

Sub PC Times out first test=V185 I/O BD not communicating w/rack Point blank, ninja assault, TC1,2,3, usually due to bad I/O Bd. bd also used in TC2. all guns are the same all PB part #'s

NAMCO

PB09-296-467 GUN OPTIC BD VG88-07763-00 24VDC @ 5AMPS P.S. for gun kickback

PB09-296-402 GUN HARNESS

To adj. mstr screen cntl and focus need to access from the front and have to remove the header and front screen so that you can lift pro-jo because wheels sit in holes.

VG84-10453-00 DVD Drive current in stk
4-30-15 Toshiba samsung SD M1802



STANDARD RES. 15.75 KHZ

VG88-07671-01 5V 12 VDC P.S. SD / DLX

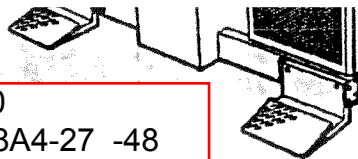
Replacement amplified optic sensor bd. Happ#96-0454-00

This is where a cust. junked their Sanwa Mon and replaced with a Wells Gardner and then had erratic behavior with his calibration.

I am not aware of any sync mods and I checked with our repair facility and they are not aware of it either.

If the Wells monitor is a used one and the CRT is a little soft Happ controls sells an amplified version of the optic board in your gun that might help with the erratic behavior. It does sound like you have an optic problem or less likely but possible a gun I/O Bd. issue. Swap between cabs and see what happens. Check that the lense in the gun is not to scratched up also.

Replacement amplified optic sensor bd. Happ#96-0454-00 for namco guns see below for happ gun part



dip switch dip # 1 took them into test

DVD Drive VG84-10453-00
ASUS MODEL -DVD -E818A4-27 -48

TI05-11581-00 Emitter around monitor for gun optic

Gun lens acrated with grooves and then sanded with fine grit sand paper and it worked

TIME CRISIS 3 DX

dvd drv going bad fan bad also 6 beeps is normal and then get wank, wank, wank or like siren is dongle error

neon light causing gun not to operate

OPERATION MANUAL

TI05-10631-00 REPEATER BDS

Link cable is IEEE like usb mini same on both ends for SD and a little larger on one end for DX.

VG50-09714-00 -SD, VG50-10619-00 - DX

Link cable is IEEE like usb mini same on both ends for SD and a little larger on one end for DX.

FIRE WIRE

VG50-09714-00 -SD, IEEE 1394 male-male VG50-10619-00 - DX cable IEEE1396 4p-6p 80" long

>I'm not sure we are talking about Time Crisis 3 but I will do my best
>to cover both concepts 3 & 4. Time Crisis 3 used a standard optic which
>did nothing more than sense an increase in light as the electron beam
>scans across the face of the CRT and since the beam was being tracked
>by a counter as soon as you pull the trigger it would see the pulse
>triggered by the optic board and know where you had the gun positioned.
>The typical problems here are when the trigger is pulled the screen
>flashes white but you cannot calibrate or the gun will not score a hit
>on the screen then the optic is defective if all of the basics have
>been covered (i.e. gun harness wiring, I/O Bd. swapped.
>

SLA4060 chip for my TC3 gun board
We do have these parts in stock, @
\$25 for 1, \$20 for 2, \$15 for 3 or
more.

Soul Caliber 2 and Time Crisis 3 use same hardware sys. just different DVD and Dongle.

Error code was in red "Set Time" everything works but this message shows. Plug in PS2 Controller boot machine enter test and menu go to others then use controller to navigate and change.

MODELS: VS-45609 / VS-50609 / VS-55609 / VS-60609 / VS-60719 / VS-70709

3. Initial Setup

1. Option Menu Setup

Follow the steps below for the initial setup:

1. Select the "MENU" display by pressing the "MENU" button once.
2. Press the number buttons "0", "1", "7", "0" in sequence to select the "OPTION MENU" display.
3. Press the "ADJUST" button to select "INITIAL."
4. Press "ENTER."

NOTE: At this time channel 3 is automatically selected.

OPTION MENU (MENU-0-1-7-0)

INITIAL

POWER RESTORE	:OFF
DIRECT KEY MODE	:OFF
VIDEO MUTE TIME OUT	:OFF

electronic process, or in the form of a phonographic recording, nor may it be stored in a retrieval system, transmitted, or otherwise copied for public or private use, without permission from NAMCO AMERICA INC.

"Internal Battery 02 dead" error after the CR2032 was replaced You must adj. the time to clear this error code. PS2 controller must be used to change the time

VG85-10013-00 50" MITS VS 50609

VG85-10751-00 VS-50111 MAYBE TC3 50" MON??

VG15-06624-00 NTSC VID AMP BD.

tried PS2 memory card from Gamestop standard card but did not work

Cust replaced monitor with raster and has "out of screen" symptom. swapped guns, rack and i/o bd still not work. if he swapped the signal from the good working side to the Pro Monitor on the side that does not detect the gun, then it should be the sync going back to the i/o board. From 12pin connector on the i/o board to the VGA(15 pin d-sub) port on the cpu.(black wire for video ground and white wire for video sync). If it does not work when he swaps the signal then either the Pro Monitor is not compatible or its bad.

SUB-PC Time Out -error- TS73-09855-00 Micro-controller used on the V185 I/O Bd. can be the cause. It is one of the top 2 components that fail. Typical causes are gun harness shorts, 5VDC adj. over 5.25vdc or suspect power supply (bad caps causing spikes) or shorts in the modified USB harness blasting the controller.

The following dongles we stock and can A/R . Typical cost between \$150.00 and \$250.00.

Tekken Series
Time Crisis Series
Dead Storm Pirates
Razing Storm
Mario Kart
Tank, Tank, Tank
Maxi-Tune 1&2

If this dongle goes bad or is lost we do not have stock and the racks have to be sent to Japan if the HDD/ Dongle or Mother. Bd. fail.

Maxi-Tune 3:

just the fact that he kept getting a beeping sound on a TC3 threw me to believe it was an issue with the memory card. He swapped the memory card and still nothing so he went as far as swapping the very thin ribbon cable and the part that holds the memory card or Dongle in tact. Sometimes in shipping these break especially if they dont come in with a metal guard or shield they have to protect them. He is going to look for a used play station 2 locally and fix it himself as it is the easiest solution for them.

by Sony Group. The **MAGIC GATE** mark does not necessarily guarantee compatibility with other products bearing

Cool beans!!! Thank you! I get these guys telling me that it beeps 3 times or sometimes it just beeps and never boots, is that usually tied to the Memory card and I assume the memory card is the black dongle?

Replacement amplified optic sensor bd. Happ# 96-0454-00 only works in the OEM TC1,2,3, sould caliber and Ninja Assault guns one has a 4/6 pin happ style /the namco is 3 pin

distributed publicly, or used for purposes other than the operation of the machine. The contents of the DVD-ROM are protected by copyright laws. Infringement of copyright laws may be subject to criminal penalties.

Do not use the supplied DVD-ROM with other product models or other

YOU DO NEED repeater bd dist IS TOO LONG SO IT DOES AMPLIFY THE LINK DATA usb which connector Jorge has never tried the one that is by it self he has always tried the 2 ports that are near each other

VG15-06624-00 NTSC VID AMP

ASIAN
Soft System Frequency(Hz)
Tekken 6 357,369 44.9k
Tekken 6BR
Razing Storm
Deadstorm Pirates
Tekken TAG 2

NIRIN ES1 47.6k
TANK!TANK!TANK!
DEADHEAT

Wangan 3 N2 31.3k
Time Crisis 4 SS256
Time Crisis 3 246

amplified optic bd below is what happ is currently selling for their guns.
We have our own gun bds no part # for ours

Home | All Products | Optical Guns | 96-0066-200

Report An Issue Print

Recomended Items:

96-0066-100SMD

Universal Optic Gun Board...

\$25.00

Qty: 1



CAUTION : Failure to avoid the risk may result in minor injury or property damage.

Functional notes not related to safety are marked with the following label:



: Notes related to functions or protection of the machine.

1-2 Definition of the term "technician"

This operation manual is written for arcade personnel. However, the sections marked, "To be conducted by a technician only", in the table of contents are written for technicians. These tasks must be conducted by technicians only.

Technician: A person engaged in machine design, manufacture, inspection or maintenance service for a manufacturer of amusement equipment, or a person who has technical knowledge related to electricity, electronics or mechanical engineering at a level equal to or higher than that of technical high school graduates, and who is engaged routinely in the maintenance (repair) of amusement machines.

1-3 Top-priority safety precautions

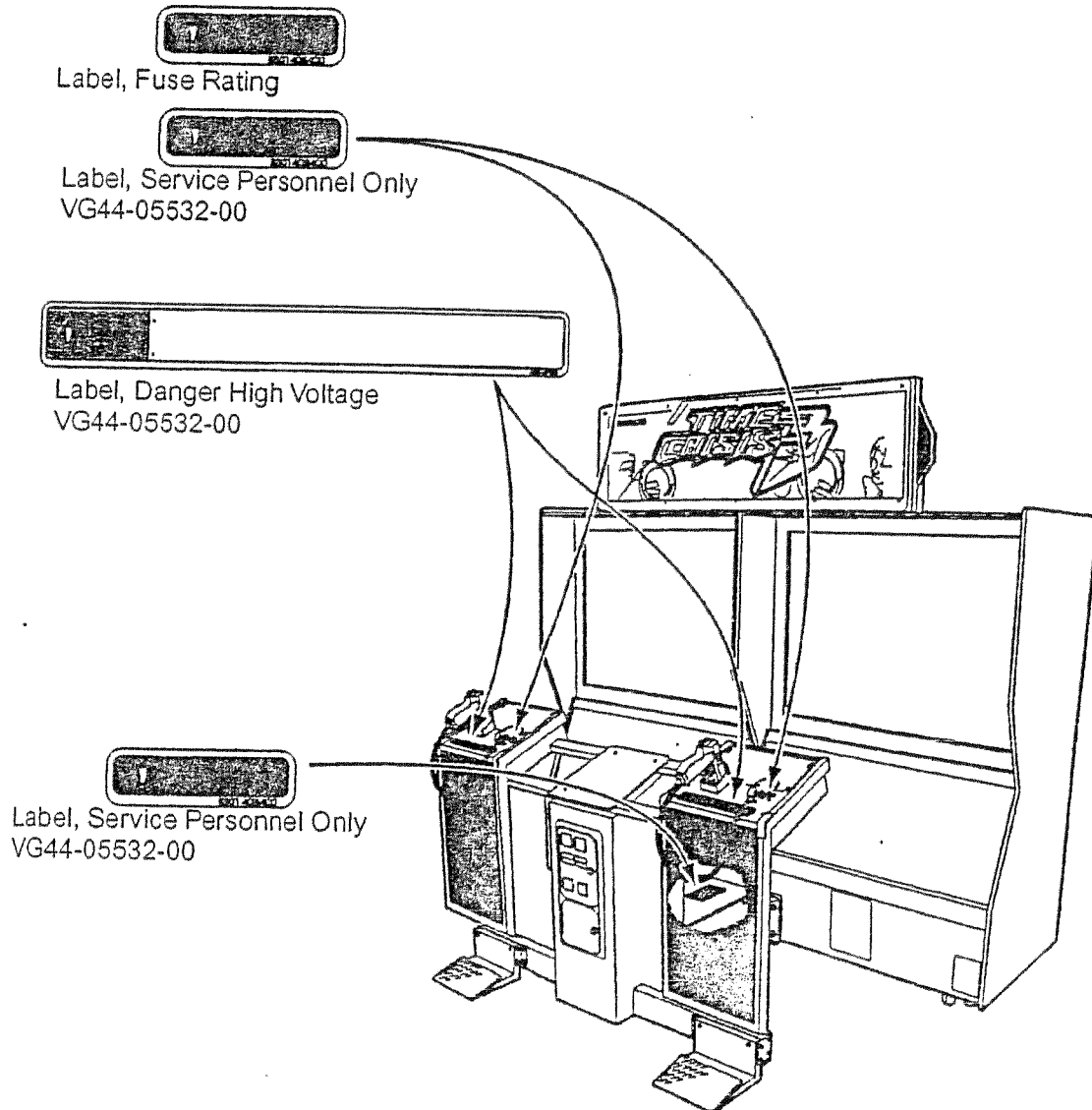
WARNING

- Should any problem occur, turn off the power immediately and stop operating the machine. Then, unplug the power plug from the service outlet. Operating the machine without correcting a problem may cause a fire or accident.
- When adjusting the projector, do not touch any parts other than those specified in the instructions. Accidentally touching internal parts other than those specified can result in an electric shock or injury.
 - * Some internal parts of the projector remain hot or charged with high voltage even after the power switch is turned off.
- Do not remove the screen from the projector when discarding the machine. Detached screen and internal lens can gather sunlight, causing a fire, blindness or burns.
- Dust accumulated on the power plug may cause a fire. Check the power plug regularly and remove dust.
- Insert the power cord into a service outlet securely. Poor contact may cause overheating that can lead to a fire or burns.
- Damage to the power cord can cause a fire, electric shock or electrical leakage. Observe the following instructions.
 - Do not place the cord close to a heating device.
 - Do not twist the cord.
 - Do not bend the cord with force.
 - Do not alter the cord.
 - Do not bundle the cord.
 - Do not pull the cord. (Do not pull the cord to unplug the power cord. Always hold and pull the power plug.)
 - Do not place anything on the cord.
 - Do not get the cord caught by the machine, other products or wall.
 - Do not do anything else that might damage the power cord.
- To prevent an electric shock or leakage, do not wet the power cord or power plug with water.
- To prevent an electric shock, do not touch the power cord with a wet hand.
- The power rating for the machine is 110-120 VAC, and the maximum current consumption is 4.3A. To prevent a fire or electric shock, always use indoor wiring that conforms to the machine's power specifications.
- Operate the machine with a power supply voltage in the range of 110 to 120 VAC. Using the machine with a supply voltage outside this range may cause a fire or electric shock. To ensure that the machine operates in optimum condition, use the rated voltage.
- Use only specified parts to replace consumables and service parts (including screws). To order parts, contact your distributor.
- Do not convert the machine without permission. Do not perform any work that is not described in this operation manual. Unauthorized conversion of the machine may create unforeseen hazards.
- When transferring the ownership of the machine, be sure to provide this operation manual and NAOMI service manual with the machine.

1-4 Description of warning labels

⚠ WARNING

- The warning labels describe important safety precautions. Observe the following:
- To make sure that the warning labels attached to the machine are easily legible, install the machine at a proper location with ample illumination and keep the labels clean at all times. Also, make sure that the labels are not hidden behind another game machine or other objects.
 - Do not remove or alter the warning labels.
 - If the warning labels become dirty or damaged, replace them with new labels. To order warning labels, contact your distributor.



1. SAFETY PRECAUTIONS - Be sure to read these instructions to ensure safety -



Label, Service Personnel Only

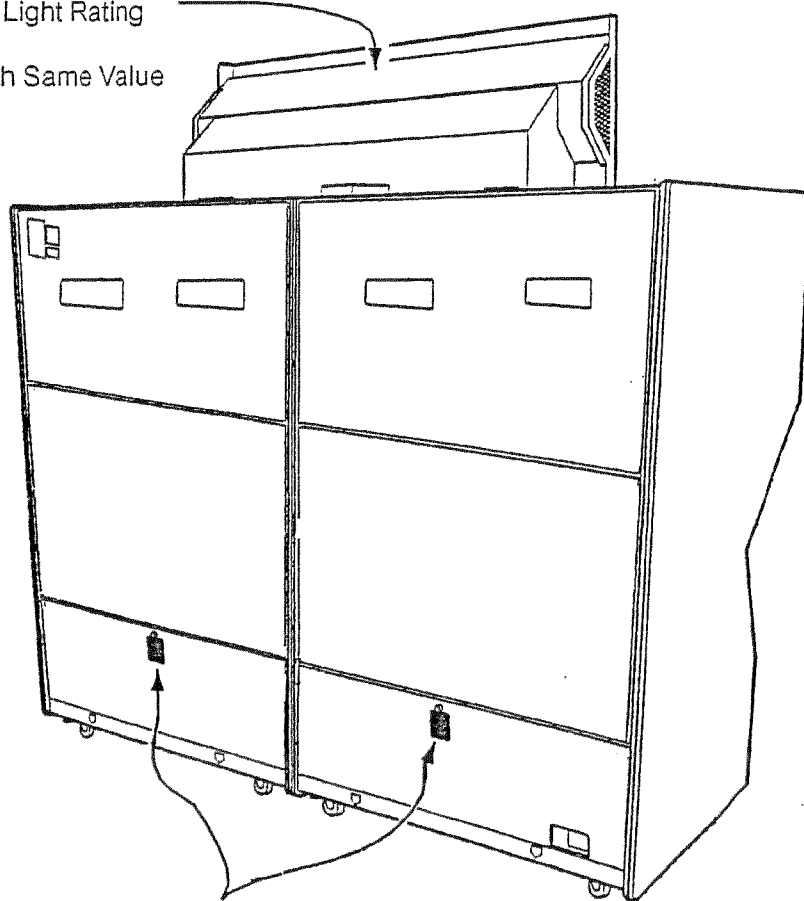
VG44-05532-00

Label, Fluorescent Light Rating

VG44-02644-01

Label, Replace With Same Value

VG44-03850-00



Label, Danger High Voltage

VG40-10599-00

CONTENTS

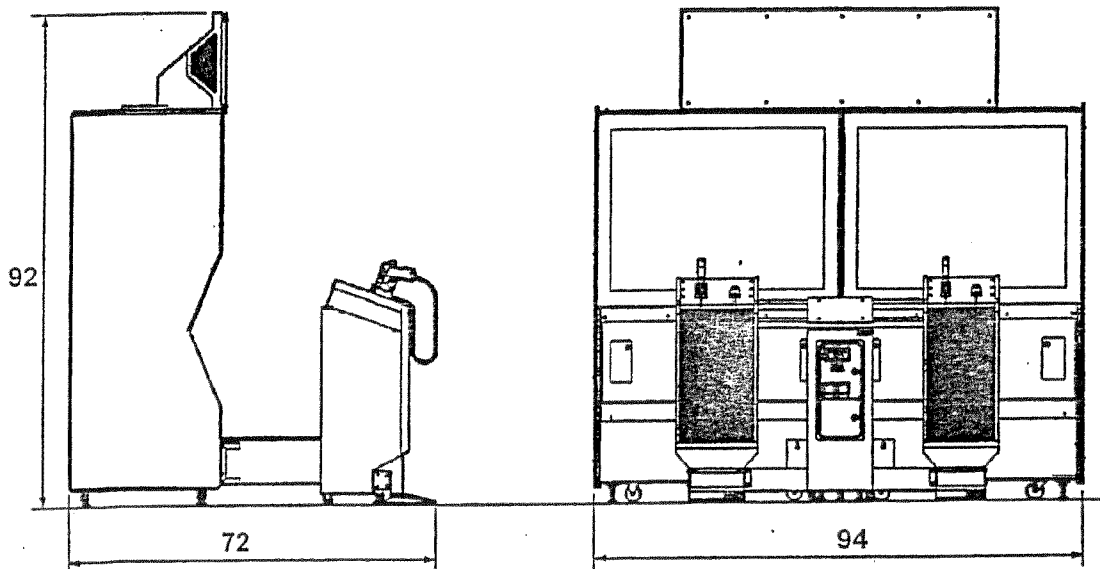
1. SAFETY PRECAUTIONS- Be sure to read these instructions to ensure safety	1
1-1 Magnitudes of risk	1
1-2 Definition of the term "technician"	1
1-3 Top-priority safety precautions	2
1-4 Description of warning labels attached to the machine	4
CONTENTS	6
2. SPECIFICATIONS	9
3. CHECKING THE PACKAGE CONTENTS	12
4. OVERALL CONSTRUCTION (Components and their names)	14
5. INSTALLATION	15
5-1 Installation conditions	15
5-1-1 Locations to avoid	15
5-1-2 Play zone of installed machines	16
5-2 Required dimensions of carry-in passage	17
5-3 Assembly	21
5-3-1 Connecting the Projector (L)/(R) Assys to Joint Assy - To be conducted by a technician only -	21
5-3-2 Installing the Signboard Assy - Technician only -	24
5-3-3 Connecting the Control Assy - Technician only -	25
5-3-4 Installing the Pedal Assys - Technician only -	26
5-4 Connecting the power cord and the ground	29
(1) With a 3-pin service outlet	29
5-5 Removing and reinstalling the rear panels - Technician only -	31
5-6 Switching on the power	32
5-7 Inserting the DVD-ROM - Technician only -	33
6. MOVING AND TRANSPORTING	35
6-1 Moving (on the floor)	35
6-2 Transporting	36
6-2-1 Manual transport	36
6-2-2 Loading on or unloading from a vehicle	37
6-2-3 Trucking	38
7. OPERATION	39
7-1 Pre-service check	40
7-1-1 External check	40
7-1-2 Operation check	40

7-2 How to play	41
(1) Play instructions	41
(2) Modes	41
(3) Game rules	41
7-3 Adjustment	42
7-3-1 Adjustment switches	42
(a) Service switch (red)	42
(b) Test switch	42
(c) Select switch	42
(d) Enter switch (green)	42
7-4 Test mode	43
7-4-1 Description of the MENU screen	43
7-4-2 Setting the game price and free play (COIN OPTIONS)	45
7-4-3 Setting the game options (GAME OPTIONS)	46
7-4-4 I/O tests for switches (I/O TEST)	47
7-4-5 Monitor test (MONITOR TEST)	52
7-4-6 Sound test (SOUND TEST)	53
7-4-7 Displaying and initializing game data (BOOK KEEPING)	54
7-4-8 Others (OTHERS)	55
7-4-9 Setting the gun sight (GUN INITIALIZATION)	56
7-5 Cleaning	60
7-5-1 Cleaning the Gun Assy lenses	60
7-5-2 Cleaning the window covers	60
7-5-3 Taking care of the projector screens	60
8. MAINTENANCE	61
8-1 Maintenance and inspection	61
8-1-1 Inspection items	61
(1) Inspection of the level adjusters	61
(2) Inspection of the power plug	61
(3) Inspection of bolts for tightness	61
8-1-2 Maintenance items - Technician only -	62
(1) Greasing the Pedal Assy plungers	62
(2) Checking the Pedal Assy plungers for wear	64
8-2 Troubleshooting	65
8-2-1 General - Technician only -	65
8-2-2 Projector (L)/(R) Assys - Technician only -	66
8-2-3 Signboard Assy - Technician only -	66
8-2-4 Control Assy - Technician only -	66
8-2-5 Gun Assys - Technician only -	67
8-2-6 Pedal Assys - Technician only -	67
8-3 Disassembly, reassembling and replacing the Assys and parts	68
8-3-1 Projector (L)/(R) Assys - Technician only -	68
(1) Removing and reinstalling the Rack Assy	68
(2) Replacing the pBASS AMP PC board	70
(3) Replacing the projector	71

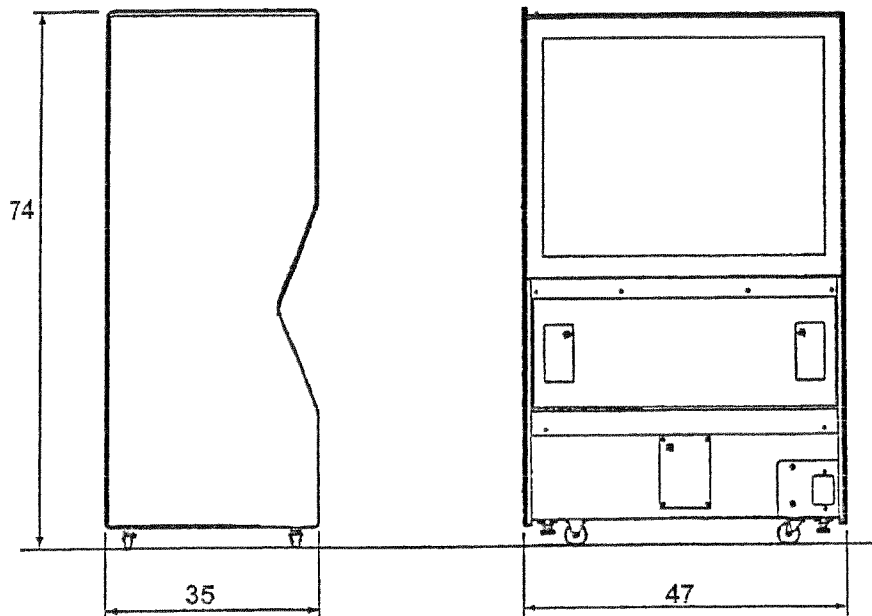
8-3-2 Signboard Assy - Technician only -	72
(1) Replacing the fluorescent lamp	72
8-3-3 Joint Assy - Technician only -	73
(1) Replacing the RAYS PC board	73
(2) Replacing the Repeater PC board	75
8-3-4 Gun Tower Assys - Technician only -	76
(1) Removing and reinstalling the control panel	76
(2) Replacing the cold cathode tube	77
(3) Replacing the Inverter PC board	79
8-3-5 Gun Assys - Technician only -	80
(1) Replacing the Gun Assy	80
(2) Opening the gun slide	81
(3) Opening the gun cover	82
(4) Replacing the solenoid	83
(5) Replacing the microswitch	84
(6) Replacing the tube	85
8-3-6 Pedal Assys - Technician only -	86
(1) Replacing the microswitch	86
(2) Replacing the plunger	87
9. PARTS LIST	88
9-1 Projector (L) Assy	88
9-2 Projector (R) Assy	90
9-3 Cord Box Assy	92
9-4 Signboard Assy	93
9-5 Rack Assy	94
9-6 Coin Tower Assy	95
9-7 Gun Tower (L) Assy	96
9-8 Gun Tower (R) Assy	97
9-9 Gun Assy	98
9-10 Pedal Assy	100
9-11 Joint Assy	102
10. WIRING DIAGRAM	103
Projector (L)/(R) Assys	
Tower Assy	

2. SPECIFICATIONS

- | | |
|----------------------------------|---|
| (1) Rated power supply: | AC 120V $\pm$ 10V 60Hz |
| (2) Maximum power consumption: | 562 W |
| (3) Maximum current consumption: | 8 A |
| (4) Coin Box capacity: | Approx. \$1,350.00 in U.S. quarters |
| (5) Display: | 50-inch rear projection system x 2 units |
| (6) Dimensions: | |
| ① As installed | 94 (W) $\times$ 72 (D) $\times$ 92 (H) inches |

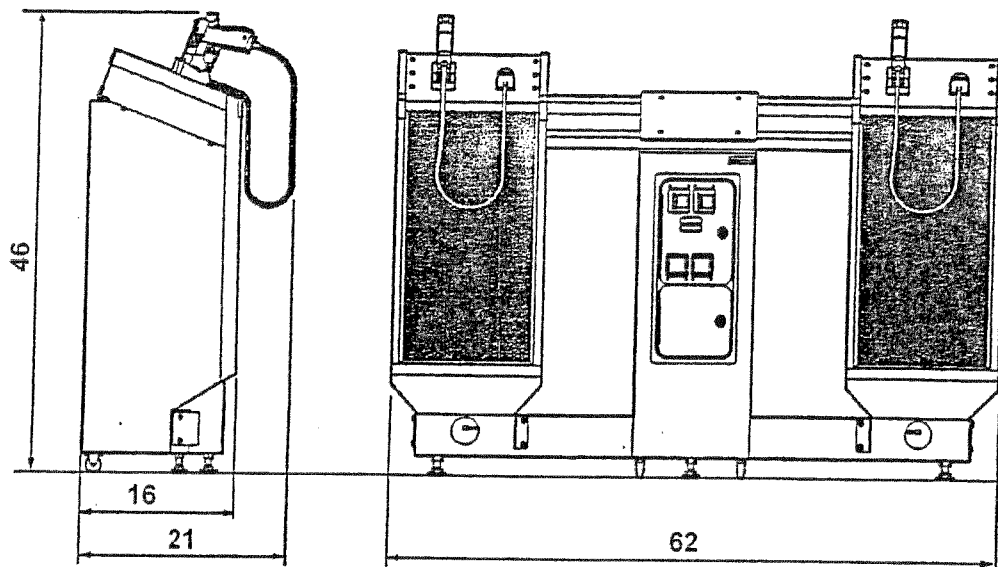


- ② When divided
 Projector Assy 47 (W) $\times$ 35 (D) $\times$ 74 (H)



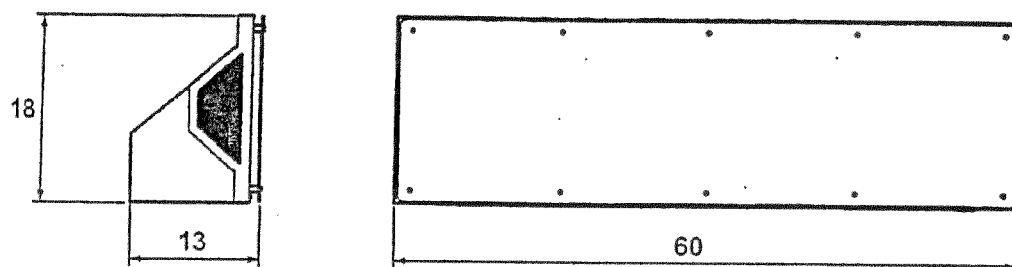
Control Assy

62 (W) × 21 (D) × 46 (H)



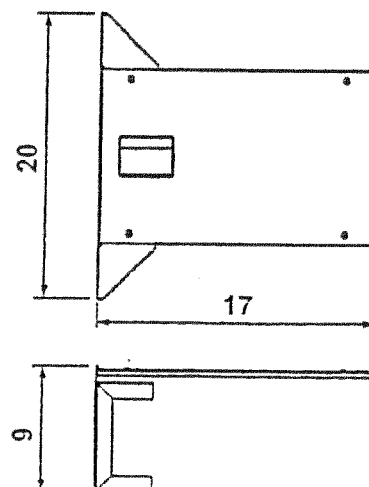
Signboard Assy

60 (W) × 13 (D) × 18 (H)



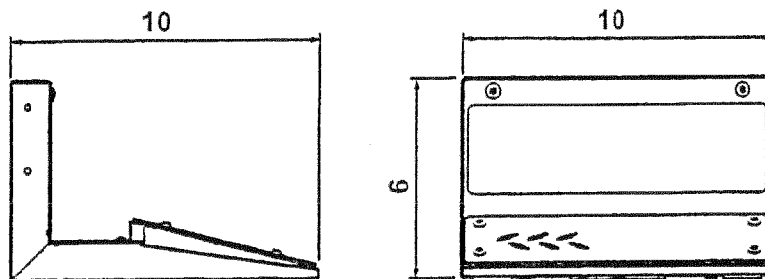
Joint Assy

20 (W) × 17 (D) × 9 (H)



Pedal Assy

10 (W) × 10 (D) × 6 (H)



(6) Weight

① As installed: 1025 lbs

② When packed for shipping:

3 containers

2 Projectors (1 right, 1 left);

Projector Assy (2 ea) 712 lbs x 2 = 1424 lbs

1 Control Assy

includes Marquee, coin tower assy, gun tower assy,
and pedals

Control Assy (1 ea) 339 lbs

SHIPPING DIMS:

Projector R : 81" high, 50.75" wide, 38.25" deep

Projector L : 81" high, 50.75" wide, 38.25" deep

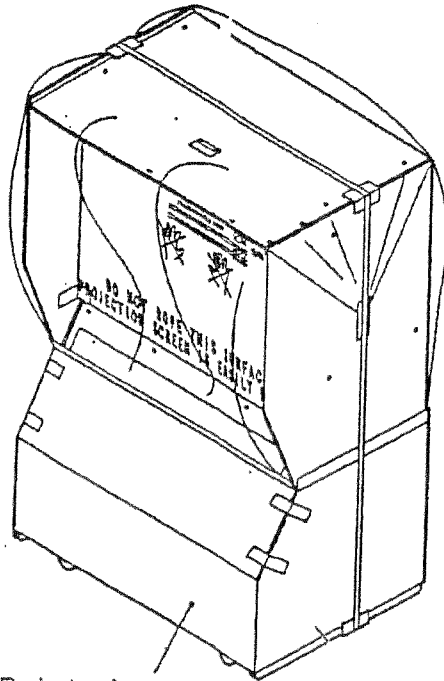
Control Assy : 65.75" high, 65" wide, 26" deep

3. CHECKING THE PACKAGE CONTENTS

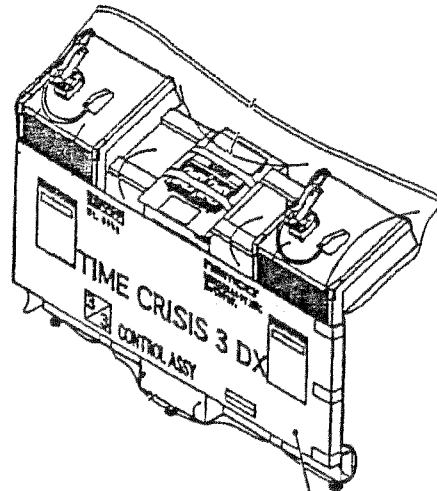
The product package contains the following parts when shipped.



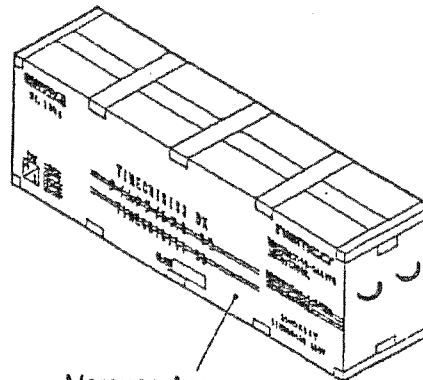
- Make sure all the parts shown below are included in the product package.
- If parts are missing, contact your distributor.



Projector Assy
(L & R, 2 units)



Control Assy

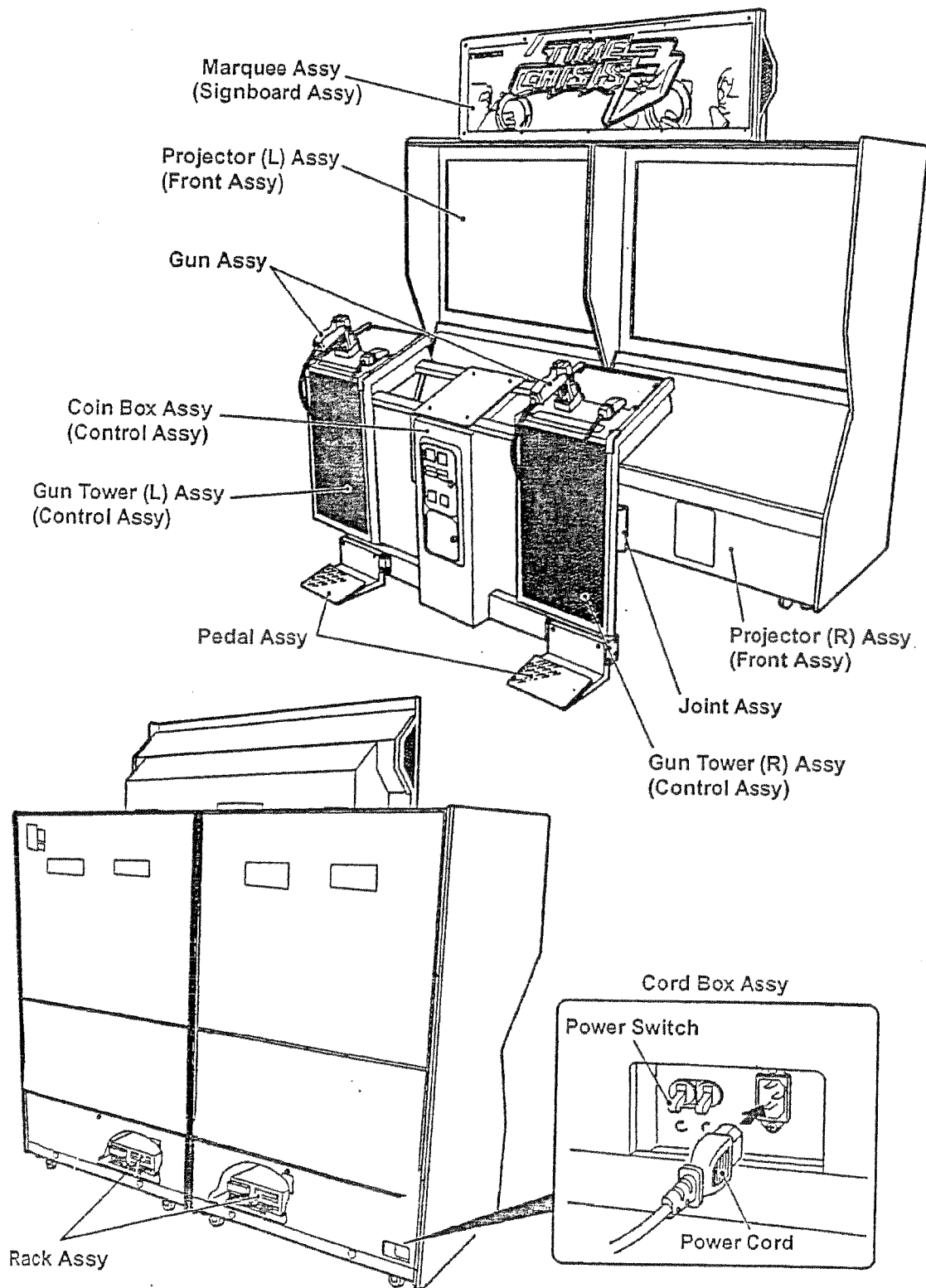


Marquee Assy

Accessory list

No.	Name	Specification	Qty
1	Time Crisis 3 DX Operation Manual		1
2	Projector Adjustment Manual		1
3	DVD-ROM		2
4	Coin box key		2
5	Cash box & Rear door key		2
6	Power cord	3 m 	1
7	Socket hd screw 5/16 x 2	Joint Assy to Projector Assy 	4
8	Socket hd screw 5/16 x 3/4	Joint Assy to Control Assy 	4
9	Torx truss hd #10-24 x 1	For Marquee Assy Installation 	4
10	Flat washer #10	For Marquee Assy Installation 	4
11	Hex nut 5/16, Nylock	For Projector Assys Installation 	3
12	Fender washer 5/16	For Projector Assys Installation 	6
13	Hex hd bolt 5/16 x 2.25	For Projector Assys Installation	3
14	Projector remote control		1

4. OVERALL CONSTRUCTION



5. INSTALLATION

WARNING

- Install the machine according to the instructions and procedures in this Operation Manual. Failure to follow the specified procedures may result in a fire, electric shock, injury or equipment malfunction.
- Insert the power plug securely into the service outlet. Poor contact may cause overheating that can lead to a fire or burn.
- Be sure to connect the ground wire. Using the machine without proper grounding can result in an electric shock if electric leakage occurs. (See P. 29 "5-4 Connecting the power cord and the ground.")
- Install the machine securely to the floor by using the level adjusters. Unstable machine installation can result in accidents or injury. (See P. 21 "5-3-1 Connecting the Projector (L) / (R) Assys to Joint Assy.")

5-1 Installation conditions

5-1-1 Locations to avoid

WARNING

- This machine is designed for indoor use only. Never install the machine outdoors or at any of the following locations:
 - Locations exposed to direct sunlight
 - Locations exposed to rain or water leakage
 - Damp places
 - Dusty places
 - Close to a heating device
 - Hot places
 - Extremely cold places
 - Places where dew may develop due to temperature differences
 - Places where the machine may become an obstacle in disaster prevention (such as emergency exit) and places where a fire extinguisher or similar equipment is placed
 - Unstable or vibrating places



- Do not install the machine at any of the following places since those places may disallow the sensors from detecting properly.
 - Places where bright light such as sunlight and spot light shines directly on the screens.
 - Places where bright flashing light causes a strong contrast in brightness (See p.56 "7-4-9 Setting the gun sight (GUN INITIALIZE).")

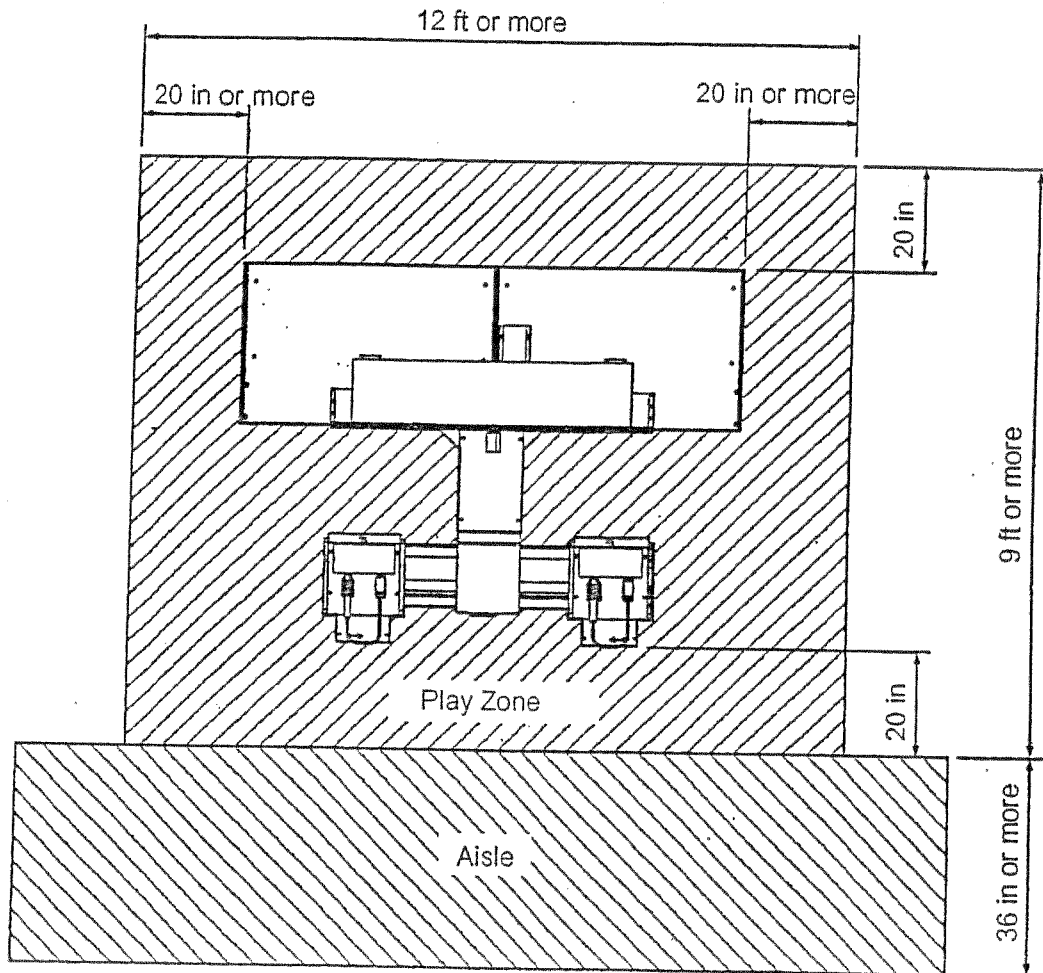
5-1-2 Play zone of the installed machine

WARNING

- Set a play zone as illustrated in the diagram below to prevent contact between players and observers or passersby.



- A ceiling of at least 8 ft is required.
- To facilitate maintenance work, provide a space of at least 20 inches on the back side of the machine and from other equipment.



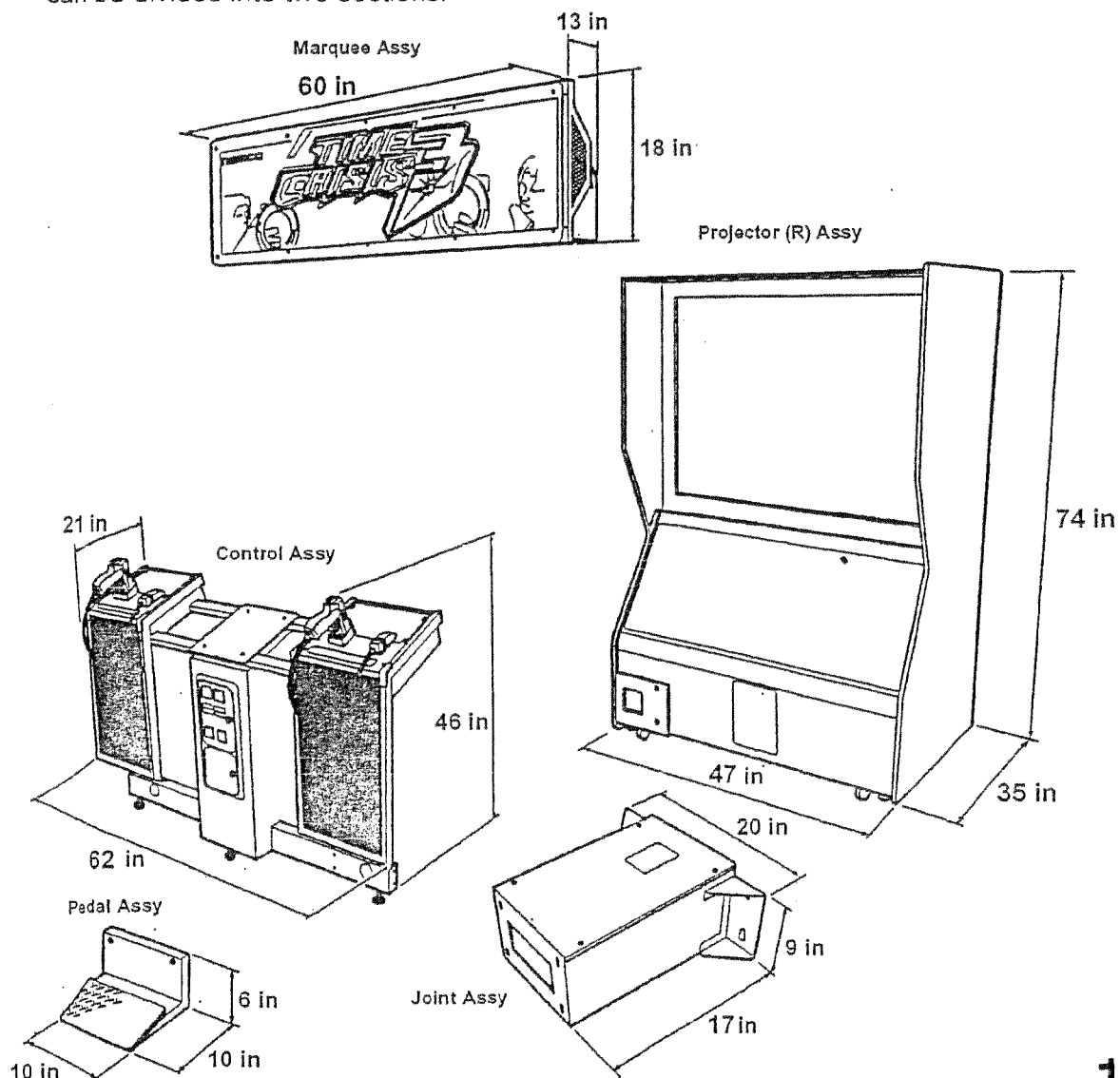
5-2 Required dimensions of carry-in passage (such as doors and corridors)

The machine is divided when delivered. The size of each unit is as follows:

● Projector (L) Assy	47(W)	× 35 (D)	× 74 (H)
	408 lbs		
● Projector (R) Assy	47(W)	× 35 (D)	× 74 (H)
	408 lbs		
● Control Assy	62(W)	× 21 (D)	× 46 (H)
	132 lbs		
● Signboard Assy	60(W)	× 13 (D)	× 18 (H)
	55 lbs		
● Joint Assy	20 (W)	× 17 (D)	× 9 (H)
	22 lbs		
● Pedal Assy	10 (W)	× 10 (D)	× 6 (H)
	11 lbs		

Therefore, the carry-in passage must be larger than these dimensions.

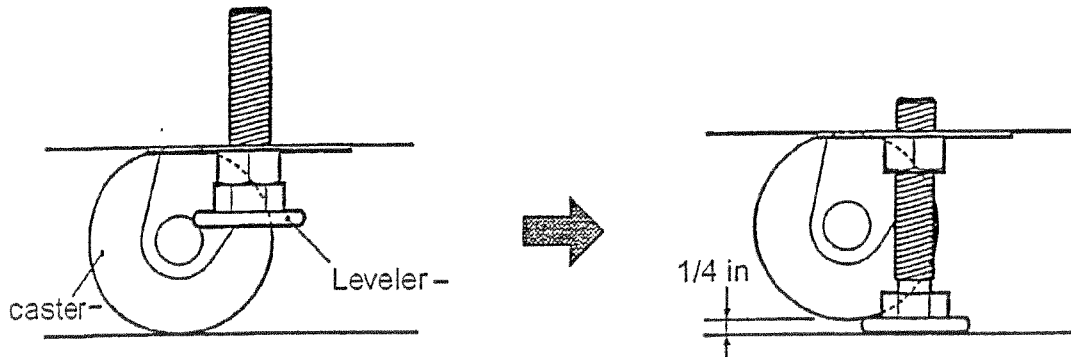
Depending on the conditions of the carry-in passage, the Projector (L) and (R) Assys can be divided into two sections.



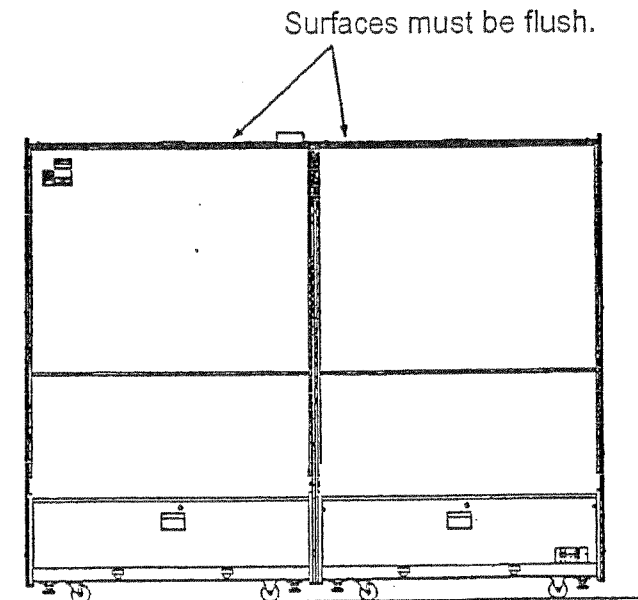
5-3 Assembly

5-3-1 Connecting the Projector (L)/(R) Assys to Joint Assy- To be conducted by a technician only

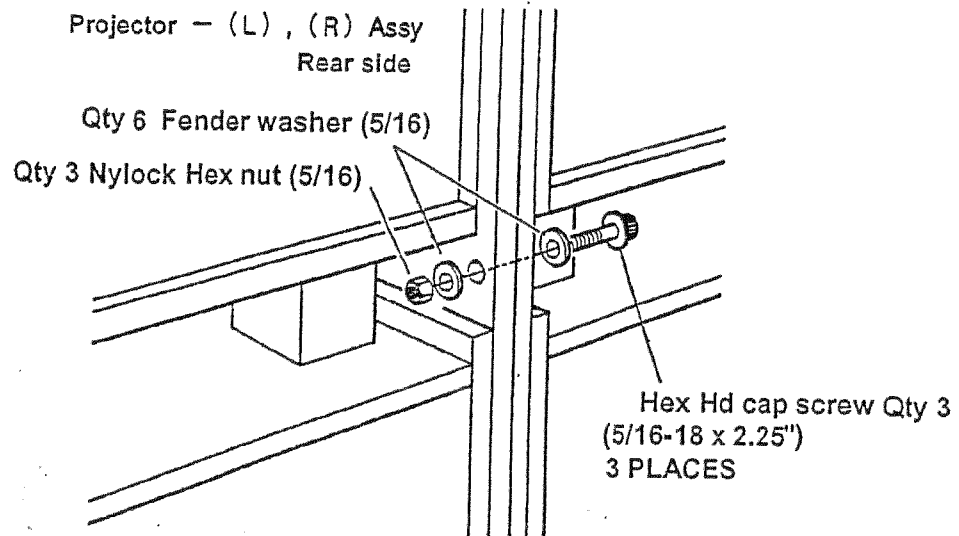
- Arrange the Projector (L) and (R) Assys in accordance with the directions in "5-1 Installation conditions" on page 15, and lower the level adjusters (4 locations) so the the casters are raised approximately 1/4 in above the floor (casters should be able to rotate freely).



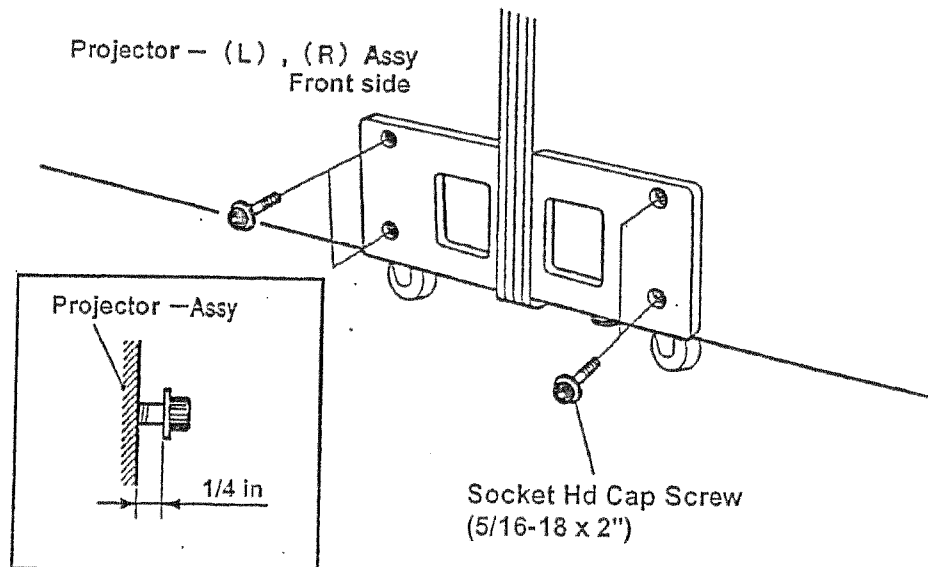
- Adjust the levelers so that the top panels and front panels of the Projector (L) and (R) Assys are flush. Improper level adjustment disallows the installation of the Joint Assy and the Signboard Assy.



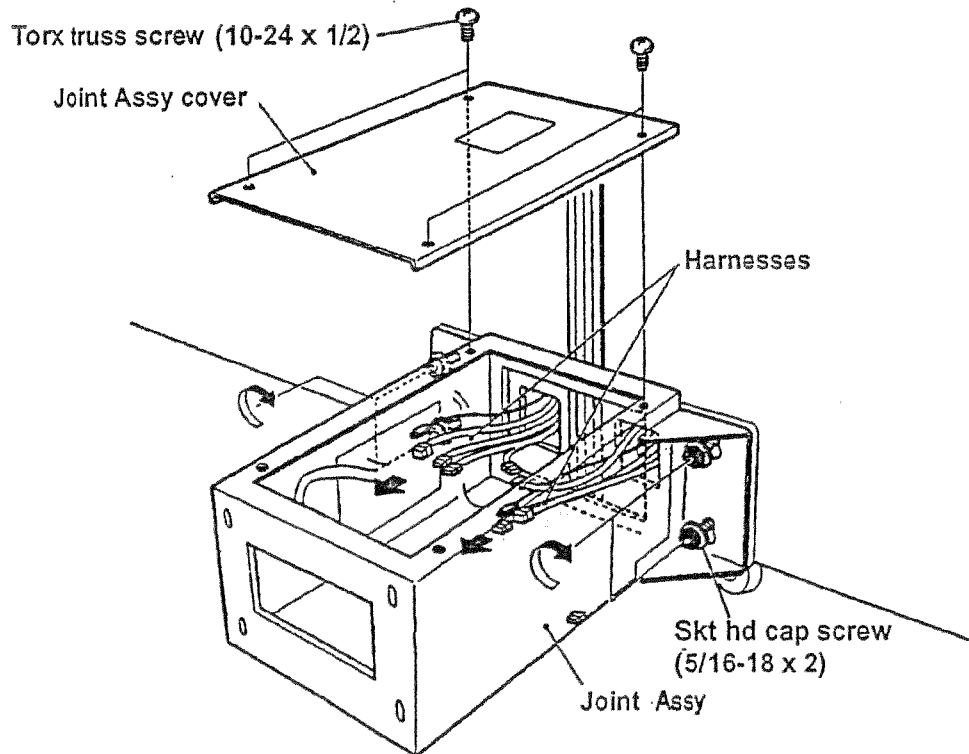
- 2** Using the 3 supplied Hex Hd Cap Screws, (5/16-18 x 2.25"), fender washers and Hex nuts (5/16), connect the (L) and (R) cabinet Assys to each other from the rear of the cabinet Assys. Make sure to use all three screws in all three cabinet connecting points.



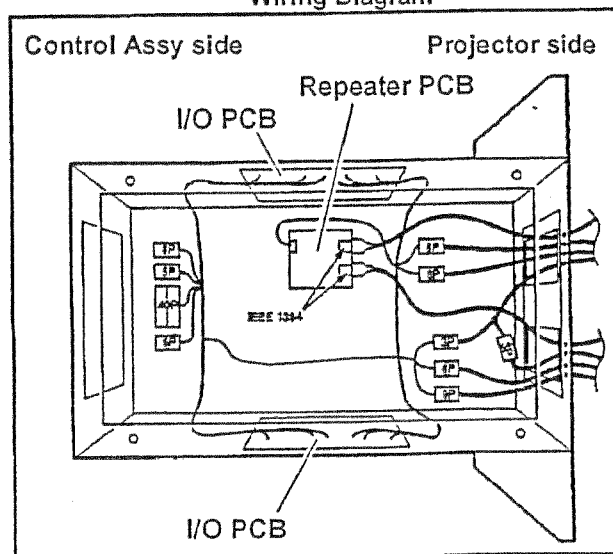
- 3** Install four supplied Socket hd cap screws (5/16 -18 x 2") on the front panels of the Projector (L) and (R) Assys temporarily by leaving a space of approximately 1/4 in between the surface and flange of each bolt.



- 4 Remove the four torx truss screws (10-24 x 1/2) from the Joint Assy, and dismount the joint cover.
- 5 Install the Joint Assy to the Projector (L) and (R) Assys, and tighten the four socket head cap screws (5/16-18 x 2).
- 6 Pull out the harnesses from the Projector (L) and (R) Assys.
- 7 Connect the eight connectors. (Refer to the wiring diagram below).



Wiring Diagram



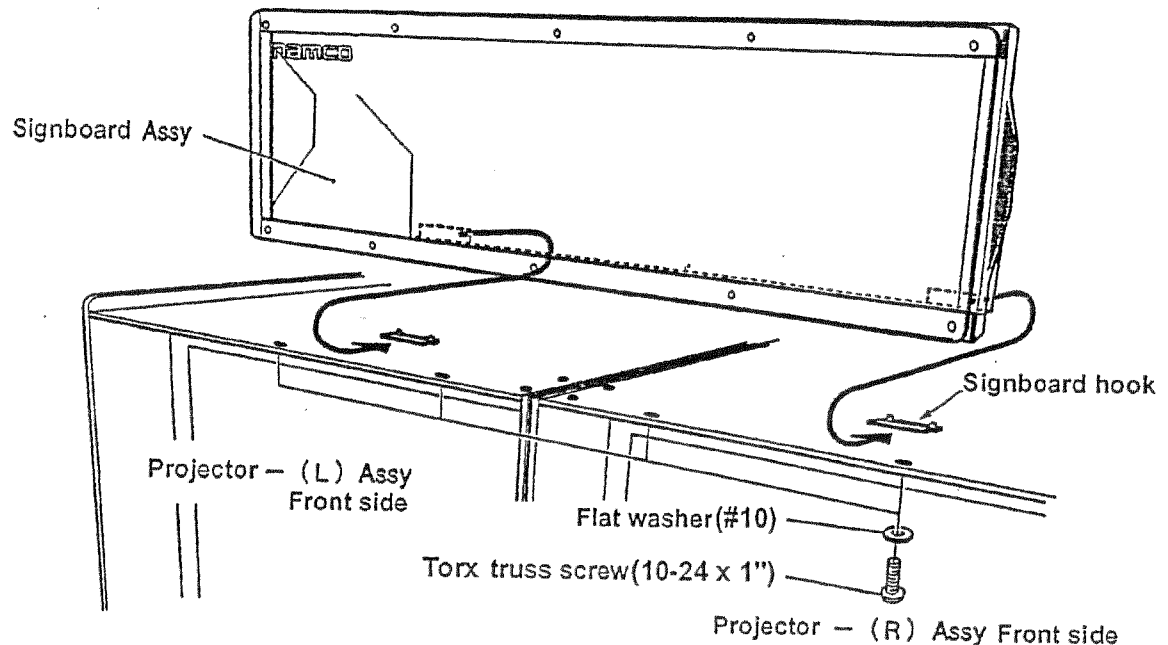
- 8 To disassemble, follow the above procedures in reverse.

5-3-2 Installing the Signboard Assy - Technician only -

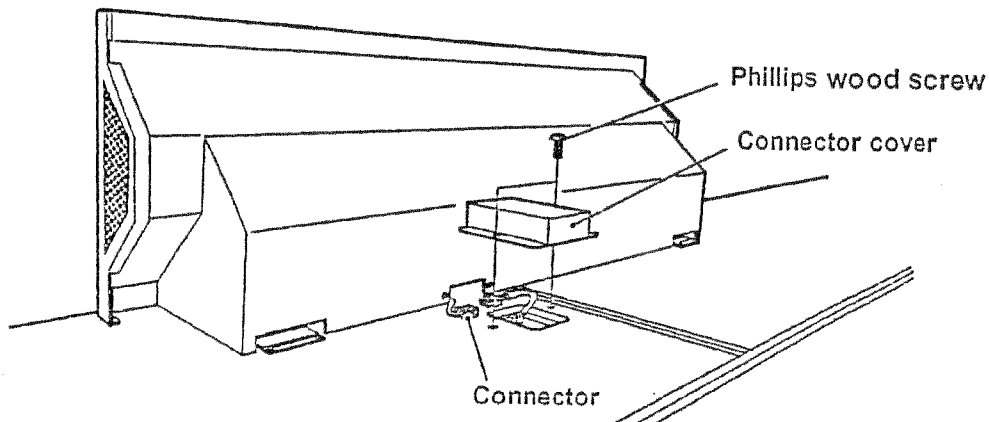
⚠ WARNING

- The signboard unit weighs approximately 55 lbs. It should be installed by at least two persons in an ample work space in order to prevent accidents.

1. Position the Signboard Assy on the Projector (L) and (R) Assys, making sure that the bottom board of the Signboard Assy engages the signboard hooks located on the top panel of the Projector Assys.
2. Install the Signboard Assy using four supplied Torx truss screws (10-24 x 1") and four flat washers (#10).



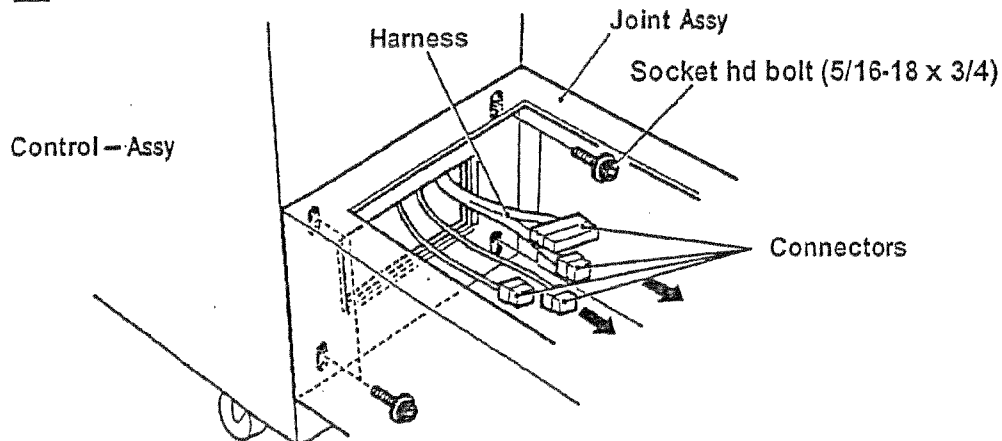
3. Remove the two phillips truss screws from the top panel of the Projector (R) Assy, and dismount the connector cover.
4. Connect the connector of the Signboard Assy to the projector.
5. Reinstall the connector cover.



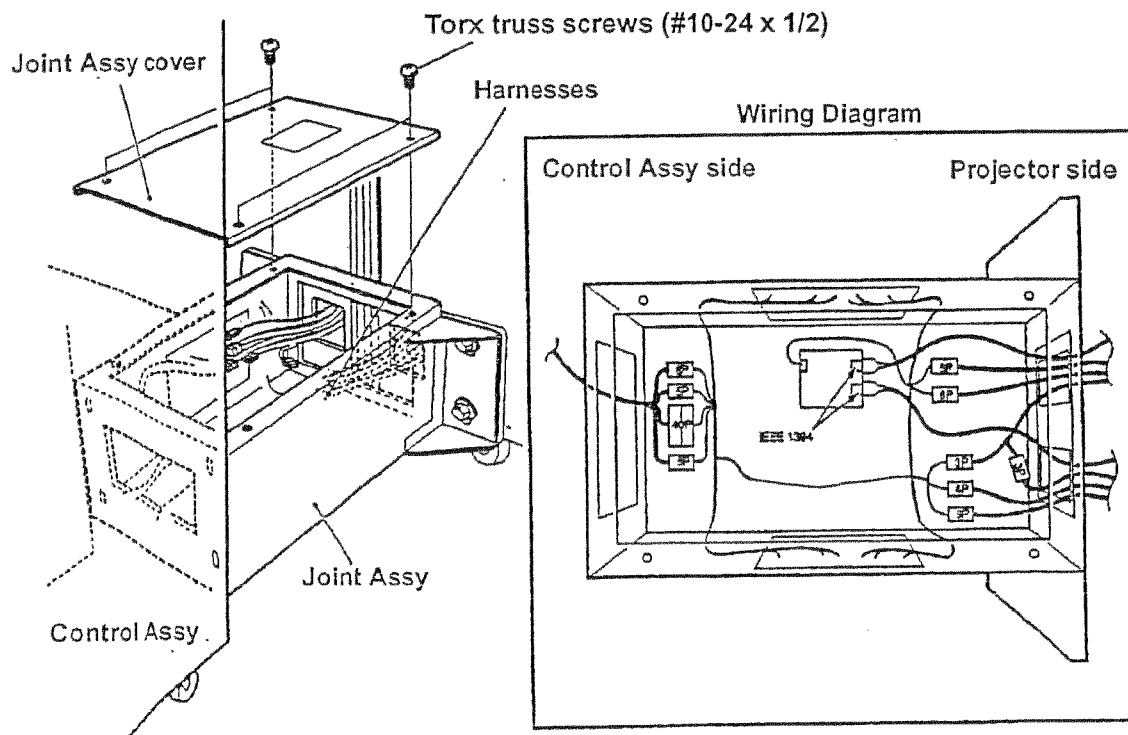
6. To disassemble, follow the above procedure in reverse.

5-3-3 Connecting the Control Assy - Technician only -

1. Adjust the level adjusters so that the Control Assy is at the same height as the Joint Assy.
2. Using four supplied socket hd bolts (5/16-18 x 3/4), install the Control Assy.
3. Pull out harnesses from the Control Assy.



4. Connect the four connectors.
5. Install the Joint Assy cover with four Torx truss screws (#10-24 x 1/2).
6. To disassemble, follow the above procedure in reverse.

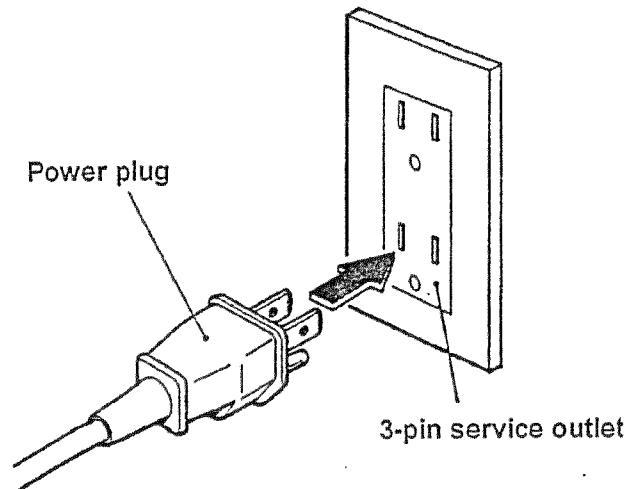


5-4 Connecting the power cord and the ground

⚠ WARNING

- Always use a properly grounded, 3 prong receptacle for plugging in the main power of the machine.

(1) 3 pin service outlet



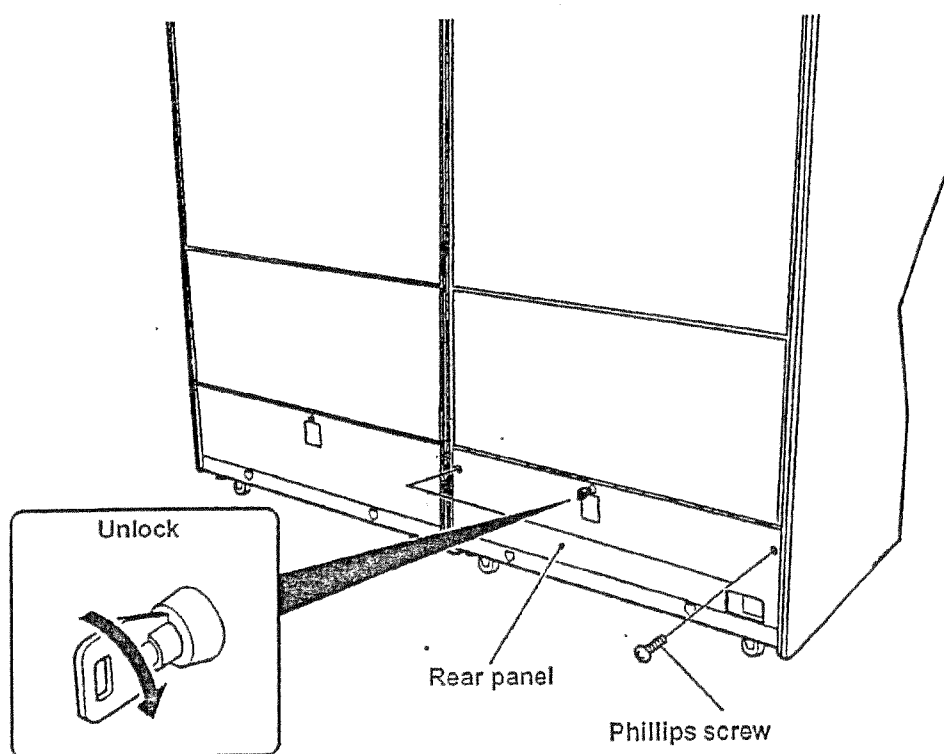
5-5 Removing and reinstalling the rear panels

- Technician only -

⚠ WARNING

- To protect service staff and other people from an electric shock, accident and injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task

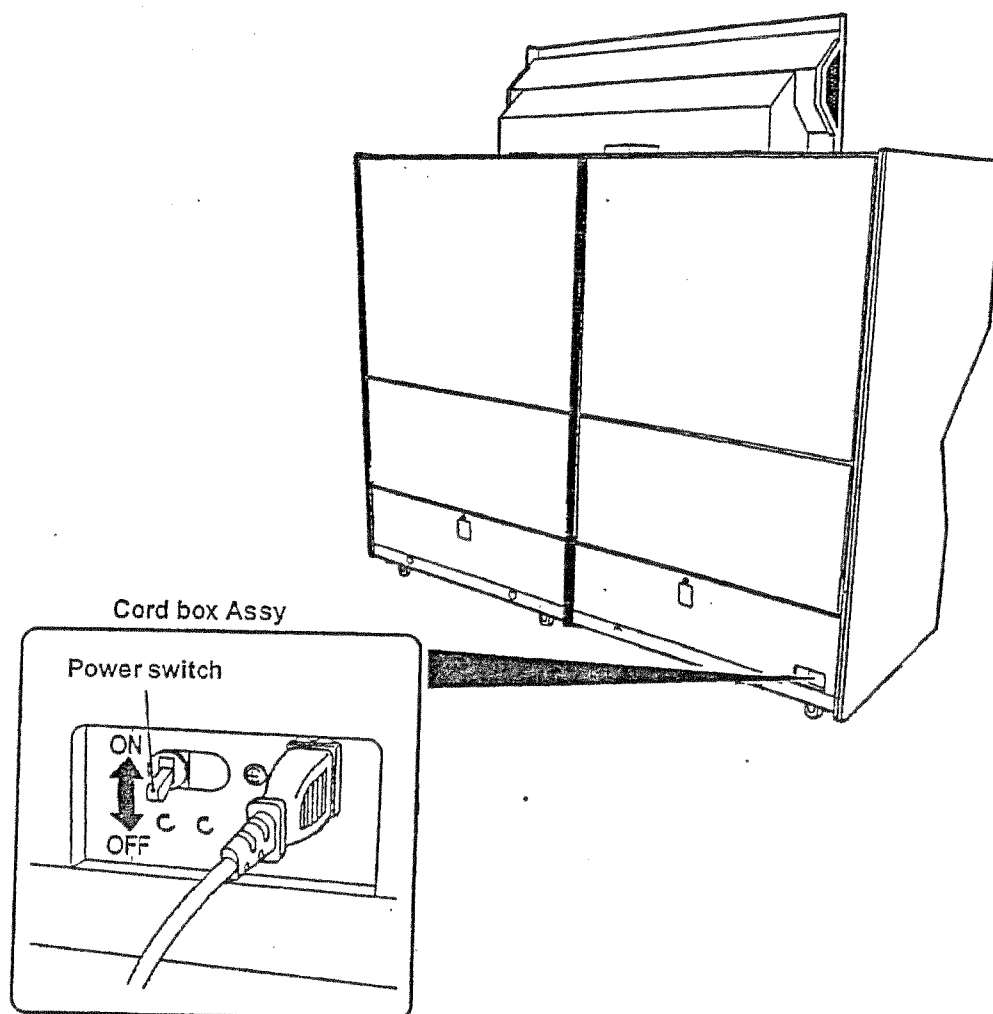
- 1 Remove the two Phillips screws (10-24 x 1-3/4) and unlock the lock located at the center of the rear panel using the provided key.



- 2 Open the rear panel on the other side.
- 3 To reinstall, follow the above procedure in reverse.

5-6 Switching on the power

- Turn on the power switch located on the rear panel of the machine.



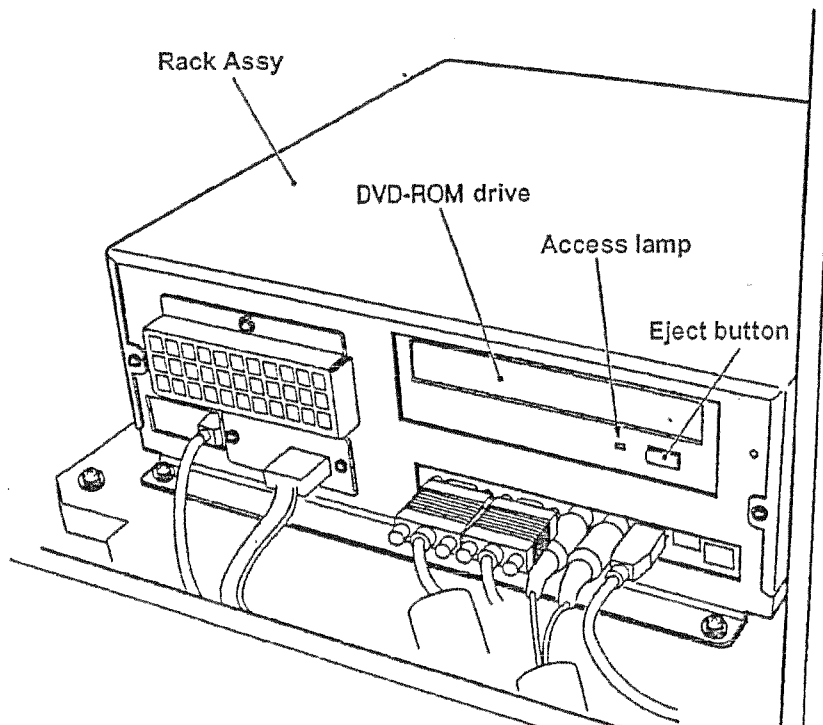
5-7 Inserting the DVD-ROM -Technician only -

⚠ WARNING

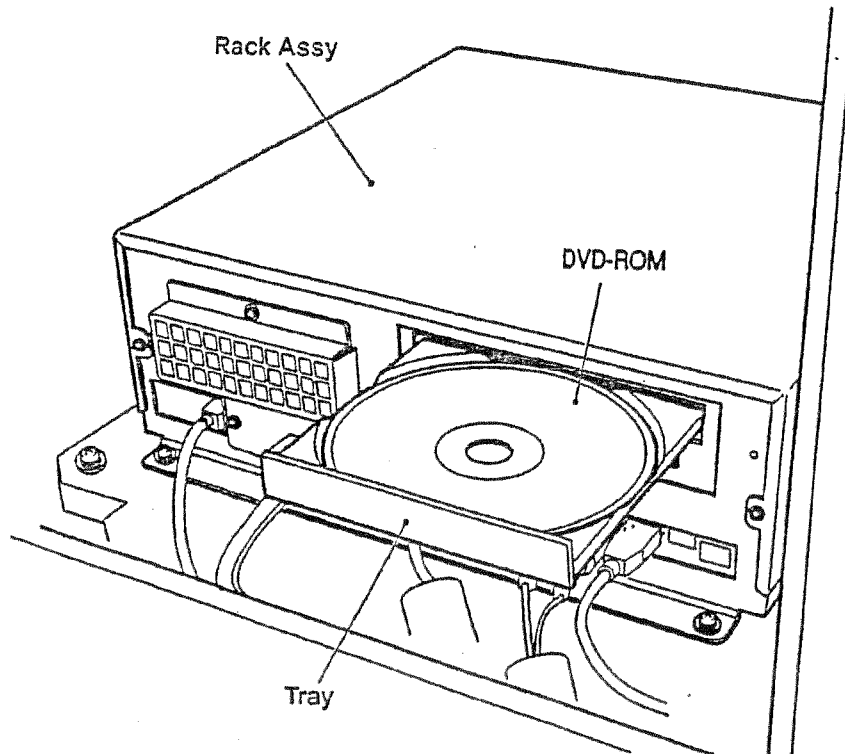
- The DVD-ROM must be inserted with the power switch turned on. To prevent electric shock, accident and injury, do not touch sections other than those specified in the work procedures.



- The supplied DVD-ROM is designed exclusively for this product. Never use the provided DVD-ROM in another product model. Also, do not insert a DVD-ROM that is not designed for this product. Failure to observe this caution can result in machine malfunctions.
 - Be careful of the tray as it automatically closes after about ten seconds.
- 1 After completing the procedures described in "5-3 Assembly" on page 21 and "5-4 Connecting the power cord and the ground" on page 29, remove the rear panels of both Projector Assys. (See P. 31 "Removing and reinstalling the rear panels.")
 - 2 Turn on the power switch of the machine. (See P. 32 "5-6 Switching on the power.")
 - 3 Press the Eject button of the DVD-ROM drive to eject the tray.



- 4 With the label side (printed surface) of the DVD-ROM facing up, set the DVD-ROM disc on the tray.
- 5 Press the Eject button of the DVD-ROM drive to retract the tray.



- 6 Repeat the steps 3 ~ 5 to install the DVD-ROM in the other Rack Assy.
- 7 Turn off the power switch. (See P. 32 "5-6 Switching on the power.")
- 8 Reinstall the rear panels. (See P. 31 "5-5 Removing and reinstalling the rear panels.")



- Turn off the power switch, wait for more than 10 seconds, and then turn on the power switch again to commence operation. (See P. 32 "Switching on the power.")

6. MOVING AND TRANSPORTING

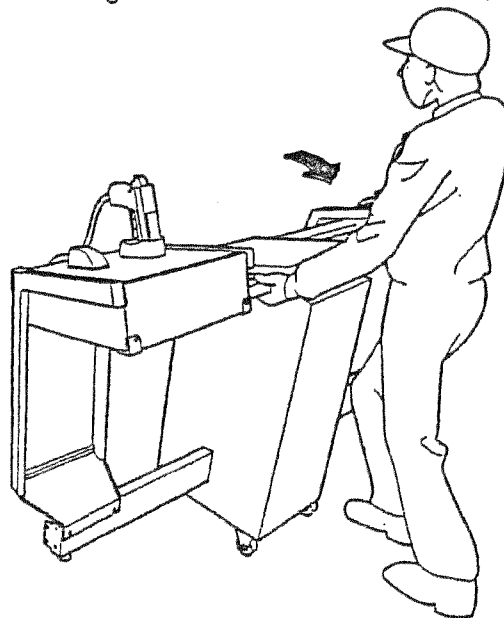
⚠ WARNING

- Do not leave the machine on a slope, otherwise, the machine may topple or cause unforeseen accidents.
- When moving the machine, always separate the Control Assy from the Joint Assy. (See P. 25 "5-3-3 Connecting the Control Assy.") Then, dismount the Signboard Assy from the Front Assy (see P. 24 "5-3-2 Installing the Signboard Assy"), and detach the Joint Assy and separate the Projector (L) and (R) Assys (see P. 18 "5-3-1 Connecting the Projector (L)/(R) Assys to Joint Assy").

6-1 Moving (on the floor)



- Always fully retract the levelers of the Projector (L) and (R) Assys when moving the machine even over a short distance. (Do not adjust the level adjusters of the Control Assy.)
- The overall heights of the Projector (L) and (R) Assys are approximately 6 ft. Check the heights of access doors before moving.
- To prevent machine damage, carefully move the machine.
- Adjust the projectors after moving and setting up.
- When moving the projectors, do not swing them around by holding the side panels.
- Do not drop the Gun Assys.
- Be careful not to get the tubes of the Gun Assys caught when moving.



Moving the Control Assy

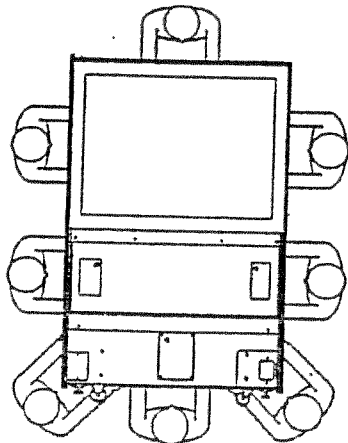
6-2 Transporting

6-2-1 Manual Transport

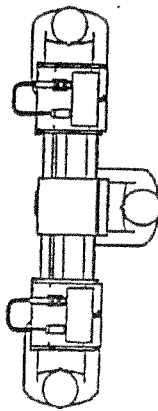
WARNING

- When moving the machine, always separate the Control Assy from the Joint Assy. (See P. 25 "5-3-3 Connecting the Control Assy.") Then, dismount the Signboard Assy from the Front Assy (See P. 24 "5-3-2 Installing the Signboard Assy"), and detach the Joint Assy and separate the Projector (L) and (R) Assys (see P. 21 "5-3-1 Connecting the Projector (L) / (R) Assys the Joint Assy"). Also, dismount the Pedal Assys from the Control Assy.
- Failure to divide the machine before carrying may cause unforeseen accidents.
- Manual carrying must always be conducted by the appropriate number of people specified below. Any attempt to carry components by an insufficient number of people may result in injury.

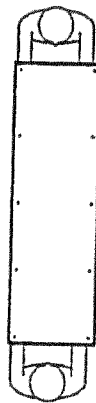
- Projector Assy (185lbs): 8 persons or more
- Control Assy (132 lbs): 3 persons or more
- Signboard Assy (55lbs): 2 persons or more
- Joint Assy (10 lbs): 1 person or more
- Pedal Assy (5 lbs): 1 person or more



Projector Assy



Control Assy



Signboard Assy



Joint Assy



Pedal Assy



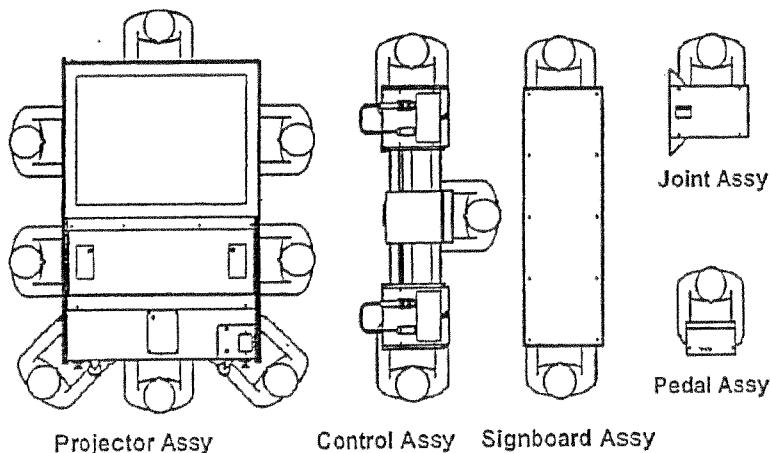
- Do not subject components to shock when lowering the machine to the ground.
- Be sure to raise the leg levelers fully.
- Do not drop the Gun Assys.
- Be careful not to get the tubes of the Gun Assys caught when moving.

6-2-2 Loading onto or off of a vehicle

⚠ WARNING

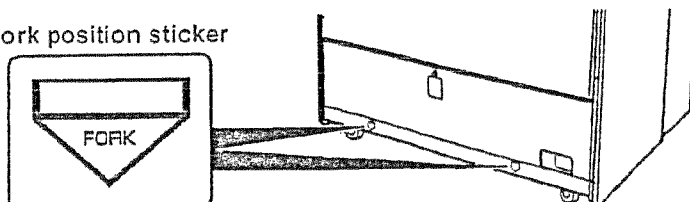
- When using a forklift to move or transport the Projector Assys, always lift at the position marked with the fork position sticker. Positioning forks at other locations can cause the unit to topple and cause unexpected accidents.
- When moving the machine, always separate the Control Assy from the Joint Assy. Then, dismount the Signboard Assy from the Front Assy, and detach the Joint Assy and separate the Projector (L) and (R) Assys. Also, dismount the Pedal Assys from the Control Assy.
- Failure to divide the machine before carrying may cause unforeseen accidents.
- Manual carrying must always be conducted by the appropriate number of people specified below. An attempt to carry components by an insufficient number of people may result in accidents or injury.

- Projector Assy (185lbs): 8 persons or more
- Control Assy (132 lbs): 3 persons or more
- Signboard Assy (55lbs): 2 persons or more
- Joint Assy (10 lbs): 1 person or more
- Pedal Assy (5 lbs): 1 person or more



- Handle the machine with care to prevent damage.
- Be sure to raise the leg levelers fully.
- Do not subject components to shock when lowering the machine from a higher position.
- Do not drop the Gun Assys.
- Be careful not to get the tubes of the Gun Assys caught when moving.

Fork position sticker



6-2-3 Trucking

 WARNING

- When transporting the machine on a vehicle, secure the machine to prevent it from moving due to acceleration or deceleration of the vehicle. Failure to secure the machine may result in accidents.

7. OPERATION

WARNING

- Should any problem occur, turn off the power switch immediately and stop operating the machine. Then, unplug the power cord. Operating the machine without correcting a problem may cause a fire or accident.
- Dust accumulated on the power plug may cause a fire. Check the power plug regularly and remove dust.
- Insert the power cord into the service outlet securely. Poor contact may cause overheating that can lead to a fire or burns.
- Before operating the machine, check to make sure that the machine has been installed according to the instructions in this Operation Manual. If installed improperly, the machine can cause a fire, electric shock, injury or malfunction.
- The warning labels describe important precautions. Observe the following:
 - To make sure that the warning labels attached to the machine are legible, install the machine at a proper location with ample illumination and keep the labels clean at all times. Also, make sure that the labels are not hidden behind another game machine or other objects.
 - Do not remove or alter the warning labels.
 - If warning labels become dirty or damaged, replace them with new labels. To order warning labels, contact your distributor.

7-1 Pre-service check

Check the items described below before commencing operation.
If any problem is found, take appropriate action by referring to
"8-2 Troubleshooting" on page 65.

7-1-1 External check

WARNING

- Check the points below before operating the machine. These inspections are essential for prevention of accidents or injury.
 - Are all warning labels legible?
 - Are all the leg levelers adjusted properly?
 - Is there sufficient space for the play zone?
 - Are both ends of the gun tubes secured in place? Are they free of damage?
 - Are the gun screws securely tightened?
 - Is the Front Assy connected securely to the Control Assy?
 - Are the pedal Assys installed securely to the Control Assy?

7-1-2 Operation check

- Turn on the power switch, and check the following items.
(See P. 32 "5-6 Switching on the power.")
 -  1 Check the sound. Is it audible from all speakers?
 -  2 Check the fluorescent lamp. Is the lamp in the marquee on?
 -  3 Check the neon lights. Are the neon lights in the Gun Towers on?
 -  4 Check the display images. Are the images projected clearly?
 - To check the following items, press the Service switch and play the game.
 -  5 Check the guns for proper operation. Also, check the gun sight adjustments. (See P. 56, "7-4-9 Setting the gun sight (GUN INITIALIZATION).")
 -  6 Check the pedals for proper operation.
-  NOTICE
- Make sure that direct sunlight or light from incandescent light is not reflected on the screens.
 - Make sure that the Pedal Assys are securely resting on the floor.

7-2 How to play

By using the pedal, the player can hide behind an item to dodge shots from enemies and move out from behind an item to shoot enemies.

(1) Operation

1. Press the pedal = Attack mode: The player can shoot the gun, and can also be shot.
2. Release the pedal = Hide mode: The player hides behind an item. Enemies' shots cannot reach the player. Releasing the pedal also reloads the hand gun.

(2) Mode

1. Link play mode: Two players can play in a cooperative mode. The second player can join in the middle of a game.
 2. Sole play mode: One player can play a game. Another player cannot join in the middle of a game.
- * The mode can be selected on the Mode Select screen that appears immediately after coins are inserted.

(3) Game rules

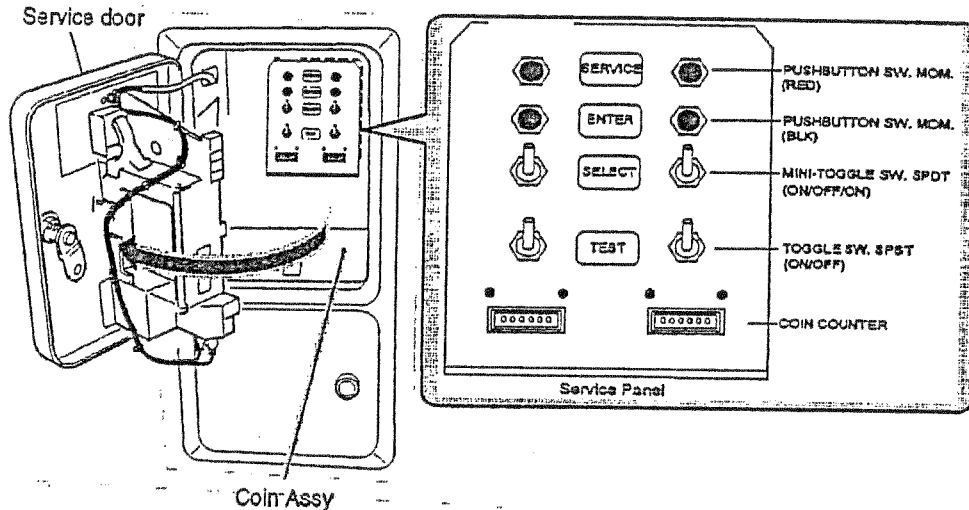
1. The player loses one "life" when shot by an enemy. When the time limit reaches zero, the player loses one "life".
The time limit extends when the player destroys all the enemies in front of him / her, or receives attacks from enemies. The game ends when the player has no "life".
2. The player's performance level is indicated by the score display. The better the performance, the higher the score. There are four types of weapons. The amount of ammunition is limited in all weapons except the handgun. When the ammunition runs out, the weapon cannot be used. By hitting certain enemy characters, ammunition replenishing items appear on the screen.
3. The demonstration scene inserted between game segments can be skipped by shooting toward the screen.

7-3 Adjustment

7-3-1 Adjustment switches

Open the service door of the Coin Box Assy to locate the adjustment switches.

Open the service door of the Coin Assy to locate the adjustment switches.



(a) Service switch (red)

Press this switch to increase the credit count without activating the coin counter.

(b) Test switch

Use this switch to change between the test and attract mode.

The machine enters in attract mode after the power is turned on. Press this switch to activate the test mode.

The test mode is used to change parameters such as the game pricing and conduct various tests.

(c) Select switch

Flick this switch up or down to select an item in the test mode.

(d) Enter switch (green)

Press this switch to enter/execute the item selected with the Select switch.

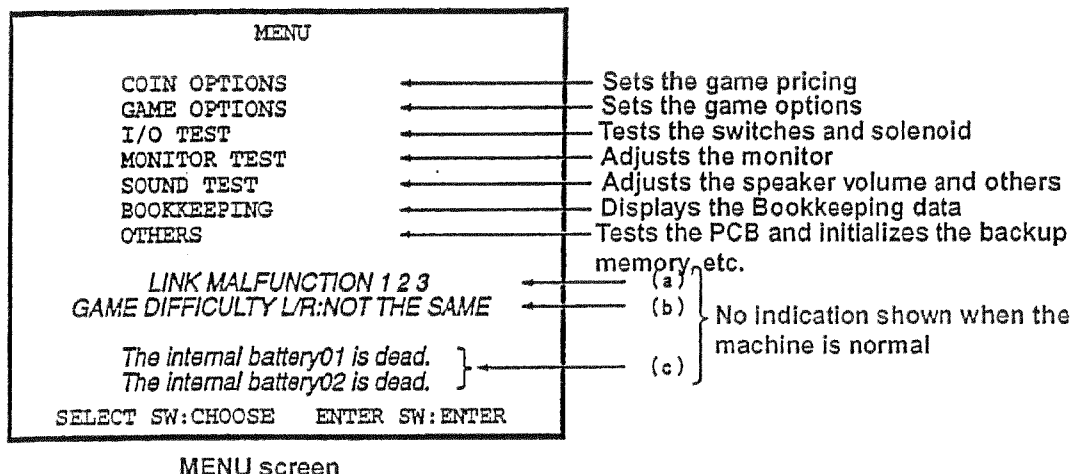


- The Service switch may not operate unless pressed slowly and firmly.

7-4 Test mode

7-4-1 Description of the MENU screen

- 1** Unlock the service door with the provided key, and set the Test switch to ON to activate the test mode. The MENU screen appears.



- 2** Flick the Select switch up or down to select an item.
The selected item flashes.
- 3** Press the Enter switch to confirm the selection.
- 4** After adjustment is completed, select "EXIT" and press the Enter switch.
The display returns to the MENU screen.
- 5** After all adjustments are completed, set the Test switch to OFF.
The display returns to the game screen.

* When there are machine problems or abnormalities, error messages are displayed at sections (a), (b) and (c).

(a) Error indications related to Link play:

- An error message appears when there is an abnormality in the Link play function.
When an error is displayed, the game does not operate properly.
The number shown at the right of the message indicates the error type.
- Numbers "1" and "2" indicate faults in a board (Game pcb or RAYS pcb).
When any of these error numbers is shown, contact your dealer.
- Number "3" indicates that the software versions of the right and left units do not match. When this number appears, contact your dealer.

-
- (b) Error indications related to difficulty level setting
 - This error message is displayed when the DIFFICULTY levels in the right and left units do not match in the test mode.
When the error message is displayed, the game does not operate properly. Activate the GAME OPTIONS mode, and set the same difficulty level in the right and the left units.
 - (c) Error indication for no internal battery power
 - When this message is displayed, turn off the power switch and wait for about 10 minutes. Then, turn on the power switch again and check to see if the MENU screen in the test mode displays the same error message. If the error indication appears even after repeating the above process two or three times, the remaining power of the internal battery may be too low or the battery may be faulty.

7-4-2 Setting the game pricing and free play (COIN OPTIONS)

The COIN OPTIONS screen is used to set the game pricing and free play.

- 1 Select "COIN OPTIONS" on the MENU screen and press the Enter switch. The COIN OPTIONS screen appears.

COIN OPTIONS
[DEFAULT IN GREEN]

GAME COST	2 COIN(S)	1 CREDIT	← (a)
CONTINUE COST	1 COIN(S)	1 CREDIT	← (b)
FREE PLAY	NO		← (c)
EXIT			

SELECT SW: CHOOSE ENTER SW: ENTER

COIN OPTIONS screen

Option	Description	Default
(a) GAME pricing	Number of coins required for one game play (1 coin to 9 coins)	2
(b) CONTINUED game pricing	Number of coins required for one continued play (1 coin to 9 coins)	1
(c) FREE PLAY setting	NO (no free play) YES (free play)	NO

COIN OPTIONS settings table

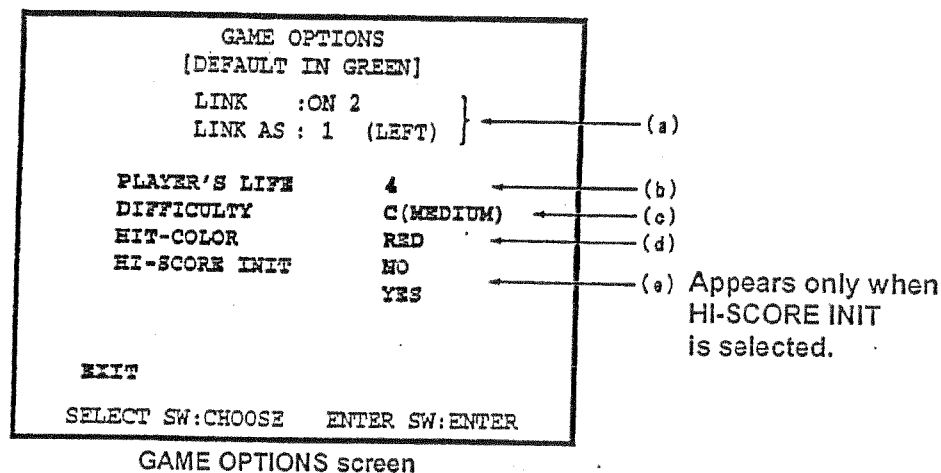
- 2 Using the Select switch, choose an item to be changed.
The selected item flashes.
 - 3 Press the Enter switch to confirm the item selection.
 - 4 After confirming the item selection, use the Select switch to make a change.
 - 5 After changing the setting, press the Enter switch to return to the item selection screen.
 - 6 Select "EXIT" and press the Enter switch to return to the MENU screen.
- ※ 1 The CONTINUE game pricing cannot be set higher than the GAME pricing setting. When increasing the GAME pricing and CONTINUE game pricing, increase the GAME pricing setting first.
- ※ 2 When the FREE PLAY setting is set to YES, pressing the pedal starts the game.

7-4-3 Setting the game options (GAME OPTIONS)

The GAME OPTIONS screen is used to set game options.

1. Select "GAME OPTIONS" on the MENU screen and press the Enter switch.

The GAME OPTIONS screen appears.



Option	Description	Default
(a) Link status indication	See P. 47 "7-4-4 I/O tests for switches (I/O TEST)."	
(b) Player's LIFE setting	Number of player's lives at start of game 1 to 9	4
(c) DIFFICULTY level setting	A (VERY EASY) B (EASY) C (MEDIUM) D (HARD) E (VERY HARD)	D (HARD)
(d) HIT COLOR setting	RED / GREEN	RED
(e) HIGH SCORE Initialization	To clear high score data stored in memory and restore default settings, select "YES" and press ENTER switch.	

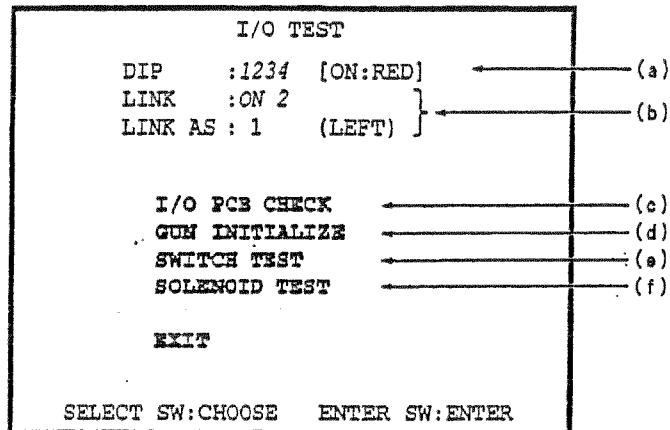
GAME OPTIONS settings table

2. Using the Select switch, chose an item to be changed.
The selected option flashes.
 3. Press the Enter switch to finalize the item selection.
 4. After confirming the item selection, use the Select switch to make a change.
 5. After changing the setting, press the Enter switch to return to the item selection screen.
 6. Select "EXIT" and press the Enter switch to return to the MENU screen.
- ※ If the (c) DIFFICULTY level settings for the right and left units do not match in the test mode, the game does not operate properly.
Be sure to set the same DIFFICULTY level for the right and left units in the test mode.

7-4-4 I/O test for switches

The I/O TEST screen is used to test the input and output of each switch.

- 1 Select "I/O TEST" on the MENU screen, and press the Enter switch. The I/O TEST screen appears.



I/O TEST screen

- 2 Using the Select switch, choose an item to be executed. The selected item flashes.
- 3 Press the Enter switch to display the test screen of the selected (flashing) item
- 4 Select "EXIT" and press the Enter switch to return to the MENU screen.

(a) DIP switch settings

- Indicates the settings of the DIP switches on the Game PC board. Switches indicated by red numbers are set to ON. (All DIP switches are set to OFF before shipment.)
- The DIP switches should all be set to OFF for normal operation.

(b) Link check

- Indicates the communication status.
- LINK :

Indication	Communication status
ON 2	Normal
OFF ※	Data not received
NG ※	Unknown data received

Link check table 1

- LINK AS :

Internal setting	
1 (LEFT)	Left screen as viewed from front
2 (RIGHT)	Right screen as viewed from front

Link check table 2

- ※ When "LINK OFF" or "LINK NG" is displayed, the game does not operate properly.
If any combination other than that shown in the communication check table 2 is displayed, the game does not operate properly.
The board (Game PC board) may be defective. Contact your dealer.
When one unit is under repair and only one Game PC board is used, the machine cannot operate in the Link Play mode.

(c) I/O PCB CHECK

The I/O PCB CHECK screen is used to check the I/O board.

I/O TEST		
DIP	:1234	[ON:RED]
LINK	:ON 2	
LINK AS :	1	(LEFT)
I/O PCB CHECK:Connect OK		
namco ltd.; RAYS PCB:ver1.07;JFN,I/O		
EXIT		
SELECT SW:CHOOSE ENTER SW:ENTER		

I/O PCB CHECK screen

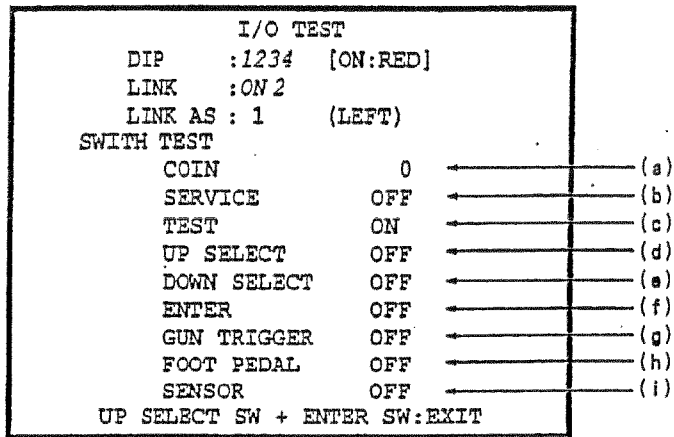
- Press the Enter switch to return to the I/O TEST screen.

(d) GUN INITIALIZE

The GUN INITIALIZE screen is used to adjust the gun sight.
See P. 56 "7-4-9 Setting the gun sight (GUN INITIALIZE)."

(e) SWITCH TEST

The SWITCH TEST screen is used to test the switches.



SWITCH TEST screen

- 1** The SWITCH TEST screen indicates the switch conditions.
- 2** When each switch is operated, the corresponding indication changes.
 - (a) Increments each time the Coin switch is activated.
 - (b) Changes to ON when the Service switch is pressed.
 - (c) The Test switch is ON because the machine is in the Test mode.
 - (d) Changes to ON when the Select switch is flicked up.
 - (e) Changes to ON when the Select switch is flicked down.
 - (f) Changes to ON when the Enter switch is pressed.
 - (g) Changes to ON when the trigger of the gun is pulled.
 - (h) Changes to ON when the pedal is depressed.
 - (i) Changes to OFF when the interruption section is activated.(See the next page for details.)
- 3** Press the Enter switch while the Select switch is flicked upward to return to the I/O TEST screen.

(f) SOLENOID TEST

The SOLENOID TEST screen is used to test the gun blowback mechanism.

```
          I/O TEST
DIP      :1234 [ON:RED]
LINK     :ON 2
LINK AS : 1   (LEFT)

SOLENOID TEST

PULL GUN TRIGGER TO ACTION

EXIT

SELECT SW:CHOOSE  ENTER SW:ENTER
```

SOLENOID TEST screen

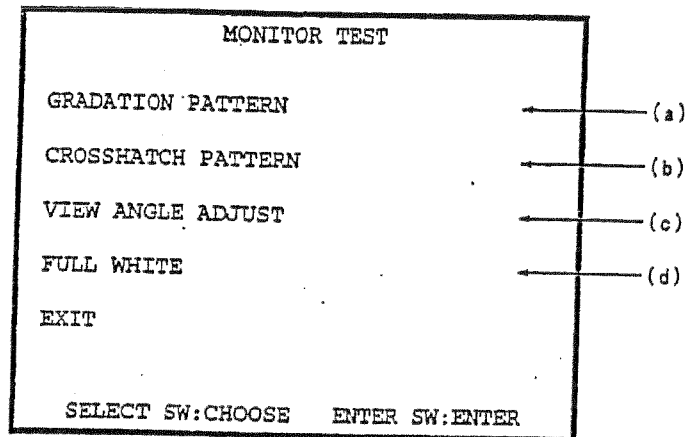
- 1 When the trigger of the gun is pulled, the gun blowback mechanism operates.
- 2 Select "EXIT" and press the Enter key to return to the I/O TEST screen.

7-4-5 Monitor test (MONITOR TEST)

The MONITOR TEST screen is used to adjust the monitor settings.

- 1 Select "MONITOR TEST" on the MENU screen, and press the Enter switch.

The MONITOR TEST screen appears.



MONITOR TEST screen

- 2 Using the Select switch, choose an item.
The selected item flashes.
- 3 Press the Enter switch to display a pattern screen.
To exit from the pattern screen, press the Enter switch again.
- (a) Displays the gradation pattern.
- (b) Displays the cross-hatching pattern.
- (c) Displays the adjustment screen.
- (d) Displays a white screen.
- 4 Select "EXIT" and press the Enter switch to return to the MENU screen.

7-4-6 Sound test (SOUND TEST)

The SOUND TEST screen is used to adjust the sound volume and check the stereo sound.

- 1** Select "SOUND TEST" on the MENU screen, and press the Enter switch. The SOUND TEST screen appears.

SOUND TEST		[DEFAULT IN GREEN]		
VOLUME	GAME	[0~15]	7	(a)
	ATTRACT	[0~15]	7	(b)
OUTPUT	LEVEL	LEFT	100%	(c)
		RIGHT	100%	
		((((●)))))		
REQUEST SONG	NO.	000		(d)
MESSAGE:				(e)
EXIT				
SELECT SW :CHOOSE ENTER SW:ENTER				
SERVICE SW :REQUEST ON/OFF..				

SOUND TEST screen

- 2** Using the Select switch, choose an item to be changed. The selected item flashes.
- 3** Select item (a), (b), (c), or (d), and press the Enter switch. The numeric indication of the selected item flashes. Flick the Select switch up or down to change the value.

Option	Description	Default
(a) Game volume setting	00 min - 15 max	7
(b) Attract mode volume set.	00 min - 15 max	7
(c) Right/Left speaker output		1 0 0 %
(d) Music selection		0 0 0

SOUND TEST settings table

- 4** In the case of item (d), every time the Enter switch is pressed, the adjusting digit changes. Use the Select switch to adjust each digit and set a number.
- When the Service switch is pressed, the music or sound effect corresponding to the selected number is produced.
- * Set "000" for no sound, and "001" for a stereo sound test.
- When "001" is set and the Service switch is pressed, sound is produced from the left speaker, right speaker, and both speakers at the same time, in that order. During this speaker test, "LEFT", "RIGHT", or "CENTER" is displayed at section (e) in accordance with the speaker operation.
- 5** Select "EXIT" and press the Enter switch to return to the MENU screen.

7-4-7 Displaying and initializing game data (BOOKKEEPING)

The BOOKKEEPING screen displays various game data.

- 1 Select "BOOKKEEPING" on the MENU screen, and press the Enter switch. The BOOKKEEPING screen appears.
- 2 Game data is not erased when the power switch is turned off. To delete data, execute "BOOKKEEPING INITIALIZE" or "BACKUP MEMORY INITIALIZE" on the "OTHERS" screen.
- 3 After checking game data, select "EXIT" and press the Enter switch. the display returns to the MENU screen.

7-4-8 Others (OTHERS)

The OTHERS screen is used to initialize the backup memory and others.

- 1 Select "OTHERS" on the MENU screen and press the Enter switch.
The OTHERS screen appears.

OTHERS			
[DEFAULT IN GREEN]			
ROM1 Ver.A	07/07/2001 SAT	21:15:59	(a)
ROM2 Ver.A	06/20/2001 WED	21:15:59	(b)
CLOCK	08/31/2001 FRI	23:11:12	(c)
S/N	000000-123456		(d)
LANGUAGE	ENG		(e)
CABINET	LINKED		(f)
RATING	ON		(f1)
CDVD CHECK			(g)
BACKUP MEMORY INITILIZE			(h)
EXIT			
SELECT SW:CHOOSE ENTER SW:ENTER			

OTHERS screen

- 2 Using the Select switch, chose an item to be executed.
The selected item flashes.

- (a) Displays the version of the program ROM1.
 - (b) Displays the version of the data ROM2.
 - (c) Displays the current time of the internal clock.
 - (d) Displays the serial number of the software.
 - (e) Used to select the language shown in the game attract mode.
 - (f) Sets either communication cabinet mode or single cabinet mode.
(Set to "LINKED" for normal operation).
 - (g) Checks data. (Not used in normal operation).
 - (h) Initializes the backup memory.
- When "YES" is selected and the Enter switch is pressed, all settings such as the gun sights and HIGH SCORE data are cleared and return to default settings.

※ (a) When the software versions of the right and left units displayed by item (a) in the test mode do not match, the game does not operate properly. Contact your dealer.

- 3 Press the Enter switch to execute the flashing item.
- 4 Select "EXIT" and press the Enter switch to return to the MENU screen.

7-4-9 Setting the gun sight (GUN ITIALIZATION)

The GUN INITIALIZATION screen is used to set the gun sight.

1. Select "GUN INITIALIZATION" on the I/O TEST screen, and press the Enter switch.
(Or hold the Service switch pressed and set the Test switch to ON).
The GUN INITIALIZATION screen (Figure 1) appears.

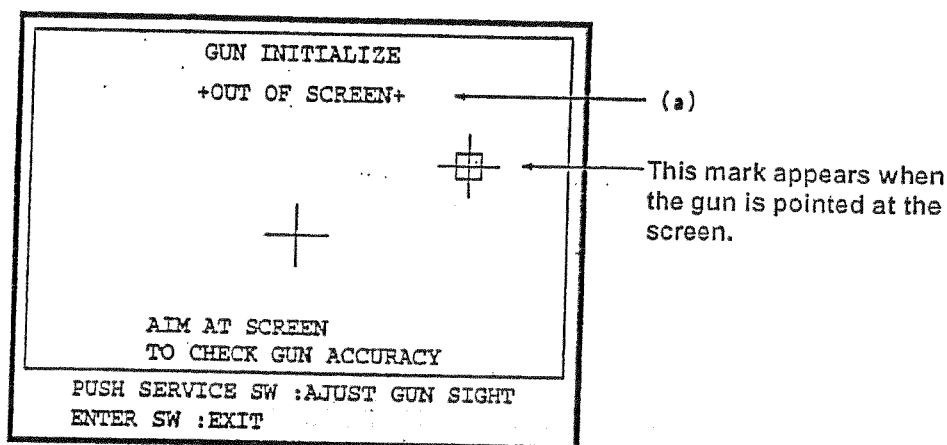


Figure 1 GUN INITIALIZATION screen 1

2. The screen shown in Figure 1 is used to adjust the gun sight. The gun crosshair is displayed at the point on the screen at which the gun is pointed. Check that the gun crosshair appears exactly at the point at which it is aimed. (Make sure that aiming is accurate over the entire screen surface from edge to edge.)
When the gun is pointed away from the screen, "+ OUT OF SCREEN +" is displayed at section (a). If the "+ OUT OF SCREEN +" message appears frequently even when the gun is pointed at the screen or if the "+ OUT OF SCREEN +" message does not appear even when the gun is pointed away from the screen, the following causes are suspected.
 - * The screens are directly illuminated by a bright light source such as sunlight or spotlight.
 - * The light and dark contrast is high due to flashing lights.Change the machine installation location, and set the gun sights again.

3. Press the Enter switch to return to the I/O TEST screen.
4. When the Service switch (or pedal) is pressed while the screen in Figure 1 is shown, the display changes to the screen shown in Figure 2 for the gun sight adjustment. The gun sight adjustment is performed by shooting at one location on the screen: the center.

- 5 On the screen shown in Figure 2, aim and shoot at the center of the crosshair displayed in the middle of the screen. After the gun is shot, the display changes to the screen shown in Figure 1.

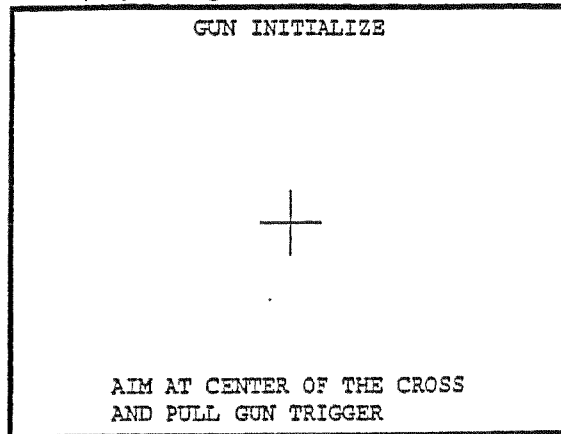
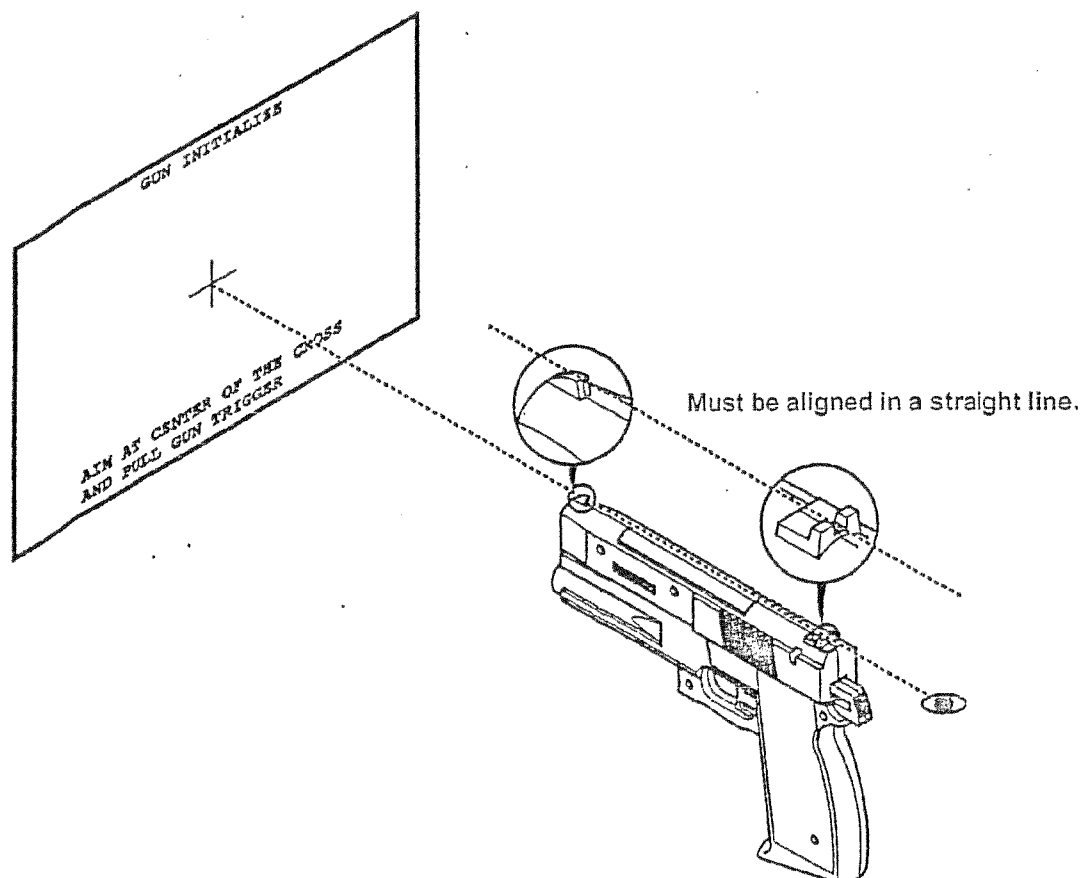
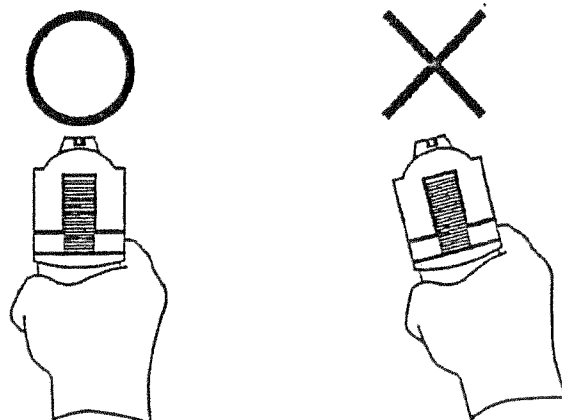


Figure 2 GUN INITIALIZATION screen 2

- On the screen shown in Figure 1, make sure that aiming is accurate from edge to edge of the screen. If the gun sight is not accurate, press the Service switch (or pedal) to display the screen shown in Figure 2, and repeat the adjustment procedure.
- ※ Set the Test switch to OFF to return to the game screen.



- Observe the following points when adjusting the gun sight.
- Hold the gun and aim so that the top edge of the rear sight is at the same height as the horizontal line of the crosshair displayed on the screen.
- Also, align the top edge of the front sight with the horizontal line of the crosshair on the screen.
- Align the center of the top sections of the front and rear sights of the gun with the center of the crosshair on the screen, and fire the gun.



7-5 Cleaning

7-5-1 Cleaning the Gun Assy lenses



- Clean the gun lenses everyday to maintain gun accuracy. Use a clean soft cloth to wipe the lenses.
- Do not use detergents or chemicals to clean the lenses.
- Be careful not to scratch the lenses.

7-5-2 Taking care of the projector screens

- The projector screens are made of acrylic resin, and are easily scratched. To clean the screens, soak a soft cloth in cold or lukewarm water, wring out thoroughly, and wipe gently in the direction of the grooves.
- If the screens cannot be cleaned thoroughly by using cold or lukewarm water, use a diluted neutral detergent.



- Do not use organic solvents such as alcohol and acetone.
- Do not use alkaline or acidic cleaning fluid.

8. MAINTENANCE

WARNING

- Before conducting maintenance (troubleshooting, repair, etc.), turn off the power switch to protect the service staff and other people from electric shock, accidents and injury.

8-1 Maintenance and inspection

WARNING

- Conduct maintenance regularly to prevent unexpected accidents.
- Conduct a pre-service check everyday to prevent accidents.

8-1-1 Inspection items

Check the following regularly.

(1) Inspection of the leg levelers

-  1 Make sure that the machine is stably installed.

(2) Inspection of the power plug

-  1 Make sure that the power cord is connected securely to the Cord Box Assy and service outlet.
-  2 If the connector section is covered with dust, clean it.
-  3 Check the power cord for cracks and dirtiness. If there is any abnormality in the power cord, be sure to replace it with a new cord.

(3) Inspection of bolts for tightness

Check the following bolts for tightness. If they are loose, tighten firmly.

-  1 Projector (L) / (R) Assy mounting bolts.
-  2 Signboard Assy mounting bolts.
-  3 Joint Assy mounting bolts.
-  4 Control Assy mounting bolts.
-  5 Pedal Assy mounting bolts.

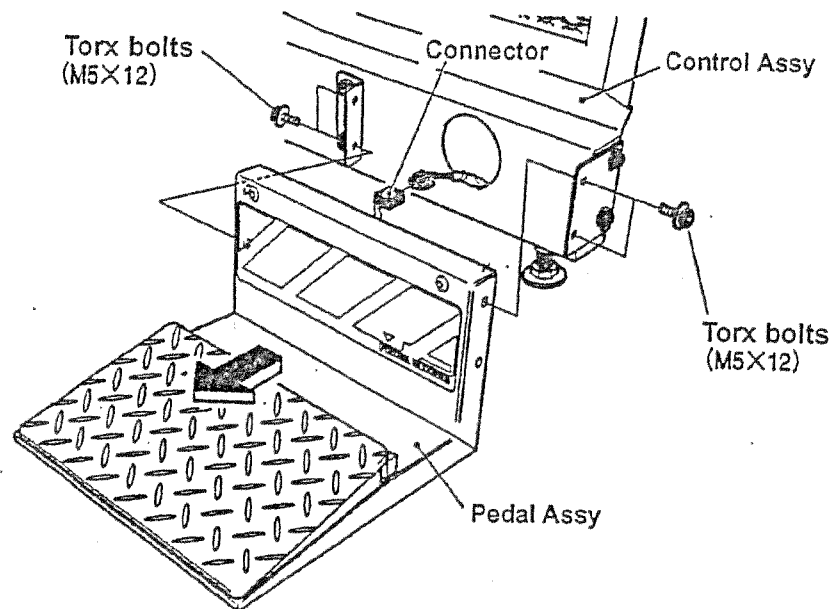
8-1-2 Maintenance items - Technician only -

(1) Greasing the Pedal Assy plungers

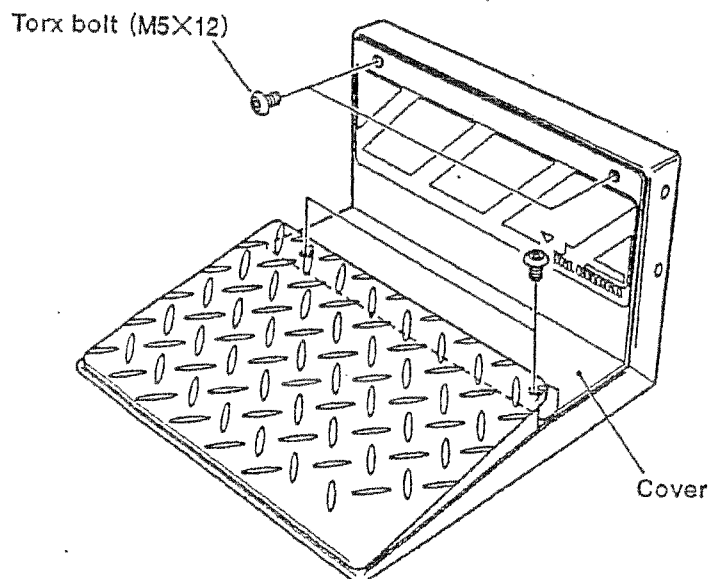


- Grease the Pedal Assy plungers once every six months.

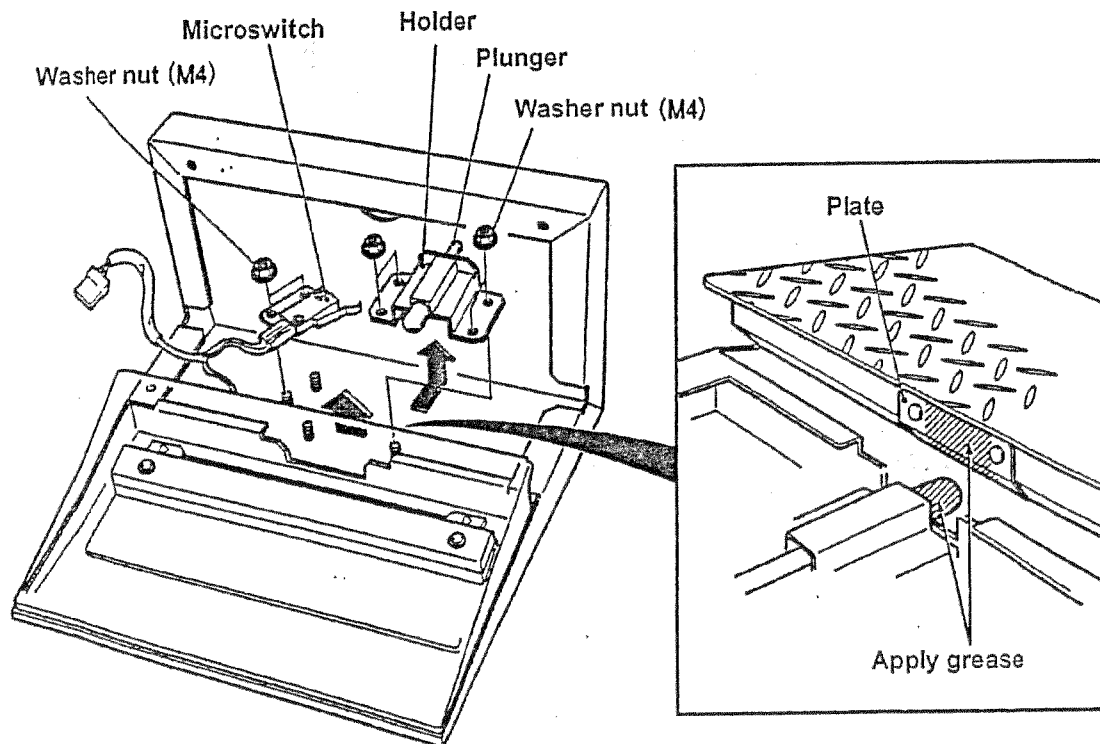
1. Loosen the four torx bolts (1/4-20 x 1/2) on the Control Assy.
2. Remove the four torx bolts (M5 x 12) from the Pedal Assy, disconnect the connector, and dismount the Pedal Assy.



3. Remove the four Torx bolts (M5 x 12), and dismount the cover.



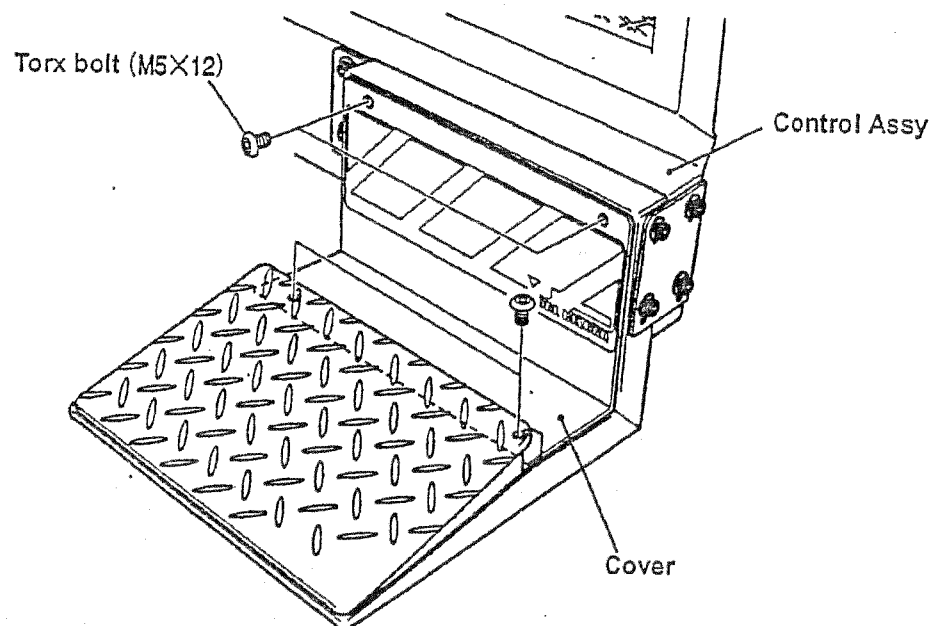
- 41 Remove the two washer nuts (M4), and remove the microswitch.
- 51 Remove the four washer nuts (M4) from the holder, and lift up the holder by pulling the plunger.
- 61 Wipe grease off the surface of the plate on the pedal side.
- 71 Apply grease to the plate and the plunger spherical surface.



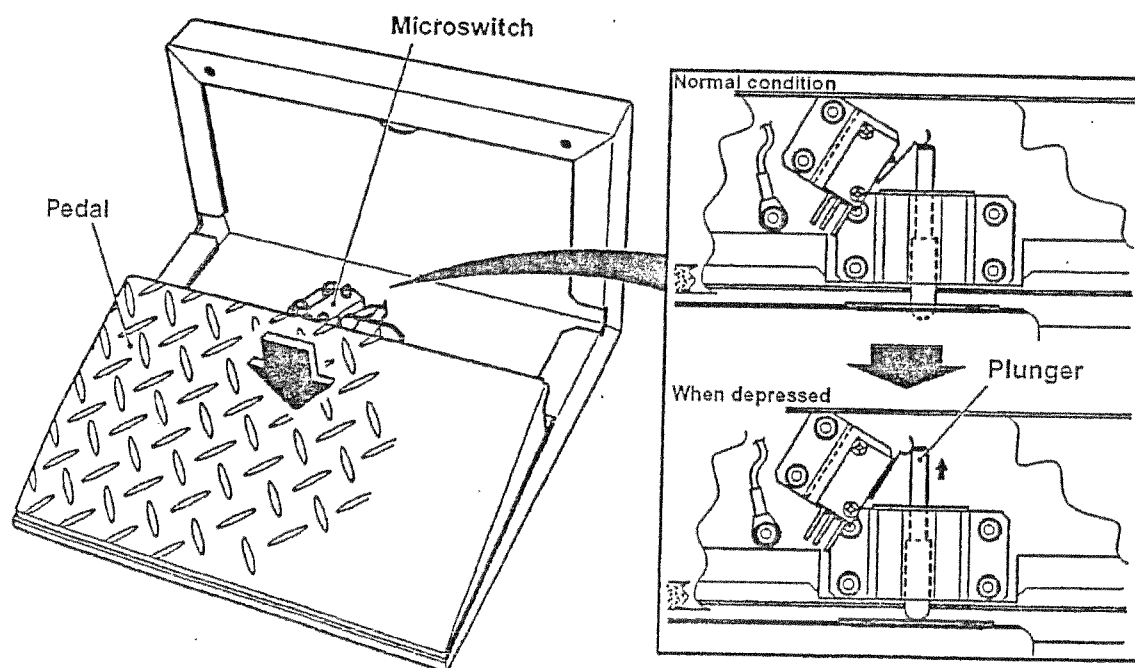
- 81 Follow the disassembly procedure in reverse to assemble the Pedal Assy.
- 91 Repeat the same procedure for the other Pedal assy.

(2) Checking the Pedal Assy plungers for wear

- 1 Remove the four Torx bolts (M5 x 12), and dismount the cover.



- 2 Press the pedal by hand and check visually that the plunger pushes the microswitch.



- 3 If the plunger is worn and does not push the microswitch, replace the plunger.

8-2 Troubleshooting

⚠ WARNING

- To protect service staff and other people from an electric shock, accident and injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.
- If the problem does not apply to any symptom listed below, or if the action taken does not result in an improvement, contact your dealer.



- In the event of a problem, first check to make sure that all connectors are firmly connected.
- For a repair of the Game PC board, contact your distributor. Never attempt to check the board for continuity using a tester. Internal voltage of the tester can damage ICs on the board.
- When sending parts for a repair, pack components carefully. When sending the Game PC board, wrap in sponge or bubble wrap, and pack in a corrugated box to protect against shock.

8-2-1 General - Technician only -

Symptom	Main cause	Action	Page
• The machine operation is unstable, or the machine malfunctions.	• Main AC supply voltage is outside the range of 105-120VAC.	• Isolate the machine on the Main AC supply.	—
• The machine turns off during operation.	• The circuit breaker has tripped and turned off the power switch.	• Turn on the power switch again. If the circuit breaker trips frequently, the machine needs a repair. Contact your distributor.	page 32
• There is no sound.	• The volume is too low.	• Adjust the sound level.	page 53
	• Or the pBASS amp is defective.	• Replace the pBASS amp PC board.	page 70

8-2-2 Projector (L) / (R) Assys - Technician only -

Symptom	Main cause	Action	Page
No picture	· Rack Assy disconnected	· Check for loose connectors	page 68

8-2-3 Signboard Assy - Technician only -

Symptom	Main cause	Action	Page
· The fluorescent lamp does not light.	· Connector is disconnected.	· Connect the connector.	page 24
	· Lamp is burned out.	· Replace the lamp.	page 72

8-2-4 Control Assy - Technician only -

Symptom	Main cause	Action	Page
· Neon tube does not go on.	· Loose connector	· Secure connector.	
	· Tube is burned out.	· Replace tube.	
	· The inverter PC board is defective.	· Replace inverter PC board.	

8-2-5 Gun Assys - Technician only -

Symptom	Main cause	Action	Page
• The gun does not shoot correctly.	• The lens is dirty.	• Clean the lens.	60,84
	• The surrounding is too bright.	• Block external light.	15
	• The gun has not been initialized correctly.	• Repeat initialization.	50
	• The gun pcb is defective.	• Replace the gun pcb.	56
	• The Gun Assy is defective.	• Replace the Gun Assy	84
	• The I/O pcb is defective.	Replace the I/O pcb	80
• The Gun Assy does not operate.	• The connector is disconnected.	• Check for loose connectors.	82
	• The microswitch is defective.	• Replace the microswitch.	86
• The gun blowback mechanism does not operate.	• The solenoid is worn.	• Replace the solenoid.	82

8-2-6 Pedal Assy - Technician only -

Symptom	Main cause	Action	Page
• The pedal does not function properly.	• The plunger is worn out.	• Replace the plunger.	88
	• The microswitch is worn out.	• Replace the microswitch.	88

8-3 Disassembly, reassembly and replacing the Assys and parts

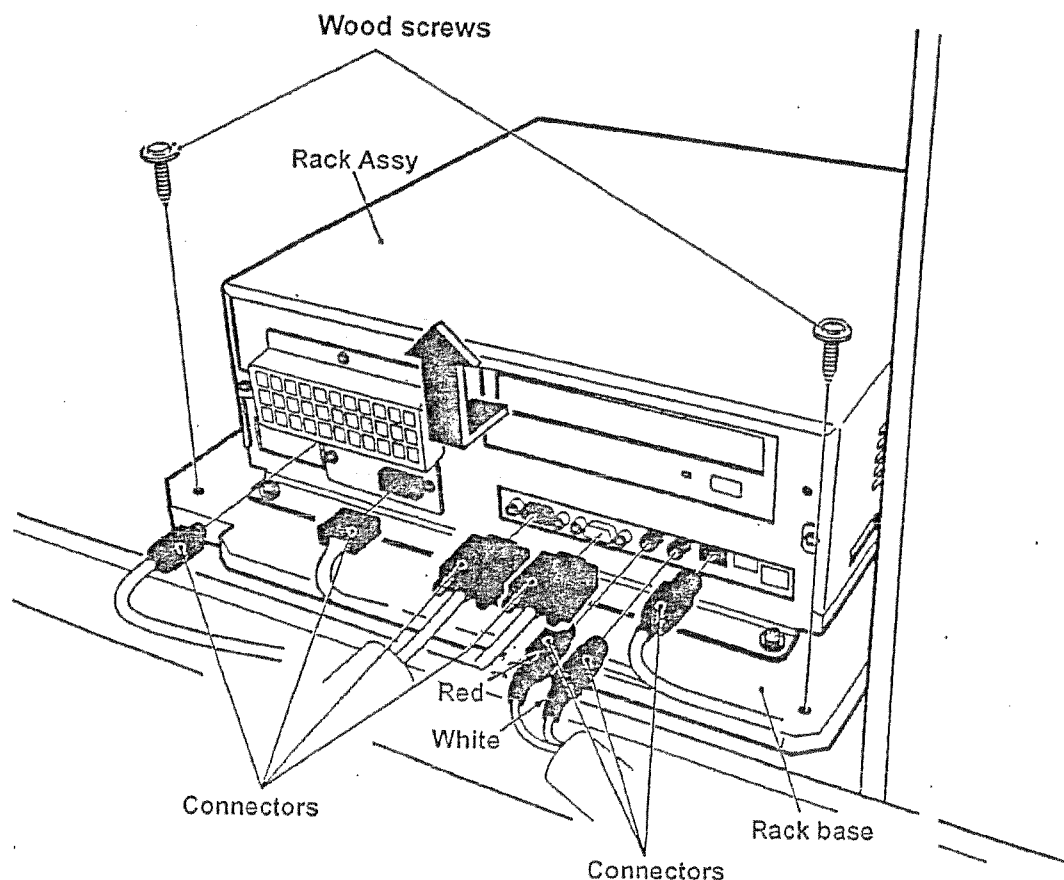
8-3-1 Projector (L) / (R) Assys - Technician only -

(1) Removing and reinstalling the Rack Assy

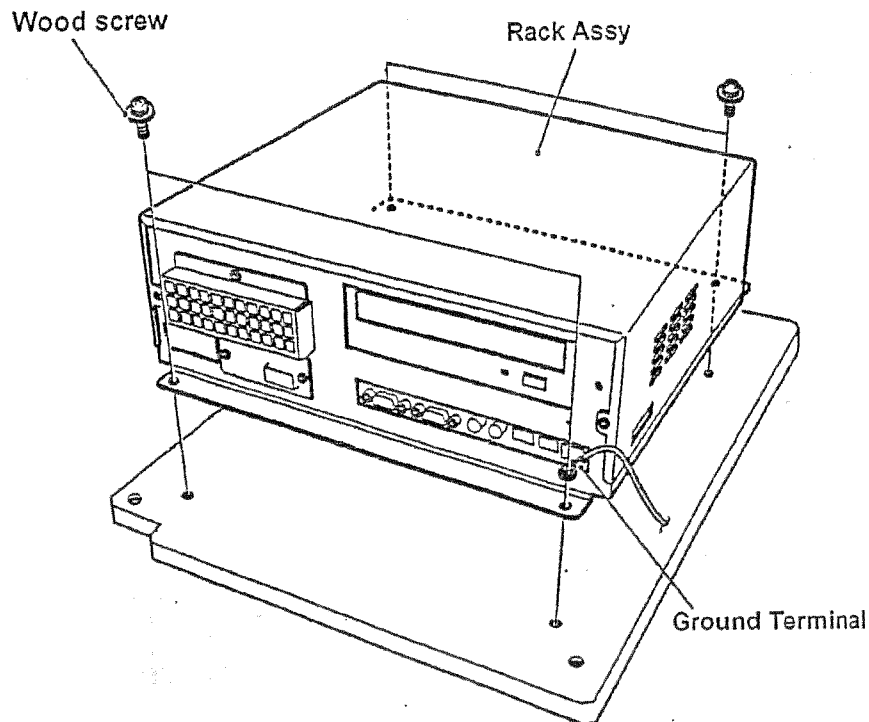
WARNING

- To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- 1** Remove the rear panel. (See P. 31 "5-5 Removing and reinstalling the rear panels.")
- 2** Remove the DVD-ROM, and turn off the power switch. (See P. 33 "5-7 Inserting the DVD-ROM.")
- 3** Disconnect the six connectors shown in the diagram.
- 4** Remove the two wood screws, and dismount the Rack Assy together with the rack base.



- 57 Remove the four wood screws, and detach the ground lead. Then, dismount the Rack Assy.



- 67 To reinstall, follow the above procedure in reverse.



- To prevent damage to electrical circuits, check the direction of the connectors before connecting.
- Attach the ground lead so that the toothed round terminal is in contact with the Rack Assy.
- Always check operation and settings after replacement.
(See P.43 "7-4 Test mode.")

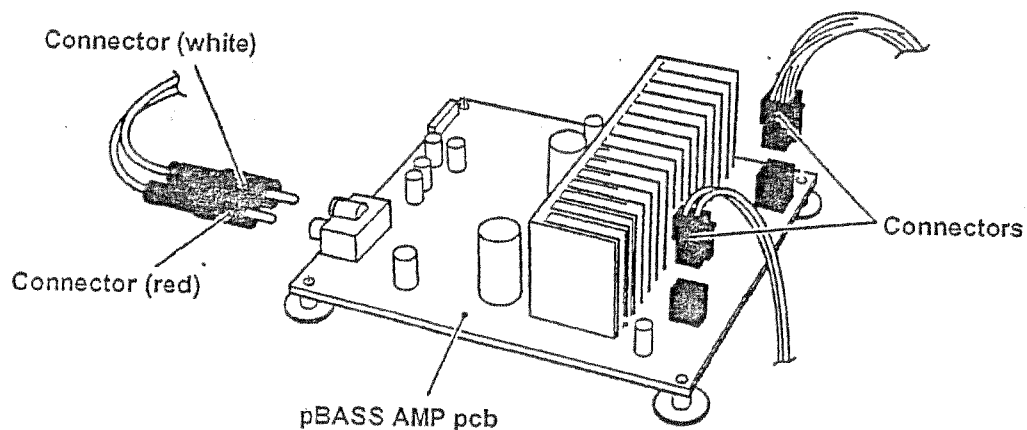
(2) Replacing the pBASS AMP pcb



WARNING

- To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

1. Remove the rear panel. (See P. 31 "5-5 Removing and reinstalling the rear panels.")
2. Disconnect the four connectors and dismount the pBASS AMP pcb.



3. To reinstall, follow the above procedure in reverse.



- To prevent damage to electrical circuits, check the direction of the connectors before connecting.

(3) Replacing the projector



WARNING

- It is best to leave this type of work to your distributor.

8-3-2 Signboard Assy (Marquee) - Technician only -

(1) Replacing the fluorescent lamp.

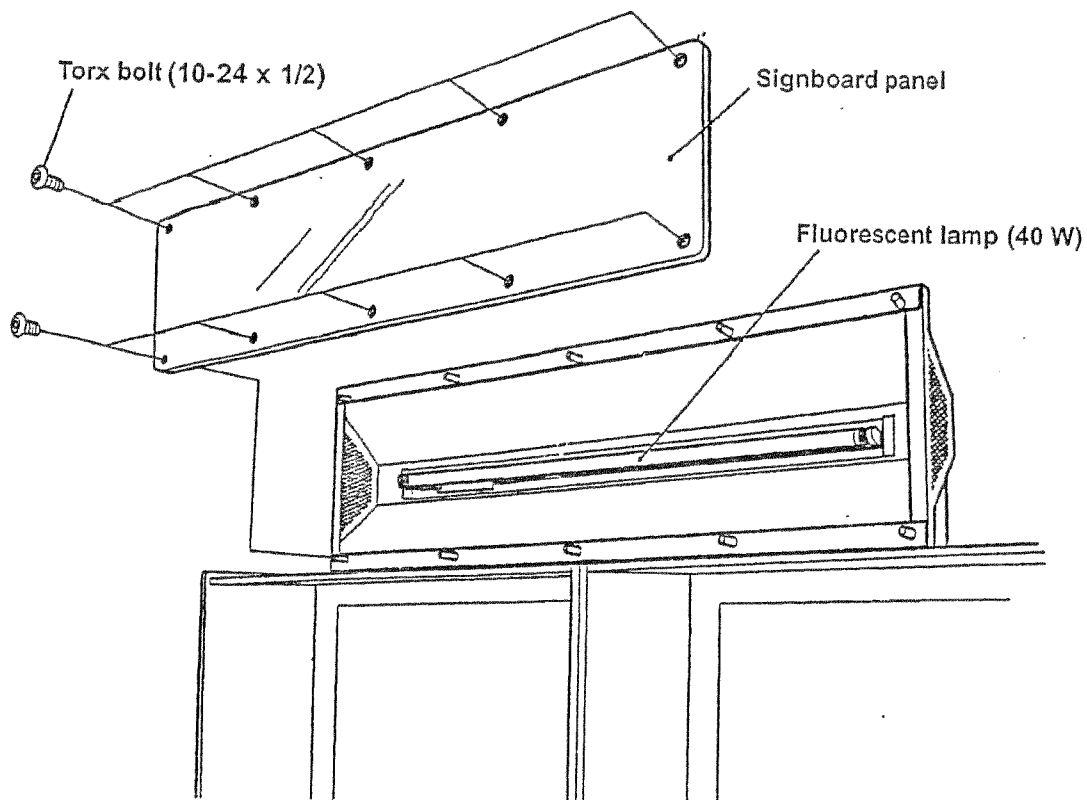


WARNING

- To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- The fluorescent lamp becomes hot. Exercise caution when removing.
- Be extra careful when replacing the fluorescent lamp since it involves working at a height.

- 1 Remove the ten Torx bolts(10-24 x 1/2) and dismount the signboard panel.
- 2 Remove the fluorescent lamp (40 W).



- 3 To reinstall, follow the above procedure in reverse.

8-3-3 Joint Assy - Technician only -

(1) Replacing the RAYS PC board

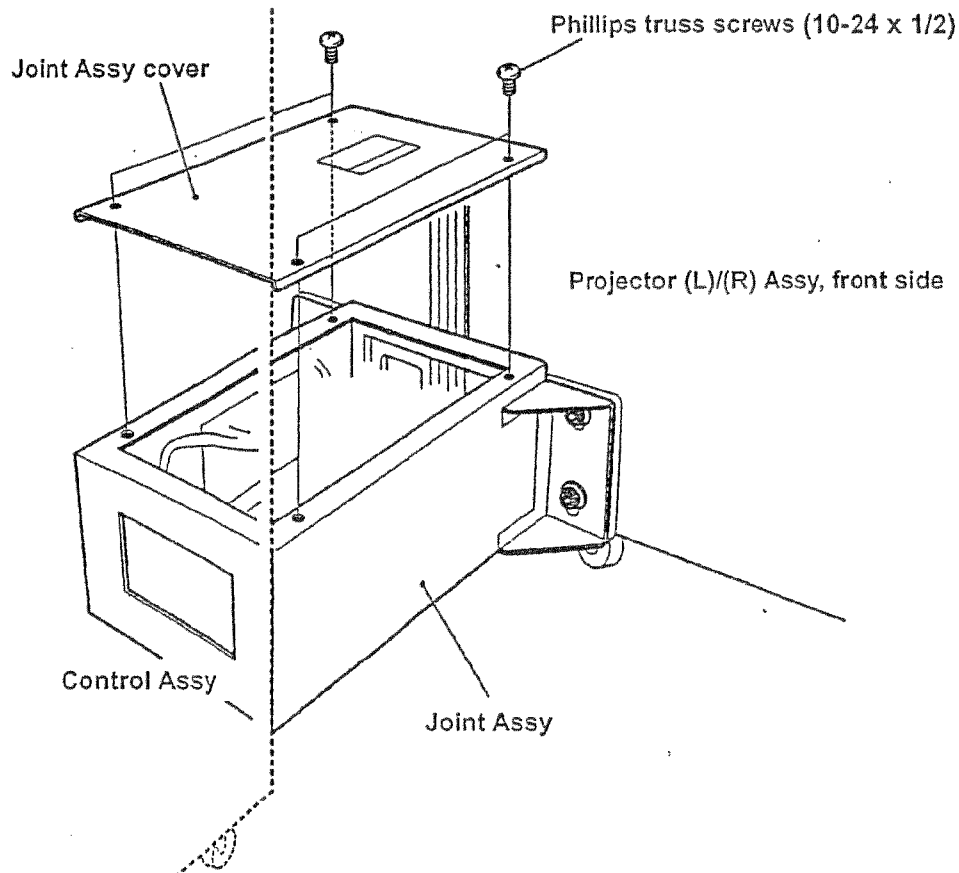
WARNING

- To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

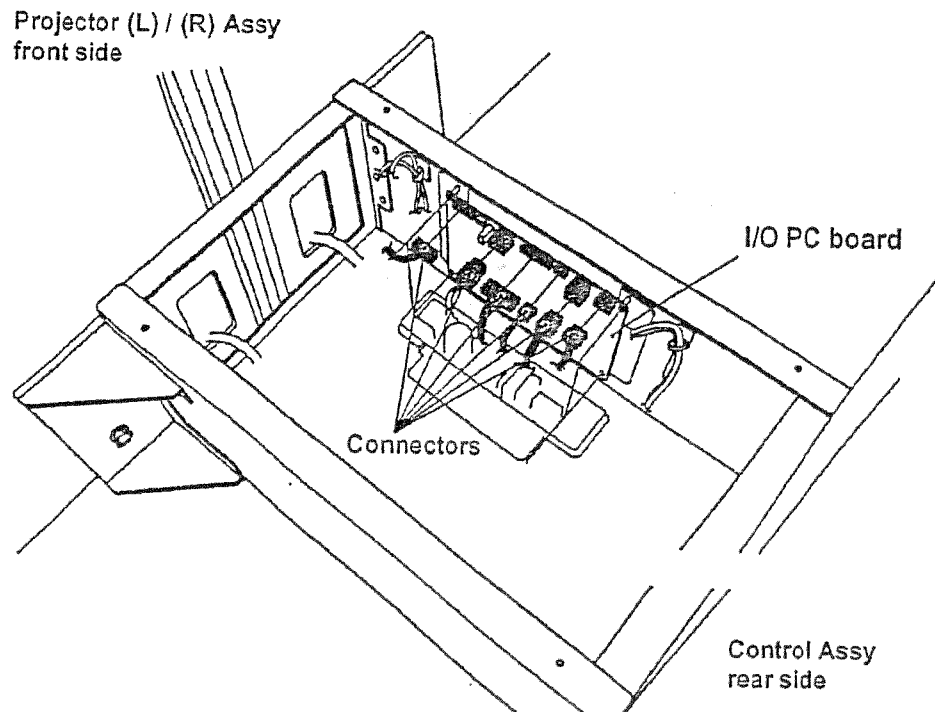


- When disconnecting the connectors from the RAYS PC board, hold down the RAYS PC board firmly.
- To prevent damage to electrical circuits, check the direction of the connection before connecting.

- Remove the four Phillips truss screws (10-24 x 1/2), and dismount the Joint Assy cover.



- 2 Disconnect the six connectors from the I/O PC board.
- 3 Dismount the I/O board.



- 4 To reinstall, follow the above procedure in reverse.

(2) Replace the Repeater PC board

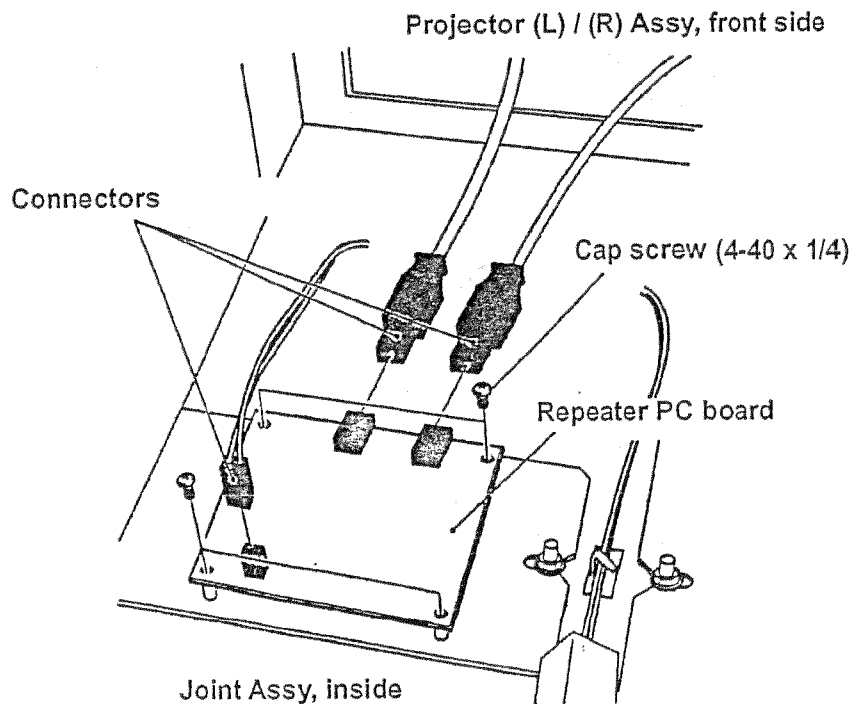
⚠ WARNING

- To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.



- When disconnecting the connectors from the Repeater PC board, hold down the Repeater PC board firmly.
- To prevent damage to electrical circuits, check the direction of the connection before connecting.

- 1 Remove the four Torx truss screws (10-24 x 1/2), and dismount the Joint Assy cover.
- 2 Disconnect the three connectors from the Repeater PC board.
- 3 Remove the four screws (4-40 x 1/4), and dismount the Repeater PC board.



- 4 To reinstall, follow the above procedure in reverse.

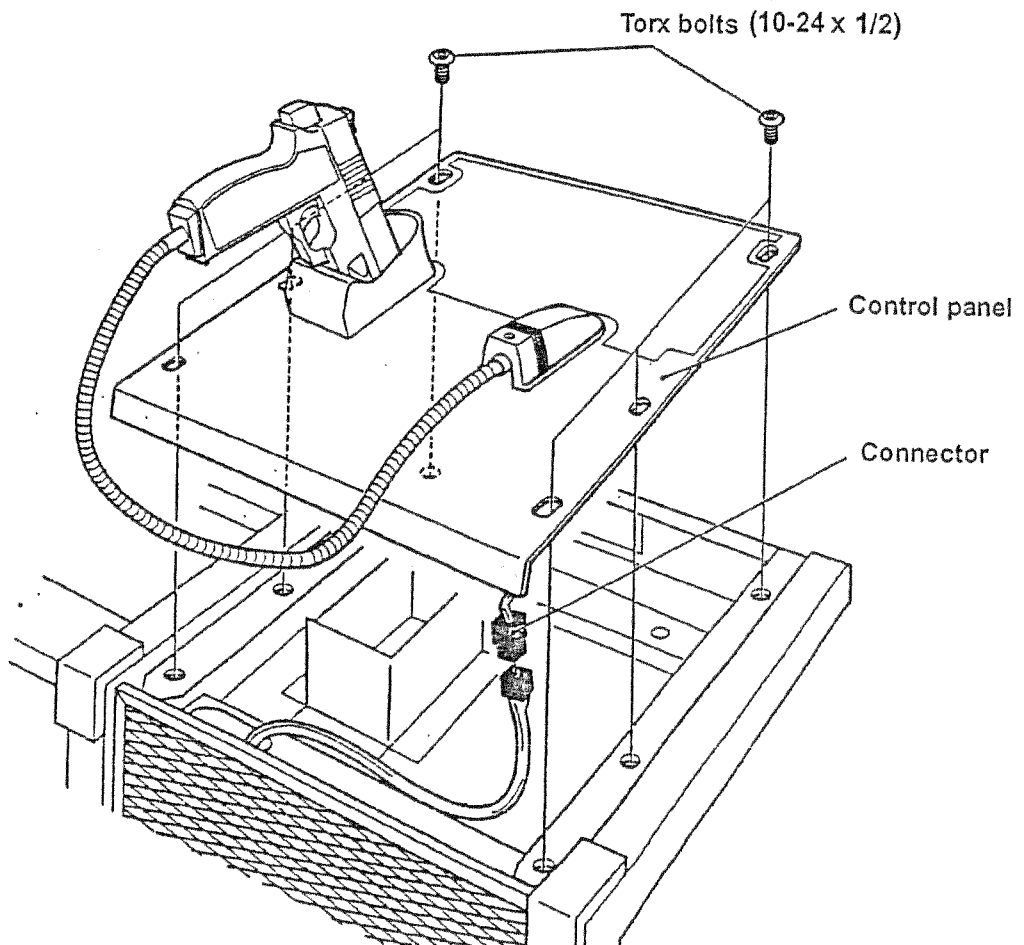
8-3-4 Gun Tower Assys - Technician only -

(1) Removing and reinstalling the control panel

⚠ WARNING

● To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- 1 Remove the six Torx bolts (10-24 x 1/2), disconnect the connector, and detach the control panel.
- 2 Repeat the same procedure to remove the other control panel.



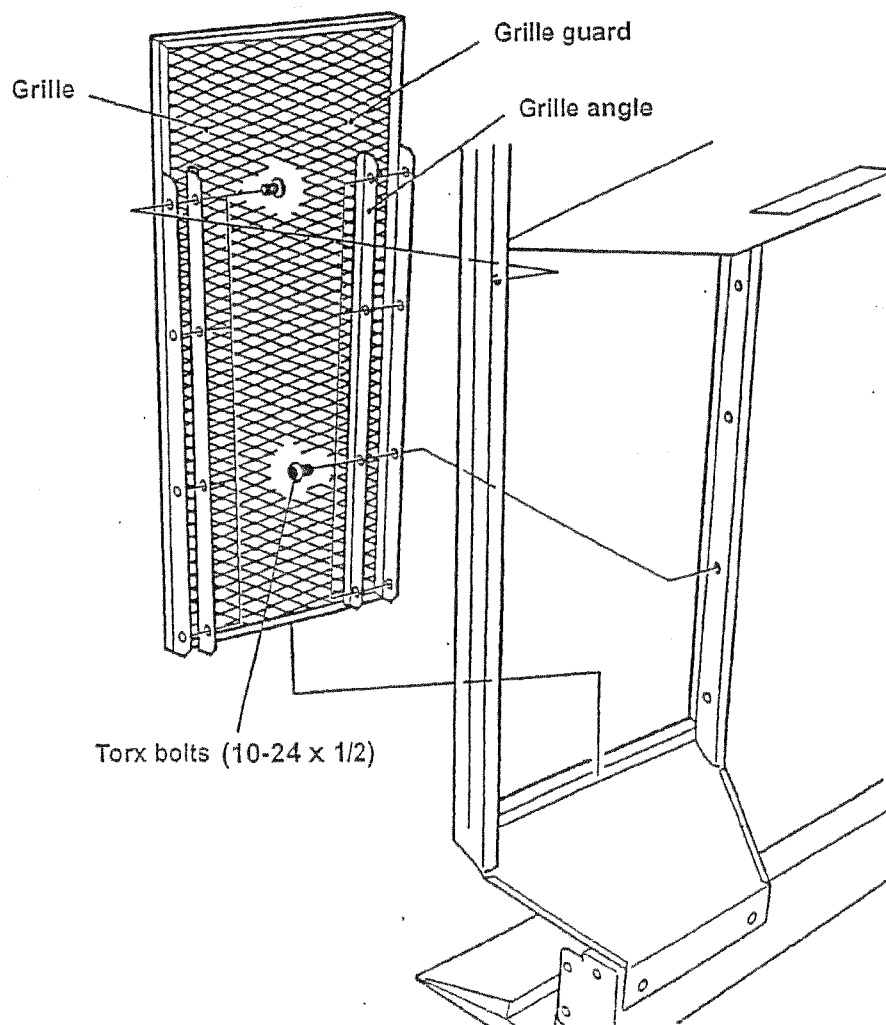
- 3 To reinstall, follow the above procedure in reverse.

(2) Replacing the cold cathode tube (neon light)**⚠ WARNING**

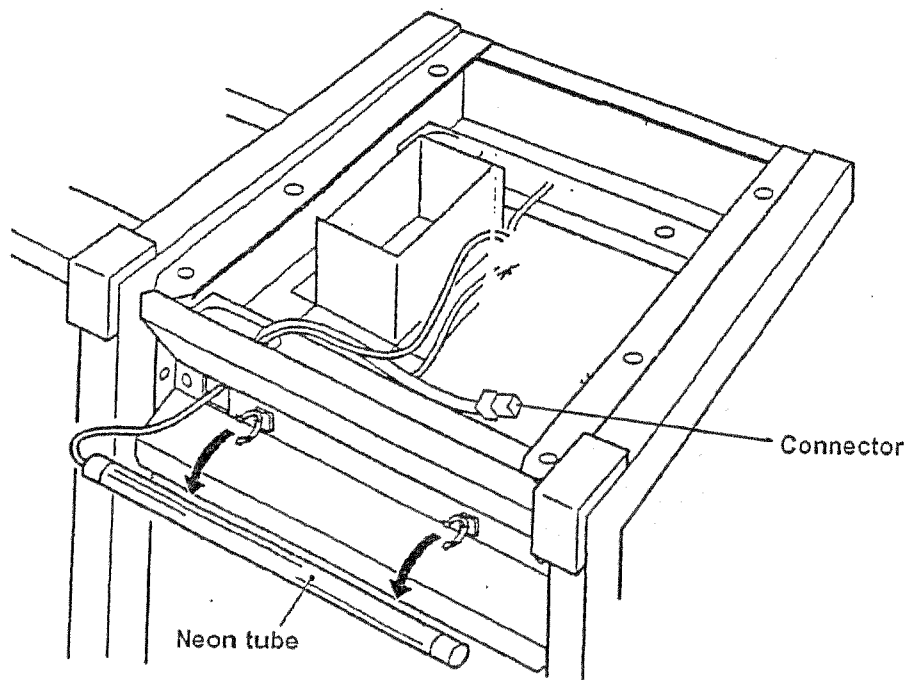
- To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

1 Detach the control panel.

2 Remove the eight Torx bolts (10-24 x 1/2), and dismount the grille, grille guard and grille angle.



3. Disconnect the connector, and dismount the neon tube.
4. Repeat the same procedure to remove the other neon tube.



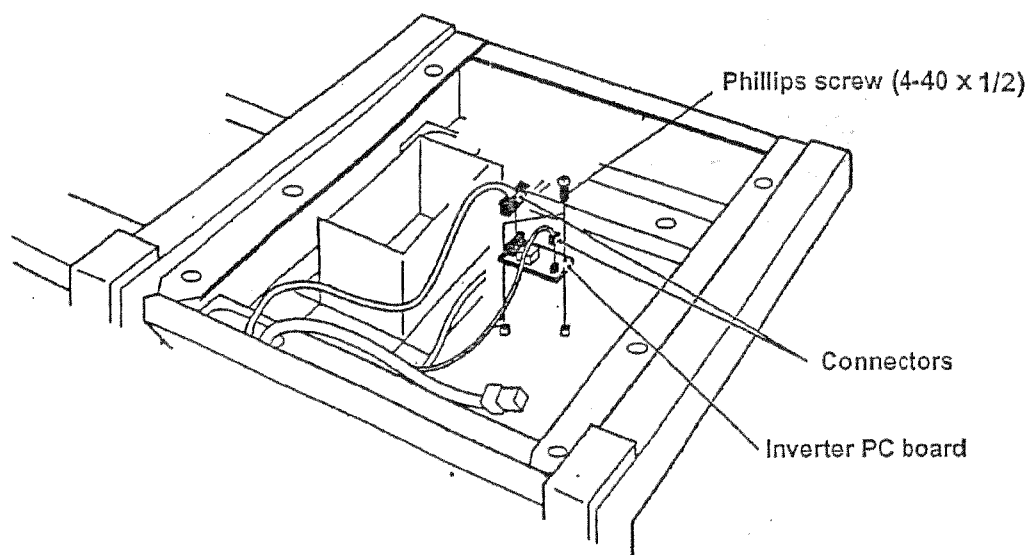
5. To reinstall, follow the above procedure in reverse.

(3) Replacing the Inverter PB board

WARNING

- To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- 1** Detach the control panel.
- 2** Disconnect the two connectors, remove the two Phillips head screws, and dismount the Inverter PC board.

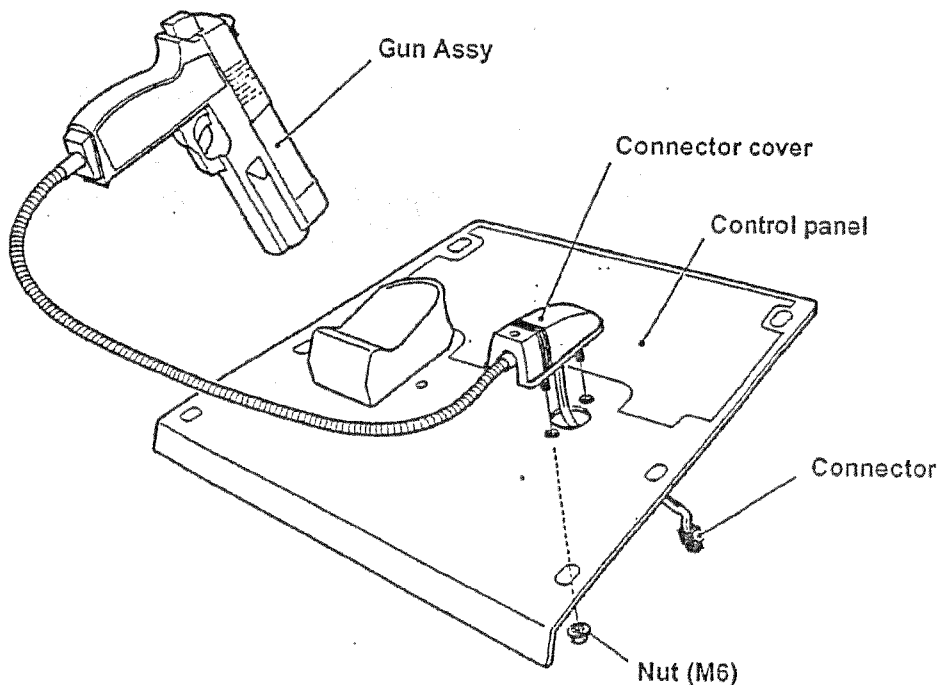


- 3** Repeat the same procedure to remove the other Inverter PC board.
- 4** To reinstall, follow the above procedure in reverse.

8-3-5**(1) Replacing the Gun Assy****⚠ WARNING**

- To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- 1** Detach the control panel.
- 2** From the back side of the control panel, remove the two nuts that are holding the Gun Assy in place.
- 3** Pull the connector cover up and remove the tether chain (not shown in picture below) to dismount the Gun Assy.



- 4** Repeat the same procedure to remove the other Gun Assy.

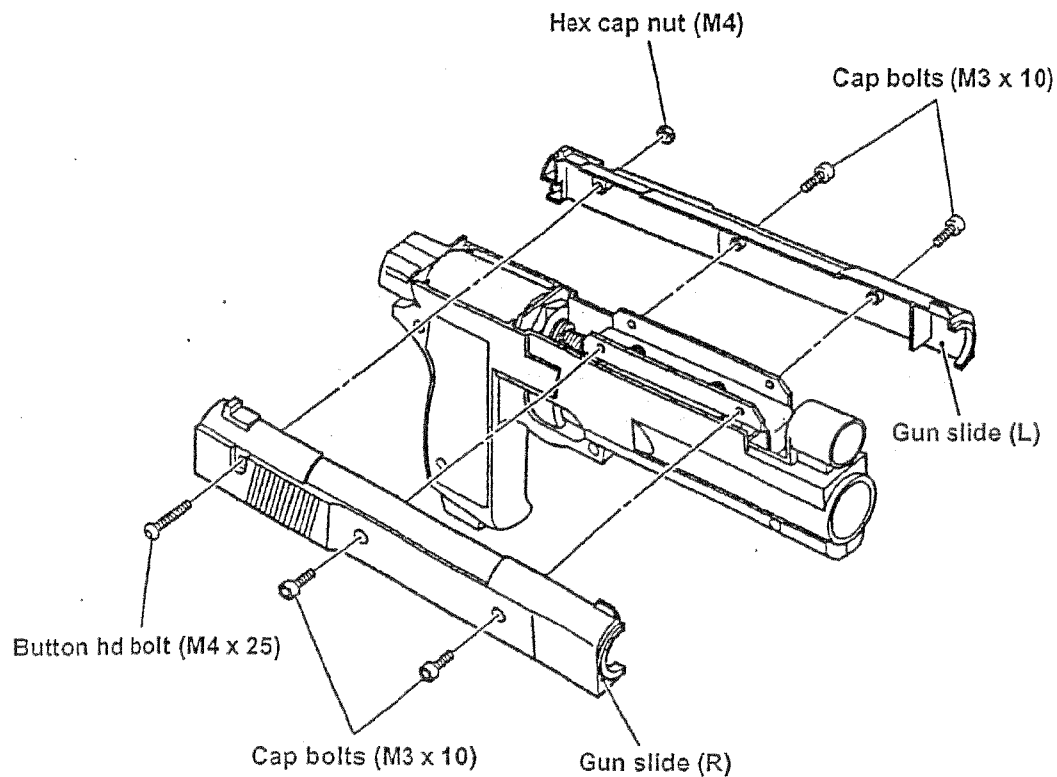


- After the Gun Assy is replaced, be sure to perform the gun adjustment. (See P. 56 "7-4-9 Setting the gun sight (GUN INITIALIZATION)).

(2) Opening the gun slide



- To prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.
- 1 Remove the four cap bolts (M3 x 10), one button head bolt (M4 x 25), and one hex cap bolt (M4), and then dismount the gun slides (L) and (R).



- 2 To reinstall, follow the above procedure in reverse.

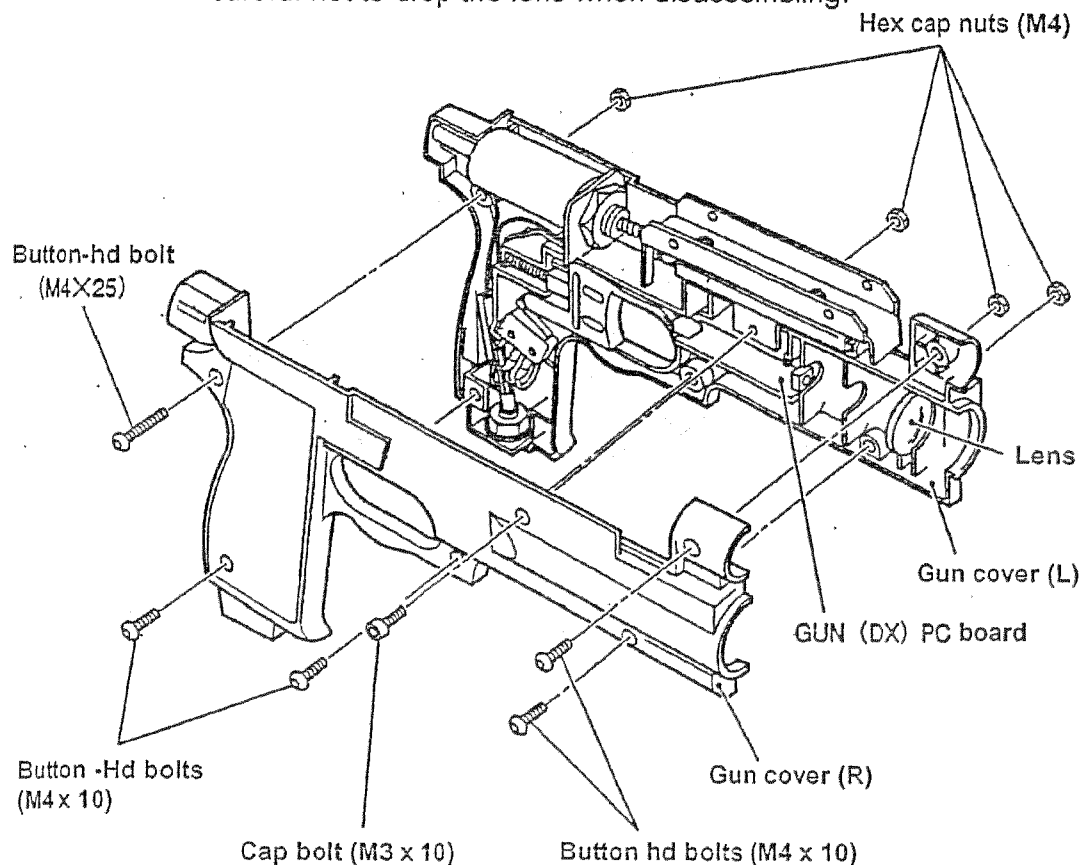
(3) Opening the gun cover



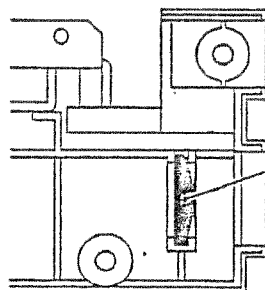
- To prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- Remove the gun slides (L) and (R).

- With the gun cover (L) facing down, remove the four button-head bolts (M4 x 10), one button-head bolt (M4 x 25), four hex cap nuts (M4) and one cap bolt (M3 x 10), and then detach the gun cover (R). Be careful not to drop the lens when disassembling.



- To reinstall, follow the above procedure in reverse. Note the direction of the lens when reinstalling. (Should be convex side out).



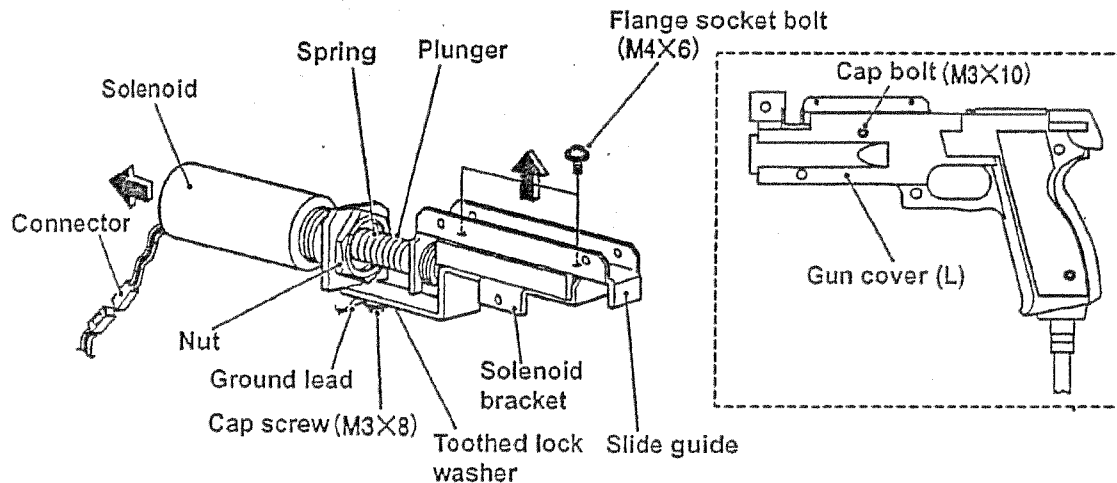
Note the direction of the lens.
Convex side out.

(4) Replacing the solenoid

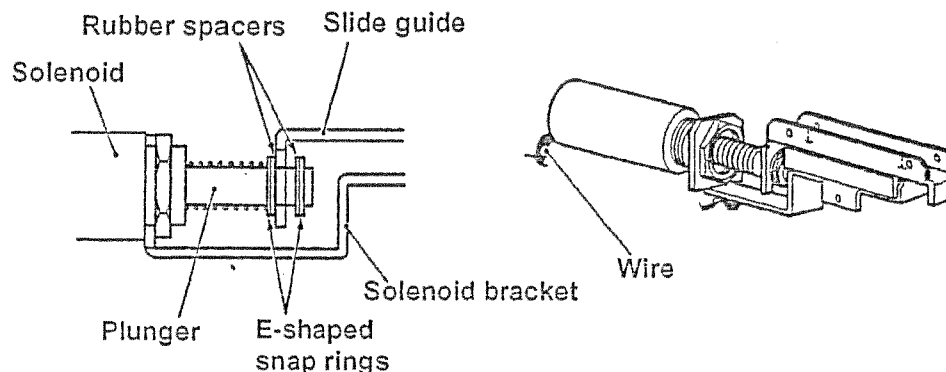


- To prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

1. Remove the gun covers and gun slides.
2. Disconnect the solenoid connector.
3. Remove the cap bolt (M3 x 10) from the gun cover (L) side, and dismount the solenoid bracket.
4. Remove the cap screw (M3 x 8), and disconnect the ground lead.
5. Loosen the nut that is holding the solenoid in place.
6. Pull out the solenoid unit.
7. Remove the two flange socket bolts (M4 x 6), and dismount the slide guide.
8. Pull out the solenoid plunger. Be careful not to loose the spring during disassembly.



9. To reinstall, follow the above procedure in reverse. During reassembly, align the D-shaped hole of the solenoid bracket with the D-shaped part of the solenoid. Also, install the E-shaped snap rings and rubber spacers in the specified positions.



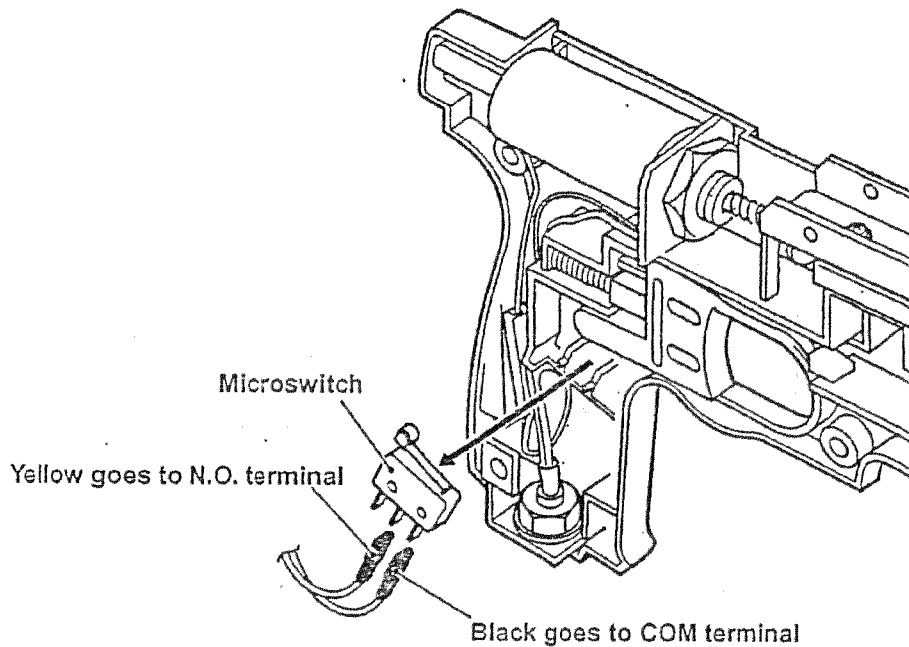
(5) Replacing the microswitch



- To prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

1 Remove the gun slide (R) and gun cover.

2 Replace the microswitch.



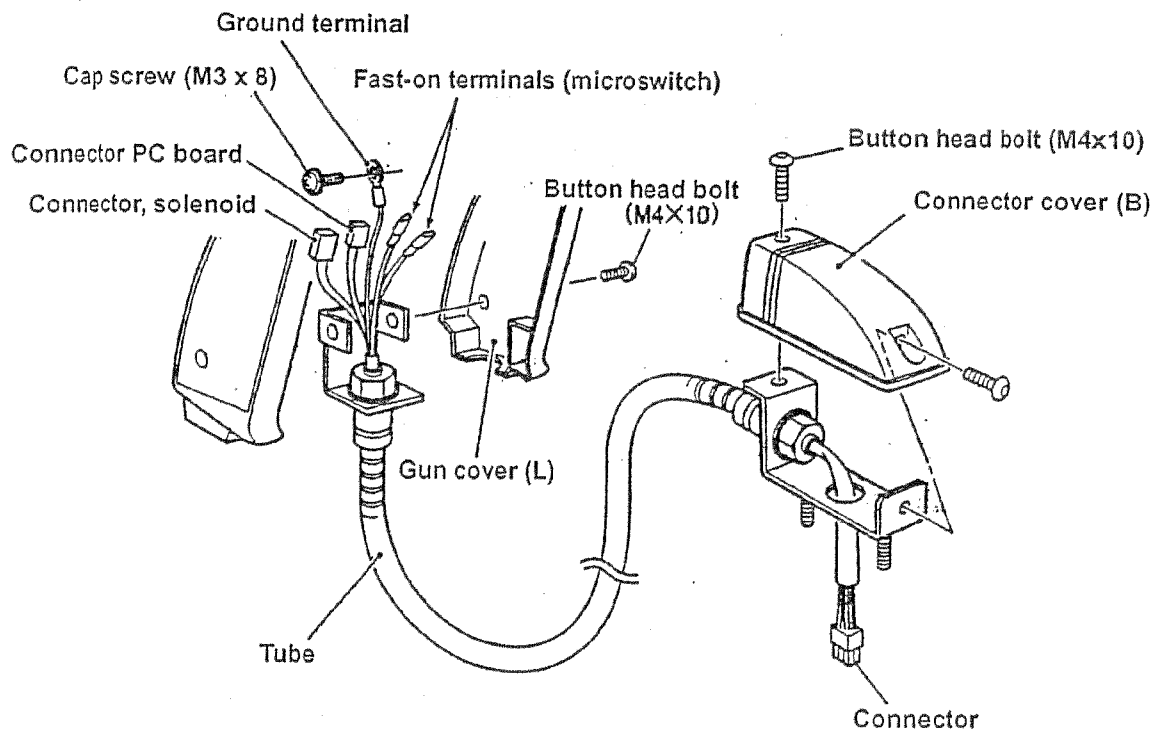
3 To reinstall, follow the above procedure in reverse.

(5) Replacing the tube

⚠ WARNING

● To protect service staff and others from an electric shock, accident or injury, and to prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

- 1 Remove the Gun Assy.
- 2 Remove the two button-head bolts (M4 x 10) and connector cover B.
- 3 Remove the gun slides (L) and (R) and gun cover (R).
- 4 Remove the cap screw (M3 x 8), and disconnect the ground lead.
- 5 Disconnect the two connectors and the microswitch Fast-on terminals.
- 6 Remove the button-head bolt (M4 x 10) that is securing the tube to the gun cover (L), and detach the tube.



- 7 To reinstall, follow the above procedure in reverse.

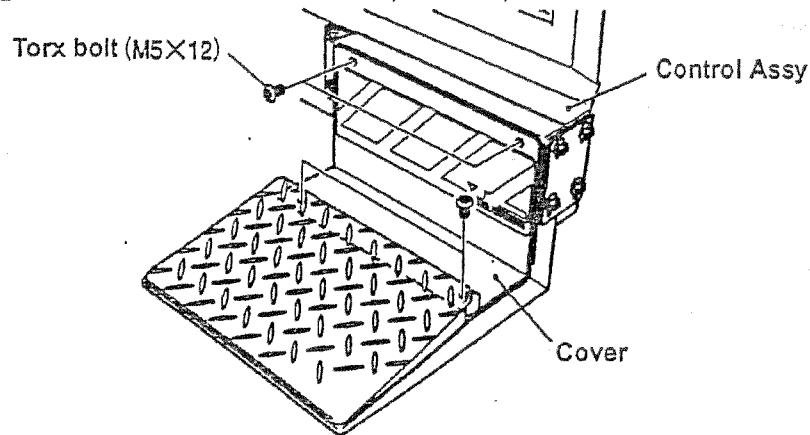
8-3-6 Pedal Assys - Technician only -

(1) Replacing the microswitch

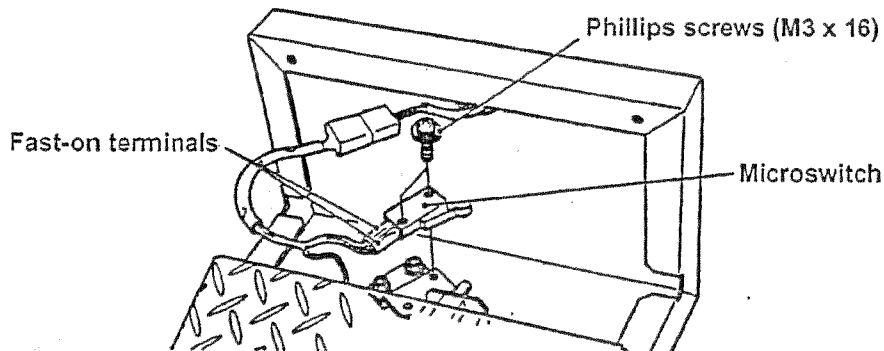


- To prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

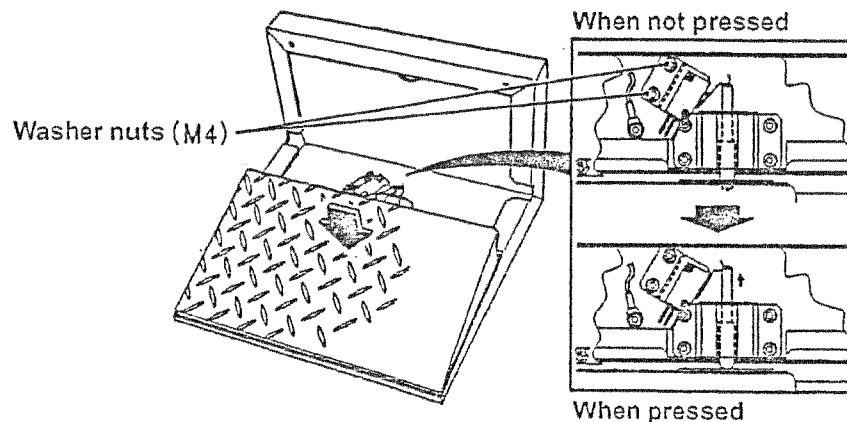
1. Remove the four Torx bolts (M5 x 12), and detach the cover.



2. Remove the two phillips head screws (M3 x 16), disconnect the two fast-on terminals, and remove the microswitch.



3. Install a new microswitch.
4. After replacing the microswitch, press the pedal to verify proper function.
5. If needed, loosen the washer nuts (M4) and adjust.



6. Repeat the same procedure to remove the other microswitch.
7. To reinstall, follow the above procedure in reverse.

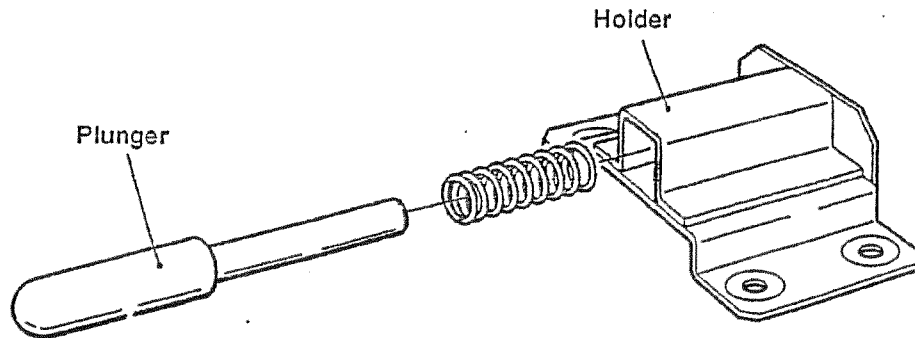
(2) Replacing the plunger



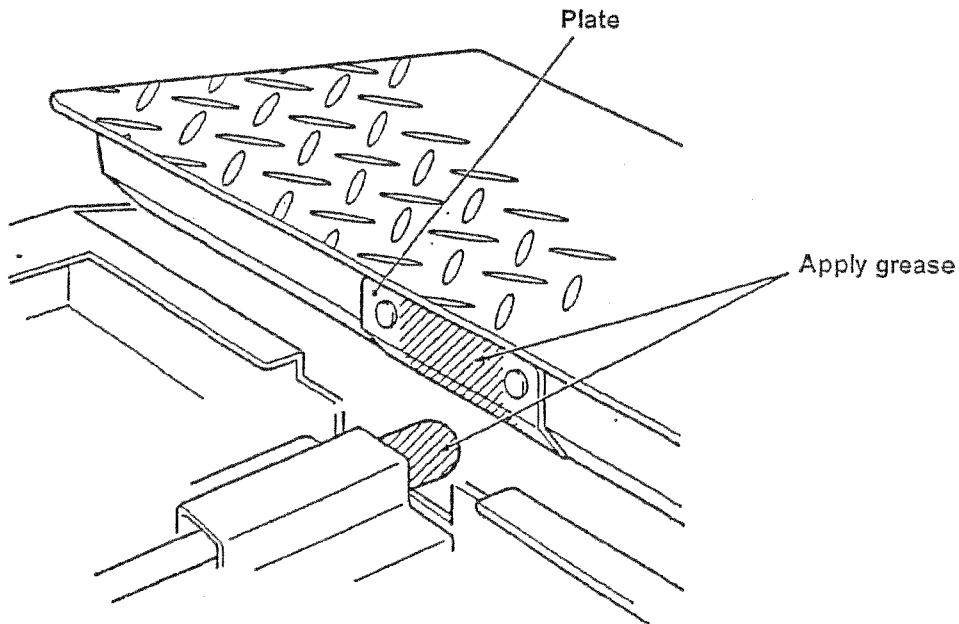
- To prevent damage to electrical circuitry of the machine, always turn off the power switch before initiating the described task.

1 Remove the holder.

2 Pull out the plunger from the holder, and replace it with a new plunger. When installing, apply grease to the entire surface of the plunger.



3 Wipe old grease from the surface of the plate on the pedal, and apply new grease.

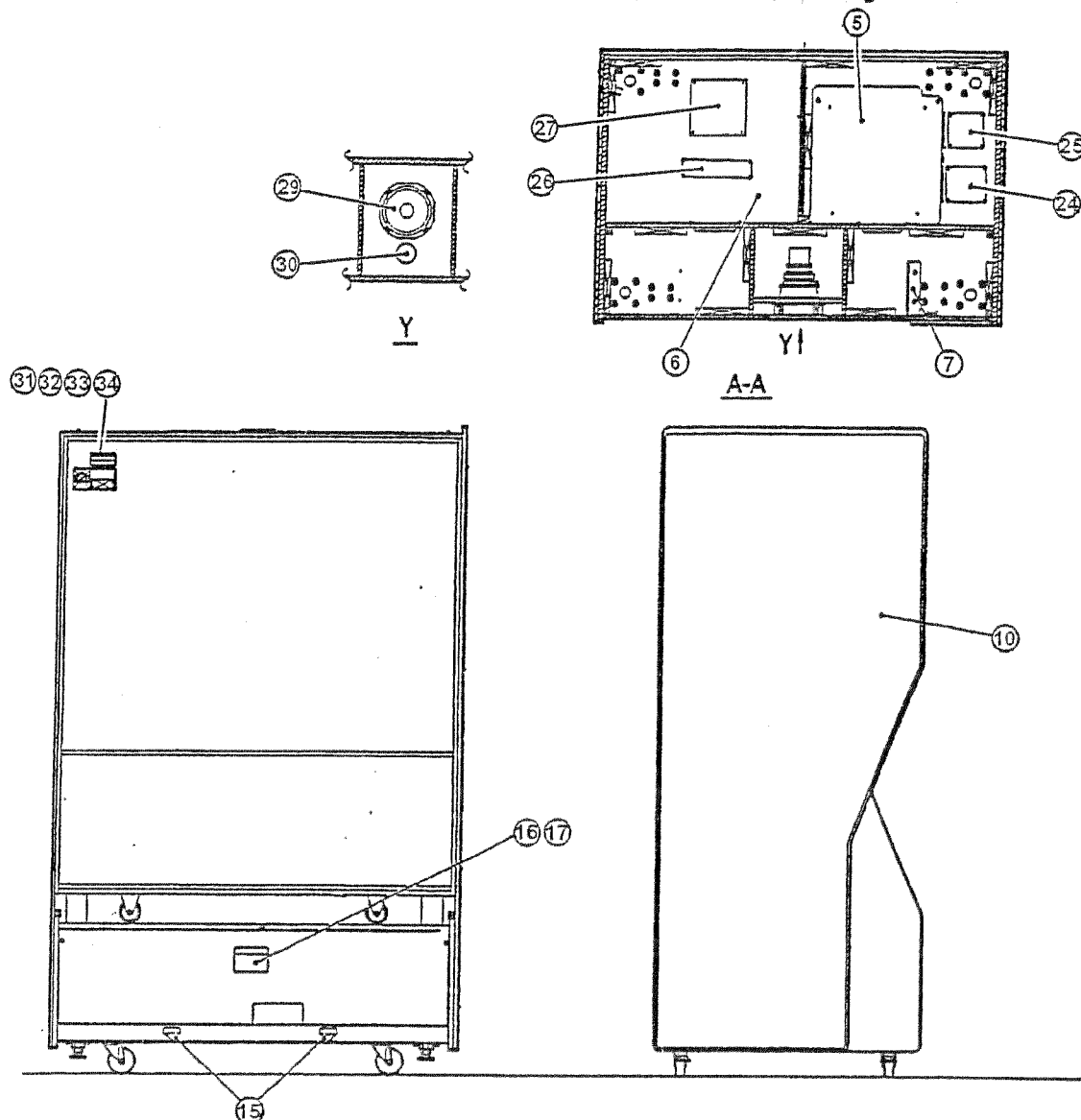


4 Repeat the same procedure to remove the other plunger.

5 To reinstall, follow the above procedure in reverse.

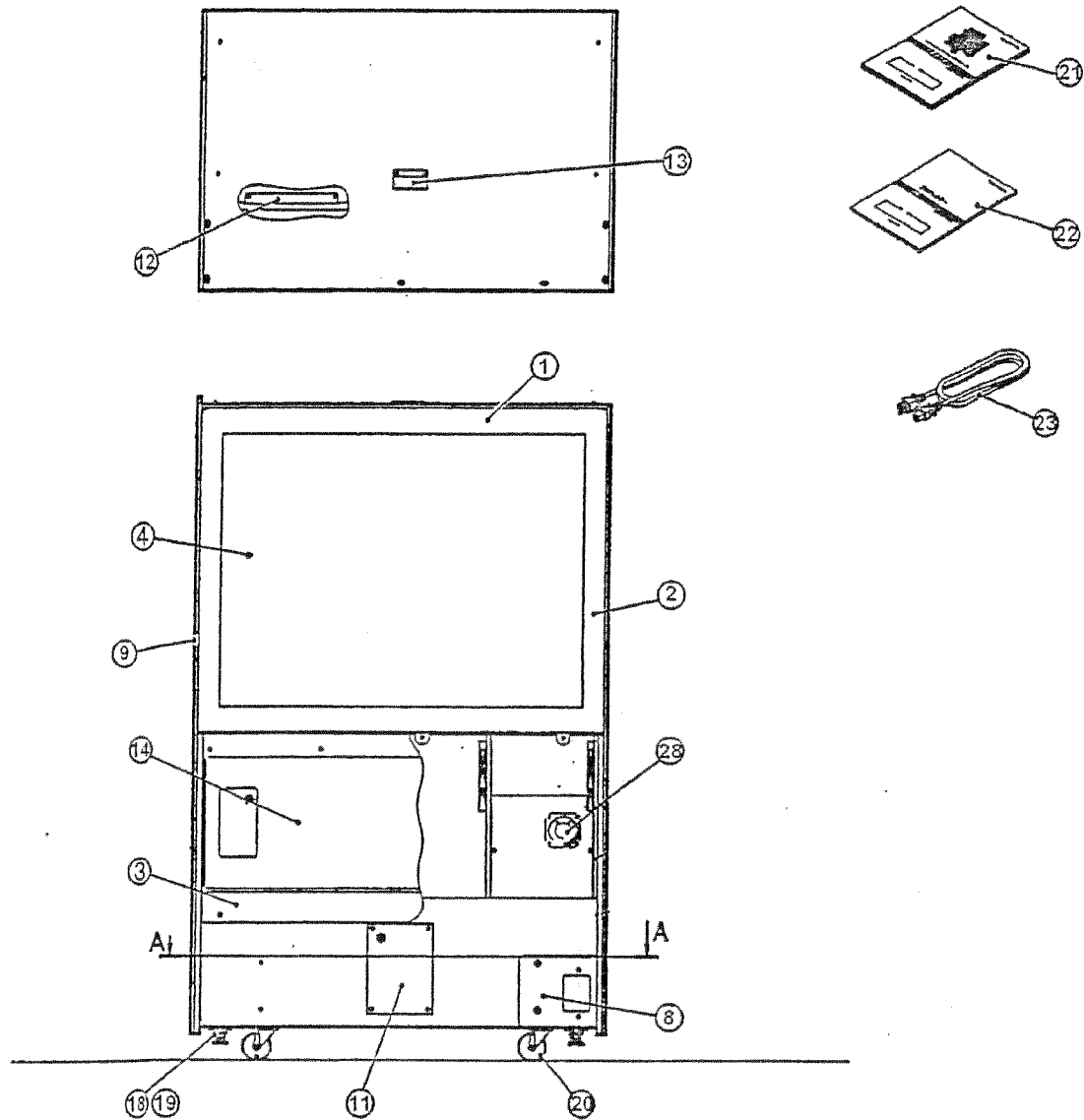
9. PARTS LIST

9-1 CABINET ASSEMBLY, LEFT, Player 1



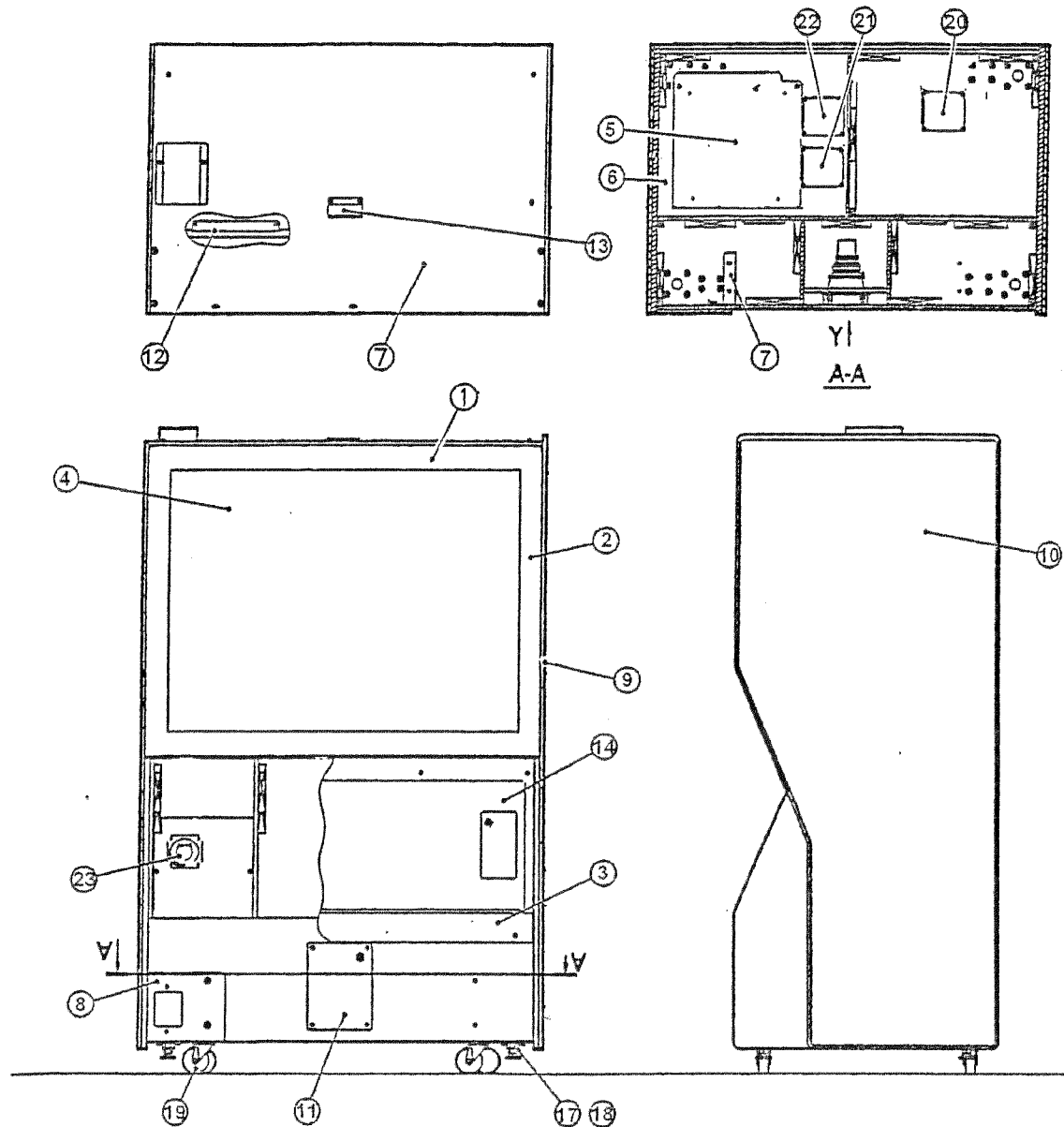
No.	NAI PART NO.	QTY	DESCRIPTION
1	CZ10-09304-00	1	BRKT, UPPER
2	CZ10-09302-00	1	BRKT, SIDE
3	TI10-10571-00	1	FRONT COVER
4	VG85-10013-00	1	TV, VS-50609
5	TI05-10633-00	1	RACK ASSY
6	TI63-07836-00	1	WOOD SHELF
7	TI10-10572-00	1	BRKT, JNT, L
8		1	JOINT SPACER
9	TI63-10648-00	1	CABINET, LEFT
10	TI40-10565-00	1	DECAL, SIDE, L
11	TI10-10575-00	1	WOOFER COVER
12	CZ10-09294-00	1	MARQUEE BRKT

No.	NAI PART NO.	QTY	DESCRIPTION
13	TI10-10577-00	1	MARQUEE HOOK
14	TI40-10564-00	1	DECAL, FRONT
15		2	DECAL, FORK
16	VG40-10599-00	1	LABEL, WARNING
17	VG44-02642-00	1	LABEL, SERVICE
18	VG20-06894-03	4	BRKT, LEVELER
19	VG20-07415-14	4	LEVELER, 5/8-11X3 1/2
20	VG24-05309-00	4	CASTER, 3" SWIVEL
21	TI45-XXXXX-XX	1	OPERATORS MANUAL
22		1	PROJECTOR MANUAL
23	VG51-07697-00	1	POWER CORD
24	TI05-10632-00	1	P-BASS AMP



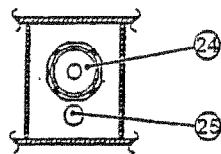
No.	NAI PART NO.	QTY	DESCRIPTION
25	VG15-06624-00	1	RGB/NTSC CONVERTER
26	VG88-07763-00	1	PWR SPLY, 24V
27	VG88-07671-01	2	PWR SPLY, SWITCHING 5V, 12V, 250 W
28	VG54-09405-01	1	SPEAKER, 4"
29	VG54-07796-00	2	WOOFER, 8 Ohm
30	VG54-07830-00	2	DUCT, PIPE
31	VG46-02653-00	1	LABEL, FCC
32	VG46-02654-00	1	LABEL, FBI
33	VG46-02652-00	1	LABEL, UL
34	VG46-02655-00	1	LABEL, S/N

9-2 CABINET ASSEMBLY, RIGHT, Player 2

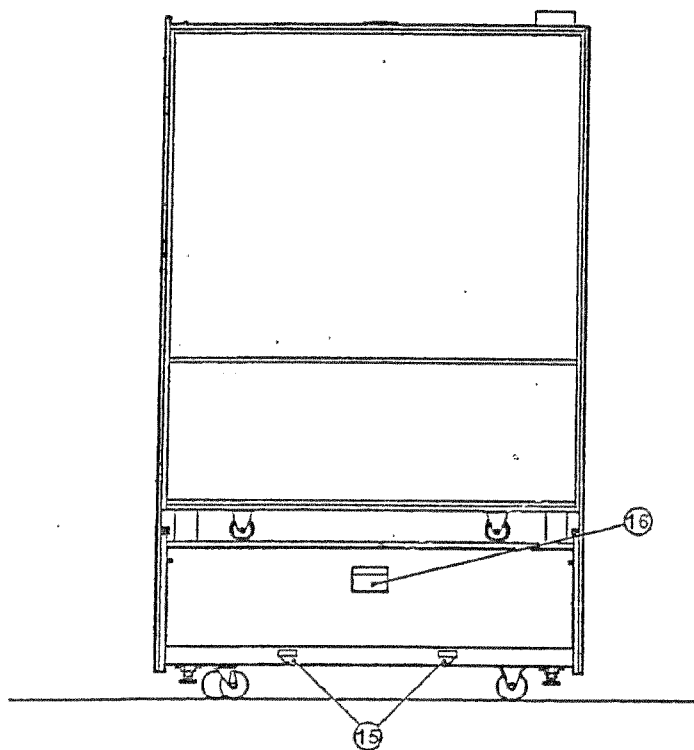


No.	NAI PART NO.	QTY	DESCRIPTION
1	CZ10-09304-00	1	BRKT, UPPER
2	CZ10-09302-00	1	BRKT, SIDE
3	TI10-10571-00	1	FRONT COVER
4	VG85-10013-00	1	TV, VS-50609
5	TI05-10633-00	1	RACK ASSY
6	TS63-07836-00	1	WOOD SHELF
7	TI10-10572-01	1	JOINT BRKT, R
8		1	JOINT SPACER
9	TI63-10648-01	1	CABINET, RIGHT
10	TI40-10565-01	1	DECAL, SIDE, R

No.	NAI PART NO.	QTY	DESCRIPTION
11	TI10-10575-00	1	WOOFER COVER
12	CZ10-09294-00	1	MARQUEE BRKT
13	TI10-10577-00	1	MARQUEE HOOK
14	TI40-10564-01	1	DECAL, FRONT, R
15		1	DECAL, FORK
16	VG44-02642-00	2	LABEL, SERVICE
17	VG20-06894-03	1	BRKT, LEVELER
18	VG20-07415-14	2	LEVELER, 5/8-11X3 1/2
19	VG24-05309-00	2	CASTER, 3" SWIVEL
20	VG88-07671-00	1	P/S SW 5V,12V, 250W

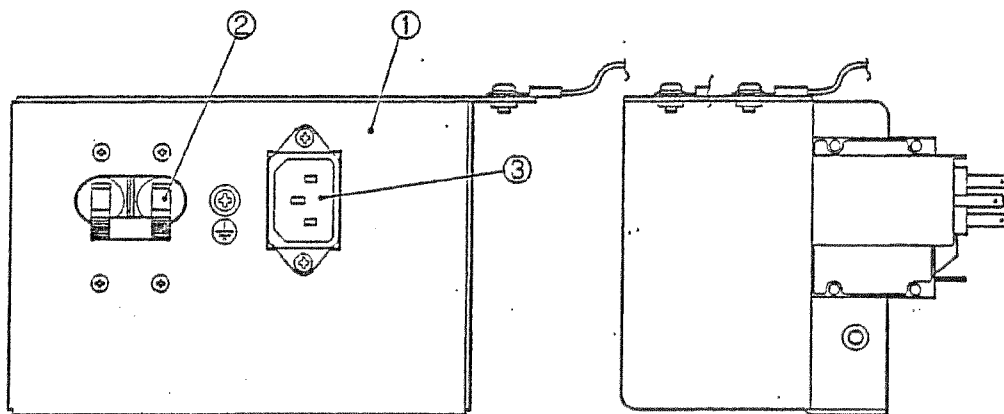


Y



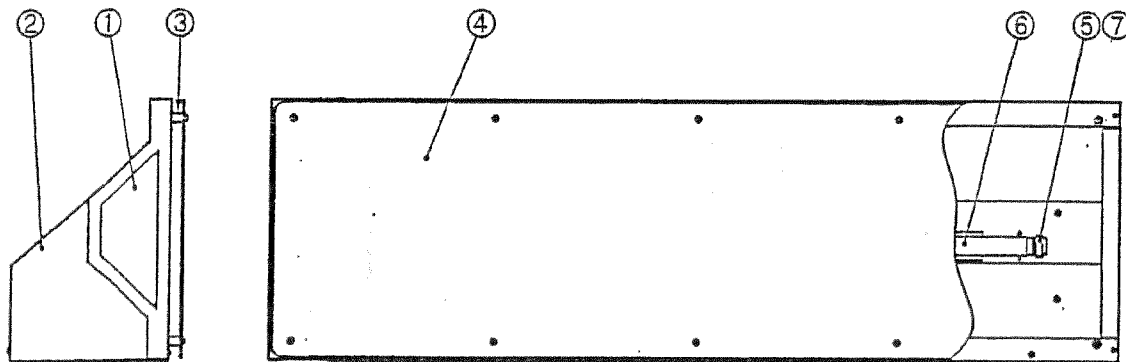
No.	NAI PART NO.	QTY	DESCRIPTION
21	TI05-10632-00	1	P-BASS AMP
22	VG15-06624-00	1	RGB/NTSC CONV
23	VG54-09405-01	2	SPEAKER, 4"
24	VG54-07796-00	1	WOOFER, 8 Ohm
25	VG54-07830-00	1	DUCT, PIPE

9-3 CORD BOX ASSEMBLY



No.	NAI PART NO.	QTY	DESCRIPTION
1	TS10-07792-00	1	BOX, CORD
2	VG65-07819-00	1	CIRCUIT BREAKER, 15A
3	VG78-07820-00	1	FILTER, EMI, 15A

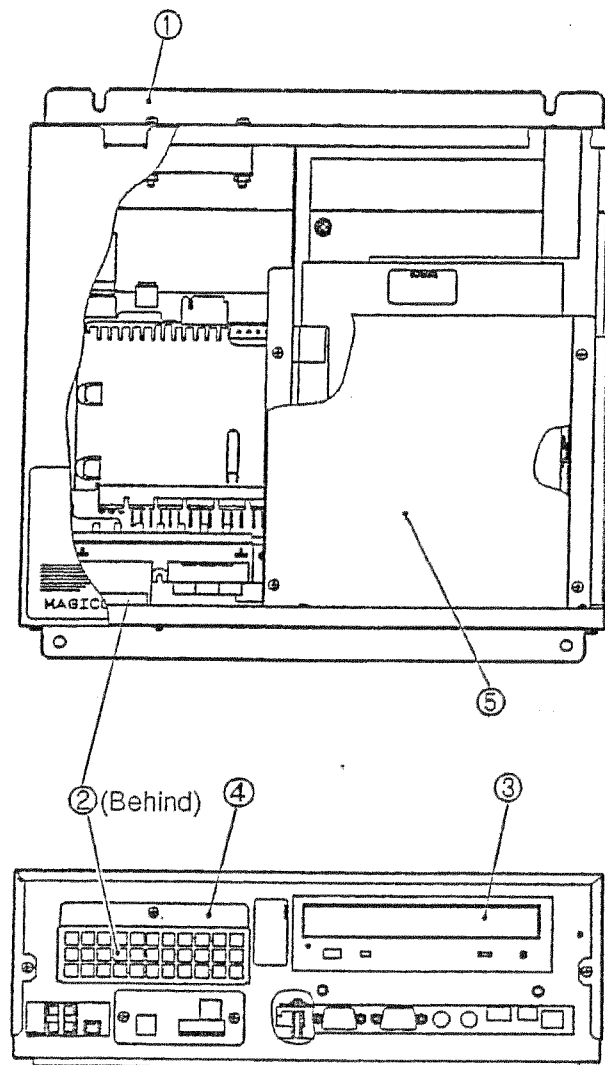
9-4 MARQUEE ASSEMBLY



No.	NAI PART NO.	QTY	DESCRIPTION
1	TI10-10579-00	1	BOX, MARQUEE
2	TI10-10580-00	1	BASE, MARQUEE
3	TI10-10581-00	10	PIN, PANEL
4	TI40-10570-00	1	ACRYLIC-MARQUEE, SILKSCREEN
5	VG57-02027-00	1	FIXTURE, FLUORESCENT
6	VG57-02029-00	1	LAMP, FLUORESCENT
7	GT57-02219-00	1	LOCK, FLUORESCENT

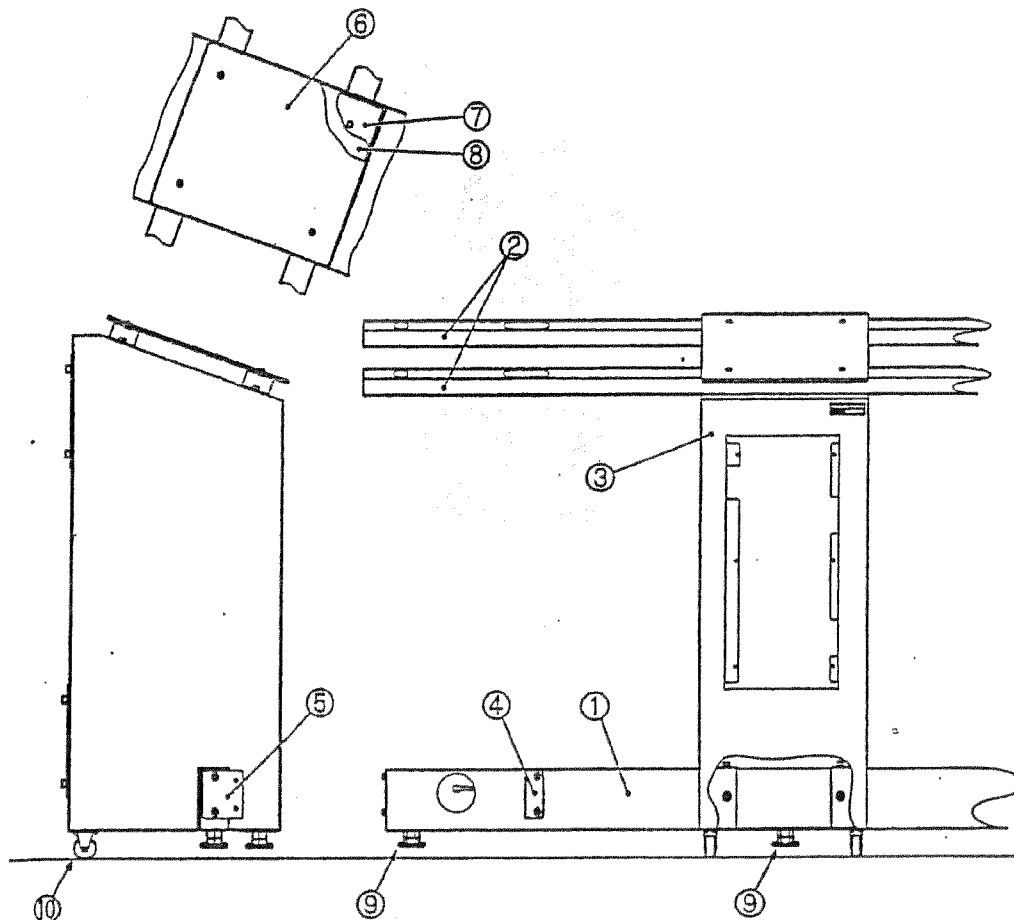
9-5 RACK ASSEMBLY SYSTEM 246

PARTS LISTED ON THIS PAGE ARE FOR REFERENCE ONLY, AND ARE NOT AVAILABLE FOR SEPERATE PURCHASE.



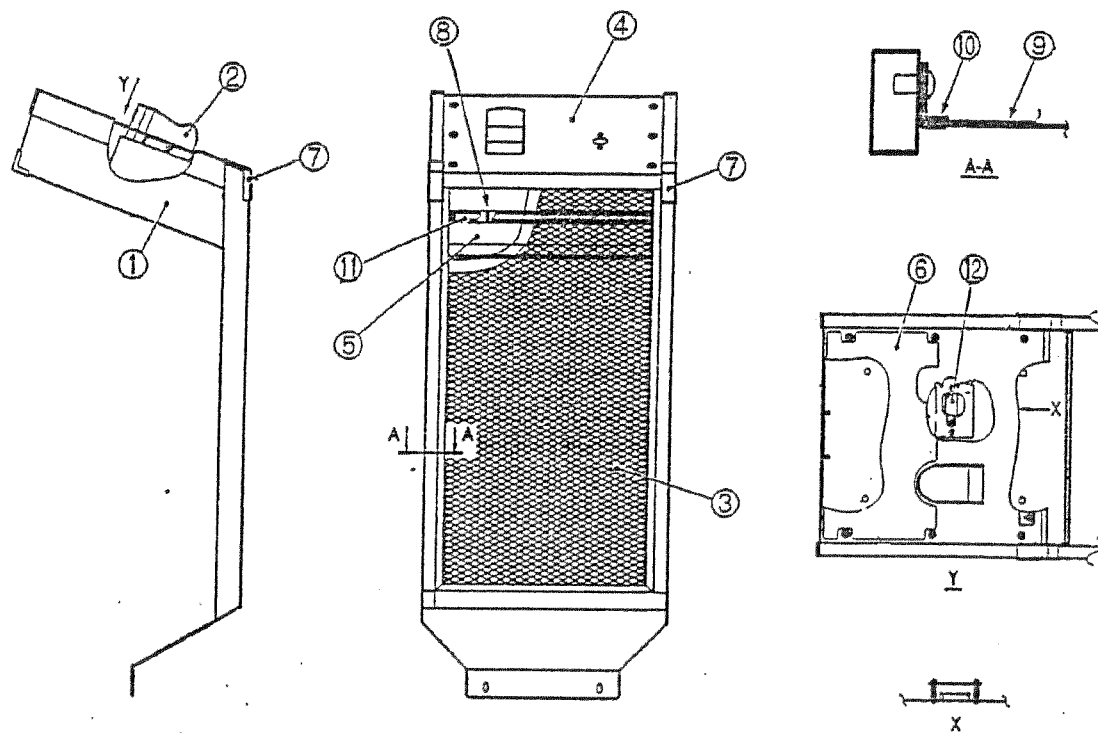
No.	NAI PART NO.	QTY	DESCRIPTION
1	TI05-10643-00	1	RACK ASSEMBLY
2	TI05-10646-00	1	DONGLE PCB
3	VG84-10453-00	1	DVD DRIVE
4	VG10-10671-00	1	DONGLE COVER
5		1	DRIVE COVER

9-6 COIN TOWER ASSEMBLY



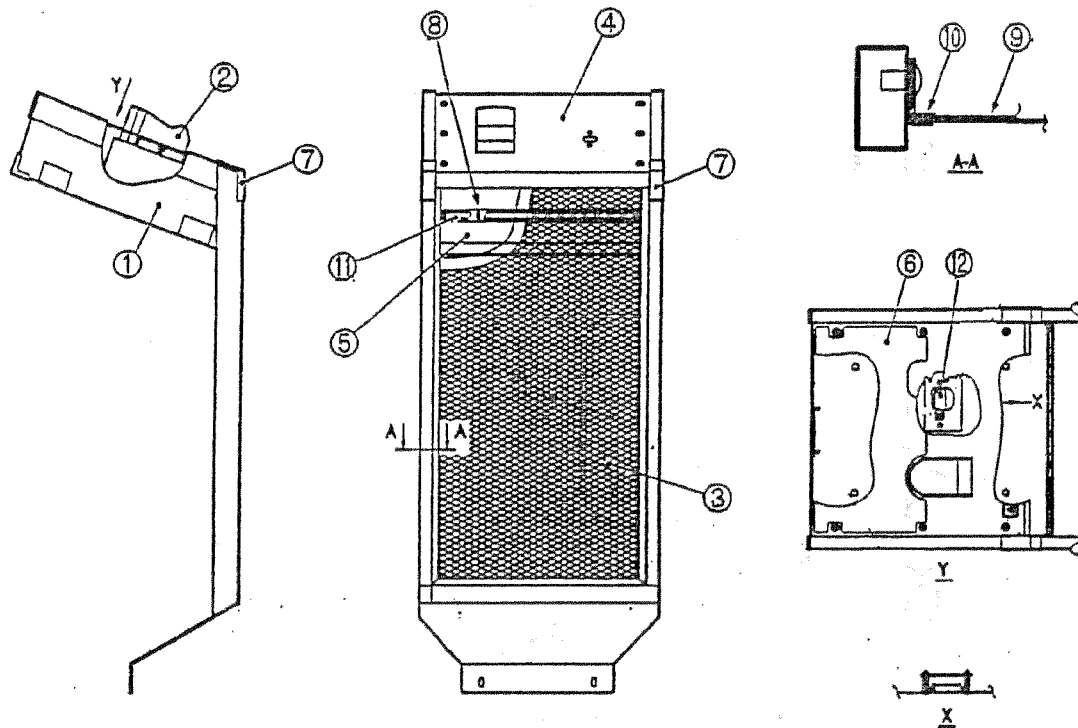
No.	NAI PART NO.	QTY	DESCRIPTION
1	TI10-10582-00	1	UNDER PIPE
2	TI10-10583-00	2	JOINT BAR
3	TI10-10584-00	1	BOX, COIN DOOR
4	TI10-10585-00	2	BRKT, PEDAL (A)
5	TI10-10586-00	2	BRKT, PEDAL (B)
6	TI95-10567-00	1	PLEX, POLYCARBONATE, CLEAR
7	TI40-10569-00	1	DECAL, INSTRUCTIONS, STYRENE
8	TI10-10587-00	1	PLATE, BACK
9		3	LEVELER
10		2	CASTER

9-7 GUN TOWER ASSEMBLY - LEFT



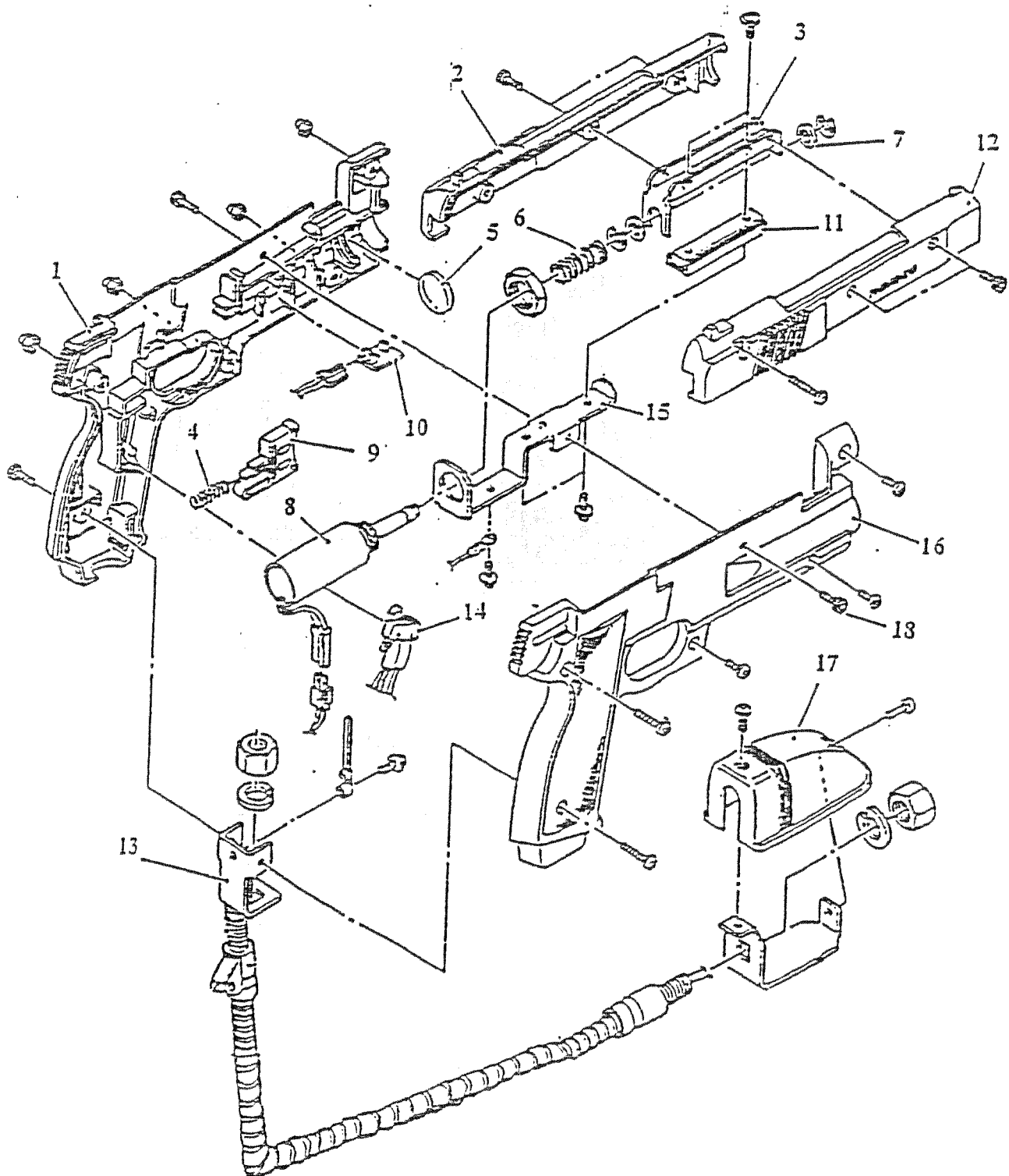
No.	NAI PART NO.	QTY	DESCRIPTION
1	TI10-10589-00	1	GUN TOWER, LEFT
2	TI10-10588-00	1	GUN HOLDER
3	TI10-10590-00	1	GRILL
4	TI10-10591-00	1	CONTROL PANEL
5	TI10-10592-00	1	LAMP BASE
6	TI40-10566-00	1	DECAL, GUN TOWER, LEFT
7	TI96-10597-00	2	GUARD, SQUARE PIPE
8	VG20-10634-00	1	HOLDER, LAMP
9	TI95-10602-00	1	GUARD, GRILL
10	TI10-10593-00	2	BRACKET, GRILL
11	TI57-10628-00	1	LAMP, NEON, RED
12	TI15-10627-00	1	PCB, INVERTER

9-8 GUN TOWER ASSEMBLY - RIGHT



No.	NAI PART NO.	QTY	DESCRIPTION
1	TI10-10589-01	1	GUN TOWER, RIGHT
2	TI10-10588-00	1	GUN HOLDER
3	TI10-10590-00	1	GRILL
4	TI10-10591-00	1	CONTROL PANEL
5	TI10-10592-00	1	LAMP BASE
6	TI40-10566-01	1	DECAL, GUN TOWER, RIGHT
7	TI96-10597-00	2	GUARD, SQUARE PIPE
8	VG20-10634-00	1	HOLDER, LAMP
9	TI95-10602-00	1	GUARD, GRILL
10	TI10-10593-00	2	BRACKET, GRILL
11	TI57-10628-01	1	LAMP, NEON, BLUE
12	TI15-10627-00	1	PCB, INVERTER

9-9 GUN ASSEMBLY PARTS

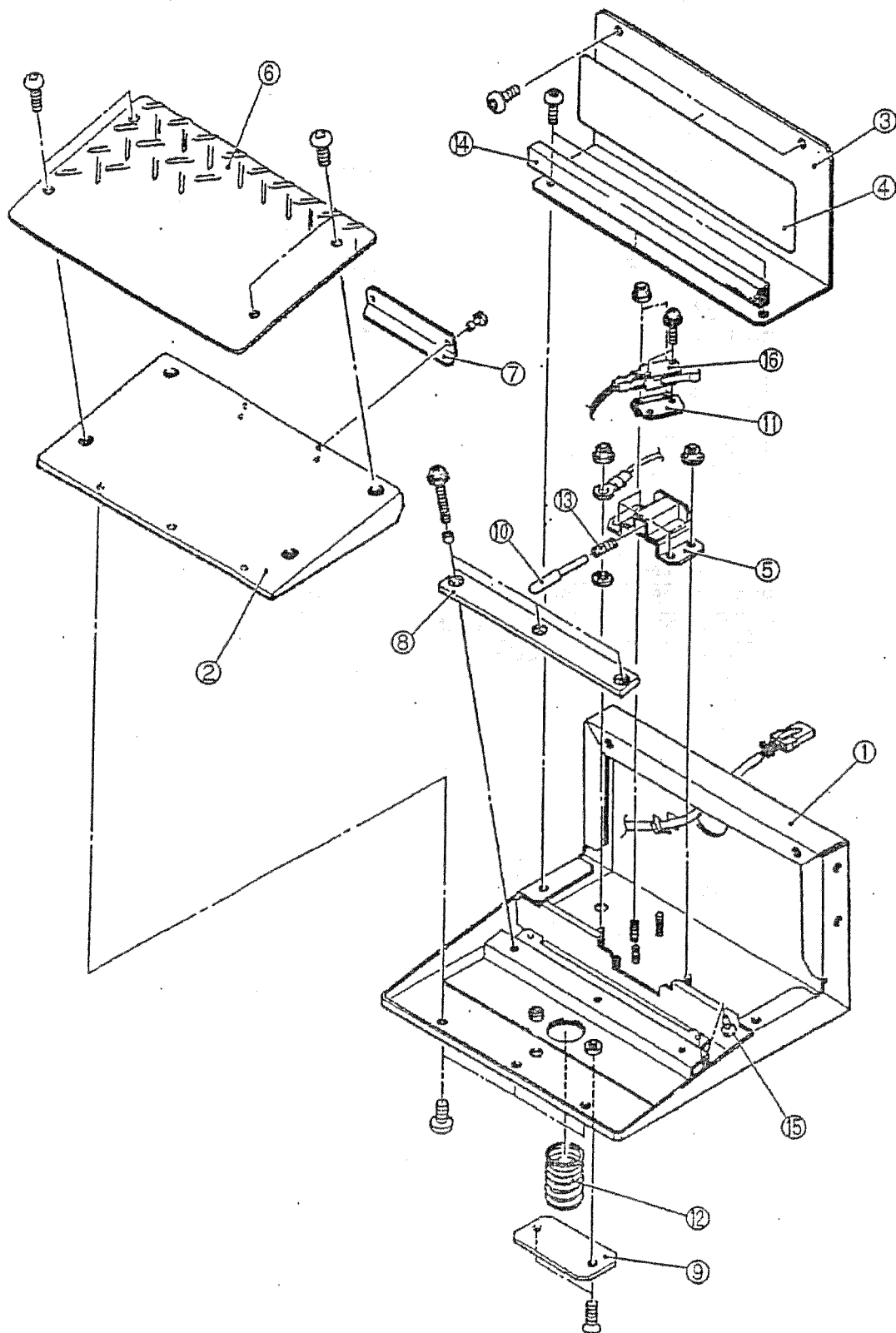


GUN ASSEMBLY PARTS LIST

These guns are used on Point Blank and all versions of Time Crisis games.

<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>
	PB03-03141-00	PINK GUN ASSEMBLY (INCLUDES HARNESS)
	PB03-03141-01	BLUE GUN ASSEMBLY (INCLUDES HARNESS)
1	PB09-03430-00	GUN COVER LEFT PINK
	PB09-03432-00	GUN COVER LEFT BLUE
2	PB09-03426-00	GUN SLIDE LEFT PINK
	PB09-03428-00	GUN SLIDE LEFT BLUE
3	PB10-04670-00	SLIDE GUIDE BRACKET
4	PB09-296-421	TRIGGER SPRING
5	PB09-296-426	LENS
6	PB09-296-420	BACK SPRING
7	VG95-04942-00	SPACER
8	PB09-004-056	SOLENOID/PLUNGER/SPRING
9	PB90-04836-00	TRIGGER PINK
	VG90-04931-00	TRIGGER BLUE
10	PB09-296-467	SENSOR PCB
11	PB10-04835-00	RAIL SLIDE
12	PB09-03427-00	GUN SLIDE RIGHT PINK
	PB09-03429-00	GUN SLIDE RIGHT BLUE
13	PB09-296-401	GUN CORD HARNESS ASSEMBLY
14	PB09-000-228	MICRO SWITCH
15	PB10-04669-00	SOLENOID BRACKET
16	PB09-03431-00	GUN COVER RIGHT PINK
	PB09-03433-00	GUN COVER RIGHT BLUE
17	PB90-05447-00	CONNECTOR COVER
18	PB21-04904-00	GUN HARDWARE (SCREWS/NUTS)

9-10 PEDAL ASSEMBLY P/N TC80-04671-00

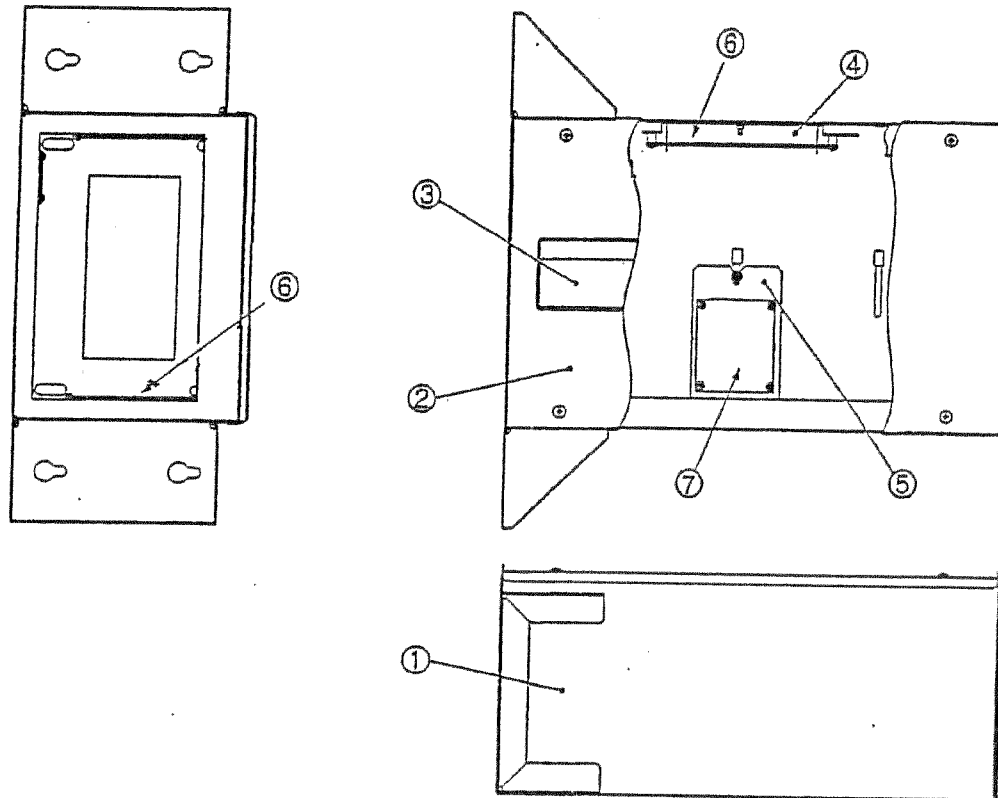


9. PARTS LIST

No.			DESCRIPTION	REF NO.
1	N/A	1	PEDAL BASE	707-280
2	N/A	1	PEDAL	707-281
3	N/A	1	COVER	707-282
4	N/A	1	PEDAL STICKER	707-283
5	TC80-04671-03	1	HOLDER	631-213
6	N/A	1	PEDAL PLATE	631-215
7	N/A	1	PLATE	631-216
8	N/A	1	STOPPER RUBBER	631-217
9	N/A	1	SPRING COVER	631-218
10	TC80-04671-05	1	PLUNGER	631-219
11	TC80-04671-11	1	SWITCH STAY	631-220
12	TC80-04671-08	1	SPRING A	631-221
13	TC80-04671-09	1	SPRING B	631-222
14	N/A	1	EPT SEALER	106-041
15	N/A	2	PLUG CUSHION RUBBER	106-017
16	TC80-04672-03	1	MICROSWITCH	000-027

N/A = Part is not available for purchase seperately. Listed for reference only.

9-11 JOINT ASSEMBLY

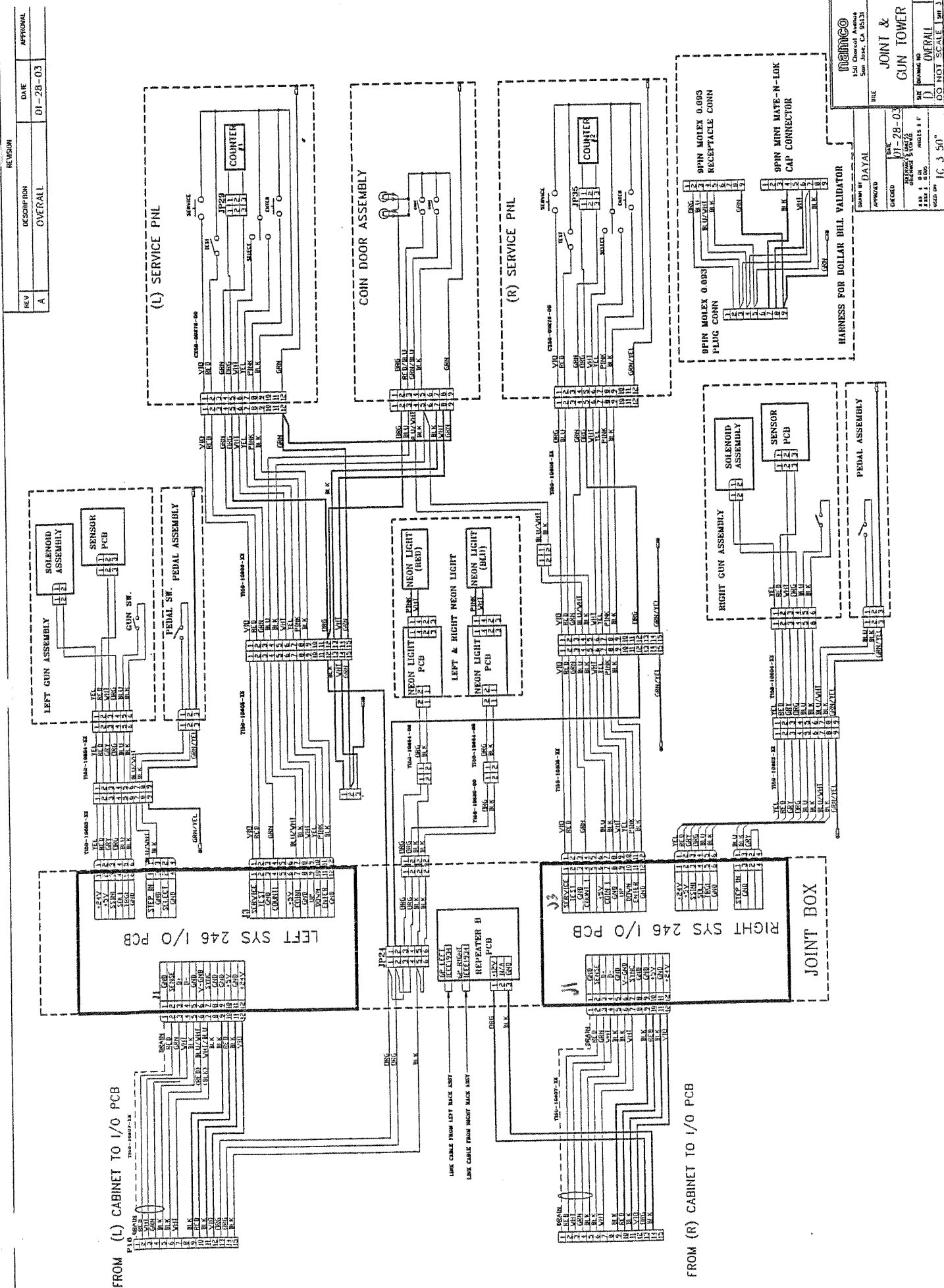


No.	NAI PART NO.	QTY	DESCRIPTION
1	TI10-10598-00	1	JOINT ASSEMBLY
2	TI10-10594-00	1	JOINT ASSEMBLY COVER
3	V44-02642-00	1	CAUTION STICKER
4		8	STANDOFFS
5	TI10-10601-00	1	BRACKET, REPEATER (B) PCB
6	TS03-07705-00	2	I/O PCB
7	TI05-10631-00	1	REPEATER (B) PCB



REVISION			
REV	DESCRIPTION	DATE	APPROVAL
A	OVERALL	01-28-03	

[illegible]



WARRANTY

Seller warrants that its printed circuit boards and parts thereon are free from defects in materials and workmanship under normal use and service for a period of ninety (90) days from the date of shipment. Seller warrants that its video displays (in games supplied with video displays) are free from defects in material and workmanship under normal use and service for a period of thirty (30) days from the date of shipment. None of the Seller's other products or parts thereof are warranted. Seller's sole liability shall be, at its option, to repair, replace, or credit Buyer's account for such products which are returned to Seller during said warranty period, provided:

- a) Seller is promptly notified in writing upon discovery by Buyer that said products are defective.
- b) Such products are returned prepaid to Seller's plant; and
- c) Seller's examination of said products discloses to Seller's satisfaction that such alleged defects existed and were not caused by accident, misuse, neglect, alteration, improper repair, improper installation, or improper testing.

In no event shall Seller be liable for loss of profits, loss of use, incidental or consequential damages.

Except for any express warranty set forth in a written contract between Seller and Buyer which contract supersedes the terms herein, this warranty is in lieu of all other warranties expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose, and all other obligations or liabilities on the Seller's part, and it neither assumes nor authorizes any other person to assume for the Seller any other liabilities in connection with the sale of products by Seller.

Namco America Inc. distributors are independent, being privately owned and operated. In their judgment they may sell parts or accessories other than **Namco America Inc.** parts or accessories. **Namco America Inc.** cannot be responsible for the quality, suitability or safety of any non-**Namco America Inc.** part or any modification including labor which is performed by such distributor.

SERVICE

If you have questions regarding any **Namco America Inc.** product or require technical support:

Contact **Namco America Inc.** Customer Service at:

(408) 383-3973 or FAX (408) 436-9554

Hours: 7:00 am - 4:00 pm PDT

Parts and repair services for **Namco America Inc.** products are available through your distributor.

17

16

6

namco America Inc.

890 Service St #C
San Jose, CA 95112

(408) 383-3900

FAX: (408) 436-9554

Technical Assistance (USA)

(408) 383-3973

Fax: (408) 436-9554

Reorder number: TI45-10644-00

Rev B.

RELEASED February 2003

The specifications of this machine and the instructions in this Operation Manual are subject to change without notice for enhancement.