



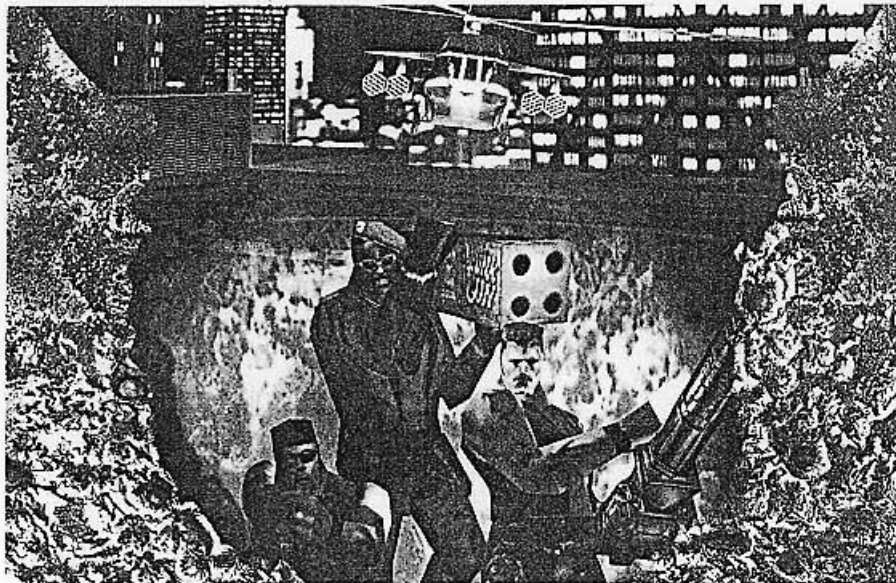
ORIGINAL VIDEO GAME
OPERATOR'S MANUAL

■ **TOTALVICE** ■

TOTALVICE™

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CONVERSION KIT



- 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.



■ 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 "TOTALVICE™" 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.



Indicates a situation where disregarding the suggestions could result in death or serious injury.



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.

Setting Up



WARNING

- **Be sure to follow the installation instructions.** Wrong handling may cause a machine trouble or accident. Contact a industry specialists or your nearest dealer for installing this kit.
- **Handle this kit with due care when installing it.**
 - Wrong handling may cause kit trouble or accident.
 - Parts inside the PCB unit get hot structurally. Do not touch them until completely cooled down.
 - This game PC board has some projections inside. Do not put your hand in the PCB unit because otherwise you may get injured.
- **This kit is designed for indoor use.** Do not install it in any machines that are used outdoors.
 - Outdoor use may cause an accident or kit trouble.
- **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 substances such as thinner and kerosene.
 - 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 kit.**
 - Electrical shock or damage could be caused by water or foreign matter entering the inside of the kit.
- **Before mounting and dismantling the PCB unit, be sure to turn OFF the machine's power switch and unplug the power cord from the receptacle.**
 - Otherwise, a machine trouble or electric shock may result.
- **Before installing the kit, clean up the inside of the machine using a vacuum cleaner or the like.**
 - If the electrical components are left covered with dust, an electric shock or fire may result.
- **The PCB unit card edge connectors conform to the JAMMA standard requirements.** Never connect any other types of connectors than specified.
 - Otherwise, a machine trouble or fire may be caused.
- **In setting up the PCB unit, identify all the connectors and connect them properly.**
 - Otherwise, a machine trouble or fire may be caused.
- **Use an grounding band or similar means of discharging static electricity when adjusting the PCB unit DIP switches.**
 - If not discharged, static electricity could damage the electronic components on the PCB.

Precautions for use

Setting Up



CAUTION

- Do not lay the gun cables where people walk through.
You may tread on or stumble over them.
·You may fall down and get injured. Or the gun cables may get damaged.
- Be sure to ground this product.
·Otherwise an electric shock or machine trouble may be caused.
- When the machine has been installed or moved to another place, be sure to degauss the monitor.
·Poor degaussing may cause the guns to 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 machine's 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 machine's power switch.
- 2 Unplug the machine's power cord from the receptacle.
- 3 Contact your nearest dealer.

- Make sure all the connectors are tightly connected and not covered with dust.
·Doing so could result in electrical shock or fire, so inspect the power cord periodically.
- Do not touch the kit with wet hands.
·Otherwise, an electric shock may be caused.
- 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 kit.




Operation




• **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.
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• **Never connect and disconnect the connectors to and from the machine with wet hands.** 
 - Doing so could result in electrical shock.

• **Ask customers not to roughly handle and wave about the gun.**
 - You may hit the gun against glass. Broken glass may get you injured. The gun cables, if pulled by force, may be broken.

• **When handling the cables, keep the following points in mind.** 
 - Otherwise an electric leak, fire or electric shock may result.
 The machine may fail to function too.

- 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 tread on the power cord.
- Do not sandwich the power cord.	- Do not drive a nail into the power cord.




• **If by any chance any of the connectors or cables coming from the machine is found damaged, immediately stop using the machine and ask your nearest dealer to replace the damaged part.**
 - Using a damaged power cord or power plug could result in fire or electrical shock.

Precautions for use

Inspection and cleaning



WARNING

- Be sure to turn OFF the machine's power switch and unplug the power cord from the receptacle before inspecting or cleaning the kit.
-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. 
- 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 kit. 
- To clean the gun unit in particular, wipe them with soft cloth dampened in a neutral detergent and squeezed well.
-Using organic solvents such as thinner may decompose the material.
-Electrical shock or equipment failure could be caused by water entering the inside of the gun unit and PCB unit.

Moving and transportation



CAUTION

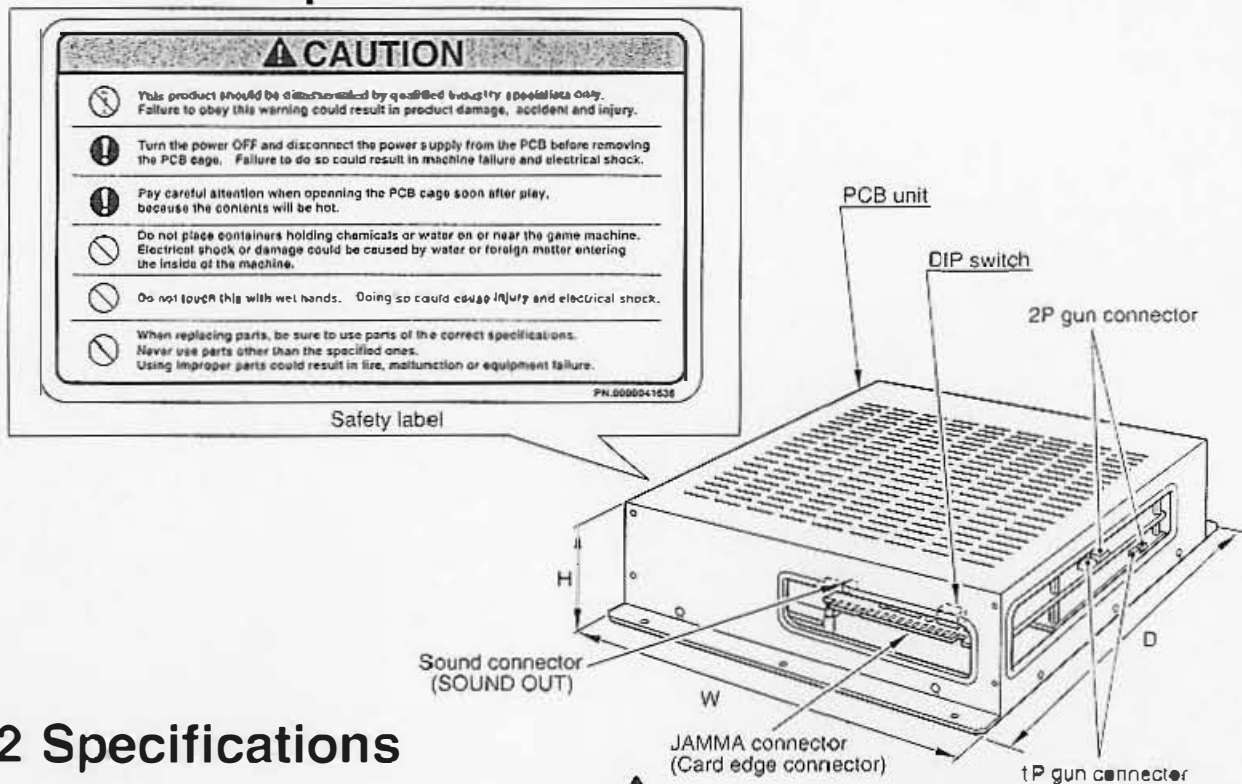
- When this kit has been installed or the machine has been moved to another place, degauss the monitor.
-Poor degaussing may cause the guns to malfunction.
- Use due care in transporting and handling this kit, which is a precision device.
For transport, be sure to place the kit in specific package.

PRECAUTION IN HANDLING

- When setting up, handling, 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.

1 Names of parts and specifications

1-1 Names of parts



1-2 Specifications

! No sound volume control is provided on the PCB unit. Adjust the sound volume on the "SOUND OPTIONS" screen in the manual test mode. (See page 19.)

Specifications

Name	TOTALVICE™
Dimensions	Refer to the figure above H:107mm(4.2in) W:340mm(13.4in) D:390mm(15.4in)
Weight	PCB unit : Approx.4.7 kg (10.4lb)
Service condition	Temperature 5 to 50°C (41 to 122°F), Humidity 20 to 80% (No dewing is allowed)
Kit's supplies	<ul style="list-style-type: none"> ·Instruction Manual This manual ·PCB unit 1 ·Gun unit 2 ·Gun cable lock nut (M12 x P1.25) 2 ·Relay cable 2 ·Gun holster 2 ·"How to Play" sheet 1 ·Title sheet 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 Setting the kit in the machine

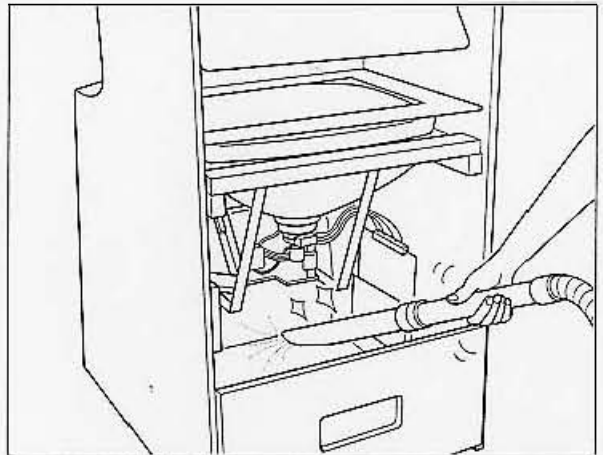
2-1 Installing the PCB unit



- Before installing the PCB unit be sure to turn OFF the machine's power switch and unplug the power cord from the receptacle.
- Before installing the PCB unit, clean up the inside of the machine using a vacuum cleaner or the like.

1 Remove the back door of the machine.

2 Clean up the inside of the machine using a vacuum cleaner or the like.

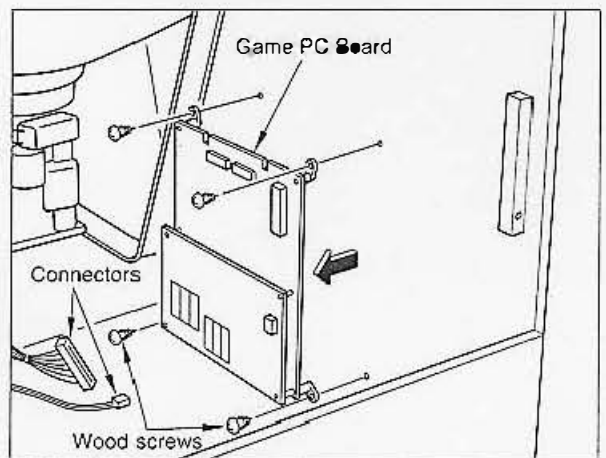


3 Disconnect all the connectors from the game PC Board.

4 Remove the wood screws and take out the game PC Board.

- Store the game PC Board in a safe place for future reuse.

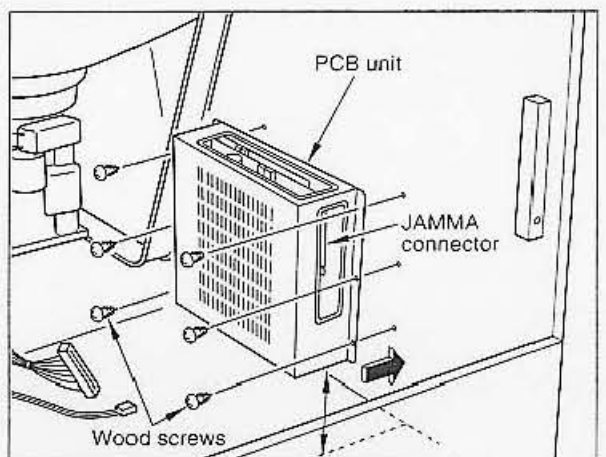
MEMO



5 Be sure to position the PCB unit of this kit as shown at right. Fix it with wood screws.

- Prepare the screws yourself because the kit does not come with those wood screws.

MEMO



2-2 Installing the gun unit

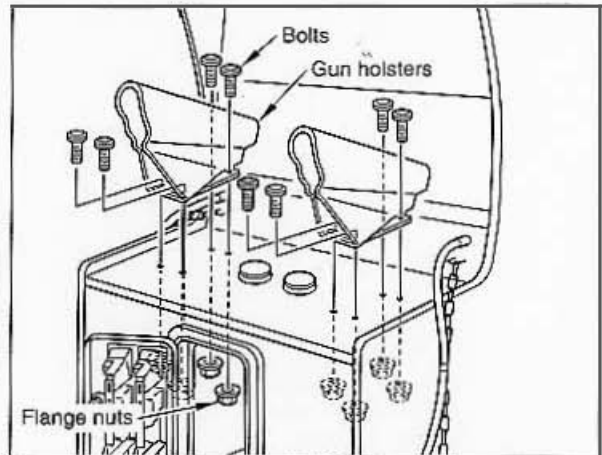


- Before installing the gun unit, be sure to turn OFF the machine's power switch and unplug the power cord from the receptacle.
- Be sure to make a team of 2 or more people to attach and detach the monitor glass. Be very careful not to drop it.

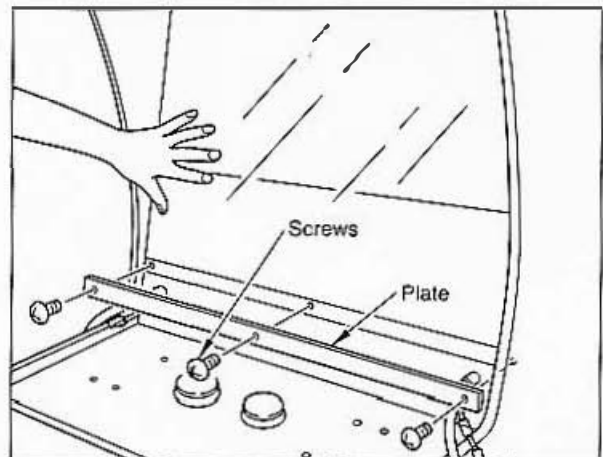
- 1** | Open the maintenance door. Remove the 8 flange nuts off the gun holsters and detach the gun holsters.

• The bolts and flange nuts that were removed will be used to install the gun holster of this kit. Keep them in a safe place.

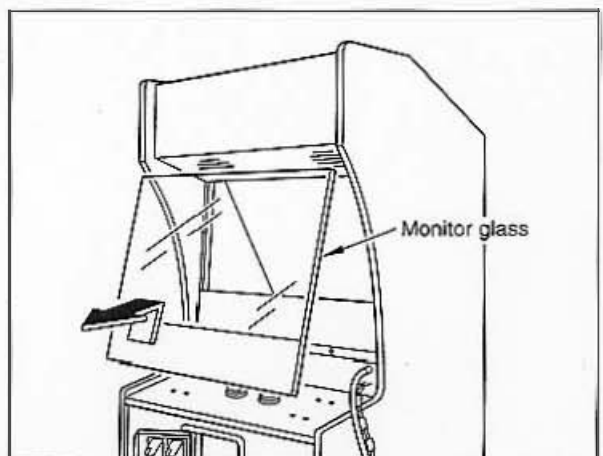
MEMO



- 2** | Holding the monitor glass by hand, remove the plate.



- 3** | Slightly lifting the monitor glass, remove it toward yourself.



2 Setting the kit in the machine

- 4 Draw out the gun cables of the gun unit and disconnect the connectors.
- 5 Remove the flange nuts and washers off the gun cables. Disconnect the gun cables from the machine.

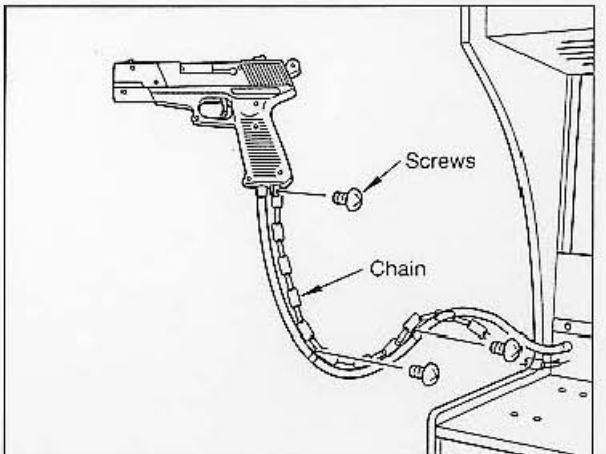
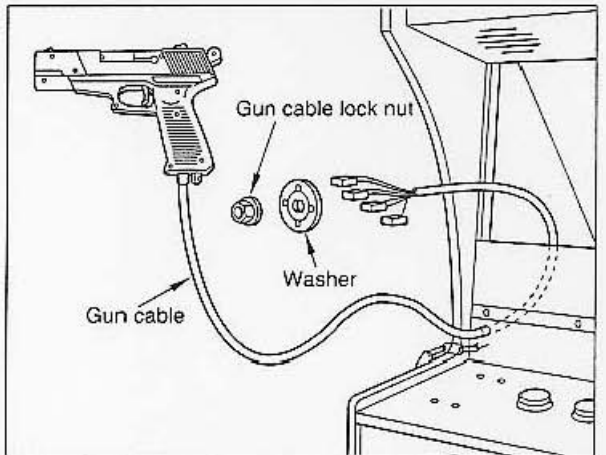
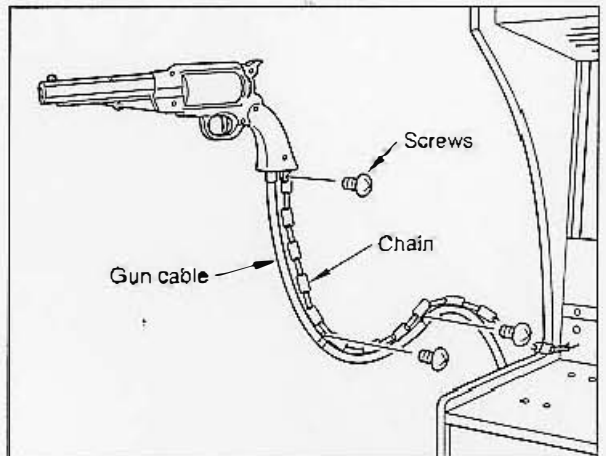
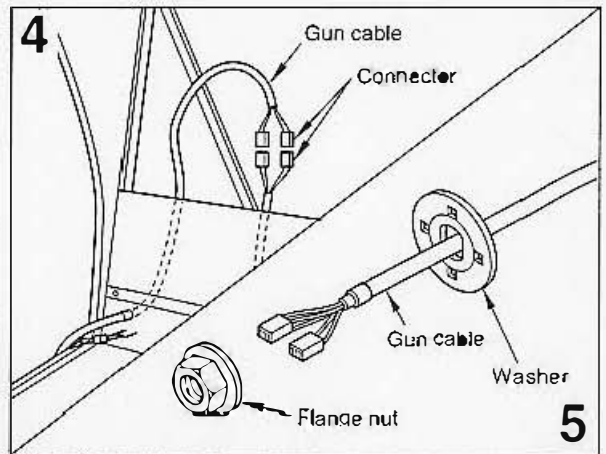
•Store the old gun unit in a safe place for future reuse.

MEMO

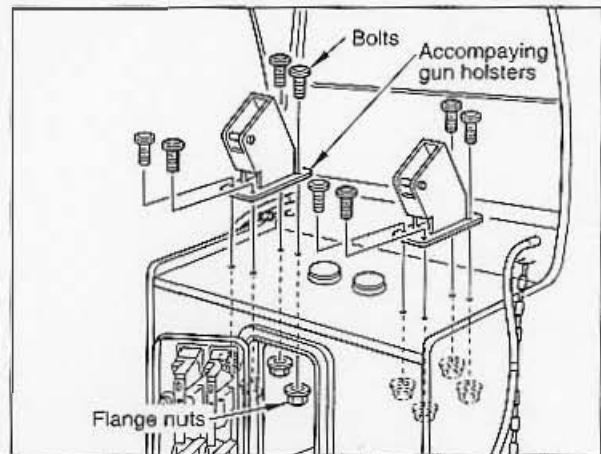
- 6 Disconnect the gun cable chain.

- 7 Lay and secure the gun cables of this kit on the machine, using the washers (removed in Step 5 above) and the accompanying gun cable lock nuts.

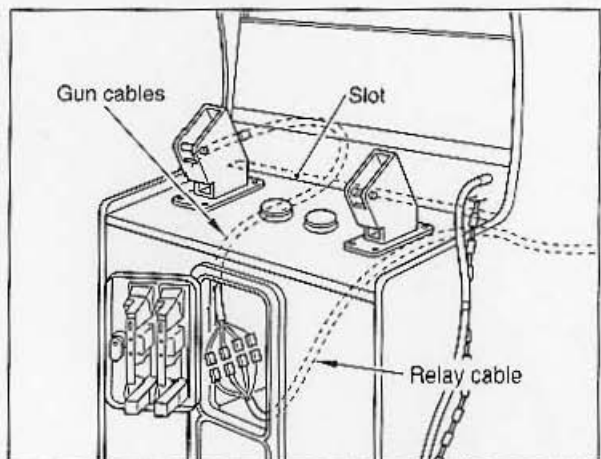
- 8 Attach the chain (removed in Step 6 above) to the gun cable.



- 9** Attach the accompanying gun holsters of this kit on the machine, using the bolts and flange nuts (removed in Step 1 above).



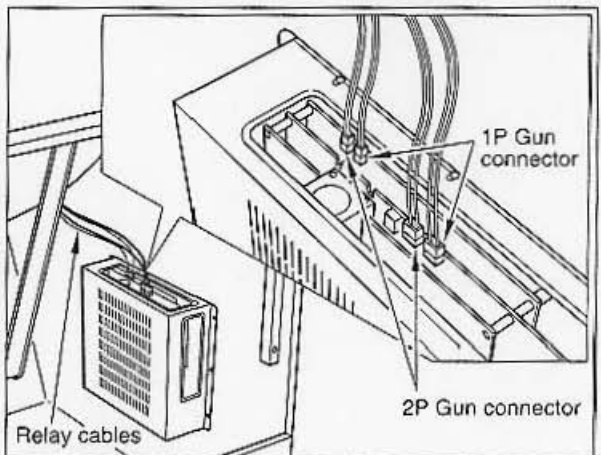
- 10** Put the bundled gun cables of the gun unit into the slot of the machine as shown at right. Open the maintenance door of the machine, and connect the relay cables of the kit. Extend the relay cables toward the PCB unit.



•Be sure to connect the same-marked connectors to each other.

MEMO

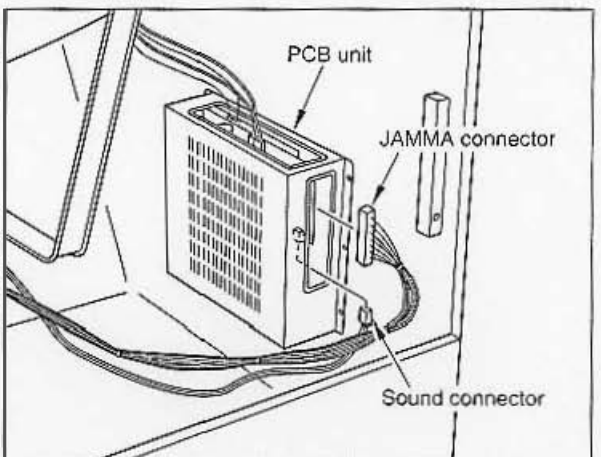
- 11** Connect the relay cables, which is connected with the gun cables, to the PCB unit.



•Be sure to ground the relay cables (green and yellow) to the metallic part connected with the frame ground terminal.

MEMO

- 12** Connect the machine's JAMMA connector and sound connector to the PCB unit.



- 13** Place and fix the back door of the machine. Turn on the machine's power switch.

- 14** Demagnetize the monitor.

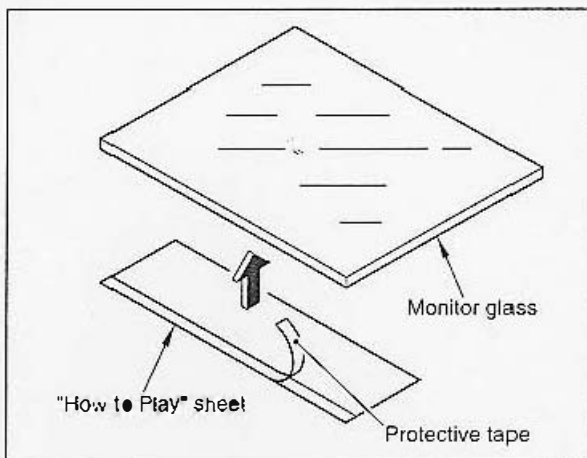
- 15** Go to "3-1 PCB start-up check (self-test)" on page 14.

2-3 Attaching the "How to Play" sheet



•Be sure to make a team of 2 or more people to attach and detach the monitor glass. Be very careful not to drop it.

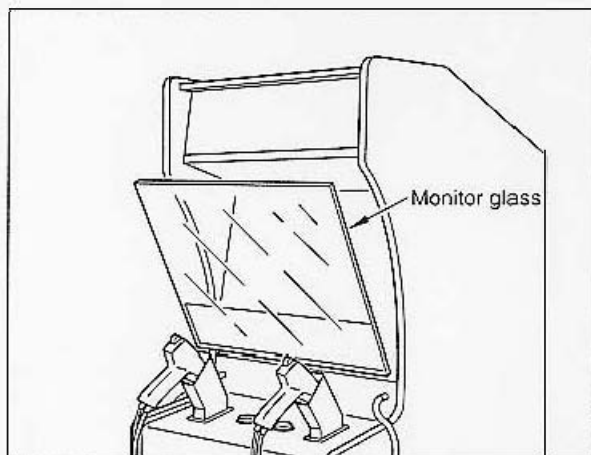
- 1 Referring to page 9, remove the monitor glass.
- 2 Carefully peel the "How to Play" sheet off the monitor glass.
- 3 Peel the protective tape off the "How to Play" sheet of this kit, and stick the sheet on the back of the monitor glass.



•Before attaching the "How to Play" sheet, preferably clean up the monitor glass.

MEMO

- 4 Set the monitor glass in position with enough care not to hit it against the gun holster. Finally attach the plate in place.

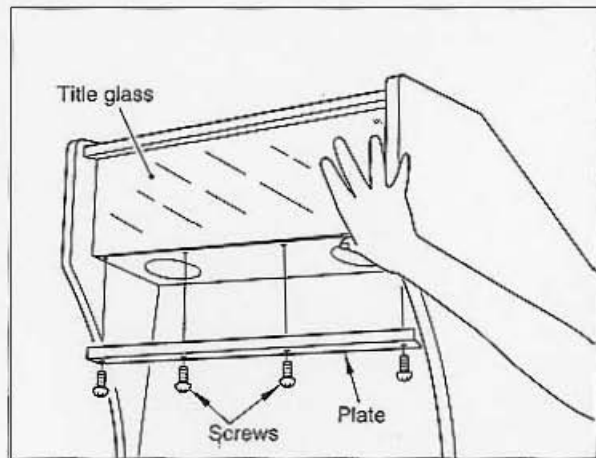


2-4 Attaching the title sheet



•Be sure to make a team of 2 or more people to attach the title sheet.
Be very careful not to drop the title glass.

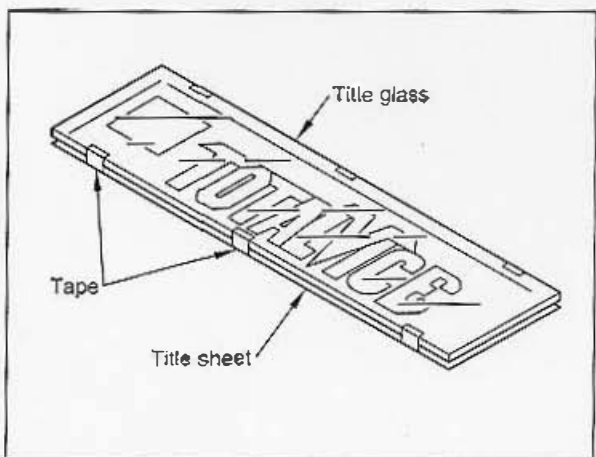
- 1 | Holding the title glass by hand, remove the plate.
- 2 | Carefully peel the title sheet off the title glass.



- 3 | Attach the title sheet of this kit on the title glass with tape or the like.

•Before attaching the title sheet, preferably clean up the title glass.

MEMO



- 4 | Fit the title glass and the plate back on the machine.

3 PCB settings

3-1 PCB start-up check (self test)

When this kit has been set up, turn ON the machine's power switch. The game Printed Circuit Boards (PCB) will be automatically checked for its performance. The test results will be displayed on the screen.



- Before use, be sure to check the performance of the PCB unit.
- When this kit has been installed or the machine has been moved to another place, demagnetize the monitor.
- When the machine has been set up or the PCB unit or the gun has been repaired or replaced, be sure to make the "CALIBRATION" referring to page 17.
- When the settings have been brought back to the factory ones, be sure to make the "CALIBRATION" referring to page 17.
- If an abnormality persists or the machine does not operate properly, immediately turn OFF the machine's 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 "7K BAD" is displayed, once turn OFF the machine's power switch and then turn it ON again while depressing the machine's test switch button. (The settings in manual test mode will be back to the factory ones.)

When the machine has been installed or the PCB has been repaired or replaced, hold down the machine's test switch and turn ON the machine's power switch. The settings will be back to the factory ones.

Hold down the test switch until "TEST SWITCH IS STILL ON. PLEASE RELEASE IT OR REPAIR" shows up on the screen. (The settings in manual test mode will be back to the factory ones.)

If any indication other than above shows up or the machine does not work, immediately turn OFF the machine's power switch, unplug the power cord from the receptacle and contact your nearest dealer.

3-2 Adjusting the game environment (manual test)

Manually check and change the settings for the screen display and game contents.

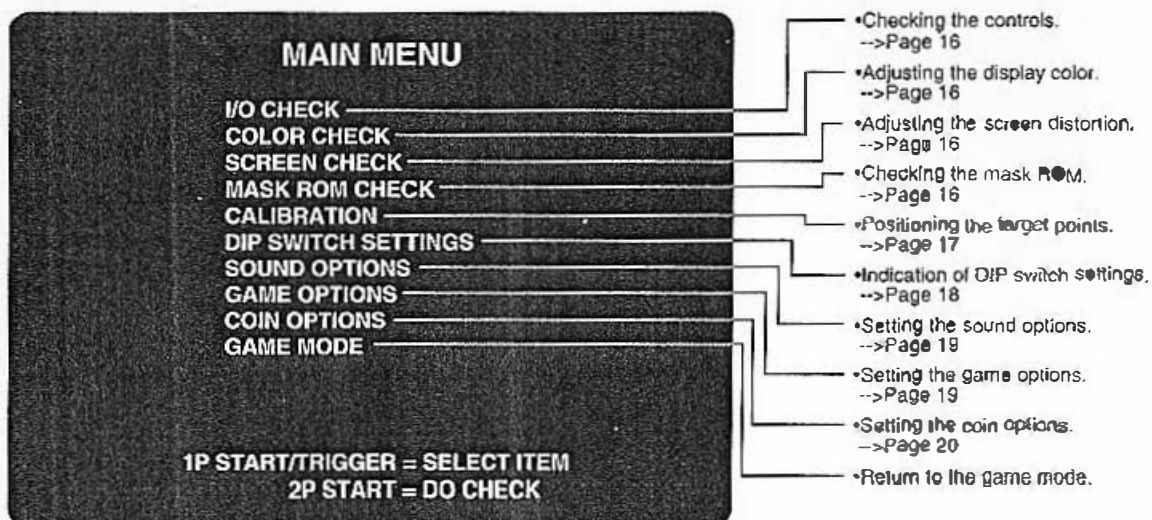
■ Starting the manual test mode -----

- 1 Turn ON the machine's power switch.
- 2 While the demonstration game is playing, press the machine's test switch. (Do not turn ON the power switch with the test switch held down. The current settings will be erased and the machine will have the factory settings.)
 - The manual test mode is called and the main menu appears on the screen.

■ Quit the manual test mode -----

- 1 Press the 1P start button, or pull the trigger of the 1P gun or 2P gun, to select "GAME MODE" on the main menu screen.
- 2 Press the 2P start button.
 - The screen goes back to the game mode.

■ Main menu screen (basic items) -----



■ Selecting each mode -----

How to select each mode from the main menu

- SELECT --> Press the 1P start button or pull the 1P gun trigger to select an item down. Pull the 2P gun trigger to select an item up.
- SET --> Press the 2P start button.
 - The machine is now in the selected mode.

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

3-3 Mode descriptions

- The original factory settings are displayed in green; the changed settings are displayed in red.
 - After the settings have been changed, select "SAVE AND EXIT". The new settings are saved automatically and the screen returns to the main menu.
 - If "NO SAVE EXIT" is selected after the modification of the settings, the new settings are not saved automatically and the screen returns to the main menu.

• If "FACTORY SETTINGS" is selected, 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 each control.
 - To return to the main menu screen, press the 1P and 2P start buttons at once.

COLOR CHECK

Adjusting the display color

- Mode for checking the display color.
 - Make the adjustment using the machine's monitor adjustment PCB so that the colors of the color bars should appear properly graduated.
 - To return to the main menu screen, press the 1P start button.

SCREEN CHECK

Adjusting the screen distortion

- Mode for checking the screen display.
 - Adjust the focus, distortion and size of the screen while watching the crosshatch pattern. Use the machine's monitor adjustment PCB to make the adjustment.
 - To return to the main menu screen, press the 1P start button.

MASK ROM CHECK

Checking the mask ROM

- The mask ROM are checked. If the ROM is not in trouble, "OK" is displayed. If anything unusual is found, "BAD" appears. Once in this mode, this checking gets started automatically.
 - To return to the main menu screen, press the 1P start button.
- If "BAD" appears, immediately turn OFF the machine's power switch and contact your nearest dealer.

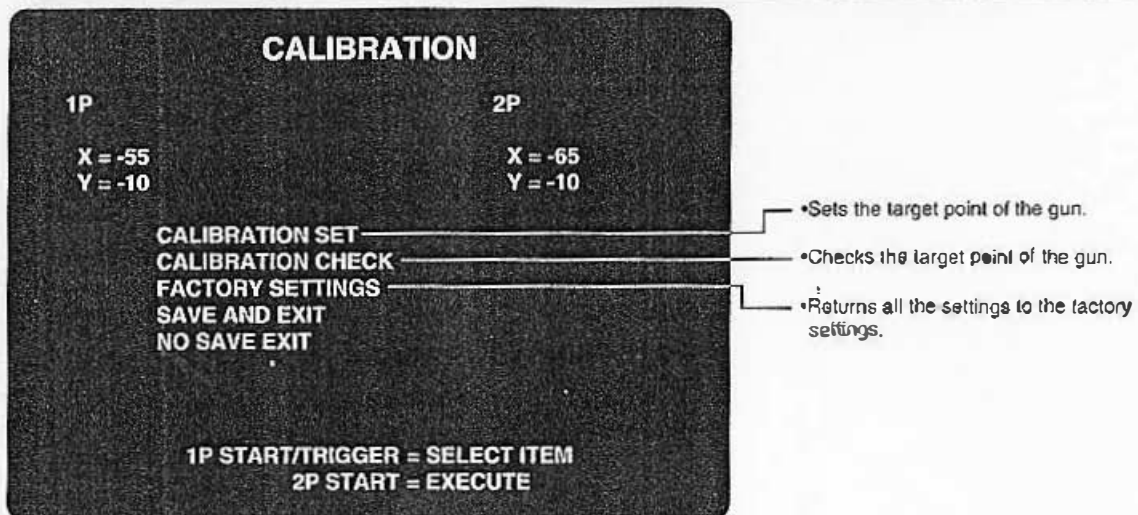
CALIBRATION

Positioning the target points

- Mode for checking the shooting target positions.
Readjust and check the shooting target positions.



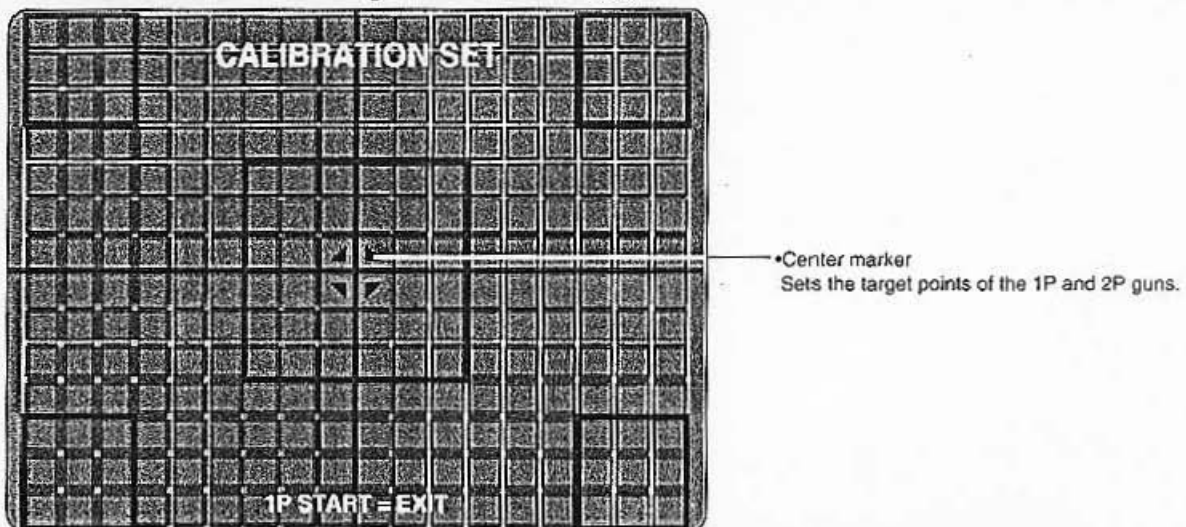
- When the gun has been repaired or replaced, be sure to make the "CALIBRATION SET" and "CALIBRATION CHECK".
- Do not pull the trigger of the gun again after the "CALIBRATION SET". The target points will be repositioned again.



•This screen is just an example.

•How to position the target points

- 1 Select "CALIBRATION SET" and press the 2P start button.
- 2 The "CALIBRATION SET" screen comes up. Pull the 1P gun trigger aiming at the center marker. (The target point, if out of position, will be automatically set at the center of the target on the screen.)



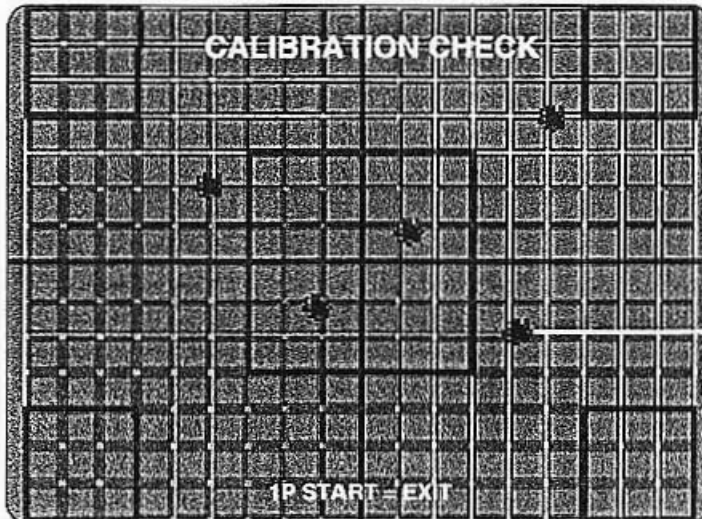
•This screen is just an example.

- 3 Take the same procedure for the 2P gun.
- 4 To return to the "CALIBRATION" menu screen, press the 1P start button.

3 PCB settings

•How to check the target points

- 1 Select "CALIBRATION CHECK" and press the 2P start button.
- 2 The "CALIBRATION CHECK" screen comes up. Using the 1P gun, shoot the screen. Make sure there will be bullet marks left on the screen.



•Bullet marks are left on the screen.

•This screen is just an example.

- 3 Do the same for the 2P gun.
- 4 To return to the "CALIBRATION" menu screen, press the 1P start button.

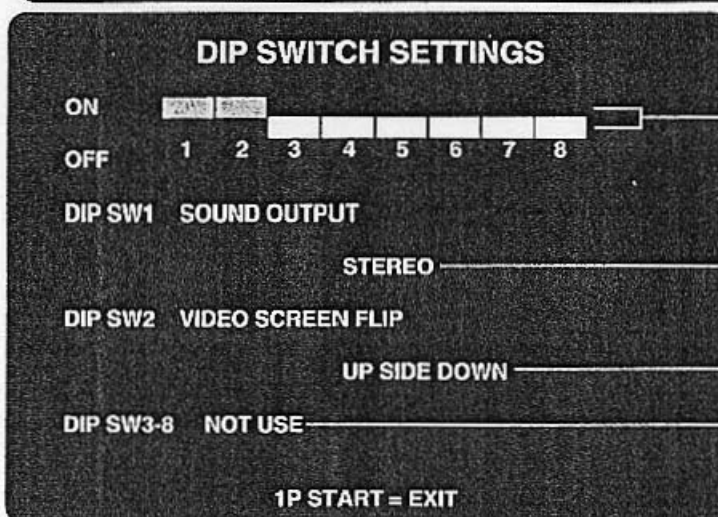
DIP SWITCH SETTINGS

■ The DIP switch check mode.

To modify the settings, use the DIP switches on the game PCB.
To return to the main menu screen, press the 1P start button.

Indication of DIP switch settings

•Be sure to turn OFF the power switch before setting the DIP switch.
Eliminate static electricity using a grounding band.



•Indications of current DIP switch settings.

•DIP switch 1: Machine's sound output
• ON ... Stereo
• OFF ... Monaural

•Sets the inversion of images on the monitor screen.

• ON ... Up side down
• OFF ... Normal

•DIP switches 3 thru 8 are not used. Keep them all OFF.

•This screen is just an example.

- The DIP switch on the PCB can be shifted easily by utilizing a thin flatblade screwdriver or a ball-point pen.
- There are two DIP switches on the PCB unit. Make the settings only on the DIP switch with the No.1 turn No.8 bits. Be sure to keep the other switch's No.1 and No.2 bits at OFF.

MEMO

SOUND OPTIONS

Setting the sound options

- In this mode, the following appears on the screen. Using the 1P start button, select an item to modify and pull the gun trigger to change the setting. To return to the main menu screen, select "SAVE AND EXIT" or "NO SAVE EXIT" and press the 2P start button.

SOUND OPTIONS

SCALE CHECK _____

VOLUME

GUN VOLUME

SOUND IN ATTRACT MODE _____

ALL THE TIME

FACTORY SETTINGS _____

SAVE AND EXIT

NO SAVE EXIT

1P START = SELECT ITEM
2P START = EXECUTE
TRIGGER = MODIFY SETTINGS

- You will hear a do-re-mi musical scale from the left speaker first and then from the right speaker, which is repeated twice. The second round is given acoustic echo.
- Adjusts the volume from the level 0 (no sound) to 31 (max.)
•To raise the sound level, pull the 2P gun trigger.
•To lower the sound level, pull the 1P gun trigger.
- Adjusts the gun's shooting sound.
•To raise the sound level, pull the 2P gun trigger.
•To lower the sound level, pull the 1P gun trigger.
- Turns on and off the demo play sound.
•ALL THE TIME-----Sound always on.
•ONCE EVERY 4 CYCLES-----Sound on every 4 cycles.
•CO PLE E OFF-----Sound always off.
- Returns all the settings to the factory settings.

•This screen is just an example.

GAME OPTIONS

Setting the game options

- In this mode, the following appears on the screen. Using the start button (an item down with the 1P start button, an item up with the 2P start button), select an item to modify. Pull the gun trigger to change the setting. To return to the main menu screen, select "SAVE AND EXIT" or "NO SAVE EXIT" and pull the gun trigger.

GAME OPTIONS

DIFFICULTY LEVEL 4/MEDIUM

PLAYER'S LIFE 5LIVES

VIOLENT MODE BLOODY

WITH OR WITHOUT HOSTAGES WITH

FACTORY SETTINGS _____

SAVE AND EXIT

NO SAVE EXIT

START BUTTON = SELECT ITEM
GUN TRIGGER = MODIFY SETTINGS

- Sets a difficulty level (from the 8 levels).

1/EASIEST	Easier
2/VERY EASY	↑
3/EASY	↑
4/MEDIUM	----- Medium
5/MEDIUM HARD	↓
6/HARD	↓
7/VERY HARD	↓
8/HARDEST	Harder
- To raise the difficulty level, pull the 2P gun trigger.
•To lower the difficulty level, pull the 1P gun trigger.
- Sets the number of life points. (Adjustable to 3 to 5 per credit)
- Sets the stage effect of violence.
BLOODY : Bloodshed
CLEAN : No bloodshed
- Sets the appearance of hostages on the screen during the game.
•WITH Hostages shown on screen
•WITHOUT ...No hostages shown on screen
- Returns all the settings to the factory settings.

•This screen is just an example.

COIN OPTIONS

Setting the coin options

- In this mode, the following appears on the screen. Using the start buttons (an item down with the 1P start button, an item up with the 2P start button), select an item to modify. Pull the gun trigger to change the setting. To return to the main menu screen, select "SAVE AND EXIT" or "NO SAVE EXIT" and pull the gun trigger.

Note that the coin setting options are not displayed when "FREE PLAY" is set to "YES".

COIN OPTIONS

FREE PLAY	NO	•Sets the free play.(YES or NO)
COIN MECHANISM	COMMON	
COIN SLOT 1	1 COIN 1 CREDIT	•Sets the number of credits for the coin. (Make the setting, referring to the table below.)
COIN SLOT 2	1 COIN 1 CREDIT	
PREMIUM START	YES 1	•Sets the premium start. Choose from "NO", "YES1", "YES2", "YES3" and "YES4". (Make the setting, referring to the table below.)
TO START	2 CREDITS	
TO CONTINUE	1 CREDIT	
FACTORY SETTINGS		•Sets the number of credits (1 to 5) required to start the game.
SAVE AND EXIT		•Sets the number of credits (1 to 5) required to continue the game.
NO SAVE EXIT		•Returns all the settings to the factory settings.

START BUTTON = SELECT ITEM
GUN TRIGGER = MODIFY SETTINGS

•This screen is just an example.

- 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

4 How to play

The "TOTALVICE™" machine is designed to play gun shooting game alone or in a pair. Shoot enemies who appear one after the other on the screen to get the score as high as possible.

■ How to play

- 1 Put a coin(s) into the slot. Press the start button and the stage select menu appears on the screen.
- 2 Shoot a desired stage with the gun and the game starts itself.
- 3 Hit the enemies who appear on the screen.

The standard weapon for the player is a seven-shot gun. When the gun runs out of bullets, level the gun without the screen range and pull the trigger. The gun will be fully reloaded.

(No matter how many bullets are left in the gun, you can reload the gun anytime.)

- 4 The following five different types of guns appear during the game. When you hit a gun, you can get that type of gun.

(You will lose that gun when you get hit by the enemy.)



MAGNUM

The bullet can go through a wall. The gun is reloaded every 6 bullets.



RIFLE

Three bullets can be fired nonstop. The gun is reloaded every 15 bullets.



DUAL GUNS

Two bullets can be fired one after the other. The gun is reloaded every 12 bullets.



SHOTGUN

Pellets are fired. The gun is reloaded every 5 fires.



MACHINE GUN

Up to 30 bullets are fired nonstop while the trigger is being pulled. The gun cannot be reloaded.

- 5 When you get hit by the enemy or you wrongly shoot a citizen or a police officer, you will lose one life point.

■ Joining the game halfway

- You can join the game anytime during the play.

■ Course selection

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

5 Maintenance and annex

5-1 Replacing the gun PCB and speaker

■ How to replace the gun PCB and speaker -----

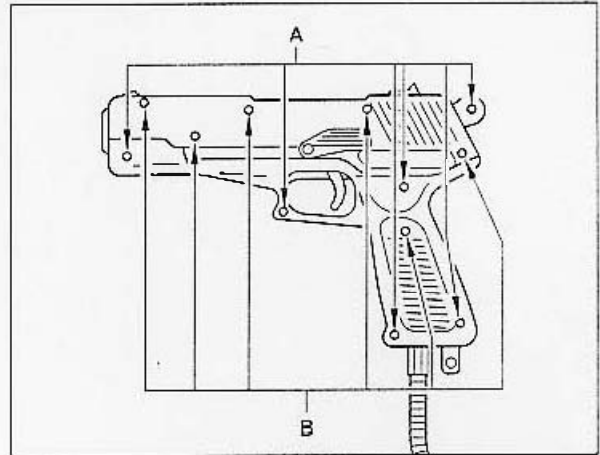


• Before replacing the gun unit, be sure to turn OFF the machine's power switch and unplug the power cord from the receptacle.

- 1 Remove the 12 bolts and detach the gun casing.

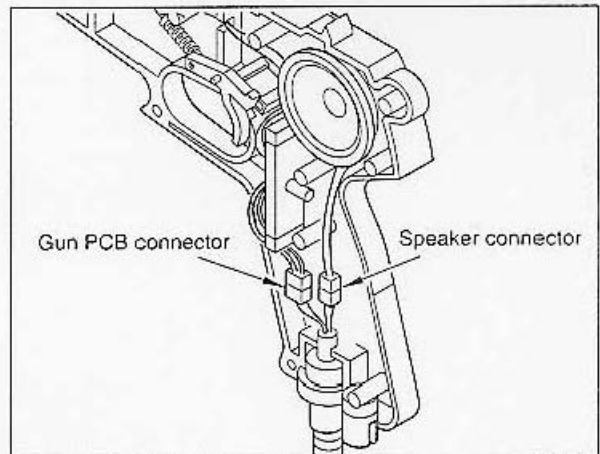
A.....M3 X 15L

B.....M3 X 25L

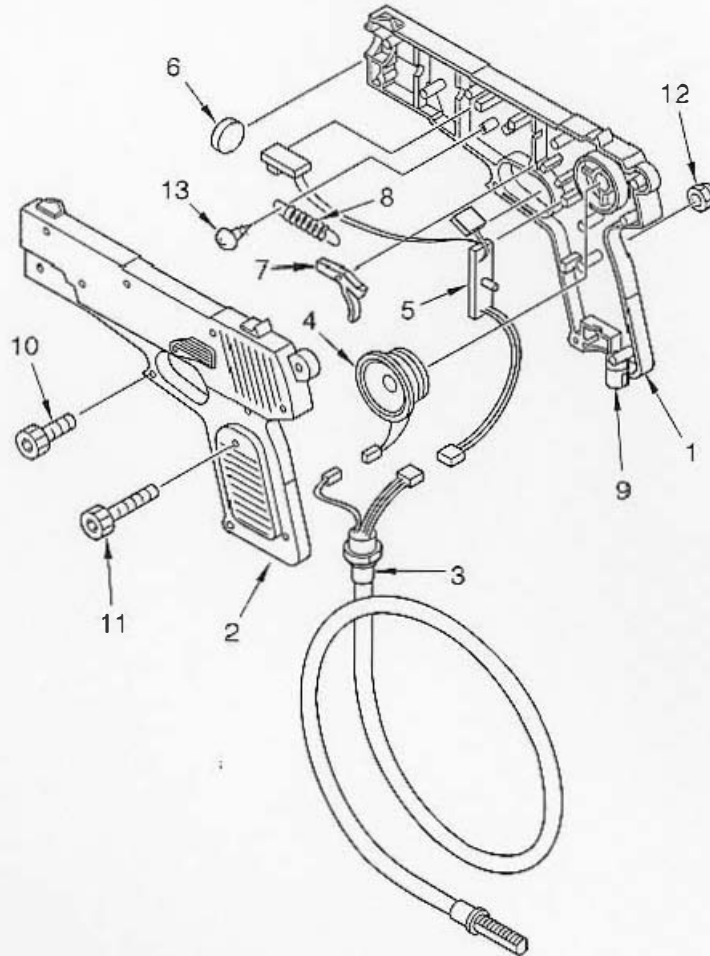


- 2 Disconnect the gun PCB connector and the speaker connector.

- 3 Take the reverse procedure to reassemble the gun. Be careful not get the bundle cables caught.



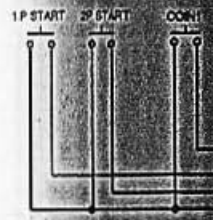
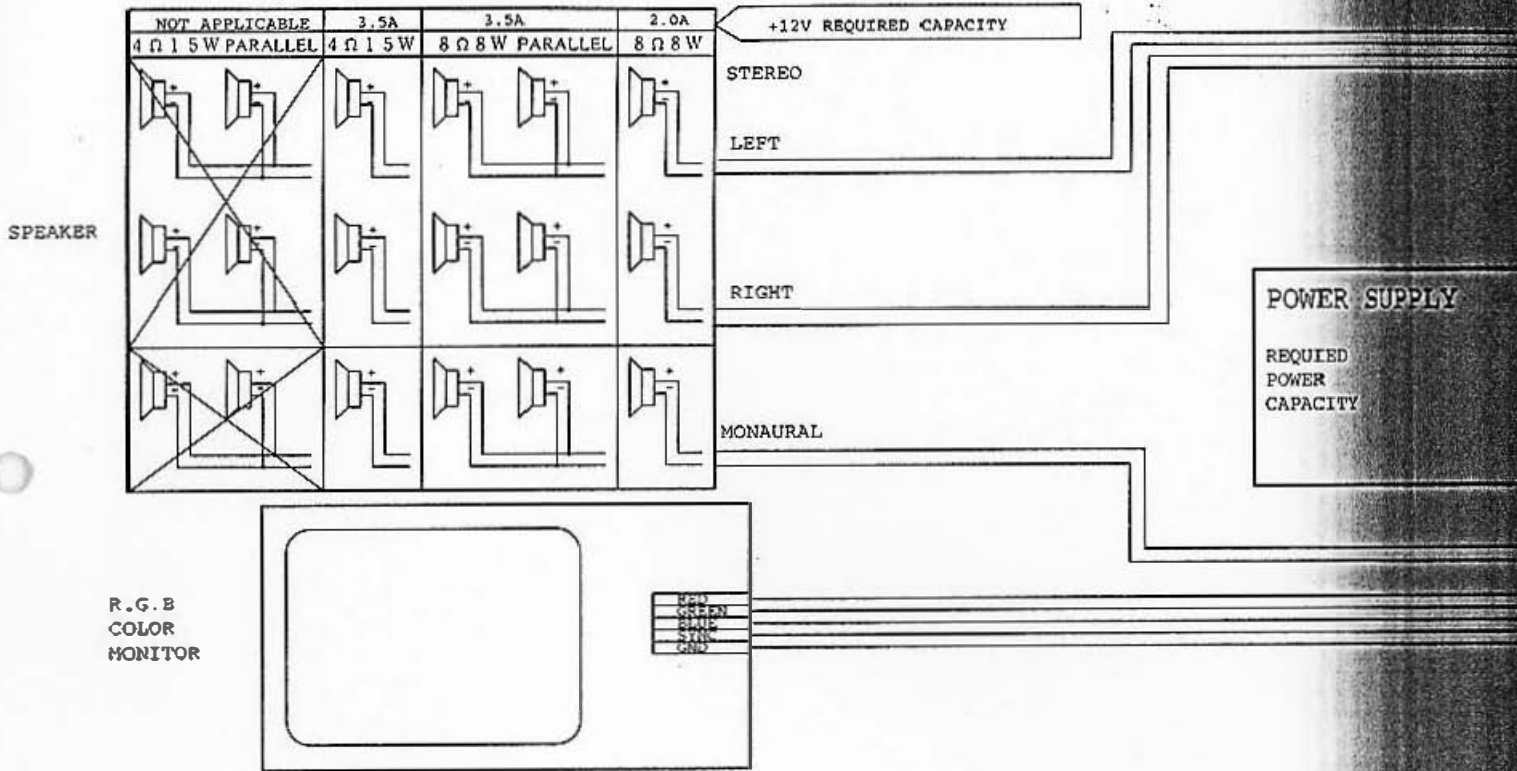
5-2 Names of gun unit parts and list



No.	Part name	Part #	Quantity	Remarks
1	Gun case	0000031983	1	Mechanism-mounted side
2	Gun case	0000031984	1	
3	Gun cable	0000003670	1	
4	Speaker	0000031305	1	
5	Gun PCB unit	0000018262	1	
6	Lens	0000015507	1	
7	Trigger	0000010632	1	
8	Spring	0000015508	1	
9	Chain stopper	0000015540	1	
10	Hexagon socket bolt	-	6	M3x15L
11	Hexagon socket bolt	-	6	M3x25L
12	Cap nut	-	12	M3
13	Tapping screw	-	1	D3x8L

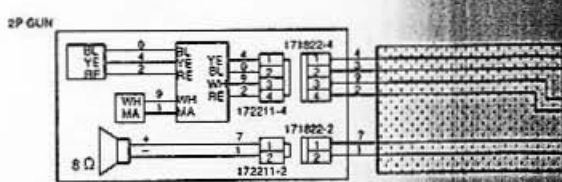
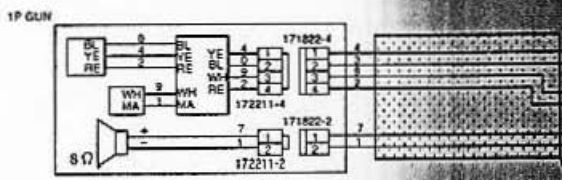
MEMO

5-3 Wiring diagram



CONNECTOR	MAKER
VH NH LC	JST
172211-2 172211-4 171822-4 171822-2	AMP
5130-4030	MOLEX

NO.	COLOR
0	BLACK
1	BROWN
2	RED
3	ORANGE
4	YELLOW
5	GREEN
6	BLUE
7	PURPLE
8	GRAY
9	WHITE
E	GREEN/YELLOW



- NOTE -
1. SURGE KILLER DIODES FOR COIN COUNTER INSTALLED ON THE PCB.
 2. YOU CANNOT USE BOTH STEREO AND MONAURAL OUTPUTS AT THE SAME TIME.
 3. DO NOT CONNECT SPEAKER (-) TO GND.

