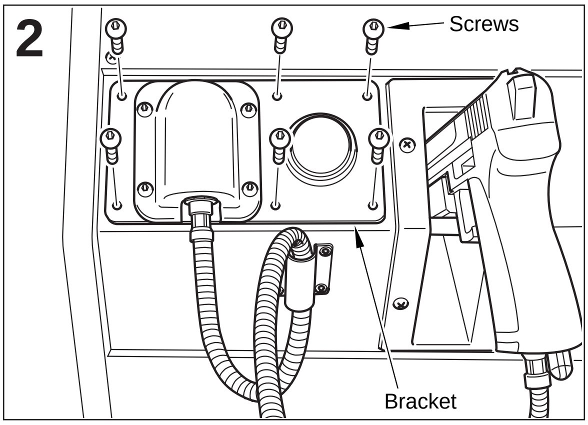
•Before replacing the start button, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.
•When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.
•Never disassemble, repair or modify any section other than those specified in this manual.

1 Be sure to turn OFF the main power switch and unplug the power cord from the receptacle.

2 Remove the screws and detach the bracket.

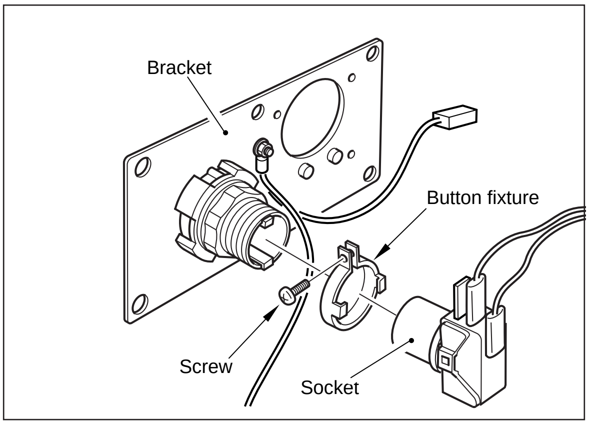
•Be careful not to pull the gun cable located behind the bracket.

MEMO



3 Remove the screw off the button fixture that fixes the button and socket together. Take out the button fixture.

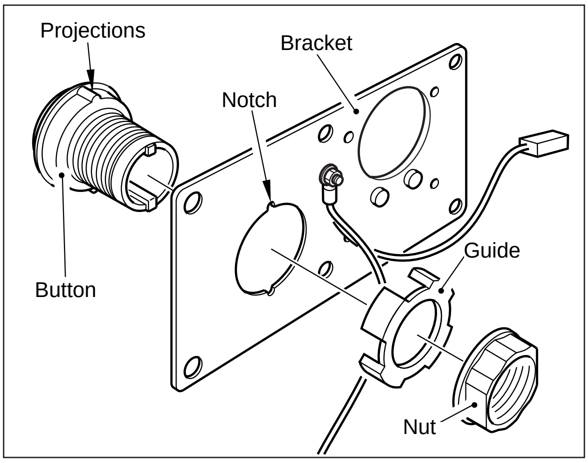
4 Draw the socket from the button.



5 Loosen the nut and separate the button.

6 **To fit the button again**
Fit the projection of the button to its mating notch of the bracket.

7 In reassembling the parts, take the reverse order. Pay attention to the socket's direction.



7-4 Replacing the gun unit

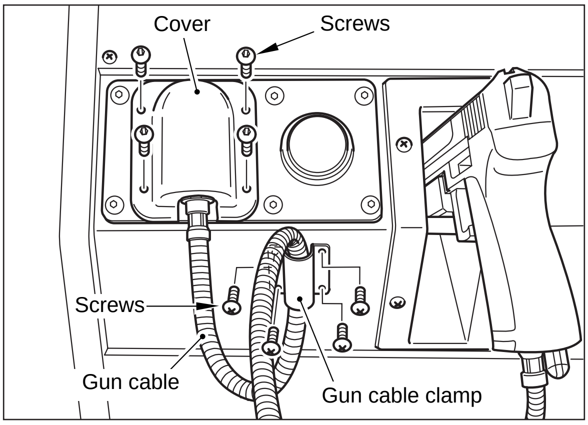
How to remove the gun unit

- **Before replacing the gun unit, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.**
- **After the gun unit has been repaired or replaced, reposition the target points referring to “CALIBRATION” on page 22.**
- **When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.**
- **Never disassemble, repair or modify any section other than those specified in this manual.**

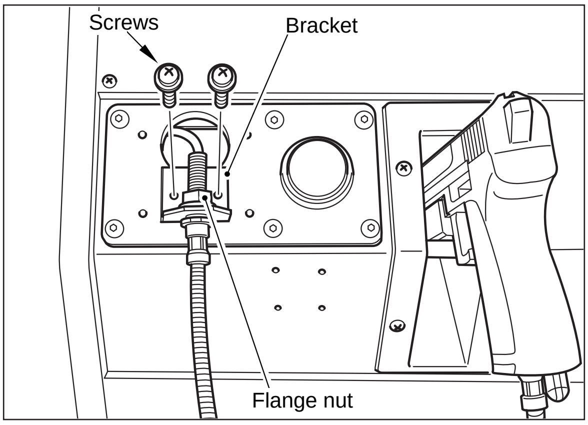
1 Be sure to turn OFF the main power switch and unplug the power cord from the receptacle.

2 Remove the screws and detach the gun cable clamp.

3 Remove the screws and detach the gun cable connection cover.

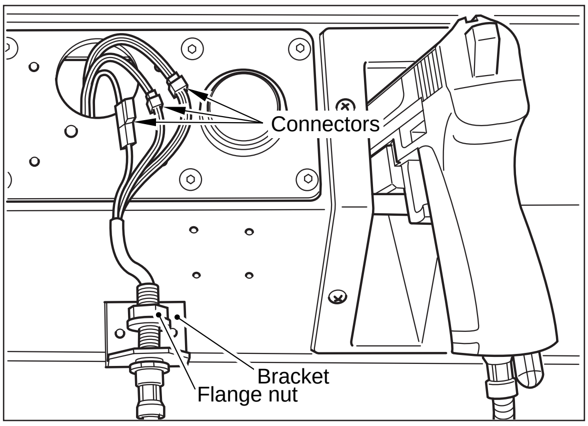

Cover
Screws
Screws
Gun cable
Gun cable clamp

4 Loosen the flange nut off the gun cable, and remove the screws off the bracket.


Screws
Bracket
Flange nut

5 Detach the bracket and pull out the connectors.

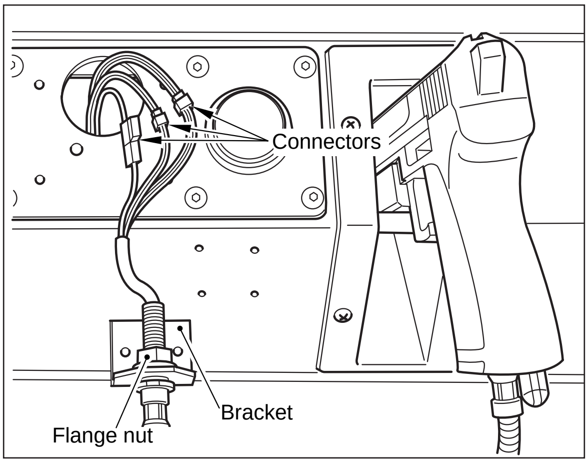
6 Disconnect the connectors, remove the flange nut and take the gun cable from the bracket.


Connectors
Bracket
Flange nut

How to set up the gun unit

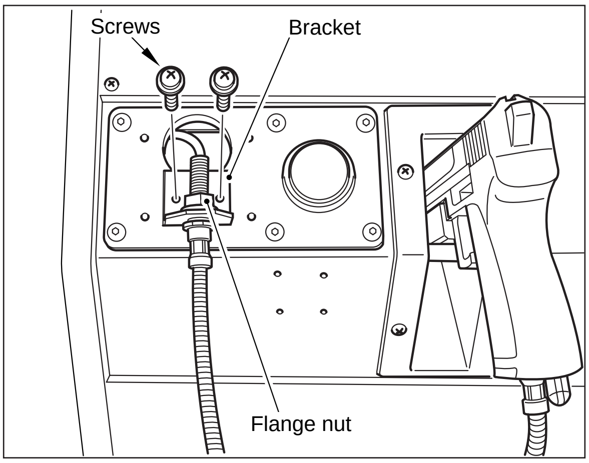
1 Pass the gun cable through the bracket. Apply and lightly tighten the flange nut.

2 Reconnect the gun cable connectors.


Connectors
Bracket
Flange nut

3 Fix the bracket with the screws and tighten up the flange nut.

4 Mount the cover and the gun cable clamp into position.


Screws
Bracket
Flange nut

5 Check the PCB settings, referring to “5-1 PCB start-up check (self-test)” on page 14. Check the gun performance, referring to “I/O CHECK” and position the guns’ target points, referring to “CALIBRATION” on page 22.

7-5 Resetting the circuit protector

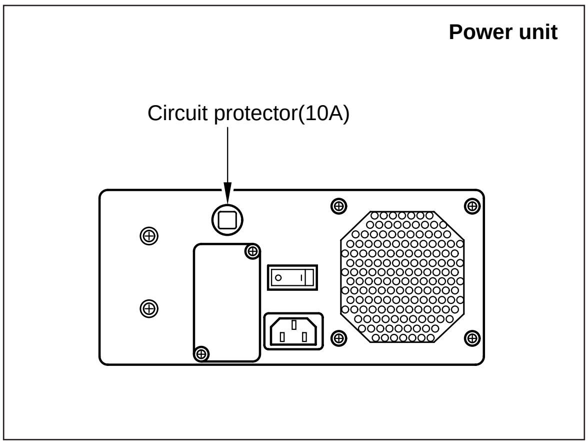
How to reset the circuit protector

If an overcurrent or short circuit occurs, the circuit protector will be automatically actuated to protect the electric circuits of the game machine. When resetting the circuit protector, turn OFF the main power switch, unplug the power cord from the receptacle, eliminate the cause, and then press the button of the circuit protector.

- **Before resetting the circuit protector, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.**
- **If the circuit protector trips soon again, immediately turn OFF the main power switch, unplug the power cord, and contact your nearest dealer.**
- **The machine has some high-voltage parts inside. Only a qualified industry specialist is allowed to open the back door of the machine. With this back door open, be very careful not to touch unnecsessary parts.**
- **If the machine is in abnormal conditions and does not operate normally, immediately turn OFF the power switch, unplug the power cord from the receptacle and contact your nearest dealer.**

1 Be sure to turn OFF the main power swith and unplug the power cord from the receptacle.

2 Remove the cause of the trouble. Press the button on the circuit protector of the power unit.

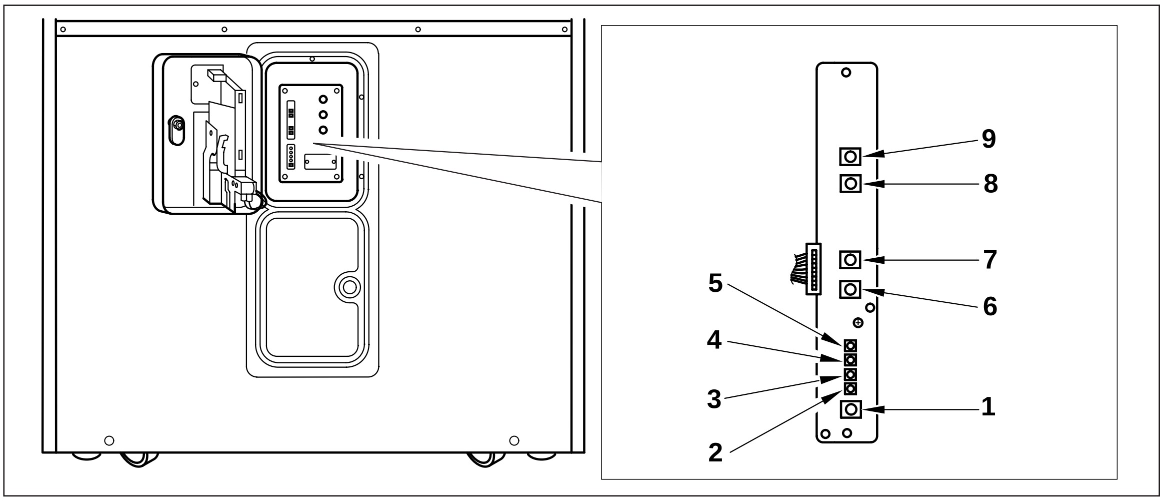


7-6 Adjusting the monitor

Monitor adjustment PCB

The monitor has already been adjusted at the time of shipment, but it may be readjusted as desired.

The monitor adjustment PCB is located inside the service panel. When adjusting the monitor, open the maintenance door. (See page 12)

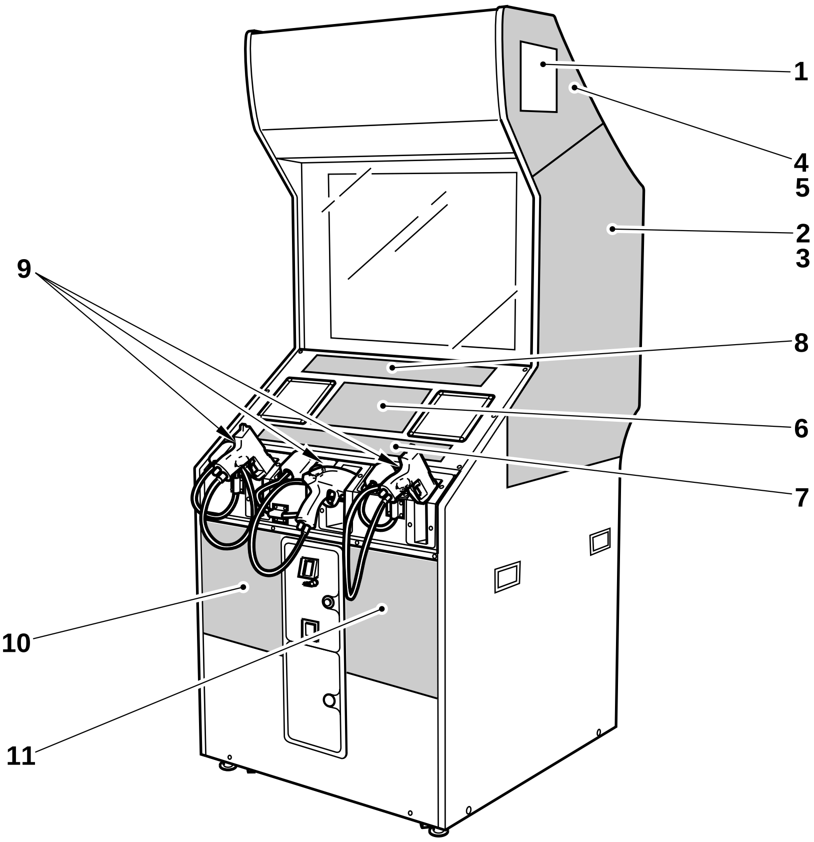


1	CONTRAST	**Contrast adjustment** Used to changes the contrast.
2	R.GAIN	**Red input gain adjustment** Changes red brightness. Turning it clockwise will make the red deeper.
3	G.GAIN	**Green input gain adjustment** Changes green brightness. Turning it clockwise will make the green deeper.
4	B.GAIN	**Blue input gain adjustment** Changes blue brightness. Turning it clockwise will make the blue deeper.
5	BRIGHT	**Brightness adjustment** Changes brightness. Turning it clockwise will make the image brighter.
6	H.SIZE	**Horizontal screen size adjustment** Changes the width of the screen.
7	H.POSI	**Horizontal image position adjustment** Changes the image position in the horizontal direction.
8	V.SIZE	**Vertical screen size adjustment** Changes the height of the screen.
9	V.POSI	**Vertical image position adjustment** Changes the image position in the vertical direction.

8 Annex

8-1 Label locations and exploded view

Label



No.	Code No.	Name	Quantity	Note
1	0000053902	LABEL, KONAMI / L	2	
2	0000053892	LABEL, SIDE A / L	1	
3	0000053893	LABEL, SIDE A / R	1	
4	0000053894	LABEL, SIDE B / L	1	
5	0000053895	LABEL, SIDE B / R	1	
6	0000055527	LABEL, INST A / TB	1	
7	0000055529	LABEL, INST B / TB	1	
8	0000055530	LABEL, INST C / TB	1	
9	0000055531	LABEL, START / TB	1 set	
10	0000053896	LABEL, FRONT / L	1	
11	0000053897	LABEL, FRONT / R	1	

FIG.1 UNIT, CABINET(1/7)

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1	0000053923	CABINET		1	
2	0000052885	BRACKET, ADJUSTER		4	
3	0000053070	ADJUSTER	H-KYW16.75.6BK	4	L.NUT
4	0000047156	CASTER	TCM-75NM	4	

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
101		SCREW, CROSS PAN SEMS	M6X18/MFZn2-C	24	PW, SW
102		SCREW, CROSS TRUSS	M6X30/BLACK	8	
103		WASHER, PLAIN	6/BLACK	8	Ø20

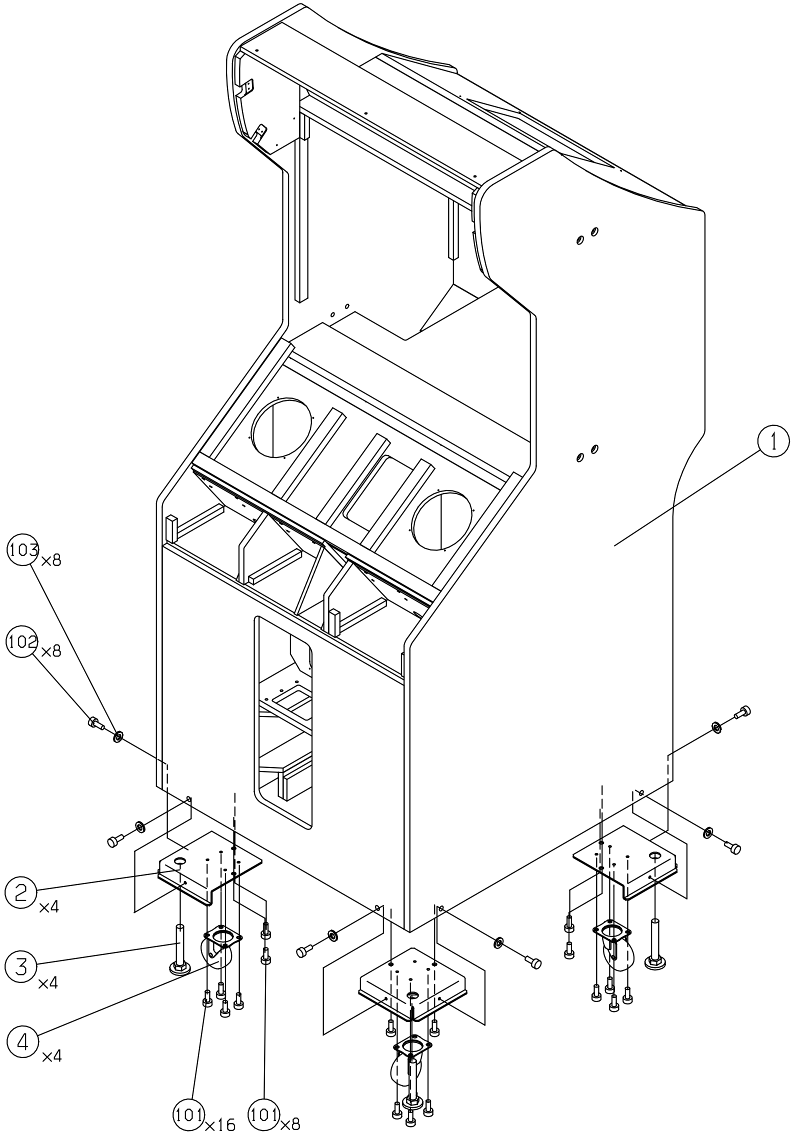


FIG.2 UNIT, CABINET(2/7)

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1		CABINET		1	
2	0000053855	BRACKET,MONITOR		2	
3	0000048809	MONITOR	D29CR55	1	
4	0000053862	PLATE,SERVICE		1	
5	0000054682	COVER,COUNTER		1	
6	0000005098	SWITCH,PUSH	DS-412-2P	3	
7	0000039100	SWITCH,ROCKER	AJ8201BK	1	

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
101		SCREW,CROSS PAN SEMS	M4x10/MFZn2-C	2	PW,SW
102		SCREW,CROSS PAN SEMS	M6x30/MFZn2-C	8	PW,SW
103		SCREW,WOOD CROSS ROUND	3.1x13/MFZn2-C	4	
104		SCREW,CROSS PAN PLASTIC	M3x6/PC	3	
105		WASHER,PLAIN	10/MFZn2-C	4	
106		NUT,FLANGE	M8/MFZn2-C	4	

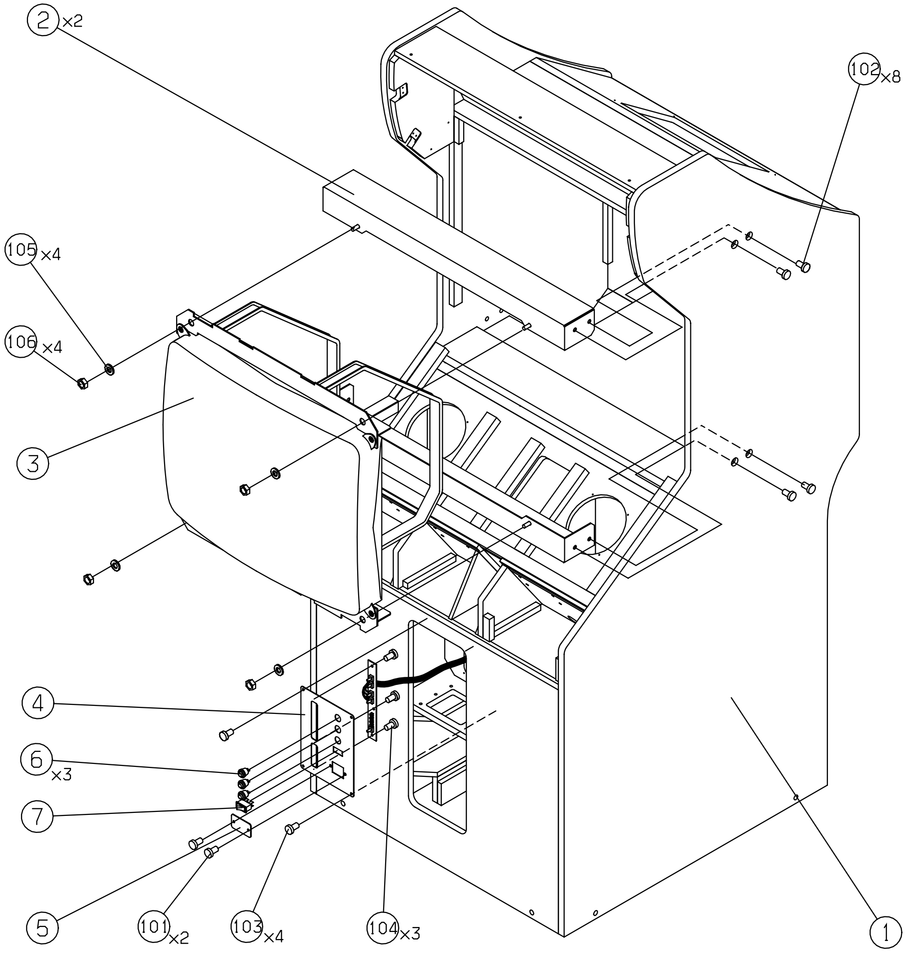


FIG.3 UNIT, CABINET(3/7)

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1		CABINET		1	
2	0000042191	PLATE,COIN		1	
3	0000006850	BOX,COIN	ABS	1	
4	0000052286	BASE,COIN BOX		1	
5	0000036952	BRACKET,COUNTER		1	
6	0000030431	COUNTER	GX-06PD55	1	
7	0000055653	DOOR,COIN	NAD-W1-KATB	1	TB/SD/UC
8	0000001676	LOCK	NS-801-1 W/2	1	(5000)
9	0000001664	LOCK	NS-812-1 W/2	1	(RANDOM)
10	0000004799	PLATE,LOCK	NO.2	2	

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
101		SCREW,CROSS PAN SEMS	M4X10/MFZn2-C	3	PW,SW
102		SCREW,WOOD CROSS ROUND	3.1X13/MFZn2-C	2	
103		BOLT,CAP SQUARE NECK	M4X25/MFZn2-C	5	
104		NUT,FLANGE	M4/MFZn2-C	5	

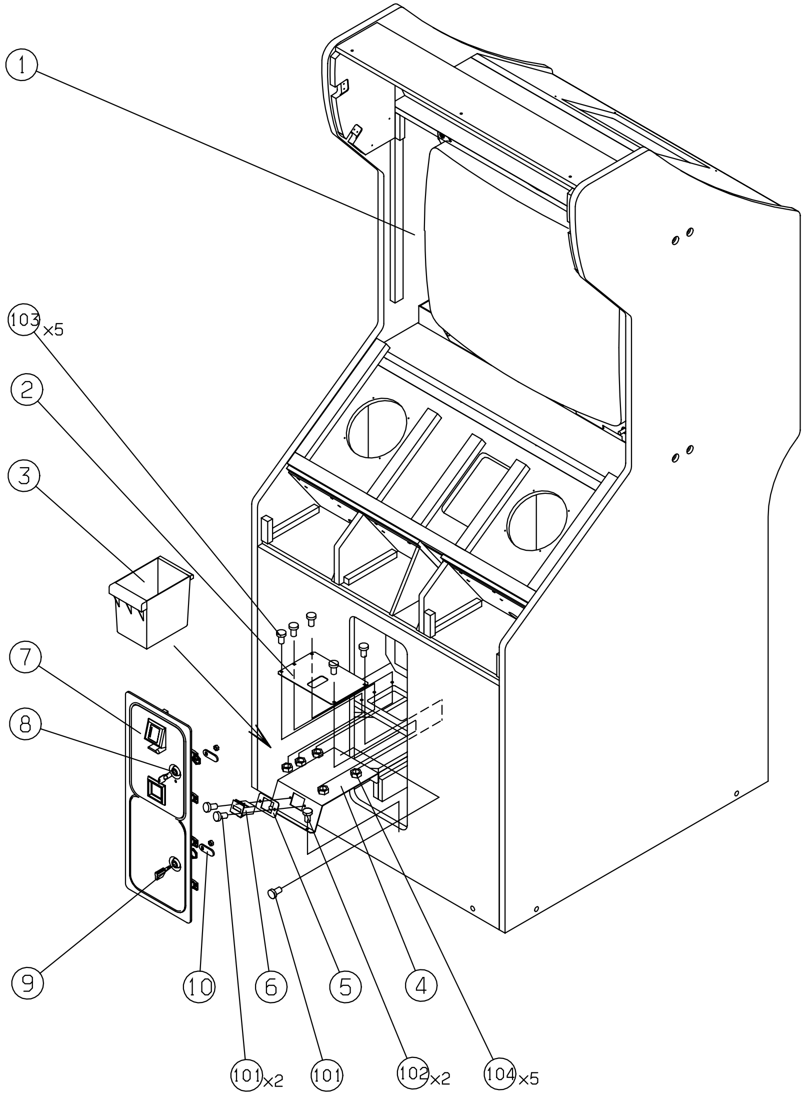


FIG.4 UNIT, CABINET(4/7)

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1		CABINET		1	
2	0000053854	BRACKET,LAMP		1	
3	0000048813	KNOB	A-GD.20	1	
4	0000054102	LEG,RUBBER	H-K.2017	2	
5	0000048810	LAMP,F,WITH HOLDER	S-20W VLP-03V,500mm	1	
6	0000053860	FIXTURE,TITLE		1	
7	0000049324	FIXTURE,TITLE		4	
8	0000055637	PANEL,TITLE	PMMA T3	1	
9	0000053859	FIXTURE,TITLE		1	

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE		NOTE
101		SCREW,CROSS PAN SEMS	M4X15/MFZn2-C	1	PW,SW
102		SCREW,CROSS PAN SEMS	M6X18/MFZn2-C	2	PW,SW
103		SCREW,CROSS PAN	M3X15/MFZn2-C	2	
104		SCREW,CROSS TRUSS	M4X10/BLACK	4	
105		SCREW,CROSS TRUSS	M5X20/BLACK	14	
106		SCREW,WOOD CROSS ROUND	3.1x13/MFZN2-C	4	
107		SCREW,WOOD CROSS FLAT	3.1x10/MFZn2-C	8	
108		WASHER,PLAIN	8/MFZn2-C	2	

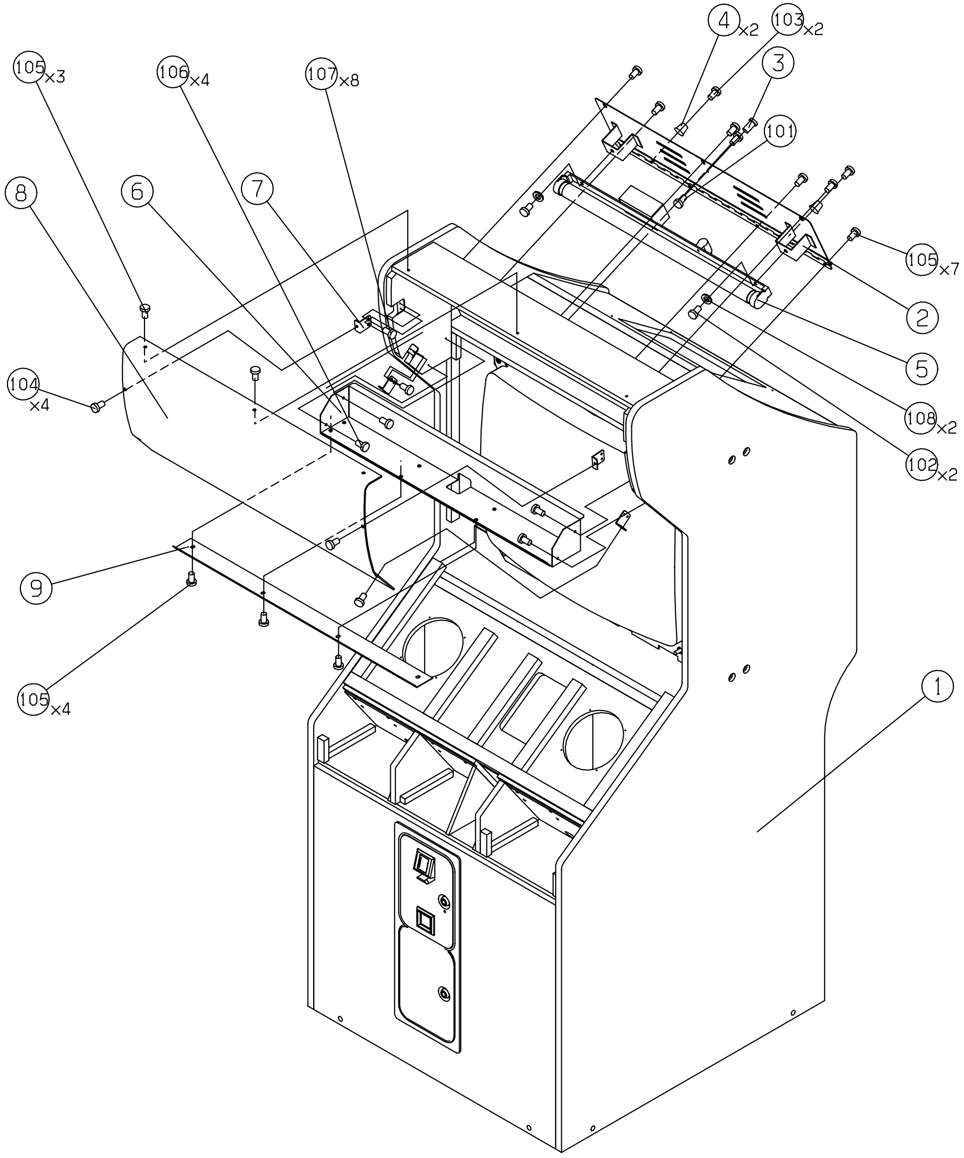


FIG.5 UNIT, CABINET(5/7)

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1		CABINET		1	
2	0000053926	GLASS, MONITOR	GLASS T5	1	
3	0000053853	FIXTURE, GLASS		1	
4	0000053927	TAPE, SPONGE	T5	2	
5	0000002616	SPEAKER	PD16239B	2	
6	0000053856	COVER, CONTROL		1	
7	0000052292	COVER, SPEAKER		2	
8	0000053852	BRACKET, SWITCH		3	
9	0000053925	COVER, CONTROL		1	
10	0000052343	HOLSTER		2	
11	0000052277	STOPPER	UR HS90	2	SHORT
12	0000052344	HOLSTER		1	
13	0000052367	PLATE, GUIDE		1	
14	0000052278	STOPPER	UR HS90	1	LONG

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE		NOTE
101		SCREW, CROSS PAN SEMS	M4X10/MFZn2-C	4	PW, SW
102		SCREW, CROSS PAN SEMS	M6X25/MFZn2-C	12	PW, SW
103		SCREW, CROSS TRUSS	M4X10/BLACK	12	
104		SCREW, CROSS TRUSS	M4X10/MFCr	8	
105		SCREW, CROSS TRUSS	M5X20/BLACK	4	
106		SCREW, CROSS TAPPING TRUSS	4x13/BLACK	14	
107		SCREW, CROSS TAPPING TRUSS	4x13/MFCr	7	
108		BOLT, HEX SOCKET CAP	M5X50/BLACK	2	
109		BOLT, HEX SOCKET CAP	M5X70/BLACK	1	
110		NUT, NYLON	M5/MFZn2-C	3	
111		NUT, FLANGE	M4/MFZn2-C	1	FOR GROUNDING

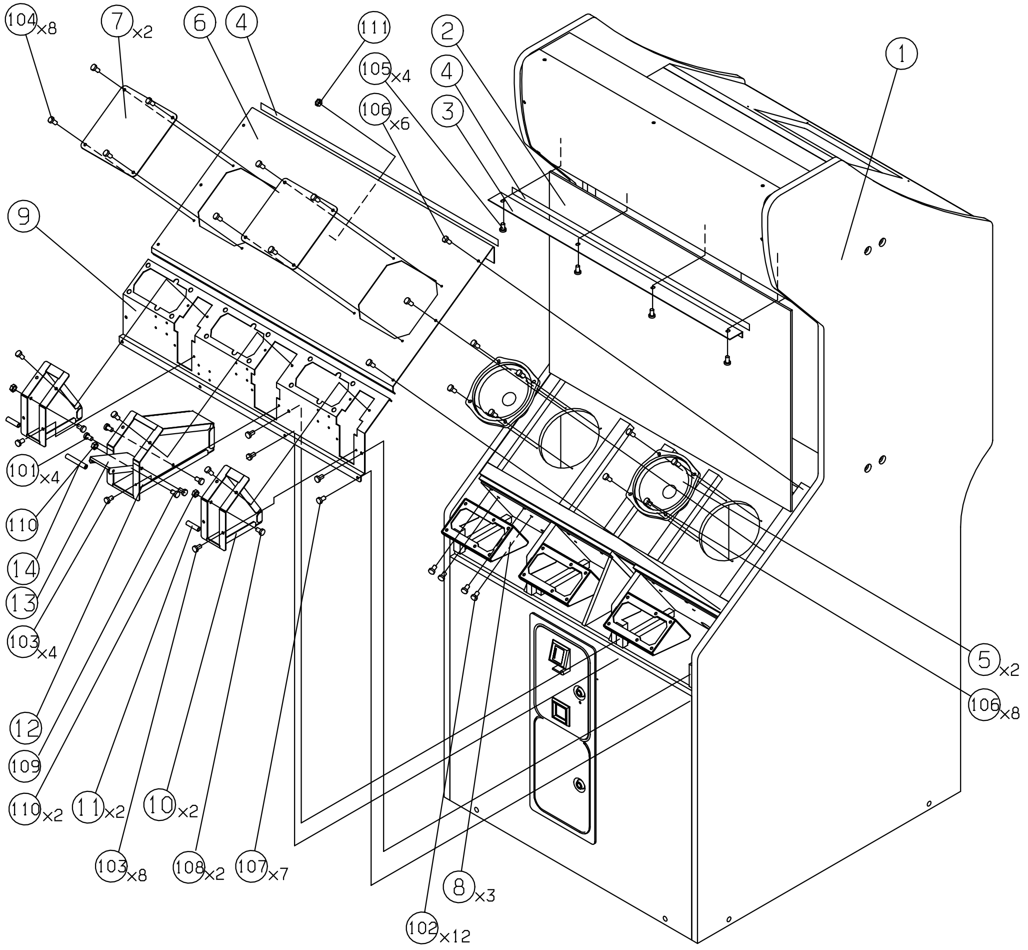


FIG.6 UNIT, CABINET(6/7)

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1		CABINET		1	
2	0000053861	PLATE, CONTROL		3	
3	0000052293	BRACKET, CABLE		3	
4	0000051746	COVER, CABLE		3	
5	0000052368	FIXTURE, CABLE		4	
6	0000050397	BUTTON, PUSH	OBSA-45UM-LN-Y	3	
7	0000002412	CLIP, BUTTON	OBSA-BK	3	
8	0000055539	UNIT, HAND GUN		2	
9	0000054239	UNIT, SHOT GUN		1	

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
101		SCREW, CROSS PAN SEMS	M6X25/MFZn2-C	6	PW, SW
102		SCREW, CROSS TRUSS	M4X10/MFCr	16	
103		BOLT, BUTTON HEAD	M6X20/BLACK	18	
104		BOLT, BUTTON HEAD	M4X10/BLACK	12	
105		NUT, FLANGE	M4/MFZn2-C	3	FOR GROUNDING
106		NUT, FLANGE	M12x1.25/MFZN2-C	3	PITCH 1.25

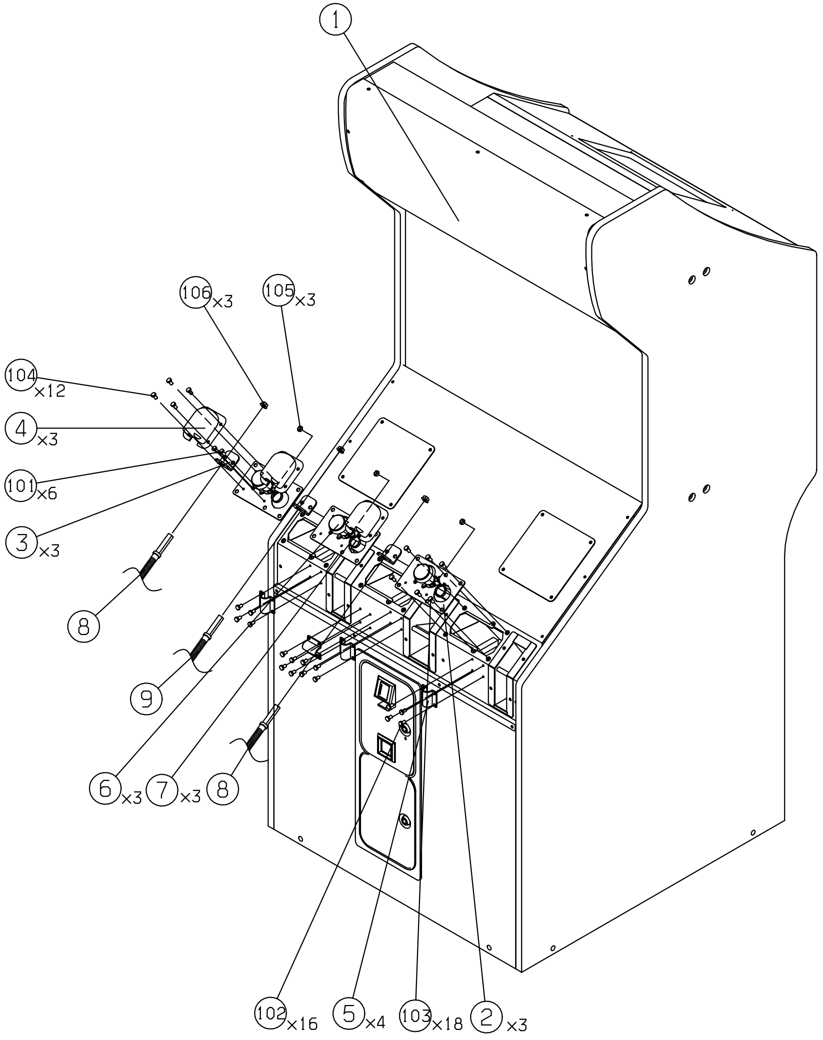


FIG.7 UNIT, CABINET(7/7)

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1		CABINET		1	
2	0000052370	COVER, DUCT		2	
3	0000038221	BRACKET, SWITCH		1	
4	0000038413	BUSH	MP1060	1	
5	0000004953	SWITCH, DOOR	AV1225	1	
6	0000038230	PLATE, SWITCH		1	
7	0000053924	COVER, REAR		1	
8	0000052572	UNIT, PCB BOX		1	
9	0000054012	ASS`Y, POWER BOX		1	
10	0000055438	UNIT, TRANSFORMER		1	

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
101		SCREW, CROSS SEMS	M6X15/MFZn2-C	4	
102		SCREW, CROSS TRUSS	M6X30/BLACK	6	
103		SCREW, WOOD CROSS ROUND	3.1X13/MFZn2-C	10	
104		SCREW, CROSS TAPPING TRUSS	4X13/BLACK	16	
105		SCREW, CROSS TAPPING TRUSS	5X13/MFZn2-C	2	
106		WASHER, PLAIN	6/BLACK	4	Ø20

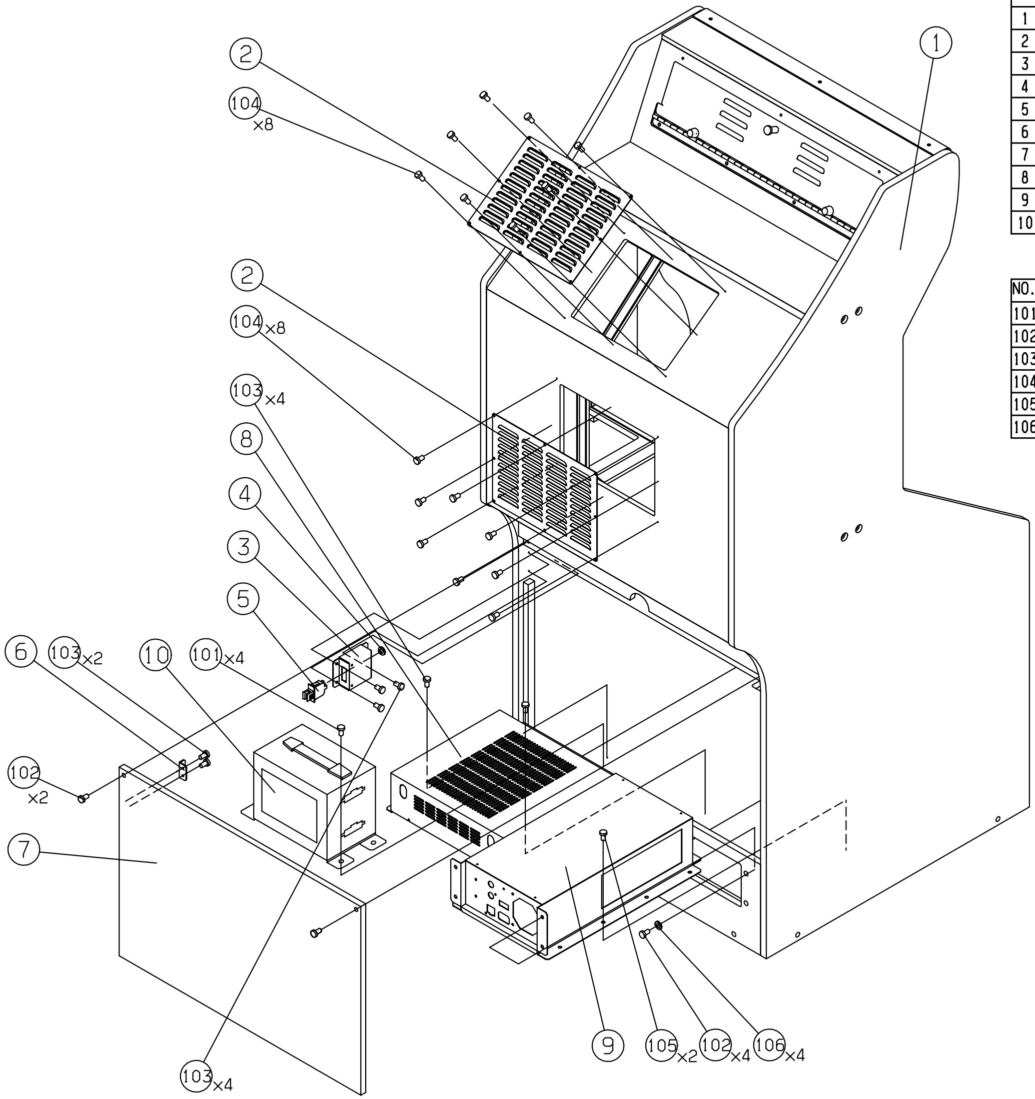


FIG.8 UNIT, SHOT GUN

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1	0000050565	CASE,RIGHT		1	
2	0000050566	CASE,LEFT		1	
3	0000050567	GRIP,RIGHT		1	
4	0000050568	GRIP,LEFT		1	
5	0000010632	LEVER,TRIGGER		1	
6	0000015540	FIXTURE,CHAIN		1	
7	0000015508	SPRING,TRIGGER		1	
8	0000035351	LENS		1	
9	0000035352	SPRING,GRIP SLIDE		1	
10	0000050425	CABLE,FLEXIBLE		1	
11	0000054238	UNIT,PCB(H)		0.5	

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
101		BOLT,HEX SOCKET CAP	M3X25/BLACK	3	
102		BOLT,HEX SOCKET CAP	M3X20/BLACK	7	
103		BOLT,HEX SOCKET CAP	M3X10/BLACK	2	
104		BOLT,HEX SOCKET CAP	M3X8/BLACK	2	
105		SCREW,CROSS P-TITE PAN	3X8/MFZn2-C	1	
106		NUT,HEX	M3/BLACK	2	
107		NUT,DOMED CAP	M3/BLACK	2	
108		NUT,FLANGE	M12X1.25/MFZn2-C	1	PITCH 1.25

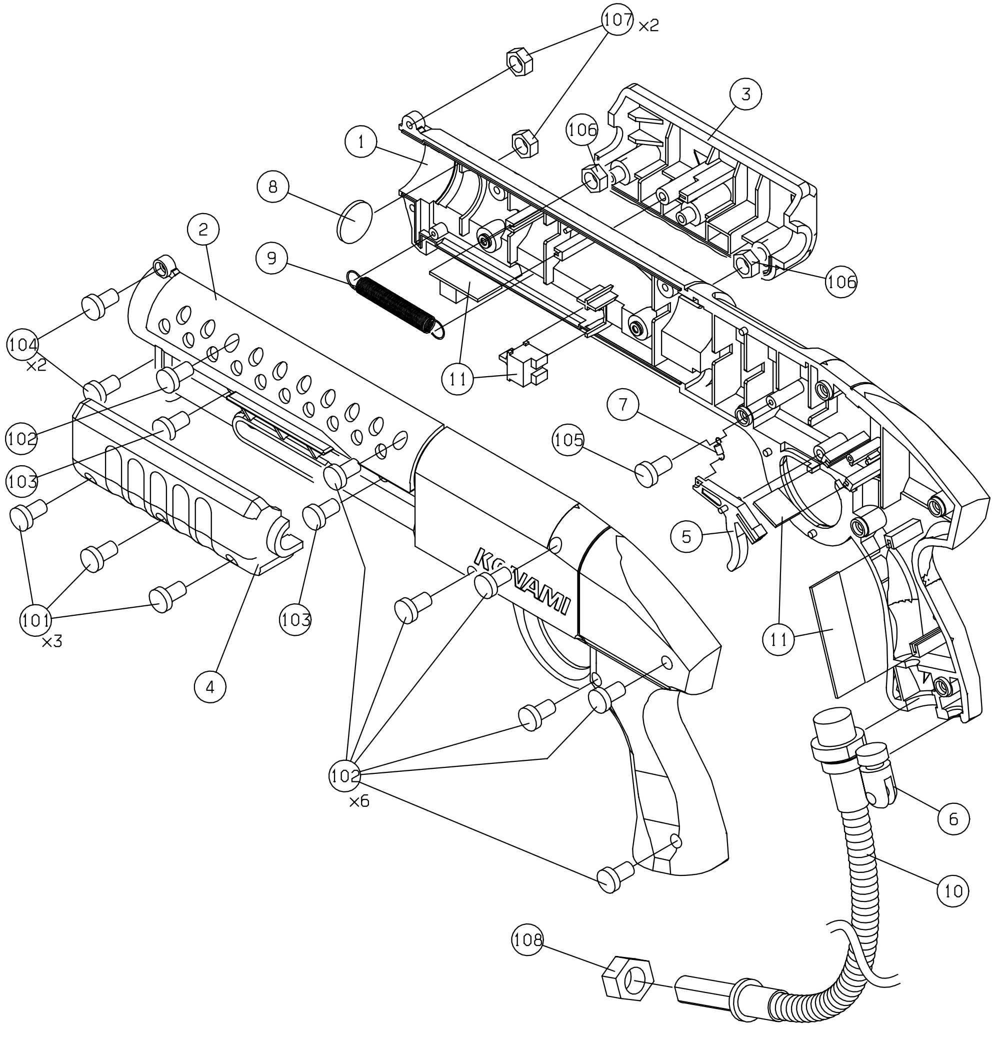


FIG.9 UNIT, HAND GUN

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1	0000055536	CASE,RIGHT		1	
2	0000055538	CASE,LEFT		1	
3	0000055537	TRIGGER		1	
4	0000015540	FIXTURE,CHAIN		1	
5	0000050845	SPRING		1	
6	0000015507	LENS		1	
7	0000050354	CABLE,FLEXIBLE		1	
8	0000050347	SWITCH,MICRO	SS-5 GL2T	1	
9	0000052558	UNIT,PCB(G)		0.5	

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
101		BOLT,HEX SOCKET CAP	M3X20/BLACK	8	
102		BOLT,HEX SOCKET CAP	M3X8/BLACK	3	
103		PIN,PARALLEL	5X18/B	1	
104		NUT,DOMED CAP	M3/BLACK	11	
105		NUT,FLANGE	M12X1.25/MFZn2-C	1	PITCH 1.25

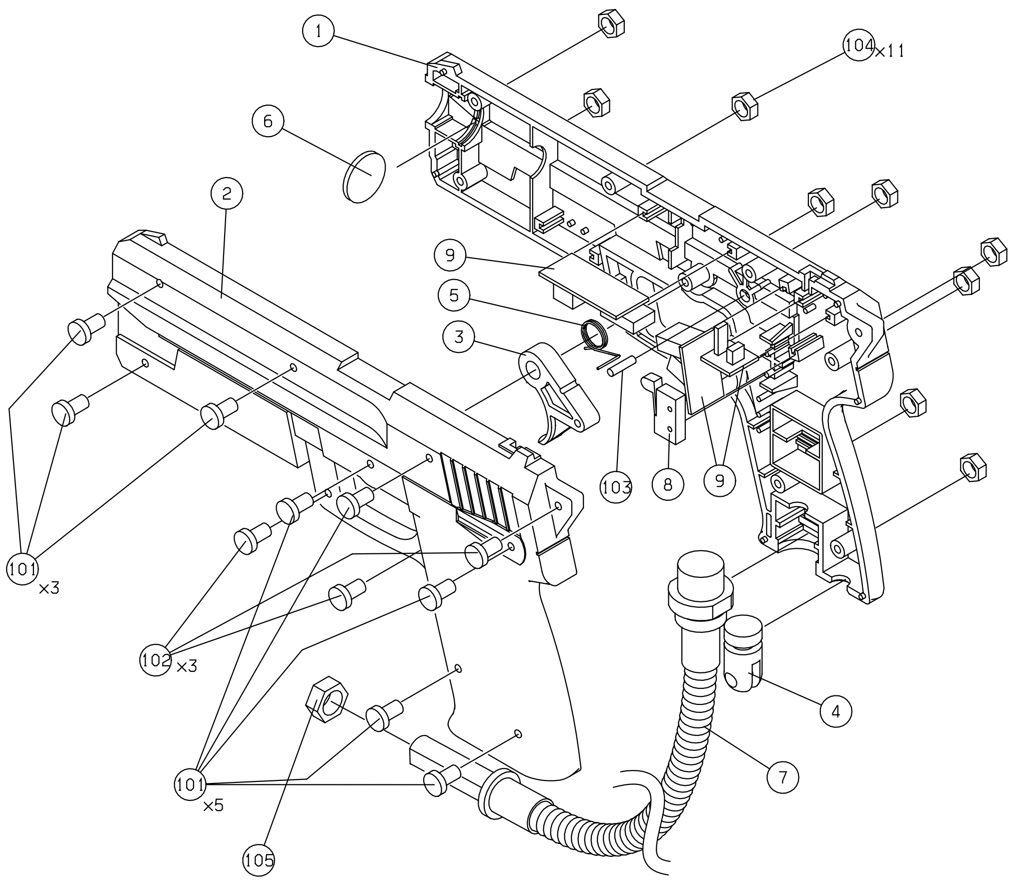


FIG.10 ASS’Y POWER BOX

NO.	CODE NO.	NAME	QTY	NOTE
1	0000039940	BOX,DC	1	
2	0000037024	BRACKET,REGULATOR	1	
3	0000031052	REG.,SWITCHING	1	LDA50F-12
4	0000033797	REG.,SWITCHING	1	LDA50F-5
5	0000037073	SHEET,INSULATION	1	
6	0000036925	BLOCK,TERMINAL	1	
7	0000037026	BRACKET,N.FILTER	1	
8	0000003180	FILTER,NOISE	1	
9	0000036921	PROTECTOR,CIRCUIT	1	
10	0000039100	SWITCH,ROCKER	1	
11	0000037028	COVER,RECEPTACLE	2	
12	0000037224	UNIT,WIRING(ACIN)	1	
13	0000052345	COVER,BOX	1	

NO.	CODE NO.	NAME	QTY	NOTE
101		SPACER	8	BS-308(M3x8)
102		SCREW,CROSS PAN SEMS	8	M3x6/MFZN2-C/PW,SW
103		SCREW,CROSS PAN SEMS	17	M4x10/MFZN2-C/PW,SW
104		SCREW,CROSS PAN SEMS	2	M3x15/MFZN2-C/PW,SW
105		NUT,FLANGE	1	M4/MFZN2-C

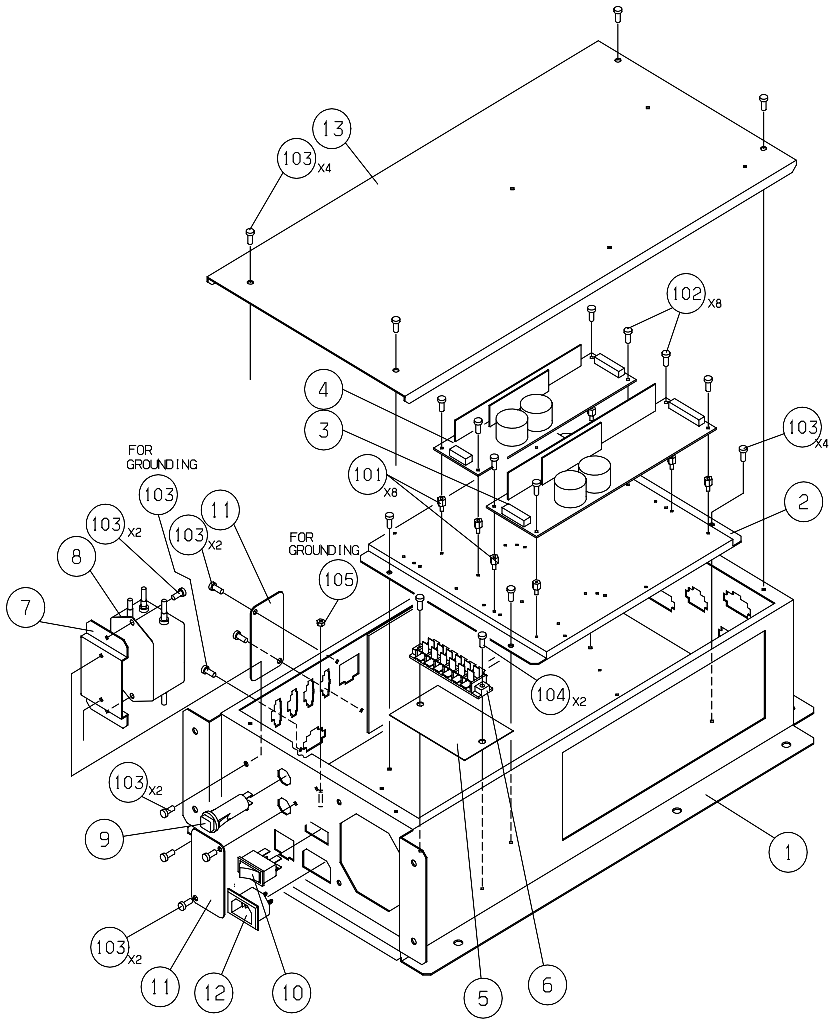

13
103 X4
102 X8
4
3
101 X8
103 X4
2
FOR GROUNDING
103
11
103 X2
103 X2
FOR GROUNDING
105
8
7
104 X2
103 X2
9
1
103 X2
11
12
10
5
6

FIG.11 UNIT, TRANSFORMER

NO.	CODE NO.	NAME	QTY	NOTE
1	0000036571	COVER, TRANSFORMER	1	
2	0000036573	BASE, TRANSFORMER	1	
3	0000036586	HANDLE, VINIL	1	
4	0000043603	EQU	1	TRANSFORMER 500VA

NO.	CODE NO.	NAME	QTY	NOTE
101		SCREW, CROSS FLAT	2	M4x15/MFZn2-C
102		SCREW, CROSS PAN SEMS	8	M4x10/MFZn2-C
103		SCREW, CROSS PAN SEMS	4	M6x12/MFZn2-C

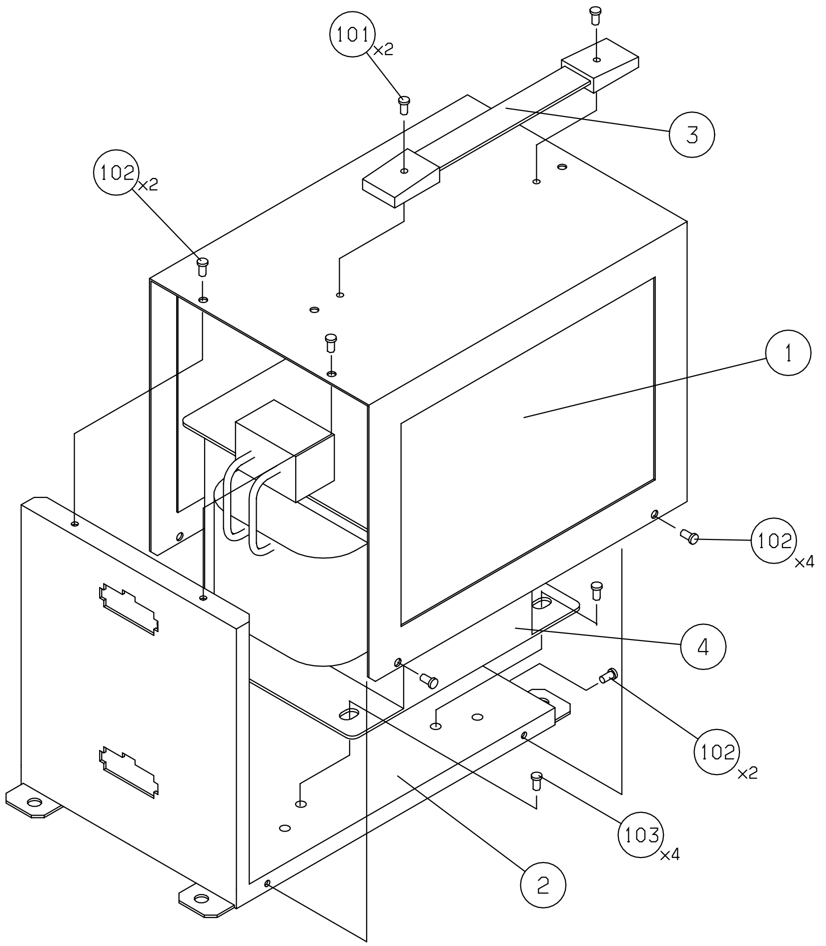
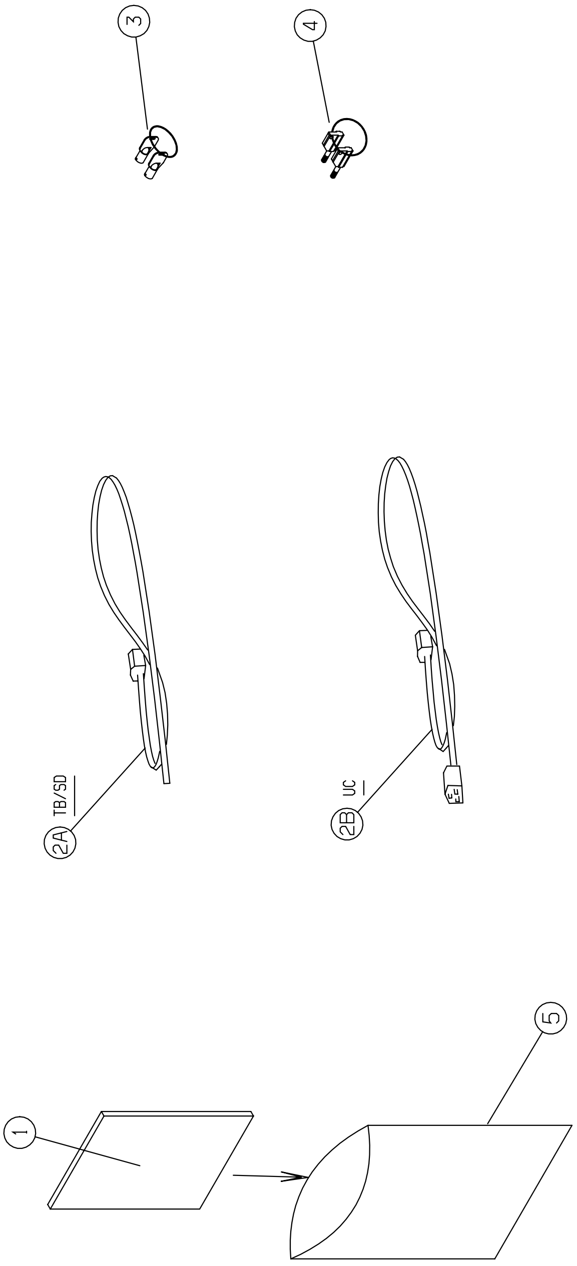


FIG.12 UNIT, ATTACHMENT

NO.	CODE NO.	NAME	SPEC./CATALOG TYPE	QTY	NOTE
1	0000055533	BOOK, MANUAL/TB		1	
2A	0000036692	CABLE, AC		1	TB/SD
2B	0000048678	CABLE, AC		1	UC
3	0000001676	KEY		1	2-piece set
4	0000001664	KEY		1	2-piece set
5	0000004319	BAG		1	

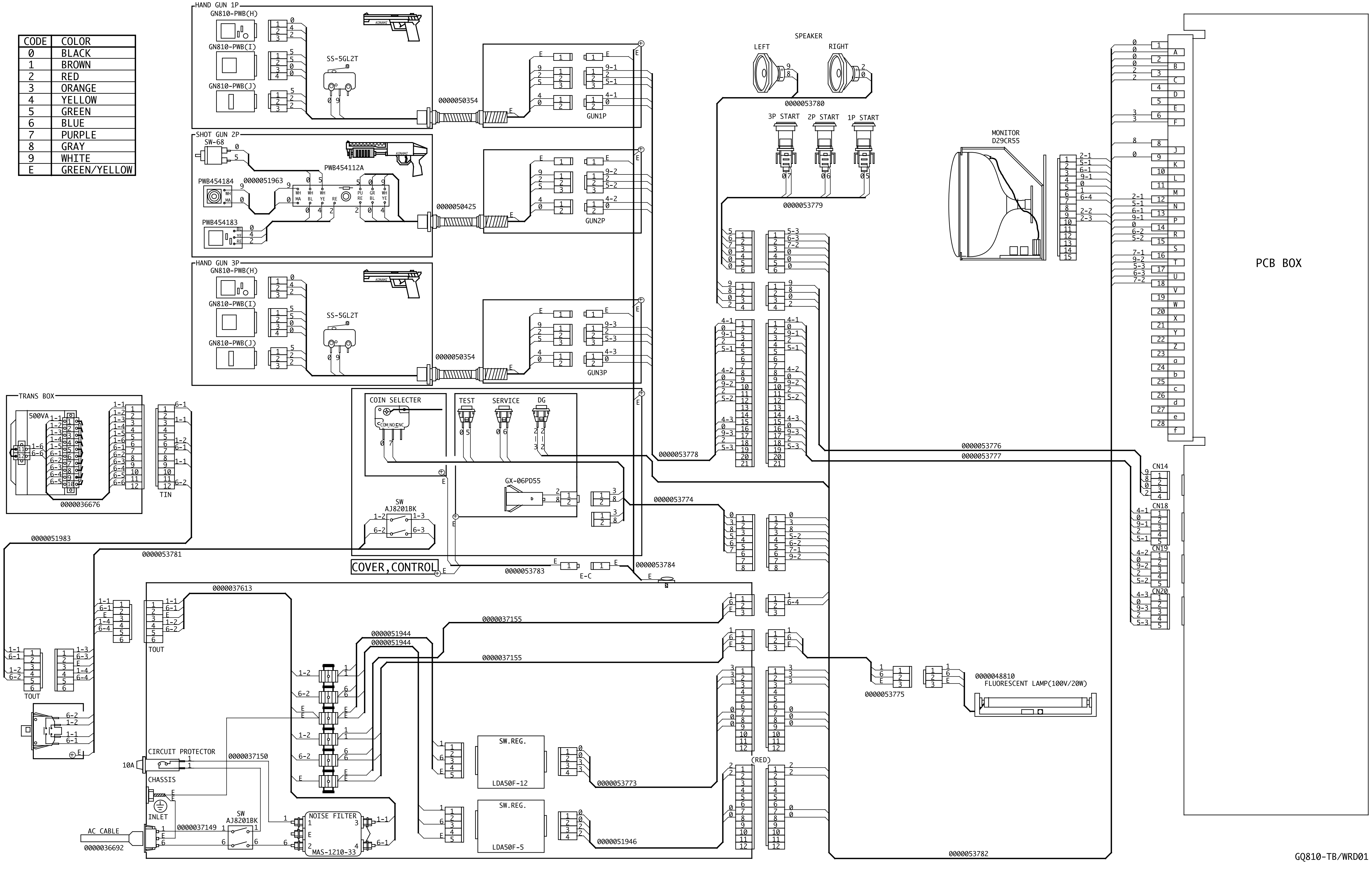


MEMO

8-2 Wiring diagram

GQ810-TB specifications for regions using 110 voltage area in Asia.

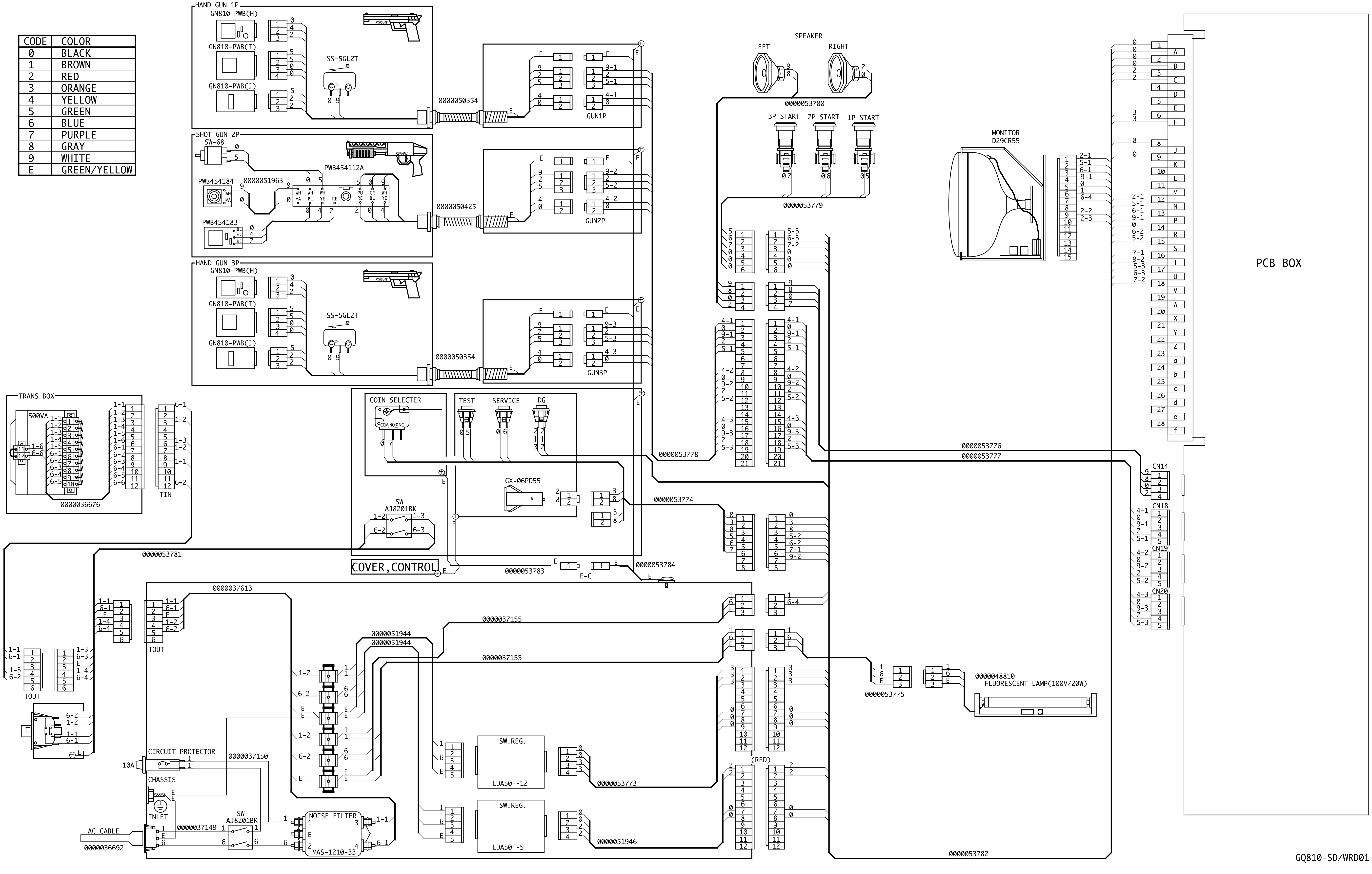
CODE	COLOR
0	BLACK
1	BROWN
2	RED
3	ORANGE
4	YELLOW
5	GREEN
6	BLUE
7	PURPLE
8	GRAY
9	WHITE
E	GREEN/YELLOW


HAND GUN 1P
GN810-PWB(H)
GN810-PWB(I)
GN810-PWB(J)
SS-5GL2T
0000050354
GUN1P
SHOT GUN 2P
SW-68
PWB454112A
PWB454184
0000051963
PWB454183
0000050425
GUN2P
HAND GUN 3P
GN810-PWB(H)
GN810-PWB(I)
GN810-PWB(J)
SS-5GL2T
0000050354
GUN3P
SPEAKER
LEFT
RIGHT
0000053780
3P START
2P START
1P START
0000053779
MONITOR
D29CR55
PCB BOX
TRANS BOX
500VA
0000036676
TIN
0000051983
0000053781
COIN SELECTER
TEST
SERVICE
DG
GX-06PD55
SW
AJ8201BK
COVER,CONTROL
0000053778
0000053774
0000053783
E-C
0000053784
0000053776
0000053777
CN14
CN18
CN19
CN20
0000037613
TOUT
0000037155
0000051944
0000051944
0000037155
CIRCUIT PROTECTOR
10A
0000037150
CHASSIS
INLET
AC CABLE
0000036692
0000037149
SW
AJ8201BK
NOISE FILTER
MAS-1210-33
SW.REG.
LDA50F-12
0000053773
SW.REG.
LDA50F-5
0000051946
(RED)
0000053775
0000048810
FLUORESCENT LAMP(100V/20W)
0000053782
GQ810-TB/WRD01

Wiring diagram

GQ810-SD specifications for regions using 220 voltage area in Asia.

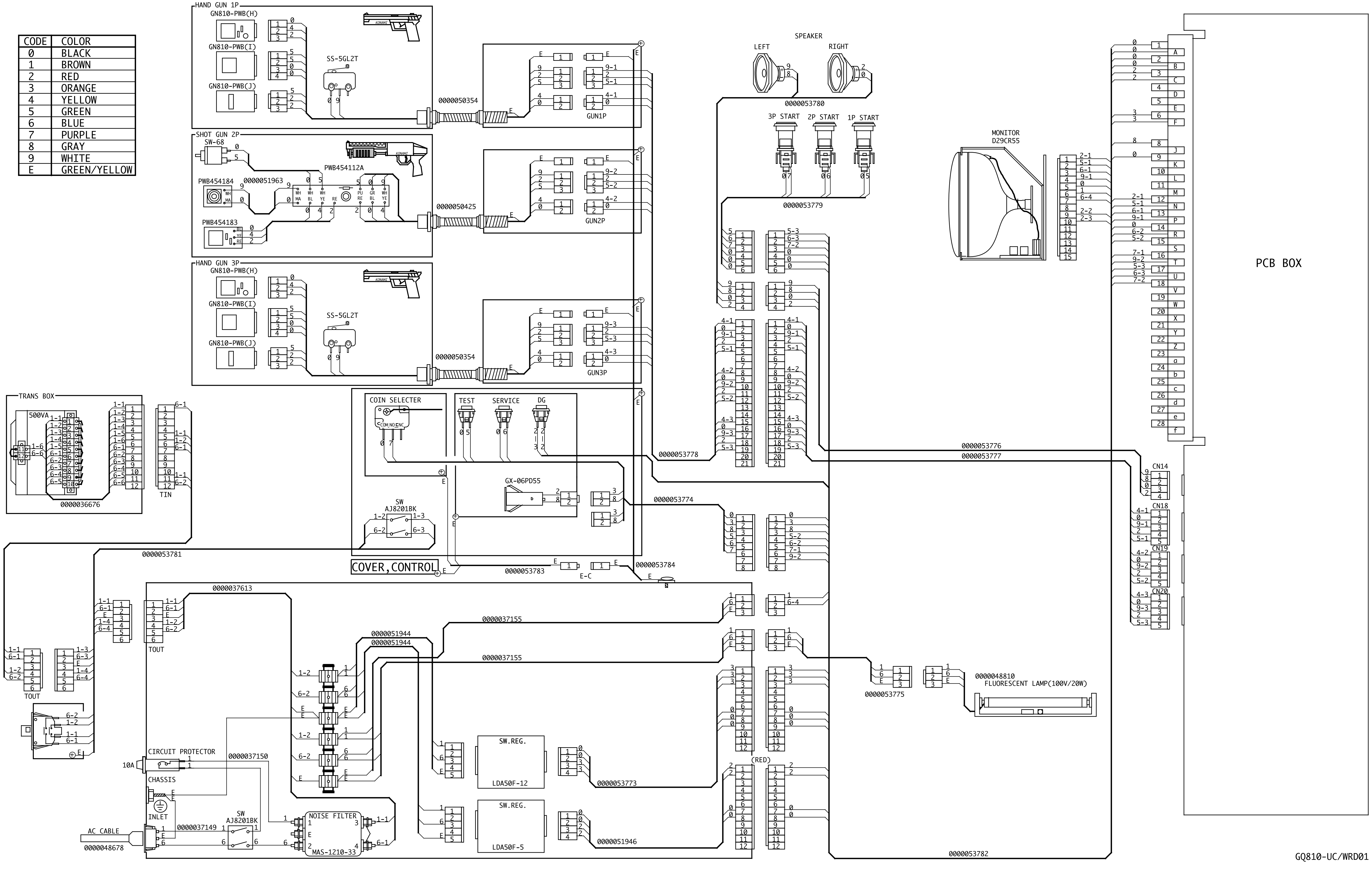
CODE	COLOR
0	BLACK
1	BROWN
2	RED
3	ORANGE
4	YELLOW
5	GREEN
6	BLUE
7	PURPLE
8	GRAY
9	WHITE
E	GREEN/YELLOW


HAND GUN 1P
GN810-PWB(H)
GN810-PWB(I)
GN810-PWB(J)
SS-5GL2T
0000050354
GUN1P
SHOT GUN 2P
SW-68
PWB454112A
PWB454184
0000051963
PWB454183
0000050425
GUN2P
HAND GUN 3P
GN810-PWB(H)
GN810-PWB(I)
GN810-PWB(J)
SS-5GL2T
0000050354
GUN3P
SPEAKER
LEFT
RIGHT
0000053780
3P START
2P START
1P START
0000053779
MONITOR
D29CR55
PCB BOX
CN14
CN18
CN19
CN20
0000053776
0000053777
0000053778
TRANS BOX
500VA
0000036676
TIN
COIN SELECTER
TEST
SERVICE
DG
GX-06PD55
SW
AJ8201BK
0000053774
COVER,CONTROL
0000053781
0000053783
E-C
0000053784
0000037613
TOUT
0000037155
0000051944
0000051944
0000037155
CIRCUIT PROTECTOR
10A
0000037150
CHASSIS
INLET
AC CABLE
0000036692
0000037149
SW
AJ8201BK
NOISE FILTER
MAS-1210-33
SW.REG.
LDA50F-12
0000053773
SW.REG.
LDA50F-5
0000051946
(RED)
0000053775
0000048810
FLUORESCENT LAMP(100V/20W)
0000053782
GQ810-SD/WRD01

Wiring diagram

GQ810-UC specifications for regions using 120 voltage area in the U.S.A..

CODE	COLOR
0	BLACK
1	BROWN
2	RED
3	ORANGE
4	YELLOW
5	GREEN
6	BLUE
7	PURPLE
8	GRAY
9	WHITE
E	GREEN/YELLOW


HAND GUN 1P
GN810-PWB(H)
GN810-PWB(I)
GN810-PWB(J)
SS-5GL2T
0000050354
GUN1P
SHOT GUN 2P
SW-68
PWB454112A
PWB454184
0000051963
PWB454183
0000050425
GUN2P
HAND GUN 3P
GN810-PWB(H)
GN810-PWB(I)
GN810-PWB(J)
SS-5GL2T
0000050354
GUN3P
SPEAKER
LEFT
RIGHT
0000053780
3P START
2P START
1P START
0000053779
MONITOR
D29CR55
PCB BOX
TRANS BOX
500VA
0000036676
TIN
COIN SELECTER
TEST
SERVICE
DG
GX-06PD55
SW
AJ8201BK
COVER,CONTROL
0000053778
0000053774
0000053776
0000053777
CN14
CN18
CN19
CN20
0000053781
0000053783
E-C
0000053784
0000037613
TOUT
0000037155
0000051944
0000051944
0000037155
0000053775
0000048810
FLUORESCENT LAMP(100V/20W)
CIRCUIT PROTECTOR
10A
0000037150
CHASSIS
INLET
AC CABLE
0000048678
0000037149
SW
AJ8201BK
NOISE FILTER
MAS-1210-33
SW.REG.
LDA50F-12
0000053773
SW.REG.
LDA50F-5
0000051946
(RED)
0000053782
GQ810-UC/WRD01