GTI CLUB
RALLY COTE D'AZUR

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OPERATOR'S MANUAL

KONAMI

Contents

■ About this product

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

⚠️

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

This manual covers the following models:

● GM688-AD ● GM688-HD

● GM688-TB ● GM688-AF

The specifications of GM688-AD may be somewhat different from GM688-HD, GM688-TB and GM688-AF. In such a case, read the descriptions of the model which applies to the game machine you are operating.

■ 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 "GTI CLUB™" or other persons or to properties are shown as follows.

Be sure to read the following

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

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

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

⚠	Indicates a matter of which care should be taken.
🚫	Indicates a matter which is forbidden.
(symbol)	Indicates a matter which should be performed without fail.

Setting Up

⚠ WARNING

●Be sure to consult your nearest dealer when setting up, moving or transporting this product.
▶ This product should not be set up, moved or transported by anyone other than industry specialists. Doing so could result in injury or product damage.
▶ When setting up this product, fasten the game machine securely with all the adjusters. If the game machine is not fastened securely, injury or accidents could be caused by the machine rocking.
▶ When setting up this product, take care that no undue force is applied to the connecting sections of the game machine. Failure to do so could cause injury, accidents or product damage.

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

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

●Do not set up the game machine:
 • 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
 • on an inclined or uneven floor
 • near fire extinguishing equipment
 • in a place exposed to strong vibration
 • in a place exposed to excessive dust
 • near equipment generating strong magnetism or electric waves

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

●Do not place objects near the ventilating holes.
▶ Doing so could cause the internal temperature to rise excessively, resulting in equipment failure.

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

●Never plug or unplug the power cord with wet hands.
▶ Doing so could result in electrical shock.

●Never unplug by pulling the power cord.
▶ Doing so could damage the cord, resulting in electric leakage or fire.

●Use an earthing band or similar means of discharging static electricity when adjusting the PCB DIP switches.
▶ If not discharged, static electricity could damage the electronic components on the board.

Setting Up

⚠ CAUTION

● Be sure to use indoor wiring for within the specified voltage range. For extension cord, use indoor wiring of the specified rating or more.
  ▶ Failure to do so could result in fire or equipment failure.

● Never plug more than one cord at a time in the electrical receptacle.
  ▶ Doing so could result in fire or electrical shock.

● Do not lay the power cord and the communication cable where people walk through. You may tread on or stumble over them.
  ▶ You may stumble down and get injured, or damage the cord or the cable.

● Be sure to connect a earth cable to the earth terminal of the game machine.

● Clearances of 100 mm(3.94in) or more should be created between the game machine and walls.

Operation

⚠ WARNING

● 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.

● If there is any abnormality such as smoke, bad smell or abnormal noise being emitted from the machine, immediately unplug the power cord to stop operating it.
  ▶ Using the machine in abnormal conditions could result in fire or accidents.

  ┌───── In case of abnormality: ─────┐
  1. Turn off the power.
  2. Unplug the power cord.
  3. Contact your nearest dealer.
  └──────────────────────────────────┘

● Do not leave the power cord plugged improperly or covered with dust.
  ▶ Doing so could result in electrical shock or fire, so inspect the power cord periodically.

● Never disassemble, repair or modify any section other than those specified in this manual.
  ▶ Doing so could result in fire, malfunction or equipment failure.

Operation

 CAUTION

● 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.

● Do not plug or unplug the power cord with wet hands.
  ▶ Doing so could result in electrical shock.

● When handling the power cord, take care of the following:
  ▶ Improper handling could result in fire or electrical shock.

· 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 the power cord or power plug becomes damaged, stop using the machine immediately.
  ▶ Using a damaged power cord or power plug could result in fire or electrical shock.

● Do not place objects or heavy loads on or provide a strong impact to the molding.
  ▶ Doing so could cause the object on the machine to fall off or could damage the machine, resulting in injury.

Inspection and cleaning

 WARNING

● Be sure to turn off the power and unplug the power cord from the receptacle before inspecting or cleaning the machine.
  ▶ Failure to do so could result in electrical shock.

● Some internal parts have high voltage. When opening the back door, take due care not to touch such parts. Also, be sure to close and fix the back door securely with the 3 screws.
  ▶ If the back door is not closed securely, the main unit is not powered. If the screws are not tightened enough, the machine may result in malfunction or get in trouble.

● 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.

● To clean the game machine, wipe it with a soft cloth dampened in a neutral detergent and wrung out.
  ▶ 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 machine.

Moving and Transportation

⚠ CAUTION

●The game machine contains parts such as a monitor, electronic components and precision components which are sensitive to vibration and impact. Great care therefore should be taken when moving and transporting the game machine. Be sure not to let the machine tip over.

●Fully raise all the adjusters before moving the game machine and move it utilizing the casters. Be sure to turn off the power and unplug the power cord from the receptacle before moving the game machine.
▶Failure to do so could result in accidents, damage or equipment failure.

●Take care that no undue force is applied to the connecting sections of the game machine when moving it.
▶Failure to do so could cause injury, accidents or product damage.

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 Specifications

730 (28.74)

1872 (73.7)

99 (3.9)　458 (18.03)

804 (31.65)　458 (18.03)

1441 (56.73)

700 (27.56)

1440 (56.69)

Specifications	
Dimensions	Refer to the figure above: mm　(in)
Weight	Main unit: Approx. 250 kg　(551lb)　　　Seat unit : Approx. 33kg　(73lb)
Rated power consumption	360 W
Monitor	29-inch color monitor　2 units
Attachments	• Instruction manual ··this manual • Keys for coin door　···2 • Keys for maintenance ··2 • Joint fittings A　··2 • Joint fittings B　··2 • Joint fixing parts (bolt, plain washer, spring washer) ·················16 • Networking cord　··1 • Timing belt ···2

●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.

■ 安全使用注意事項

本書説明爲防止危害"GTI CLUB ™"的設置、使用、維護等人員及他人和財產的安全注意事項，本書內容務請遵守。

務 請 閱 讀

●本書使用如下標注，區分無視表示內容、錯誤使用時產生的危險和損害程度。

⚠ 警告	該項標注表示"有可能造成死亡或身負重傷"的內容。
⚠ 注意	該項標注表示"有可能造成傷害或物品損壞"的內容。
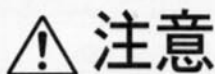
●本書使用如下圖標，説明務請遵守的內容種類。

⚠	本圖標表示"提請注意"的內容。
🚫	本圖標表示"禁止"的內容。
🔌	本圖標表示"強制實行"的內容。

設置時

⚠ **警告**

● 設置、移動或搬運時，務必同當地的經銷店商洽。
▶ 非專業人員執行設置、移動或搬運時，有可能受傷或損壞殼體。
▶ 設置本機時，務必用全部可調支腳確切固定。
　 固定不穩定時，可引起殼體晃動，及致受傷或造成事故。
▶ 設置本機時，不得在殼體連接部位強加外力。
　 否則，可致受傷或造成事故、損壞殼體。

● 本機為室內用游戲機，千萬不要設置在室外。
▶ 設置在室外，可造成事故或故障。

● 本機不得設置在建筑物太平門附近。
▶ 否則，發生災害時妨礙人們逃生，造成傷亡。

● 本機尚不得設置在以下場所。
▶ 否則，可造成事故或故障。
　 · 漏雨或潮濕結露的場所
　 · 陽光直射的場所
　 · 直接受到取暖裝置的熱氣吹拂的場所
　 · 煤油、信那水等有引火性的危險物附近
　 · 傾斜、不堅硬、不穩定的地面
　 · 消防設備的附近
　 · 晃動劇烈的場所
　 · 多灰塵的場所
　 · 產生強大磁場或電波的設備附近

● 本機上面或周圍不得放置盛水或藥劑的容器或物品。
▶ 水份或異物進入內部，可致觸電或故障。

● 通風口附近不得放置物品。
▶ 有妨通風，則內部溫度異常昇高，造成火災或故障。

● 不得強行彎曲電源軟線，也不得在其上壓放重物。
▶ 否則，可造成漏電事故或火災。

● 千萬不得用濕手拔下或插入電源插頭。
▶ 否則，可致觸電。

● 不得牽拉電源軟線拔下電源插頭。
▶ 否則，電源軟線損傷，造成漏電事故或火災。

● 本產品備用插銷最大容量為500瓦。千萬不得連接500瓦以上的設備。
▶ 否則，可造成漏電事故或火災。

● 調整設定開關時，應使用接地條等，采取驅電措施。
▶ 若產生靜電，可損壞基板上的電子元件。

禁止 禁止 禁止 禁止 禁止 禁止 禁止 禁止 禁止

設置時

⚠ 注意

●務必使用符合規格的電源。利用加長電線時,應使用符合規格的室內用線。
  ▶否則,可造成火災或故障。

●千萬不得使用多分支插座。
  ▶否則,可造成火災或觸電。

●不得將電源軟線或通信軟線伸出到被人踐踏或絆人的通道上。
  ▶否則,可致翻倒而傷人,而且,可損傷軟線。

●本機的接地端子務必連接地線。

●設置本機時,應離開牆面等10公分以上。

🚫 禁 止

🚫 禁 止

🚫 禁 止

使用時

⚠ 警告

●本機限日本國內專用。
  ▶在海外使用,因電源規格不同,可造成火災、事故或故障。

●本機不得在工商業地區以外使用。
  ▶在住宅區或其鄰接處使用,會妨礙電視機、收音機、電話機等接收信號。

●萬一從本機中冒煙、發出氣味或異常聲響等,應立即拔下電源插頭,停止使用。
  ▶在異常狀態下使用,可造成火災或事故。

判 斷 爲 異 常 時
1　斷開電源
2　從插座上拔下電源插頭
3　通知當地的經銷店

●不得在電源插頭未正確插入插座中或積滿灰塵的狀態下放置不管。
  ▶否則,可造成觸電或火災,應定期檢查。

●千萬不得拆卸、修理或改造本書未指示的部位。
  ▶否則,可造成火災、異常工作或故障。
  需要修理等時,請委託當地的經銷店。
  因改造本機而造成損害,本公司概不負責。

🚫 禁 止

🔌 拔下電源

🚫 禁 止

🚫 禁止拆卸

使用時

⚠ 注意

●應提請屬於下列情況之一的顧客，不要利用本機游戲。
　▶否則，可致事故或引發疾病，加重症狀。

🚫
禁　止

·飲酒者　　　·手臂、手腕有病，或正在接受治療

●千萬不得用濕手拔下或插入電源插頭。
　▶否則，可致觸電。

🚫
禁　止

●不得如下操作電源軟線。
　▶否則，可造成火災或觸電。

🚫
禁　止

·劃傷　　　·加工　　　·強行彎曲　　　·扭轉　　　·加熱
·牽拉　　　·打結　　　·腳踏　　　　·擠壓或打釘

●萬一電源軟線、電源插頭損傷時，應立即停止使用，委託當地的經銷店更換零件。
　▶在損傷狀態下使用，可造成火災或觸電。

●不得在成形品上面放置物品或加以荷重及衝撞。
　▶否則，物品掉落或殼體損壞乃致傷人。

🚫
禁　止

檢查和打掃

⚠ 警告

●檢查或打掃本機時，務必斷開電源，從插座上拔下電源插頭。
　▶否則，可致觸電。

拔下電源插頭

●殼體內部有的部分處於高電壓狀態。打開內門時，應倍加小心不要觸撞。關閉內門時，
　務必用三只螺釘確切固定。
　▶若未確切固定內門，則本機不通電。若螺釘未旋緊，可造成錯誤工作或故障。

●更換零件或易耗品時，務必使用本公司指定的產品。千萬不得使用或混用其它產品。
　▶否則，可造成火災或故障。

🚫
禁　止

●千萬不得拆卸、修理或改造本書未指示的部位。
　▶否則，可造成火災、異常工作或故障。
　　需要修理等時，請委託當地的經銷店。
　　因改造本機而造成損害，本公司概不負責。

🚫
禁止拆卸

●打掃本機時，用軟布蘸取中性洗劑，擰乾後再擦拭。
　▶使用信那水等有機溶劑，可致本機變質。
　▶本機內部滲水，可造成觸電或故障。

移動／搬運時

⚠ 注意

●本機內部裝有顯示器、電子元件、精密器件等，不耐震動和衝撞。移動和搬運時，應精心操作。
千萬不要翻倒橫放。

🚫
禁　止

●移動本機前，將全部可調之腳調至最上面，用腳輪移動。
另外，務必斷開電源，從插座上拔下電源插頭。
▶否則，可造成事故、損傷或故障。

拔下電源插頭

●移動本機時，不得在殼體連接部位強加外力。
▶否則，可致受傷或造成事故，損壞本機。

請留意

●本機的設置、操作、檢查、打掃、移動及搬運，請遵照本書所載步驟及內容進行，確保安全。

●不要揭下貼在本機上的"警告""注意"等標簽。

●不要在相當於間接性警告或注意的狀態下，設置、操作、檢查、打掃、移動或搬運等。

●因轉讓等，本機的所有者發生變化時，務必將本書轉交給新的所有者。

●本書遺失或破損時，請惠詢當地的經銷店。

1 規　　格

規			格

外　形　尺　寸	參看上圖：mm(in)
重　　　　　量	主機：約250kg（551lb）　　座位：約33kg（73lb）〔1個〕
額 定 耗 電 量 量	360W
顯　　示　　器	29英寸彩色顯示器2臺
附　　　　　件	・使用説明書……………………………………………………………本書 ・存幣箱鑰匙……………………………………………………………2 ・維修用鑰匙……………………………………………………………2 ・連接器A………………………………………………………………2 ・連接器B………………………………………………………………2 ・連接器用固定件〔螺栓／平墊圈／彈簧墊圈〕……………………16 ・通信用軟線……………………………………………………………1 ・硬幣封條………………………………………………………………2

●萬一有不足零件或不良零件，請惠詢當地的經銷店。
●本機的規格因性能改良等理由而變更時，恕不預告。

2 Names of parts and list of main parts

■Main machine

No.	Part name	Part #	Quantity	Remarks
❶	29inch color monitor	002426	2	
❷	Monitor adjustment PCB	—	2	
❸	Fluorescent light unit	—	1	
❹	Main unit	—	1	
❺	Seat unit	—	2	
❻	Joint fitting A	402988A	2	Attachment
❼	Joint fitting B	402989A	2	Attachment
❽	Control panel	—	2	
❾	Steering wheel unit	—	2	
❿	Center cap	057146	2	
⓫	Shift unit	—	2	
⓬	Pedal unit	—	2	
⓭	Hand brake unit	—	2	
⓮	Coin door unit	000664	1	Include ⓱~⓴GM688-AD/AF/TB
		002566	1	Include ⓱~⓴GM688-HD
⓯	Coin box	100491	1	
⓰	Coin input port	—	2	
⓱	Coin return port	—	1	
⓲	Coin door	—	1	
⓳	Maintenance door	—	1	
⓴	Coin selector	054598	2	GM688-AD/AF/TB
		002495	2	GM688-HD
㉑	Coin counter	054339	2	
㉒	Service panel switch	054337	6	
㉓	AC bracket	303144	1	
㉔	AC power cord	053090	1	
㉕	Main power switch	003110	2	
㉖	Circuit protector	002483	1	
㉗	Earth terminal	055905	1	
㉘	Network pin jack	—	1	
㉙	Caster	001640	12	
㉚	Adjuster	002102	12	
㉛	Switching power	003103	1	Main PCB(5v)
㉜	Switching power	003092	1	Main PCB(12v)
㉝	Switching power	003105	2	Motor(12v)
㉞	Transformer	002494	1	
㉟	VIEW shift switch	003384	2	
㊱	AT/MT shift switch	003385	2	
㊲	Speaker	503036	4	
㊳	Fan	003128	2	
㊴	PCB (steering wheel control PCB)	—	2	
㊵	PCB(Game board)	—	2	
㊶	Back door	—	1	

■Steering wheel unit ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

■Hand brake unit ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

■Shift unit ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬   ■Pedal unit ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

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■Steering wheel unit×2

No.	Part name	Part #	Quantity	Remarks
❶	Motor	003152	1	
❷	Gear head	003151	1	
❸	Bearing	001121	2	
❹	Potentiometer	001123	1	
❺	Timing belt	003149	1	
❻	Unit A bracket	302827A	1	
❼	Unit B bracket	302828A	1	
❽	Steering wheel shaft	302829	1	
❾	Support plate A	302826A	1	
❿	Support plate B	403578	1	
⓫	Potentiometer bracket	403669A	1	
⓬	Shaft stopper	403243	1	
⓭	End stopper	403709	1	
⓮	Pulley A	403670	1	
⓯	Pulley B	403708	1	

■ Hand brake unit×2

No.	Part name	Part #	Quantity	Remarks
❶	Bearing	001121	2	
❷	Coil spring	003163	1	
❸	Potentiometer	001123	1	
❹	Suspension rubber	003164	1	
❺	Clamp	003165	1	
❻	Grip	003166	1	
❼	Main base	302976	1	
❽	Bottom base	403762	1	
❾	Stopper bracket	302844	1	
❿	End stopper	403763	2	
⓫	Main fixture	403764	2	
⓬	Potentiometer bracket	403765	1	
⓭	Suspension bracket	302845	1	
⓮	Cover	302975	1	
⓯	Shaft	302974	1	
⓰	Shaft stopper	302851	1	
⓱	Gear(A)	403766	1	
⓲	Gear(B)	403767	1	
⓳	Hand brake lever	200697	1	
⓴	Arm cover	303161	1	
㉑	Spacer A	403887	1	
㉒	Grommet	003167	6	

■Shift unit×2

No.	Part name	Part #	Quantity	Remarks
❶	Joy stick	001854	1	
❷	Fixture joint A	302314	1	

■Pedal unit×2

No.	Part name	Part #	Quantity	Remarks
❶	Pedal unit	001870	1	
❷	Potentiometer	001123	2	

3 How to play

This machine to play a driving game in which eight small rally cars (one of which is to be selected by the player and the other rival cars). These cars develop competing race through a virtual urban area in the scene as if the player is racing in a beautiful resort town in southern France. This machine allows the player to enjoy a thrilling driving game while controlling his car in "quick turn" and "drift driving" by pulling up or down the hand brake lever. Besides, the matching race of maximum 4P networks can be enjoyed.

■How to play ━

1. Put a coin into the slot to start the game. (In the free play mode, push the [VIEW] shift to start the game.)
2. The Network Entry screen appears. If a coin is put in another machine which is connected to this machine through network while this screen is displayed, the network race starts automatically.
   ※If the machine is not connected to the network or it is impossible for player to play the game because someone else is playing the game, proceed to the operation in the following item 3 after a coin is put in.
3. Select the player car on the "Machine Select Screen". Select desired car by turning the steering wheel and set it by stepping on the accelerator.
4. The screen changes to the "Game Select Screen". Then, make the game mode selection among the following modes. Select desired mode by turning the steering wheel and set it by stepping on the accelerator.
   - Beginner's mode ·····················A part of the urban area in the map of entire courses is made into a circuit, where the beginner plays a circuit race.
   - Advanced mode ·····················All the roads are made open, and the player plays circuit race while looking for the shortest and fastest route. This mode is for an expert player.
   - Super-advanced mode ············The player plays circuit race in the reverse course to that of the advanced mode. This mode is for a super-expert player who wants to challenge an extremely difficult course where a labyrinth of roads is running.
   - Special mode ·······················This mode can be selected only for the network play. The player can enjoy the car racing "Tag" in a closed urban area.
5. When the selection among the above-mentioned modes is over, then the game starts. The car racing game begins when the countdown has ended on the screen.
6. The basic control is performed by the operation of the following equipments.
   - Steering wheel ·····················Running direction can be controlled by turning the wheel right or left.
   - Accelerator ························Stepping on it accelerates and releasing it decelerates the car speed.
   - Brake ·······························Stepping on it brakes the car.
   - Hand brake ·························When it is pulled up, the rear wheels are locked and skidding for "Quick Turn".
   - Shift operation ····················Manual operation (MT) or automatic operation (AT) can be selected. Switching over to MT or AT can be performed by the depression of the [AT/MT] shift switch button at any time during play.
   - View shift ·························Depression on the [VIEW] shift switch button enables the player to select a view among the following three kinds at any time during play.
   Rear View/Distant View/Driver's View
   In special mode, the "Super-distant View" is exclusively set and the player can not select any other views than this.

18

7. The rules for each mode are as follows.
- Beginner's/Advanced/Super-advanced modes
  The remaining play time is added whenever the player car passes each check point in the course. The game ends either when the player's car has run the whole preset course or when the play time is up.
  The ranking, entire route travelled and the point reached at that time are displayed on the map when the game is over.
  When the player's car has run the whole distance in the race, the entire route travelled by the player's car is replayed on the screen, and the ranking, total lap time and course record are displayed. Name entry is possible only when the player has renewed the course record.
- Special mode
  A "Bomb Mark" is attached to only one of the all participant cars, which becomes the "Tagger" in tag. When the "Tagger" bumps on any one of the other participant cars, the "Bomb Mark" is handed over to the bumped car. The player who has the "Bomb Mark" on his car at the time when the limited time is up loses the game.

■Buy-in during the game━ ━
In [GTI CLUBₜₘ], no buy-in is allowed.

■Player car ━
One "Player's Car" can be selected out of the total five cars including four small cars and one premium car (super car).
There is no difference in performance among the small cars but only the premium car excels in accelerating performance. The play fee may be set higher only for the premium car. (See page 32 for setting the additional number of coins.)

■Rival cars ━
The "Rival Cars" are to be composed of the small cars which have not be selected (except the premium car) and additional four rival cars.

4 Opening and closing the doors

4-1 Opening and closing the maintenance door

■How to open the maintenance door ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

⚠

●Take care not to apply any load or impact to the maintenance door when it is open.

1 Insert the attached maintenance key into the keyhole of the door in the upper portion of the coin door unit, and turn it clockwise.
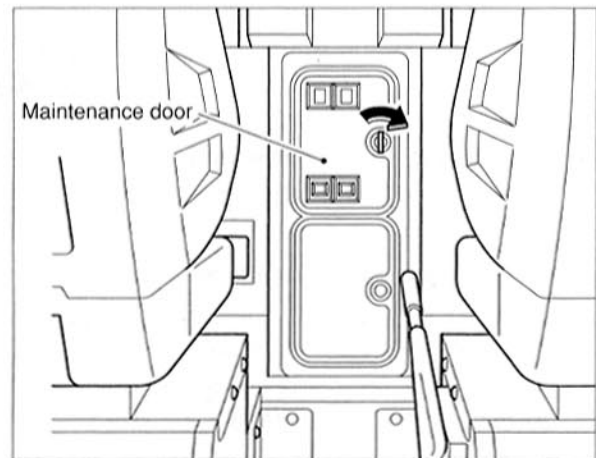
Maintenance door

2 Open the maintenance door.
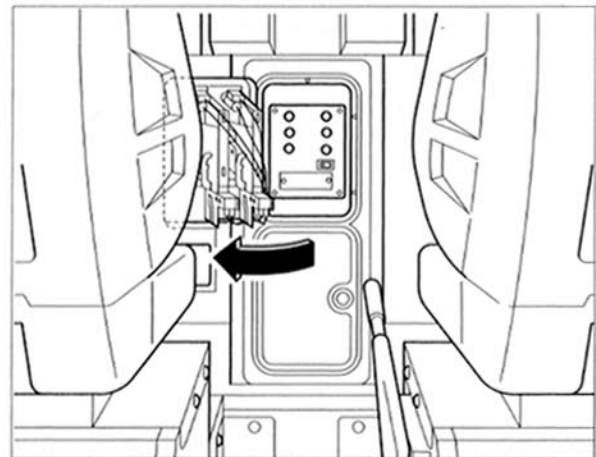
■How to close the maintenance door ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

1 Close the maintenance door.

2 Turn the maintenance key counterclockwise.

4-2 Opening and closing the coin door

■How to take out the coin box ━━━━━━━━━━━━━━━━━━

⚠

●Securely lock the door for protection against burglaries.
●Note that the coin box is considerably heavy to take out if it is full of coins.

1 | Insert the attached coin box key in the coin box door and turn it clockwise.

2 | Open the coin door and take out the coin box .
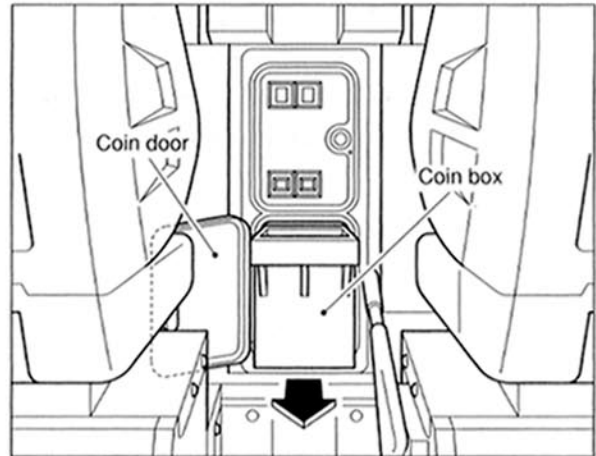
Coin door

Coin box

■Coin counter ━━━━━━━━━━━━━━━━━━━━━━━

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

Coin counter

21
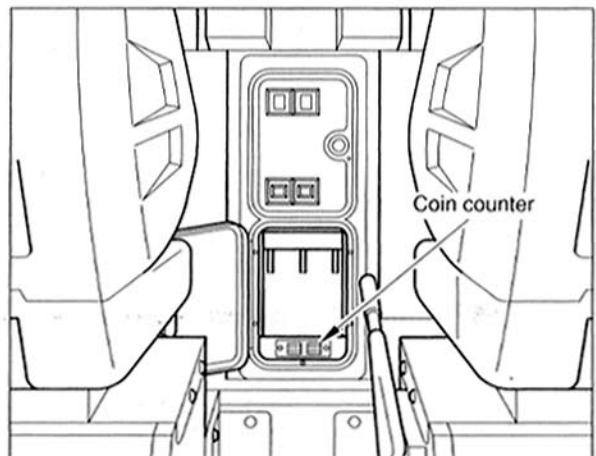
5 Networking game machines and PCB settings

5-1 How to network game machines

Since this game machine is in the network communication design, two machines (for 4P) can be connected to the network. After installing the machines, connect the attached networking cable to the networking pin jacks of the main unit.

⚠

●When using the game machine independently, do not connect anything to the pin jack.
●The pin jack for networking is exclusively for [GTI CLUB™]. Never connect it to other game machines or AV equipment.
●When the network connection is made, set the "Network ID" of the DIP switch provided at the PCB main board of the machine to be connected by referring to "DIP SWITCH SETTINGS" in page 30, and be sure to confirm in the manual test mode that the network game can be played normally.

Pin jack for network connection

Networking cord

■Networking game ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

The first game machine
pin jack for 1P and 2P

The second game machine
pin jack for 3P and 4P
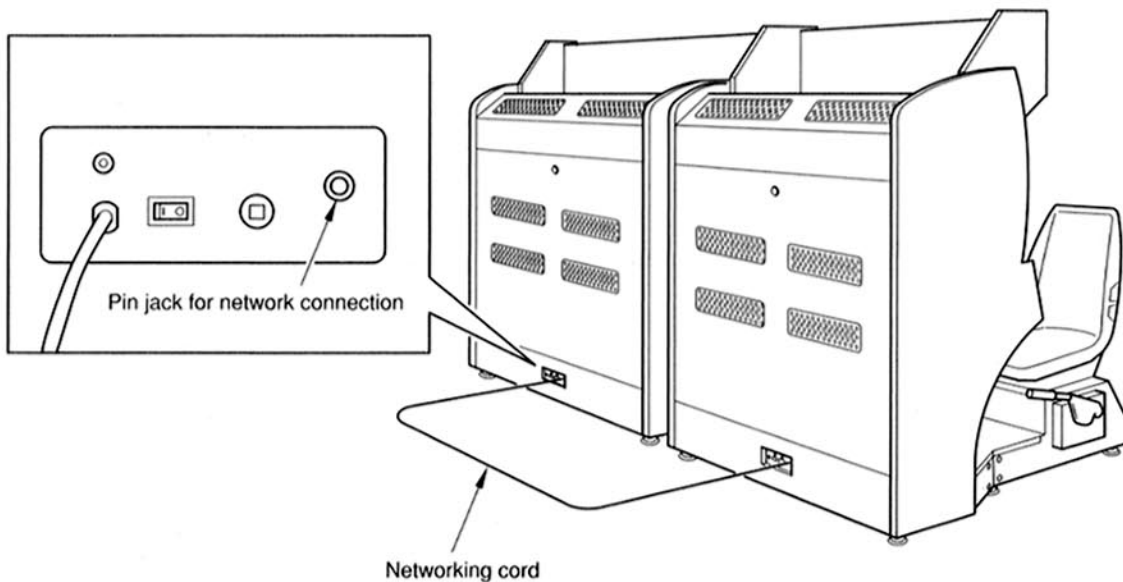
Networking cord
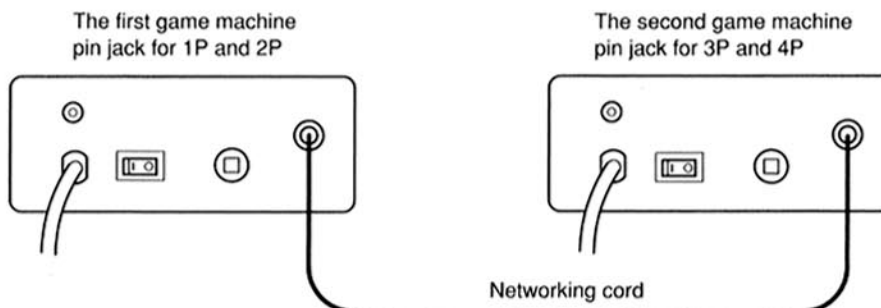
5-2 PCB start-up check (self test)

■When the power switch is turned ON after the installation of machine, the performance of PCB is checked automatically and the result is displayed on the screen.

⚠

●Be sure to perform the self test before using the machine. If an abnormality persists or the machine does not operate properly, turn OFF the power switch immediately to stop operating the machine.

■Result of test ━

┌─ If test is OK ─────────────────────────────

• The position of steering wheel is corrected automatically.

┌─ If any abnormality is detected ─────────────────

• "BAD" appears on the screen, and the checking is repeated.
If "24G BAD" is displayed, once turn OFF the power switch and then turn it ON again while depressing the test switch button on the service panel. (The content of setting in manual test and the course record return to those having been set at the time of shipment.)

After the machine is installed, or PCB is repaired or replaced, once return the content of setting to those having been set at the time of shipment by turning ON the power switch while depressing the test switch of the service panel. If the abnormality indication still appears or the machine does not operates normally, turn OFF the power switch immediately to stop operating the machine.

5-3 Correcting the positions of the steering wheel etc.

■After the self test, the positions of the following equipment are corrected automatically.
  · Steering wheel/Hand brake/Accelerator/Brake
   At this time, the message "DO NOT TOUCH THE CONTROL DEVICE WHEN THE   MACHINE IS BEING INITIALIZED." appears on the screen. Refrain fromtouching the steering wheel, hand brake, accelerator or brake as long as thismessage appears.
   The steering wheel turns a few times to the left or right automatically.

■Result of position check ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■

┌─If the result is OK───

· When the position check is over, the operation mode returns automatically to the game mode.

┌─ If the result is abnormal ─────────────────────────────────────

The result of check is displayed as follows on the screen.
  · **Steering wheel abnormal**
   The message "DEVICE ERROR (STEERING WHEEL)" appears on the screen.
   What to do ·········The steering wheel control exceeds the correctable range or the steering wheel reaction device is out of order. Make the adjustment by referring to "7-3 Replacing and adjusting the potentiometer" in pages 43 and 45.
  · **Hand brake abnormal**
   The message "DEVICE ERROR (HAND BRAKE) appears on the screen.
   What to do ·········The hand brake control exceeds the correctable range. Make the adjustment by referring to "7-3 Replacing and adjusting the potentiometer" in pages 48 and 49.
  · **Accelerator abnormal**
   The message "DEVICE ERROR (ACCEL) appears on the screen.
   What to do ·········The accelerator control exceeds the correctable range. Make the adjustment by referring to "7-3 Replacing and adjusting the potentiometer" in pages 46 and 47.
  · **Brake abnormal**
   The message "DEVICE ERROR (BRAKE) appears on the screen.
   What to do ·········The brake control exceeds the correctable range. Make the adjustment by referring to "7-3 Replacing and adjusting the potentiometer" in pages 46 and 47.

When any of the above signs is displayed, push the test switch on the service panel to go to the manual test mode.
Then choose [I/O CHECK] to check the device which shows the error. In case that the [DEVICE ERROR] is still displayed after the readjustment, something may be wrong with it.
Turn off the power switch immediately.
If the "GAME MODE" is selected on the "MAIN MENU" screen with some troubles of any devices, the game may not be played normally.
If an error signs is displayed, or the device doesn't work correctly, turn off the power switch immediately.

5-4 Adjusting the game environment （manual test）

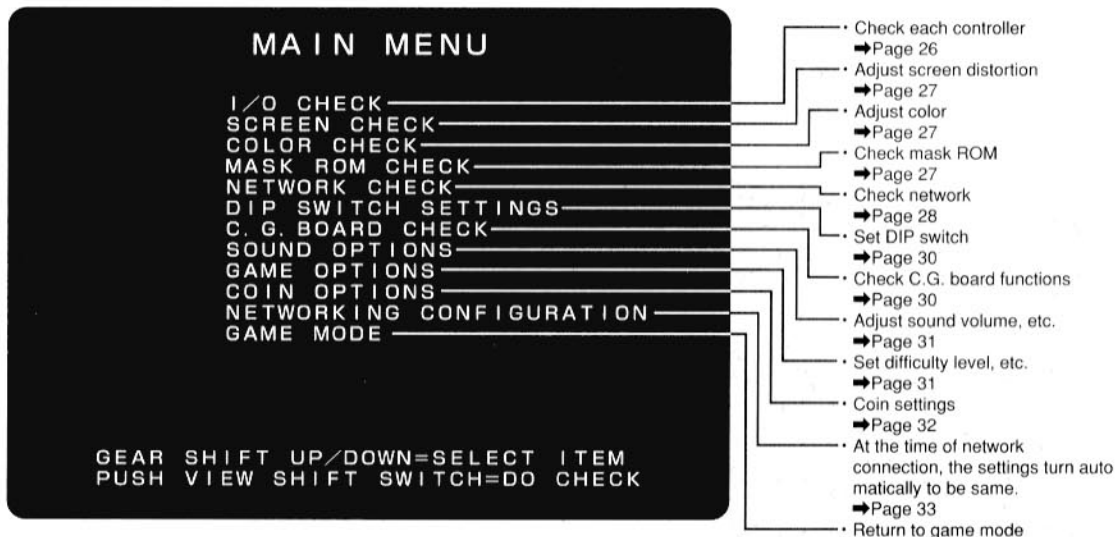Manually check and change the settings for the screen displays and game contents.

■Starting the manual test mode ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

1 Turn on the power switch.
2 Push the test switch on the service panel during the game mode demo (during the game mode demo of all the game machines in the case of networking). (Turning ON the power while holding down the test switch will return all the present manual test settings to the original factory settings at the time of shipment.) The unit is set in the manual test mode and the main menu is displayed on the screen.

■Quit the manual test mode   ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

1 Choose the [GAME MODE] from the Main menu by the shift lever.
2 Push the [VIEW] shift switch.
   • Then, the screen returns to game mode.

■Main mode screen （basic items） ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

```
        MAIN  MENU                          • Check each controller
                                              ➡Page 26
                                            • Adjust screen distortion
    I/O  CHECK                                ➡Page 27
    SCREEN  CHECK                           • Adjust color
    COLOR  CHECK                              ➡Page 27
    MASK  ROM  CHECK                        • Check mask ROM
    NETWORK  CHECK                            ➡Page 27
    DIP  SWITCH  SETTINGS                   • Check network
    C. G. BOARD  CHECK                        ➡Page 28
    SOUND  OPTIONS                          • Set DIP switch
    GAME  OPTIONS                             ➡Page 30
    COIN  OPTIONS                           • Check C.G. board functions
    NETWORKING  CONFIGURATION                 ➡Page 30
    GAME  MODE                              • Adjust sound volume, etc.
                                              ➡Page 31
                                            • Set difficulty level, etc.
                                              ➡Page 31
                                            • Coin settings
                                              ➡Page 32
    GEAR  SHIFT  UP/DOWN=SELECT  ITEM       • At the time of network
    PUSH  VIEW  SHIFT  SWITCH=DO  CHECK       connection, the settings turn auto
                                              matically to be same.
                                              ➡Page 33
                                            • Return to game mode
```

■Selecting each mode ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

How to select each mode from the menu

• Select   ➡   Move the shift lever up or down.

• Set   ➡   Push the [VIEW] shift switch.

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

5-5 Mode descriptions

■The original factory settings are displayed in green;the changed settings are displayed in red.
- After the completion of the setting change, select the "SAVE AND EXIT" and push the [VIEW] shift switch. Then, the settings are saved automatically and the screen returns to the main menu.
- If "EXIT" is selected after the completion of setting change, the message "YOU DID NOT SAVE. DO YOU WANT TO SAVE ? YES/NO" will appear. Select "YES" or "NO" by the shift lever and set it by the [VIEW] shift switch.
- If "YES" is selected, the message "NOW SAVING" will appear, the changed settings will be saved and you will be returned to the main menu.
- If "NO" is selected, the message "NO MODIFICATION" will appear and the changed settings will not be saved.

● If "FACTORY SETTINGS" is selected and the [VIEW] shift switch is pushed, all the settings will return to the original settings that have been made at the time of shipment.

MEMO

I/O CHECK

■The check mode for the controls.
To return to the main menu screen, move up the shift lever while pushing the [VIEW] shift switch.

```
              I / O   CHECK

VIEW  SHIFT SWITCH  OFF      COIN MECH SWITCH  OFF
GEAR  SHIFT SWITCH  – – –    SERVICE  SWITCH   OFF
AT/MT SHIFT SWITCH  OFF      TEST SWITCH       OFF

                    LEFT      CENTER        RIGHT
STEERING WHEEL    +--+-------I-------+--+
  + 00000 (0000)
HAND BRAKE        I MIN +------------ MAX +
  00000 (0000)
ACCEL             I MIN +------------+ MAX +
  00000 (0000)
BRAKE             I MIN +------------+ MAX +
  00000 (0000)

    HOLD VIEW SHIFT SWITCH and GEAR SHIFT DOWN=
            ACTIVE STEERING WHEEL TEST

            HOLD VIEW SHIFT SWITCH and
            GEAR SHIFT UP=EXIT
```

- The marker position changes to show the input value.
- Shows the value for steering wheel in decimal . (hexadecimal)
  The steering wheel controlling position is normal if the "I" mark comes to the "RIGHT" position when the steering wheel is fully turned to the right and if it comes to the "LEFT" position when the steering wheel is fully turned to the left.
- Shows the value for hand brake in decimal. (hexadecimal)
  The hand brake controlling position is normal if the "I" mark comes to "MIN" position when the hand brake is released and if it comes to "MAX" position when the hand brake is fully pulled up.
- Shows the value for the accelerator [decimal (hexadecimal)]. if the "I" mark moves to "MIN" when the accelerator is released and to "MAX" when the accelerator is fully pushed, the accelerator is properly adjusted.
- Shows the value for the brake unit[decimal (hexadecimal)].
  Make sure the "I" make moves to "MIN" when the brake is released and to "MAX" when the brake is fully pushed.
- Check the steering wheel reaction device by putting down the shift lever while pushing the [VIEW] shift switch. The steering wheel turns automatically clockwise and counterclockwise by turns during checking. Then, make sure that the "I" mark moves accordingly to the right and left on the meter which shows the value for the steering wheel. Do not touch the steering wheel while this checking is conducted.

● If the steering wheel or the accelerator is not properly adjusted, make the necessary adjustments while referring to "7-3 Replacing and adjusting the potentiometer" on pages 43 to 49.

MEMO

SCREEN CHECK

■Adjust the focus, distortion and size of the screen while watching the grill screen. Use monitor adjustment PCB (See page 53.) to make the adjustment. To return to the main menu, push the [VIEW] shift switch.

COLOR CHECK

■Make the adjustment using the monitor adjustment PCB (See page 53.) so that the colors of the color bar should be displayed in discrete gradation. To return to the main menu, push the [VIEW] shift switch.
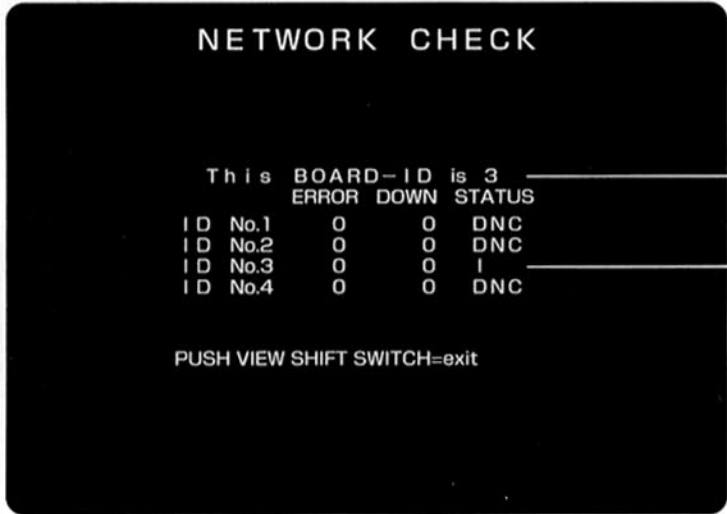
MASK ROM CHECK

■Mask ROMs are checked one by one, and when no abnormality is found, "OK" is displayed. If any abnormality is found, "BAD" is displayed. To start checking, push the [AT/MT] shift switch. To return to the main menu, push the [VIEW] shift switch.
· When [BAD] is displayed, turn off the power switch immediately.

NETWORK CHECK

■Turn all machines that are connected with the network communication to this mode, observe the screen for longer than one minute. To make sure that they satisfy the conditions of the following three items.
To return to the Main menu, push the [VIEW] shift switch.

⚠

●If any of the three items responds incorrectly, it indicates possible communication malfunction. Take measures while referring to "5-6 Measures to be taken when there is a network abnormality" on page 34. If the same symptom persists in spite of taking measures or a problem not covered in this manual occurs, turn off the power switch immediately to stop operating the machine.

```
                    NETWORK   CHECK



            This  BOARD-ID  is  3              ──────── · Shows the "Network ID" of the connected
                  ERROR  DOWN  STATUS                      game machine.
          I D  No.1    0      0    DNC                     (A number form 1 to 4)
          I D  No.2    0      0    DNC
          I D  No.3    0      0     I          ──────── · "DNC" (did not connect) appears if
          I D  No.4    0      0    DNC                     connection is not made.


          PUSH VIEW SHIFT SWITCH=exit
```

┌─Check items ───
│ · Check that the "I" mark in the STATUS column is moving from the left to the
│   right at a fixed speed.
│ · Check that the value in the ERROR column is below "10" after one minute.
│ · Check that the value in the DOWN column does not change from "0".
└───

■Screen display when game machines are networked ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

●One game machine

Screen for player 1

```
          NETWORK   CHECK



        This  BOARD-ID  is1
              ERROR  DOWN  STATUS
     ID  No.1     O      O    I
     ID  No.2     O      O    I
     ID  No.3     O      O    DNC
     ID  No.4     O      O    DNC


        PUSH VIEW SHIFT SWITCH=exit
```

Screen for player 2

```
          NETWORK   CHECK



        This  BOARD-ID  is2
              ERROR  DOWN  STATUS
     ID  No.1     O      O    I
     ID  No.2     O      O    I
     ID  No.3     O      O    DNC
     ID  No.4     O      O    DNC


        PUSH VIEW SHIFT SWITCH=exit
```

●Game machines are networked

Screen for player 1

```
          NETWORK   CHECK



        This  BOARD-ID  is1
              ERROR  DOWN  STATUS
     ID  No.1     O      O    I
     ID  No.2     O      O    I
     ID  No.3     O      O    I
     ID  No.4     O      O    I


        PUSH VIEW SHIFT SWITCH=exit
```

Screen for player 2

```
          NETWORK   CHECK



        This  BOARD-ID  is2
              ERROR  DOWN  STATUS
     ID  No.1     O      O    I
     ID  No.2     O      O    I
     ID  No.3     O      O    I
     ID  No.4     O      O    I


        PUSH VIEW SHIFT SWITCH=exit
```

Screen for player 3

```
          NETWORK   CHECK



        This  BOARD-ID  is3
              ERROR  DOWN  STATUS
     ID  No.1     O      O    I
     ID  No.2     O      O    I
     ID  No.3     O      O    I
     ID  No.4     O      O    I


        PUSH VIEW SHIFT SWITCH=exit
```

Screen for player 4

```
          NETWORK   CHECK



        This  BOARD-ID  is4
              ERROR  DOWN  STATUS
     ID  No.1     O      O    I
     ID  No.2     O      O    I
     ID  No.3     O      O    I
     ID  No.4     O      O    I


        PUSH VIEW SHIFT SWITCH=exit
```

DIP SWITCH SETTINGS

(Set DIP switch)

■The DIP switch setting check mode.
When changing the DIP switch settings, set the DIP switch by referring to the chart below.
To return to the main menu, push the [VIEW] shift switch.

⚠

●Be sure to turn OFF the power switch before setting the DIP switch.
●Generation of static electricity may cause breakage of electronic parts on the PCB. Be sure to eliminate static electricity by means of the earthing band.

■DIP switch setting chart ▬

● Main board (upper PCB) DIP switch

Setting			1	2	3	4
Network ID	First machine	1P	OFF	OFF		
		2P	ON	OFF		
	Second machine	3P	OFF	ON		
		4P	ON	ON		
Not in use (Be sure to set it OFF.)					OFF	OFF

• When setting the networking, be sure to provide different numbers from low to high to the "Communication ID".
(Example: When connecting the machines, set 1 and 2 of the "Communication ID" to the first machine, and set 3 and 4 of the "Communication ID" to the second one.)
• The DIP switch on the PCB can be shifted easily by utilizing a thin flatblade screwdriver or a ball-point pen.

MEMO

C.G.BOARD CHECK

(Check C.G. board functions)

■The C.G. board function check mode.
Observe the screen in this mode to check whether the C.G. board is functioning properly. To return to the main menu, push the [VIEW] shift switch.
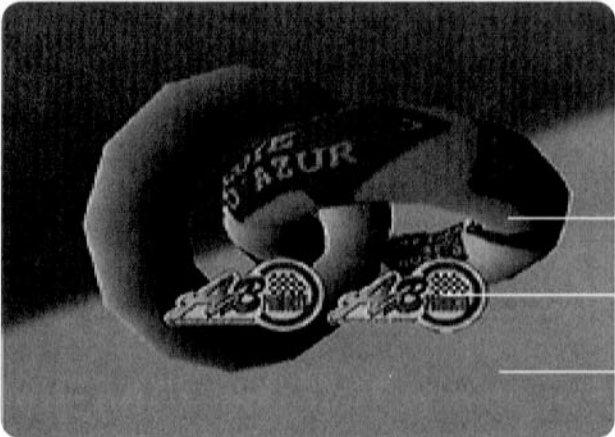
·· Two touruses (doughnut-shape bodies) are rotating.

·· Tow "A&B PRODUCT" logos displayed in front of the touruses are flickering alternately.

·· The background displayed at the back of the touruses is rotating.

SOUND OPTIONS

■The following screen appears when this mode is selected. (Adjust sound volume)

```
            SOUND  OPTIONS

Sound  in  Attract  Mode
      All  The  Time

Sound  Volume

                                    20

Sound  Scale  Check

B.G.M.  in  GAME  MODE  ON

FACTORY  SETTINGS

SAVE  and  EXIT

EXIT

GEAR  SHIFT  UP/DOWN  =  SELECT  OPTION
PUSH VIEW SHIFT SWITCH = MODIFY  SETTING
```
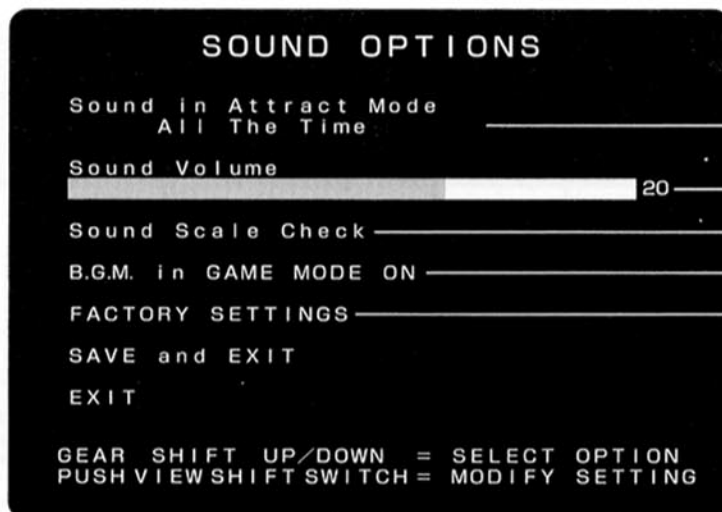
· Turns the demo play sound ON or OFF.
  · ALL THE TIME————Sound always ON
  · ONCE EVERY 4 CYCLES ——Sound ON
                                every 4 cycles
  · COMPLETELY OFF——Sound always OFF

· Adjusts the volume from the level 0 (no sound)
  to 30 (Max.)
  ※To raise the sound level, push the [VIEW]
    shift switch.
    To lower the sound level, push the [VIEW]
    shift switch while pushing the [AT/MT] shift
    switch.

· You will hear a do-re-mi musical scale from the
  left external speaker and then the right external
  speaker,which is repeated twice.

· Turns the BGM during the game ON or OFF.
  ※The setting is only for the BGM to be used while
    the car is running on the course, and not for the
    demo BGM, voice or special effect sound.
· Returns all the settings to the factory settings at
  the time of shipment.

GAME OPTIONS

(Game settings)

■The following screen appears when this mode is selected.

⚠

●When connecting the machines to the network communication, be sure
to set all the PCBs in the same configuration.

```
            GAME  OPTIONS

Tag  Game            180  counts
              Difficulty Level    Number of Laps
Normal  Race         4/MEDIUM          3
Hard  Race           4/MEDIUM          3
Very  Hard  Race     4/MEDIUM          3

Motor  Power  Level            2/MEDIUM
Speed  Meter  Display          km/h
Game  Joining  Period          12
Course  Record  Saving     ·   Enable
Bonus  Credit  for  Winner     Disable
FACTORY  SETTINGS
SAVE  and  EXIT
EXIT

GEAR  SHIFT  UP/DOWN  =  SELECT  OPTION
PUSH VIEW SHIFT SWITCH = MODIFY  SETTING
```

· Difficulty level settings (8 levels)
  1/EASIEST   Very easy
  2/VERY EASY   ⇑
  3/EASY
  4/MEDIUM ————— Medium
  5/MEDIUM HARD
  6/HARD   ⇓
  7/VERY HARD
  8/HARDEST   Very difficult
· Time limits of special mode
  (100, 120, 140, 160, 180, 200, 220, 240)
                    └ standard
· Sets circulation frequency (2, 3, 4 times)

· Sets force of the steering wheel reaction device
  1/LIGHT   Mild
  2/MEDIUM --,   ⇑
  3/HEAVY   '---- Standard
  4/VERY HEAVY   ⇓
                   Heavy
· Switches the speed meter display
  [Km/h] or [MPH]
· (4, 8, 12, 16)
     └ standard
· Recording the course record
  When "Disable" is selected, the course record
  is not recorded nor initialized.
· When "Enable" is selected, 1 credit is added
  to the top ranking machine in the network
  communication play among 4 sets of machine.

● If the setting of circulation frequency for a course is changed and saved, the
course record of the course is initialized.

MEMO

COIN OPTIONS

(Coin settings)

■The following screen appears when this mode is selected.

⚠

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

```
                COIN  OPTIONS

    Free  Play              NO

    Coin  Mechanism         INDEPENDENT
    Coin  Slots             2 Coins 1 Credit
        Premium  Start      1Coin



    FACTORY  SETTINGS
    SAVE  and  EXIT
    EXIT



    GEAR  SHIFT  UP/DOWN    = SELECT  OPTION
    PUSH VIEW SHIFT SWITCH  = MODIFY  SETTING
```
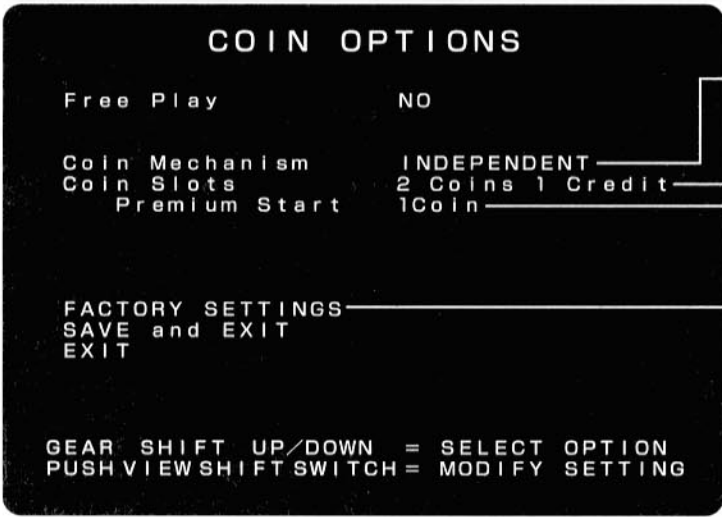
- · Always keep it set to INDEPENDENT.

- · Sets the relation between the number of coins and the number of credits.
- · When Free Play is set at "YES", the "Coin Mechanism", "Coin Slots" and "Premium Start" are not displayed.
- · Sets the number of additional coins for the selection of the premium car (super car).

- · Returns all the settings to the factory settings at the time of shipment.

■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	17	18	19	20
COIN(S)	1	1	1	1	1	1	1	2	2	2	3	3	3	4	4	4	5	5	6	6
CREDIT(S)	1	2	3	4	5	6	7	1	3	5	1	2	4	1	3	5	1	2	1	5

SETTING	21	22	23	24	25	26	27	28	29	30	31	32
COIN(S)	7	7	8	8	9	10	11	12	13	14	15	16
CREDIT(S)	1	2	1	3	1	1	1	1	1	1	1	1

■Number of additional coins for the premium car.

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

NETWORKING CONFIGURATION

In this mode, just one machine needs the setting. All the other machines in the network are automatically configured to the same setting.

| One machine | Two machines connected by networking |
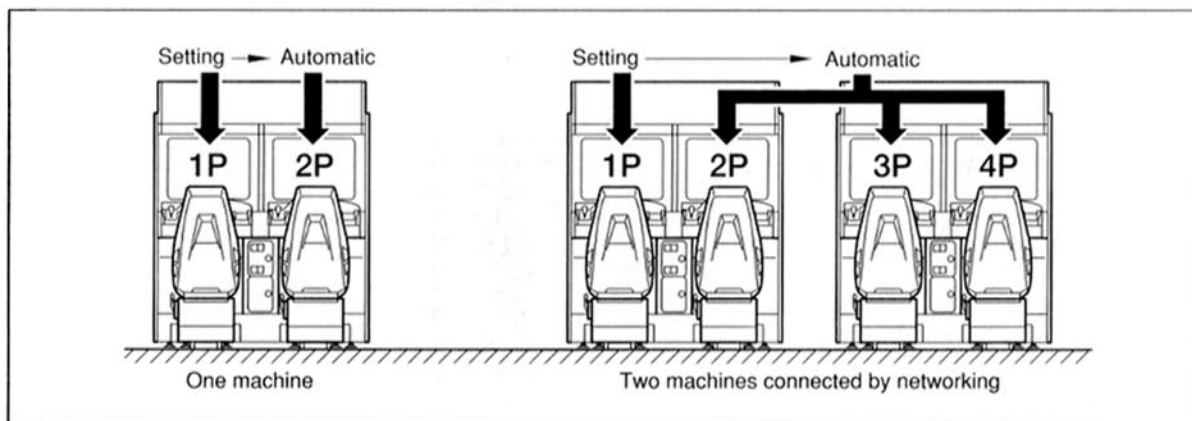
Setting modes which can be unified are as follow:
- "SOUND OPTIONS" (See page 31.)
- "GAME OPTIONS" (See page 31.)
- "COIN OPTIONS" (See page 32.)

■How to make unified setting ━━━━━━━━━━━━━━━━━━━━

1. Since the machine modes are unified in network communication function, check whether the network communication is normal or abnormal in the "Network Check" mode.
2. Set all the other machines (2p, 3p, 4p), which are connected to the network, displaying the "Main Menu" screen for the manual test.
3. Set "SOUND OPTIONS", "GAME OPTIONS" and "COIN OPTIONS" for only the 1P machine. (Do not make any setting with the other machines.)
4. Now on the 1P machine, select "NETWORKING CONFIGURATION" on the "Main Menu" screen and push the [VIEW]shift switch.
5. Make sure that all the other machines in the nerwork are now in the "NETWORKING CONFIGURATION" mode.
6. Push the [AT/MT] shift switch of the 1P machine for all the other machines to set themselves. If the [VIEW] shift switch is pushed at this time, the screen returns to the "Main Menu".
7. When the network communication setting is over, the screen returns automatically to the "Main Menu".

● If the network communication setting has not been made normally by the above steps 5 to 7, make the same setting by manually operating individual machines.

MEMO

5-6 Measures to be taken when there is a network abnormality

If the "NETWORK ERROR" message appears, if any item responds incorrectly in the network communication check described on pages 28 and 29, or if the monitor displays differ from the specified ones, take the following measures.

⚠️

● If the same symptom persists in spite of taking measures or a problem not covered in this manual occurs, immediately turn off the power switch to stop operating the machine.

Symptom 1 The "NETWORK ERROR" message appears on the screen after the power is turned on.
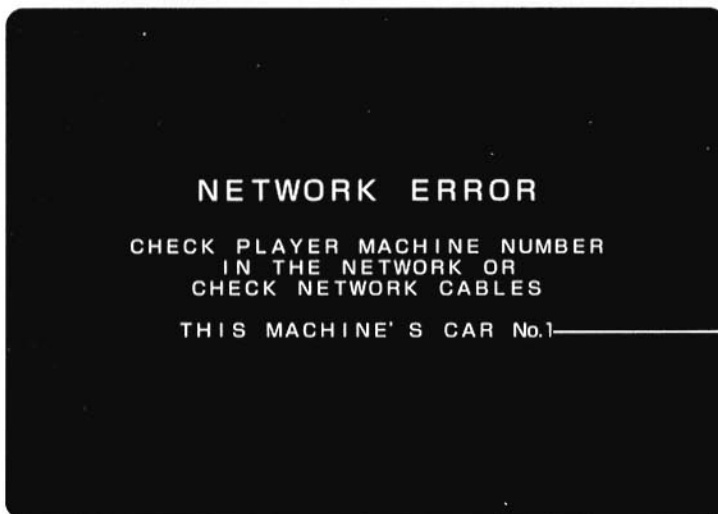
```
          NETWORK   ERROR

     CHECK  PLAYER  MACHINE  NUMBER
          IN  THE  NETWORK  OR
     CHECK  NETWORK  CABLES

     THIS  MACHINE' S  CAR  No.1
```
· Shows the "Network ID" of the game machine (A number for 1to4)

■Possible causes and measures to be taken ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

Possible causes	Measures
● The main board DIP switch "Network ID" settings are improper.	○ Set the DIP switch properly. (See page 30.)
● One of the networking cords used is disconnected from the game machine.	○ Connect the game machines properly with the networking cord.

Symptom 2   The "NETWORK ERROR" message appears on the screen during playing.

```
NETWORK  ERROR

CALL  THE  CLARK
```

■Possible causes and measures to be taken ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

Possible causes	Measures
● One of the networking cords has been disconnected from during play.	○ 1. Turn OFF the power switch. 2. Connect the networking cord properly. 3. Turn ON the power switch.
● One of the networking cords has been internally broken or broken.	○ Replace the networking cord with the spare networking cord. (You can also use commercially-sold video cable ($75\,\Omega$ 3C-FV) having a length of 2m(78.74in) or less.)
● The test switch (on the service panel) of one of the networked game machines has been pushed. ⚠ ●The test switch should pushed during the game demo of all the networked game machines.	○ 1. Turn OFF the power switches of the networked game machines. 2. Close the maintenance door. 3. Turn ON the power switches.
● Any of the machines which are connected through the network have different game option settings (in the manual test).	○ Enter the manual test mode and set for the same game options among all the machines.

6 Setting up the game machine

6-1 Connecting the units

■How to connect the units ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

⚠

●Do not move the machine by pulling the wires or connectors of the seat unit or the main unit.
●When connecting the seat unit to the main unit, take due care not to put the wires between them.

1 Fix the attached joint fittings A and joint fittings B temporarily to the seat unit.

Joint fitting A
Joint fitting B
Screw
Seat unit

The figure shows the exampleof the right seat.
For the left seat,change the positionsof the joint
fittings A and joint fittings B.
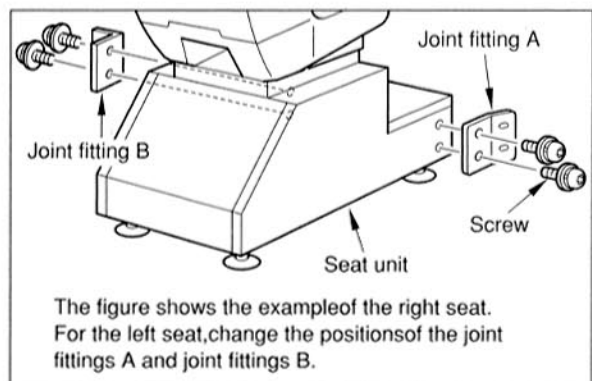
2 Connect the connector of the main unit to that of the seat units.

Connector
Main unit   Seat unit
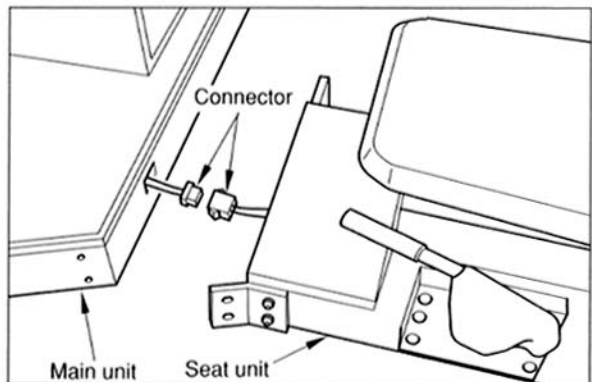
3 Fit the main unit and the seat units and temporarily fix the joint of the main unit.

Main unit
Screw
Joint fitting A
Seat unit   Joint fitting B
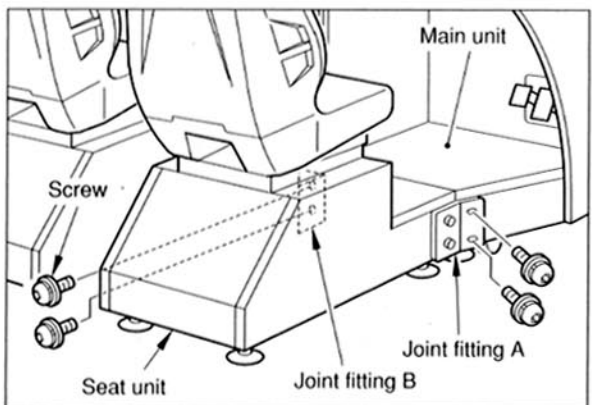
● After finishing the "6-2 Fastening the adjusters" on page 37, tighten the joint securely.

MEMO

6-2 Fastening the adjusters

■How to fasten the adjusters ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

⚠

●Adjust the adjusters so that the casters do not touch the floor. Take care not to exceed the maximum adjusting height of the adjuster.
●After checking that all the adjusters stand on the floor and the units do not wobble, tighten the hexagon nuts upward.

Maximum adjusting height: 85 mm (3.35in)
(Min.55 mm)
(Min.2.17in)

Hexagon nut
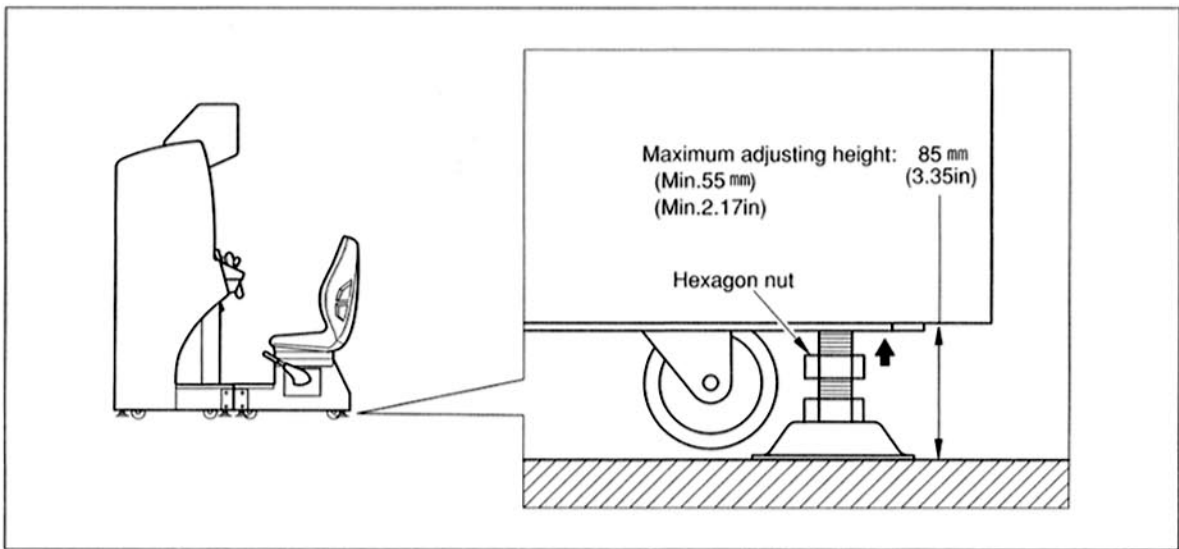
6-3 AC bracket

■AC bracket ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

The AC bracket is located on the back of the main unit.

Earth terminal

Network pin jack

Circuit protector

Main power switch
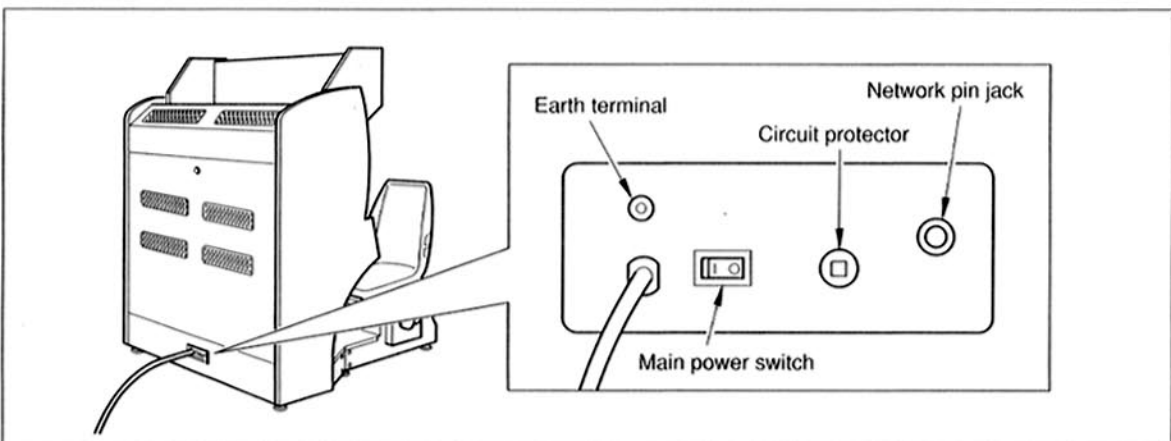
6-4 Service panel

■Service panel ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

You will find the service panel when the maintenance door is opened with the attached maintenance key.

- Service switch (left)
- Service switch (right)
- Demagnetizing switch (left)
- Demagnetizing switch (right)
- Test switch (left)
- Test switch (right)
- Internal power switch
- Coin counter compartment (for two pieces)

Service panel
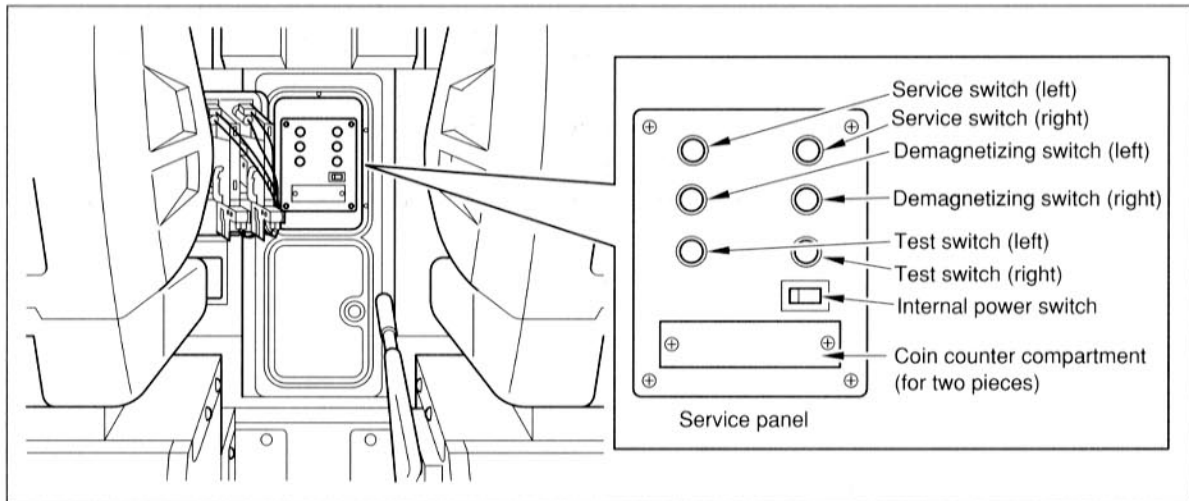
6-5 Separating and moving the units

The units of the machine can be separated.

■How to remove the units ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

> ●Before separating each units from the machine, be sure to turn off the power switch and remove the power cord plug from the receptacle.
> ●When moving the machine, be sure to separate the main unit and the seat units.
> ●Before moving the machine, fully screw up all adjusters. Move the machine on the casters.
> ●When moving the machine, take care not to damage the wires of the main unit and seat units.
> ●When coupling the two units, take due care not to put your hand or the wires between them.

1 Turn off the power switch and remove the power cord plug from the receptacle.

2 Disconnect the main unit side of the joint fitting A.

3 Disconnect the connector from between the main unit and the seat units.

4 Loosen all the adjusters and move the units utilizing the casters.
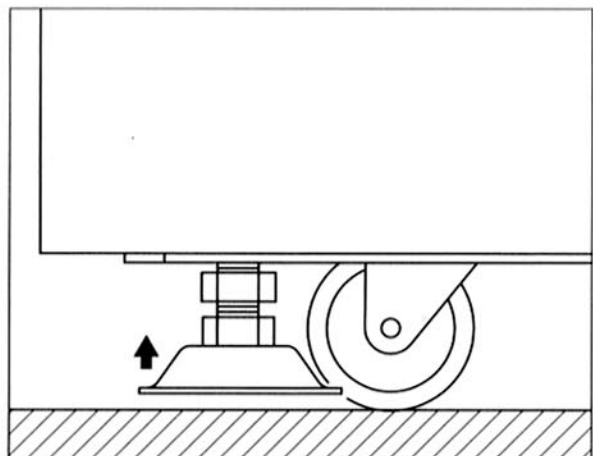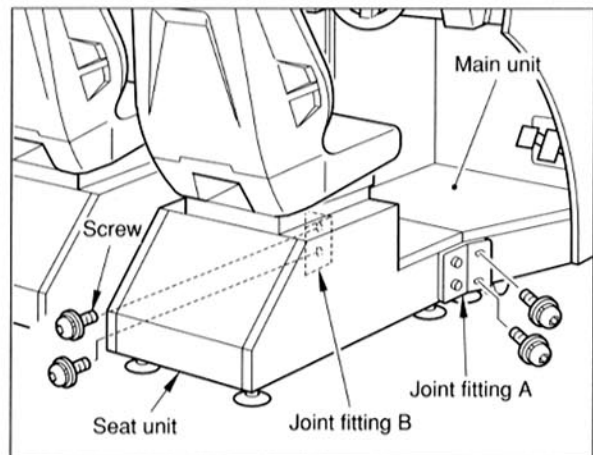
6-6 Moving the coin counter

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

■How to move the coin counter ━━━━━━━━━━━━━━

⚠

●Turn off the power switch and unplug the power cord from the receptacle before moving the coin counter.
●When the back door is closed, be sure to fix it with the 3 screws.

1 | Open the coin box door and remove the screw securing the coin counter.

2 | Taking out the coin counter, disconnect the two connectors.

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

4 | Remove the back door of the main unit (refer to 1 on page 43), move the two connectors to the service panel.

5 | Connect the connector and secure the coin counter with the screw.

6 | Install the blind cover in the coin counter hole inside the coin box.

40
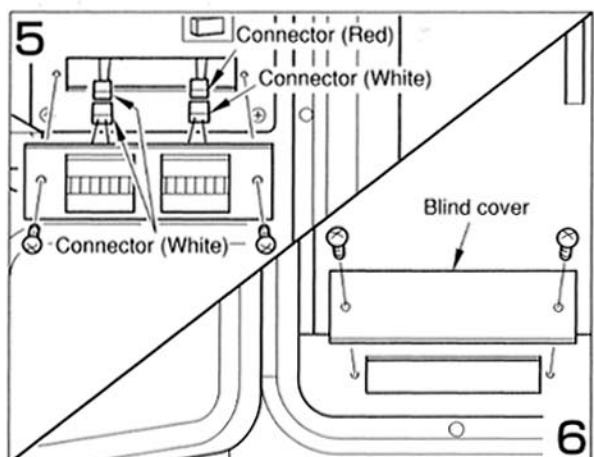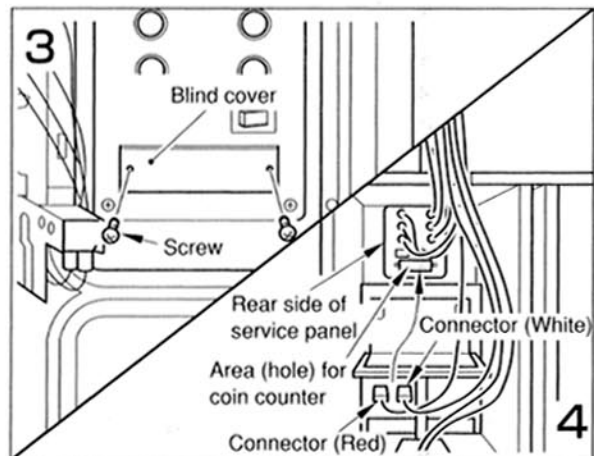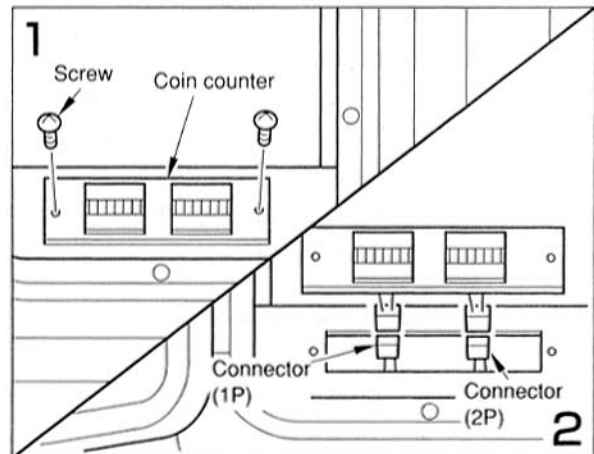
7 Maintenance and annex

7-1 Replacing the coin selector

⚠️

● Be sure to turn off the power switch and remove the power cord plug from the receptacle before replacing the coin selector.

1 ▌ Open the maintenance door.

2 ▌ Remove the (two) bolts which are fixing the coin selector as shown in the figure and dismount the coin selector by sliding it horizontally to the right.

3 ▌ When mounting the coin selector, push up the lever and follow the procedure in the reverse order.

Lever

Coin selector

Bolt
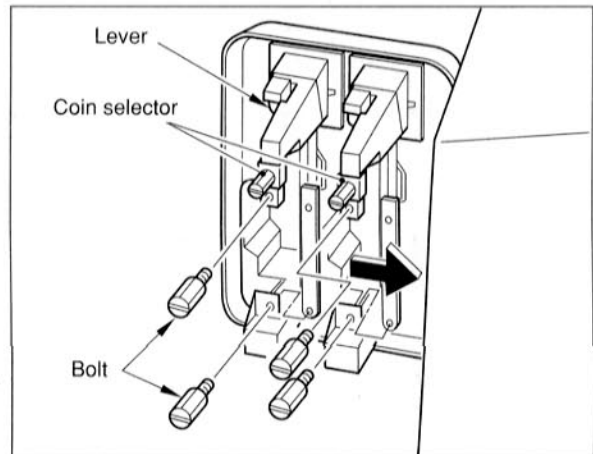
7-2 Replacing the fluorescent light

⚠️

● Be sure to turn off the power switch and remove the power cord plug from the receptacle before replacing the fluorescent light.
● The fluorescent light is hot just after it is put off. Wait until it cools down and then replace it with a new one of the same type (straight tube 32 W/100V).
● When removing or installing the fluorescent light unit, take care not to catch the wiring between the fluorescent light unit and the main unit.

1 | Remove the screws that fixes the fluorescent lamp unit to the title unit.

2 | Pull the fluorescent lamp unit towards you and pull it out taking care not to damage the transformer.
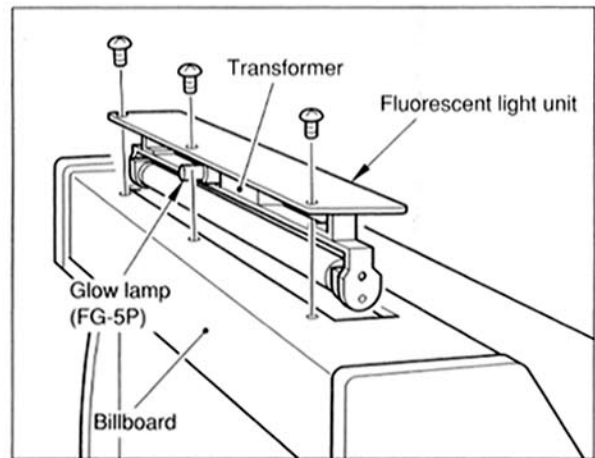
3 | Push one end of the fluorescent light in the direction of the socket. The other end of the fluorescent light will be detached from the opposite socket.

4 | Install a new fluorescent light in the reverse order.

Push in this direction
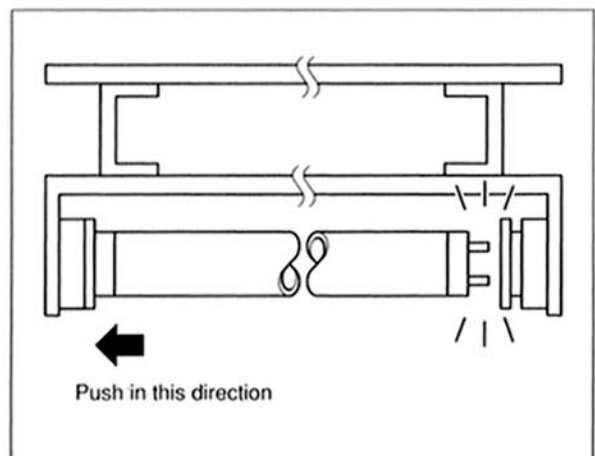
● It is recommended that the glow lamp should be also replaced.

MEMO

7-3 Replacing and adjusting the potentiometer

■How to replace the steering wheel unit potentiometer━ ━ ━ ━ ━ ━ ━ ━ ━

⚠

●Since the steering wheel unit is heavy, remove it with care.
●Be sure to turn OFF the power switch and remove the power cord plug from the receptacle before replacing the potentiometer.
●Some internal parts have high voltage. Take due care not to touch them.
●When mounting/dismounting the control panel, take care not to damage the wires connecting the steering wheel unit and the main unit.
●When closing the back door, be sure to fix it with the 3 screws securely.

1 Remove the screws of the back door.

2 Insert the attached maintenance key, turn it clockwise and remove the back door.

Maintenance key
Screw
Back door
Pedal unit
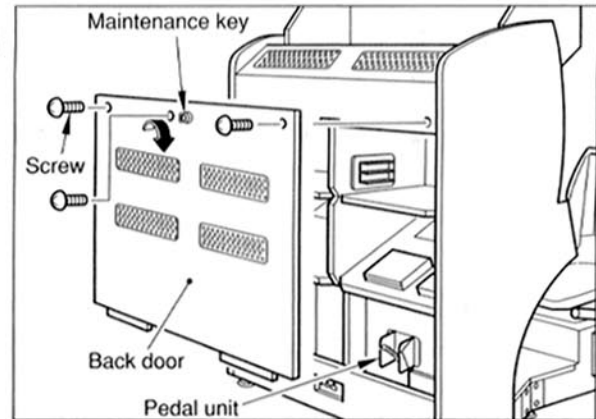
3 Disconnect three connectors.

Connector (CN105)
Connector (CN19)
Connector
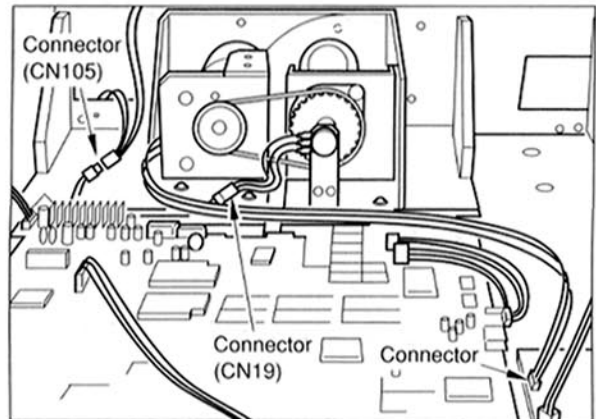
4 Remove the screws off the control panel.

Screw
Control panel

43
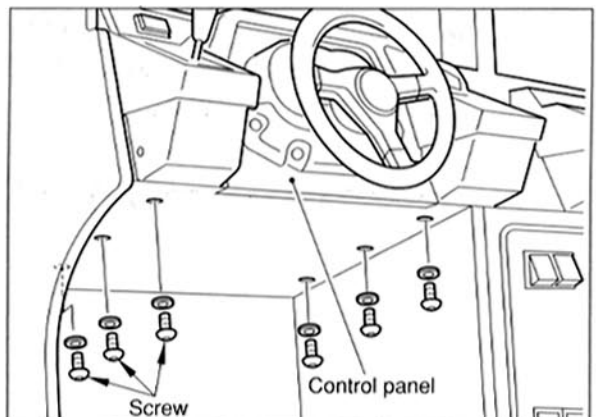
5 | Pull out the control panel towards you.
Take due care not to drop the control panel. And take care that the control panel does not damage the monitor adjustment PCB.

Monitor adjustment PCB

Wiring

Control panel
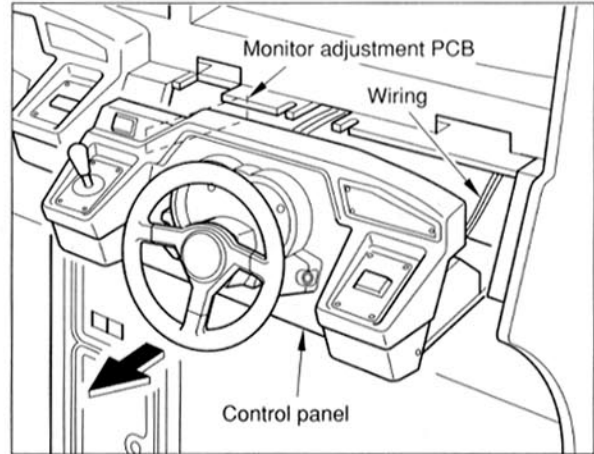
6 | Loosen the two fixing screws, remove the screws off the potentiometer bracket, and remove the whole bracket.

- When the fixing screw is not easily accessible to loose it, turn the steering wheel to have the screw at an accessible position.

**MEMO**

Screw

Wiring

Screw

Potentiometer bracket
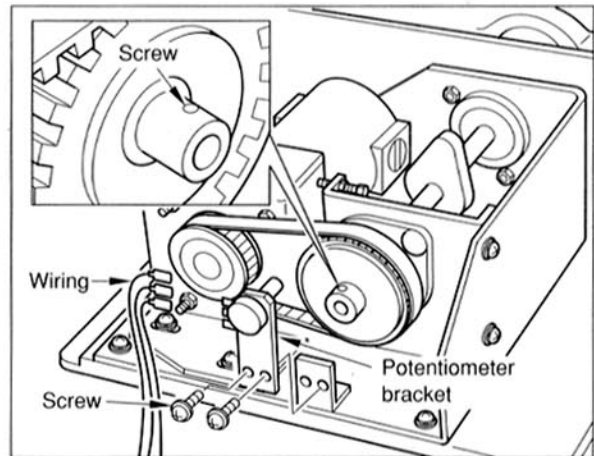
7 | Remove the hexagon nut fastening the potentiometer bracket and the potentiometer.

- When replacing the potentiometer with a new one, be sure to adjust the new potentiometer as described on page 45.

MEMO

Spring washer   Plain washer

Hexagon nut

Potentiometer bracket   Potentiometer
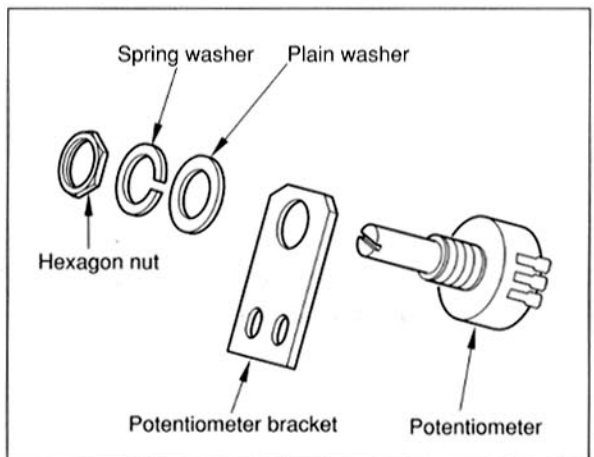
■How to adjust the steering wheel unit potentiometer ━ ━ ━ ━ ━ ━ ━ ━

1 Attach a new potentiometer to the potentiometer bracket.

2 Connect the wiring properly.

Spring washer   Plain washer

Hexagon nut

Red

Black   Green

Potentiometer bracket   Potentiometer
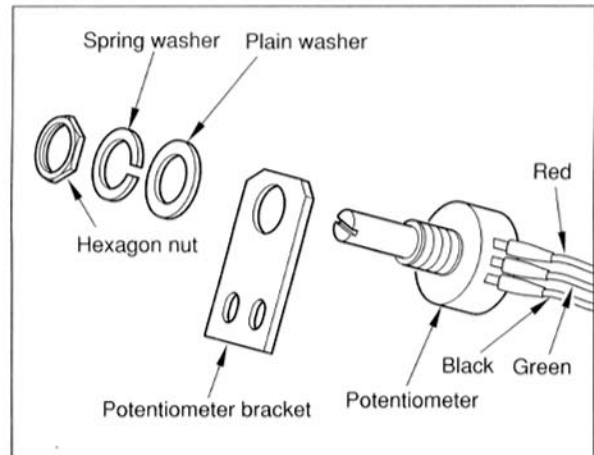
3 Grasp the potentiometer tip with your fingers and adjust it as shown in the figure.

4 Turn the steering wheel to the original position, install the bracket as it was and tighten the bracket with the two fixing screws securely.

Adjust so that (-) mark on the potentiometer knob is aligned with the center terminal.
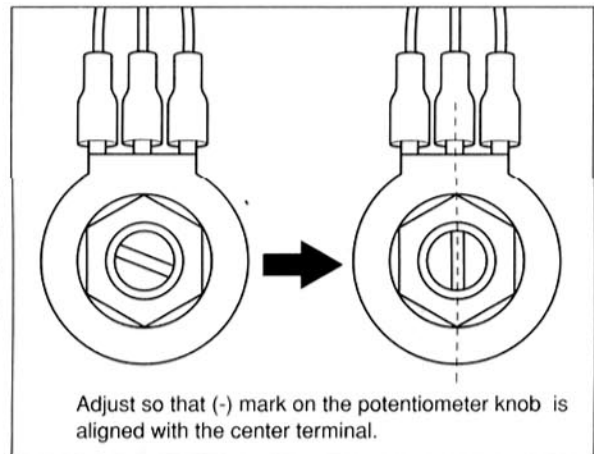
• When the fixing screws are tightened up, it is normal that the bracket still has some play. It cannot be fixed tightly.

━MEMO ┘

5 Assemble the steering wheel unit to the main unit in the reverse order.

6 Carry out the checking as described in "5-2 PCB start-up check (Self test)" in page 23.

■How to replace the pedal unit potentiometers ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

⚠

●Be sure to turn off the power switch and remove the power cord plug from the receptacle before replacing the potentiometers.

1 Remove the screws of the back door.

2 Insert the attached maintenance key, turn it clockwise and remove the back door.

Labels: Maintenance key, Screw, Back door, Pedal unit
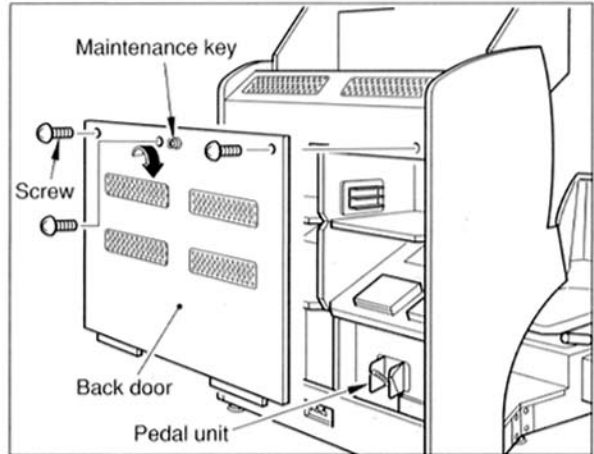
3 Disconnect the wiring. Loosen the hexagon socket set screws on the accelerator side and brake side of the pedal unit, and remove the gears.

● If the set screws are in a position where it is difficult to loosen them, press the pedal so that they are positioned favorably for looseing.
───**MEMO**─┘

Labels: Accelerator side, Screw, Red, Purple, Black, Brake side, Red, Blue, Black
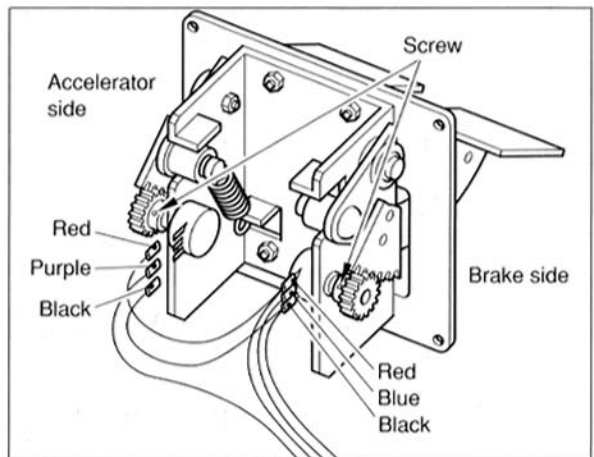
4 Remove the hexagon nut fastening the pedal unit and remove the potentiometer.

When replacing the potentiometers with a new one, be sure to adjust the new potentiometers as described on page 47.
───**MEMO**─┘

Labels: Spring washer, Hexagon nut, Potentiometer, Plain washer
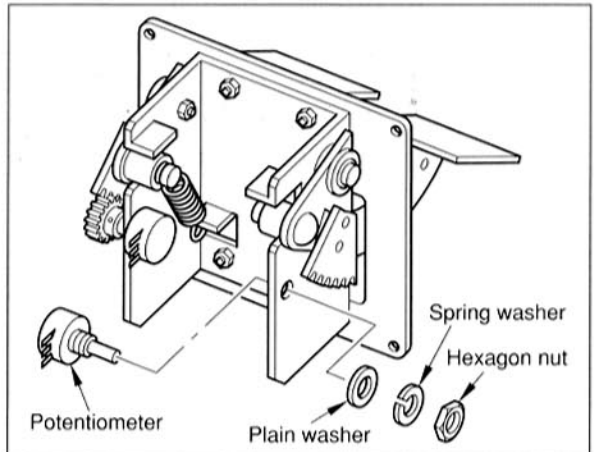
■ How to adjust the pedal unit potentiometers ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

⚠

●In case that the back door is not fixed securely, the main unit is not powered.
●When closing the back door, be sure to fix it with the 3 screws.

1 Without touching the pedal, adjust the potentiometers with a flatblade screwdriver.

┌[Adjusting method]────

• **Potentiometer for accelerator**
Fully turn the potentiometer counterclockwise and then turn it back by about 10°.

• **Potentiometer for brake**
Fully turn the potentiometer clockwise and the turn it back by about 10°.

Flatblade screwdriver
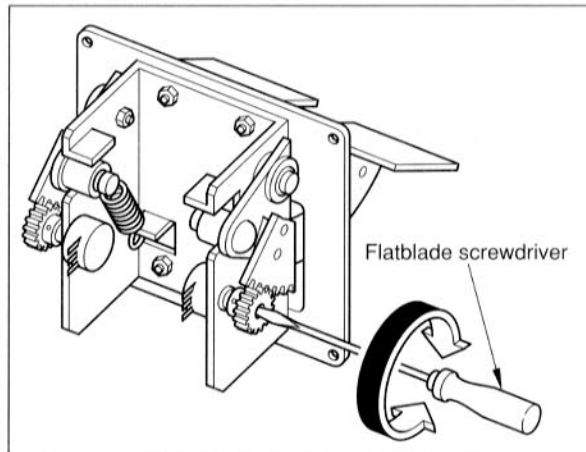
2 When finishing the adjustment, be sure to tighten the fixing screws and connect the wires correctly.

3 Close the back door and turn the maintenance key counterclockwise.

4 Close the back door and fix it securely with the screws.

5 Carry out the checking as described in "5-2 PCB start-up check (Self test)" in page 23.

Screw

Accelerator side

Red

Purple

Black

Brake side

Red
Blue
Black
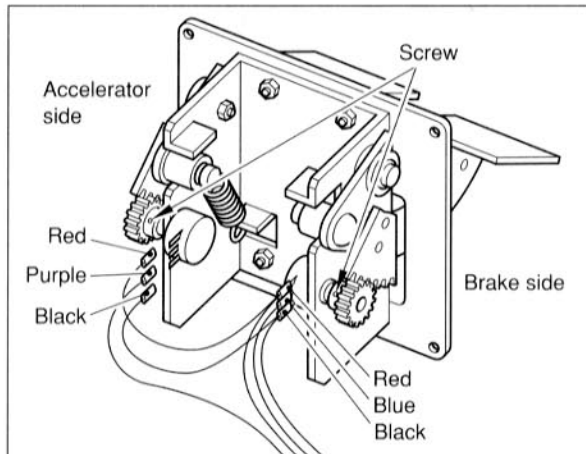
■How to replace the hand brake potentiometer ━ ━ ━ ━ ━ ━ ━ ━ ━

⚠

● Be sure to turn OFF the power switch and pull out the power plug before replacing the control.
● Since the hand brake weighs heavy, use due care when handling it.

1 ▌ Remove the grommets.

2 ▌ Remove the screws and the hand brake unit from the main body.

Hand brake unit

Screw

Grommet
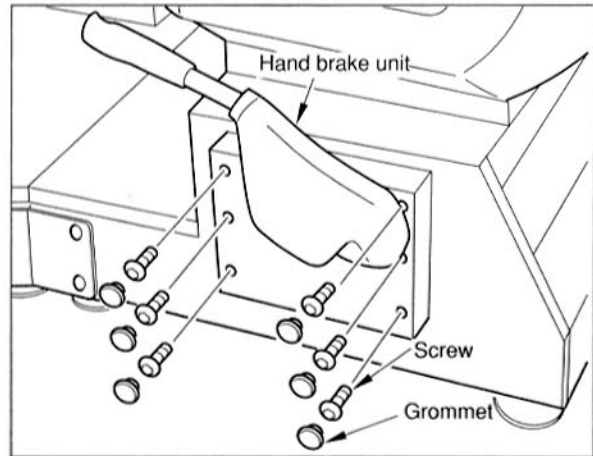
3 ▌ Disconnect the three wires and dismount the potentiometer bracket from the hand brake unit.

Potentiometer bracket

Wiring
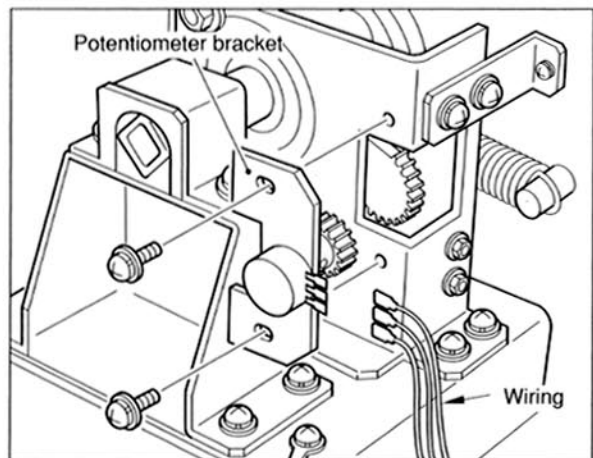
4 ▌ Loosen the two fixing screws and remove the gear B.

Gear B

Screw

48
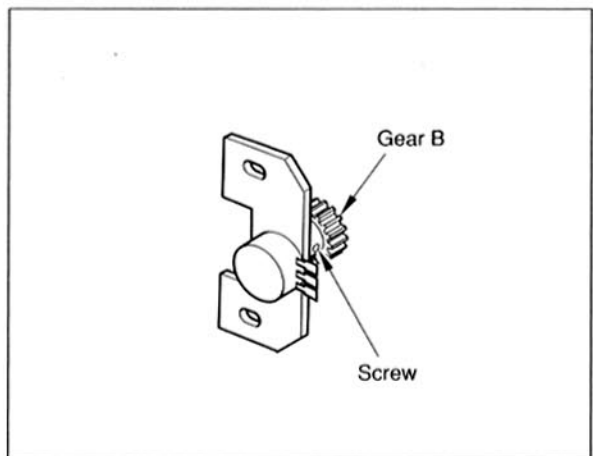
5 Remove the hexagon nut which is fixing the control shaft and dismount the control unit.

● When the control unit is replaced, be sure to adjust it according to the procedure as described in this page.

———MEMO—
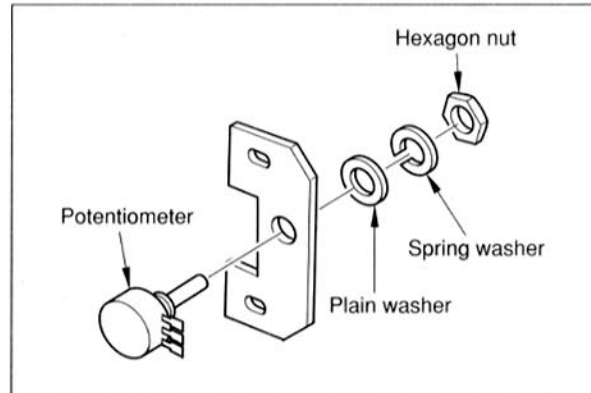
■ **How to adjust the hand brake unit potentiometer ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬**

1 Mount the control unit and gearB to the potentiometer bracket. Turn the gear fully in the directions as shown in the figure and return it by about 10°.

❶ Turn it to full extent
❷ and return it by about 10°
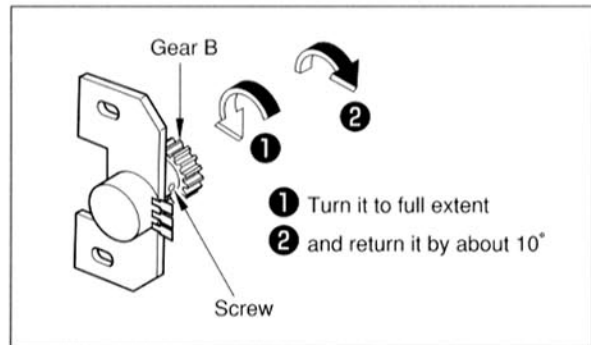
2 Mount the potentiometer bracket, paying attention so that the gear B should be engaged with the gear A provided at the hand brake unit.

✗   ○   ✗
Too small   Correct   Too large
clearance   clearance
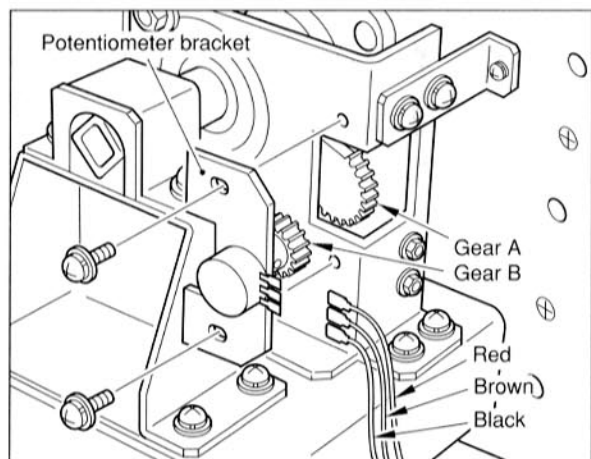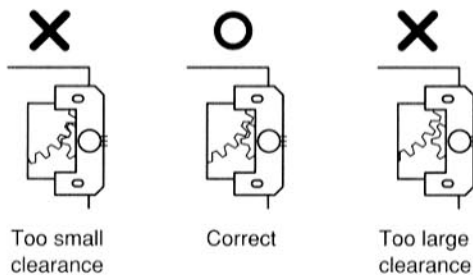
3 Connect the three wires so as not to confuse color discrimination.

4 Mount the hand brake unit to the main body in the reverse order.

**5** Carry out the checking as described in "5-2 PCB start-up check (Self test)" in page 23.

7-4 Replacing the shift unit
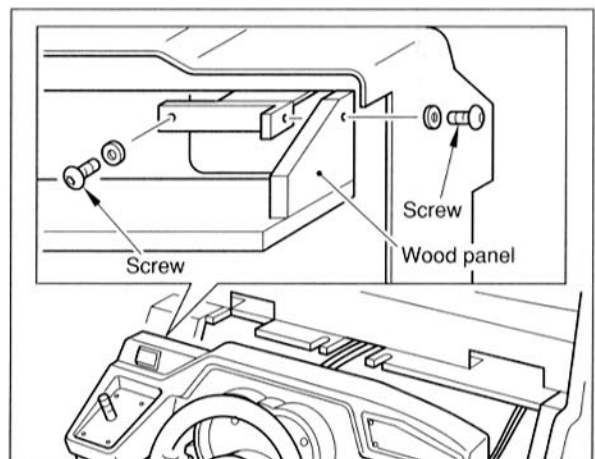
■How to replace the shift unit ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

⚠

●Be sure to turn off the power switch and remove the power cord plug
from the receptacle before replacing the gear shift unit.

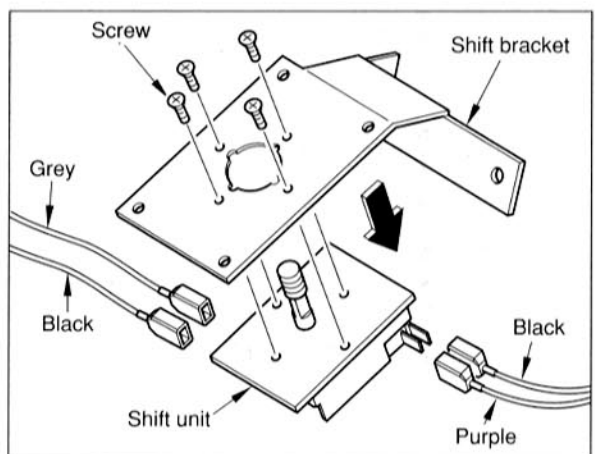**1** Remove the back door and the
connecter and pull out the
control panel towards you. Take
due care not to drop the control
panel.(Refar to pages 43 and 44.)

2 Remove the shift knob and the
plate.

Shift knob

Screw

Plate
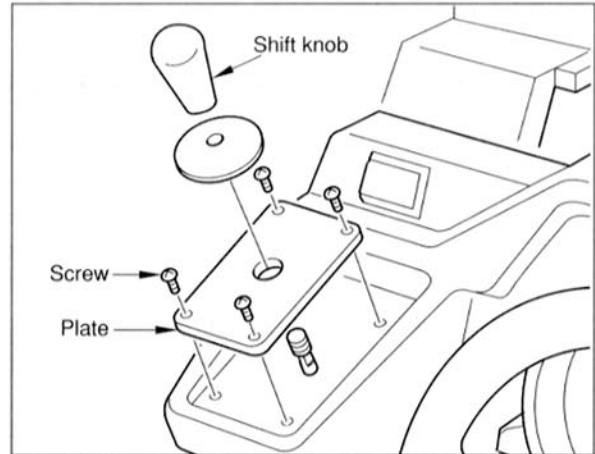
3 Remove the screw securing the
shift unit from the rear side of the
control panel and pull the shift
unit out.

Screw

Screw

Wood panel

4 Remove the shift unit from the
shift bracket.

5 When reassembling them, follow
the procedure in the reverse
order.

Screw

Shift bracket

Grey

Black

Black

Shift unit

Purple

50

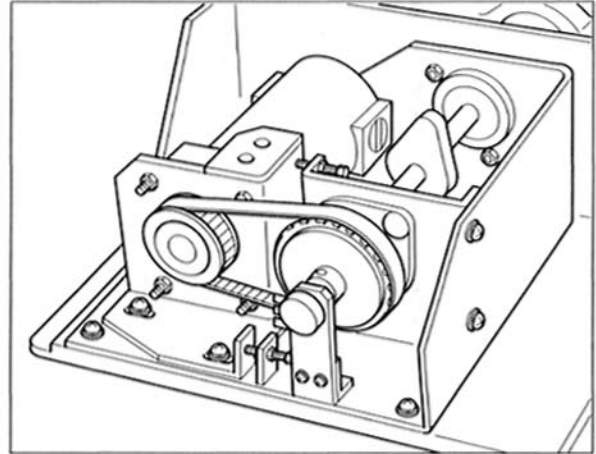# 7-5 Inspecting and replacing the motor brushes

At the motor of the steering unit are fitted two motor brushes. The motor brushes are worn every time when the machine is operated. It is therefore recommended to do periodical checking about every 2000 hrs.

■How to inspect and replace the motor brushes ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬

⚠

●Be sure to turn off the power switch and remove the power cord plug from the receptacle before replacing the motor brushes.
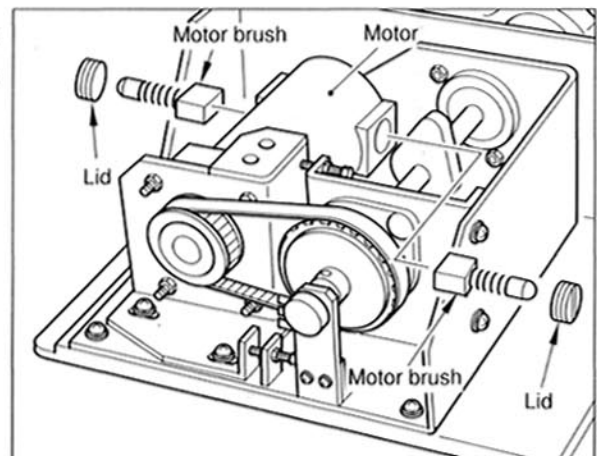
1 | Remove the back door and the connecter and pull out the control panel towards you. Take due care not to drop the control panel.(Refar to pages 43 and 44.)

2 | Remove the lid with a flatblade screwdriver and take out the motor brushes.

● If the brushes are worn to the line on them, replace them with new ones.
Motor brush part No. : 003497

─────**MEMO**

51

7-6 Replacing the timing belt and adjusting its tension

■ How to replace the timing belt ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

⚠

●Be sure to turn OFF the power switch and pull out the power plug from the receptacle before replacing the timing belt.

1 Remove the back door and the connecter and pull out the control panel towards you. Take due care not to drop the control panel.(Refar to pages 43 and 44.)

2 Loosen the four motor bracket fixing screws and the two adjuster bolts and remove the timing belt.
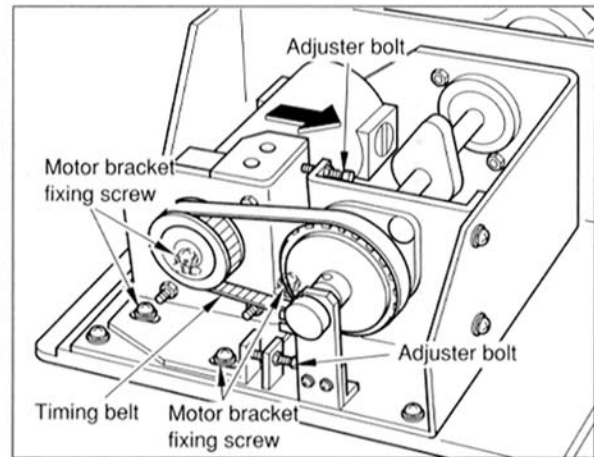
■ How to adjust timing belt tension ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

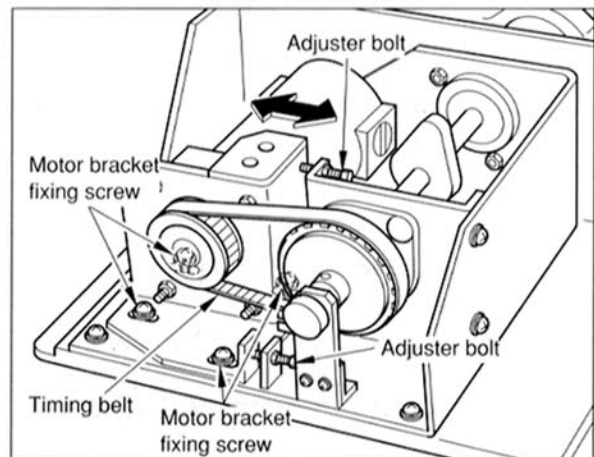**1** Loosen the four motor bracket fixing screws and adjust the timing belt tension by turning the two adjuster bolts.

Appropriate belt sag

Sag
Approx. 1.6 mm
(0.06in)

0.5 kg
(1.10lb)
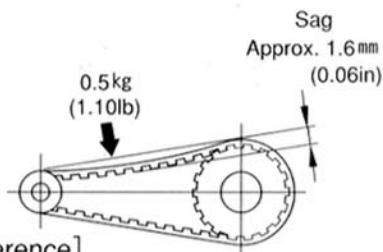
[Reference]
A commercially available tension gauge will make this adjustment easier.

7-7 Adjusting the monitor

The monitor is properly adjusted before shipment.
However, it is possible to adjust, if necessary.

> ⚠
>
> ●The monitor contains high-voltage components inside it. Exercise due care not to touch them.

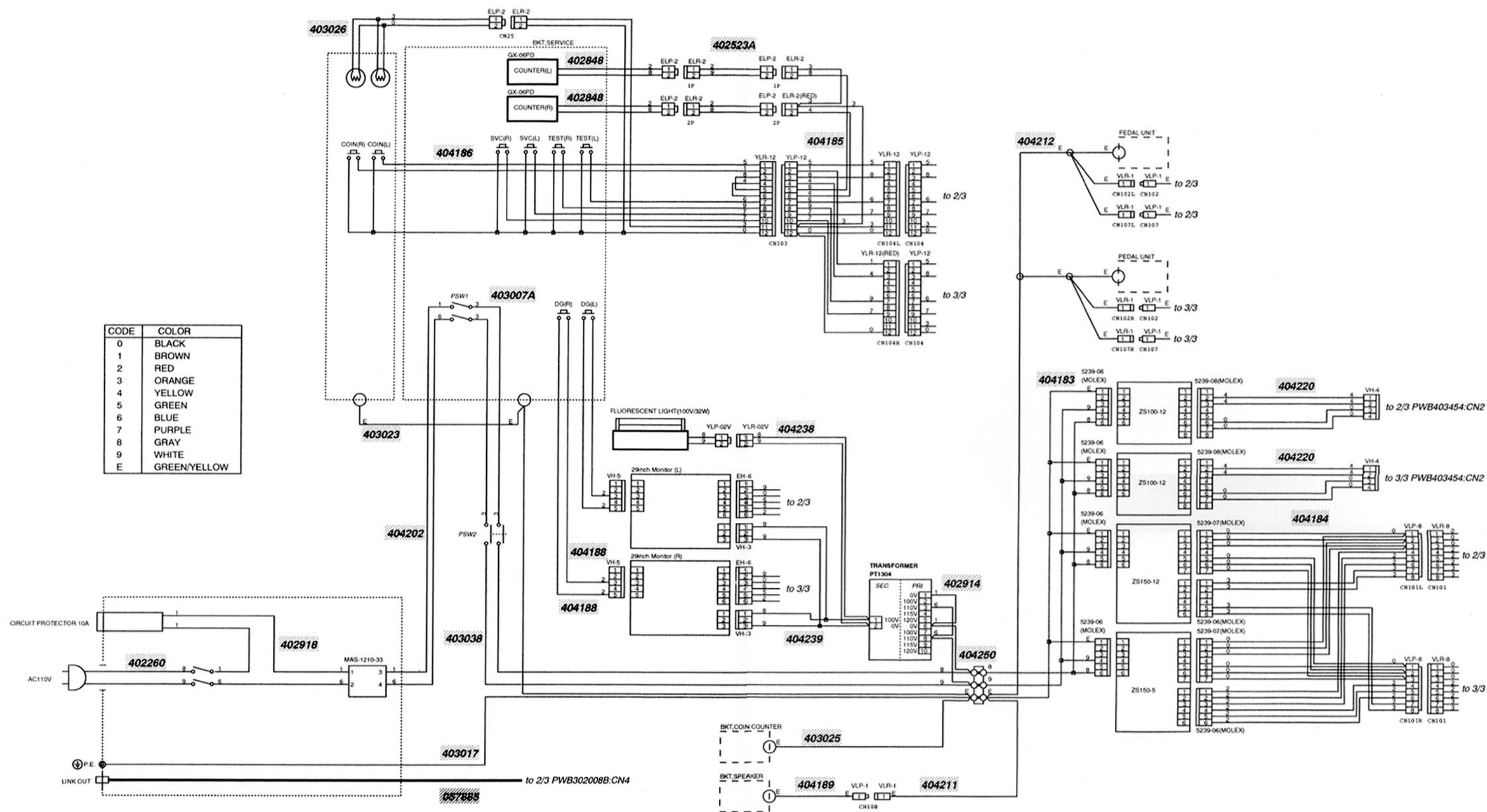### ■Monitor adjustment PCB ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━ ━

The monitor adjustment PCB is located inside the main unit. When adjusting the monitor, pull the control panel. (See page 43～44)
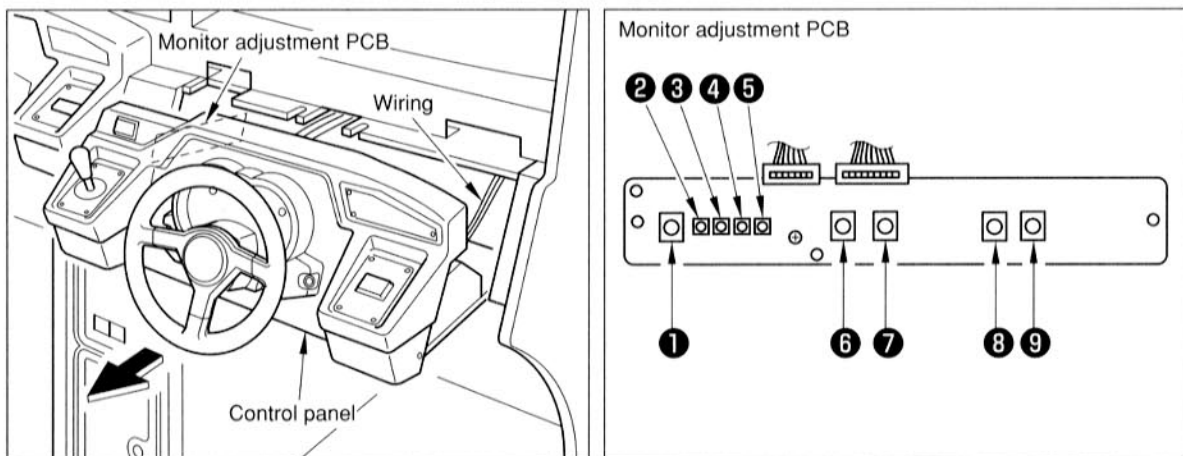
		Contrast adjustment
❶	CONTRAST	Used to change the contrast.
❷	R.GAIN	Red input gain adjustment Changes red brightness. Turning it clockwise will make the red deeper.
❸	G.GAIN	Green input gain adjustment Changes green brightness. Turning it clockwise will make the green deeper.
❹	B.GAIN	Blue input gain adjustment Changes blue brightness. Turning it clockwise will make the blue deeper.
❺	BRIGHT	Brightness adjustment Changes brightness. Turning it clockwise will make the image brighter.
❻	H.SIZE	Horizontal screen size adjustment Changes the width of the screen.
❼	H.POSI	Horizontal image position adjustment Changes the image position in the horizontal direction.
❽	V.SIZE	Vertical screen size adjustment Changes the height of the screen.
❾	V.POSI	Vertical image position adjustment Changes the image position in the vertical direction.

7-8 Wiring diagram

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

Wiring diagram

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

Wiring diagram

GM688-AF specifications for regions using 240 voltage area in Australia. 1/3

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

Wiring diagram

CODE	COLOR
0	BLACK
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5	GREEN
6	BLUE
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E	GREEN/YELLOW

PWB403454

402853

404218

FAN

303141

PWB302009A
PWB302008B

402847

HANDLE UNIT
STEERING

403010

to 1/3 MONITOR
RGB INPUT

RED
GREEN
BLUE
C.SYNC
GND

CN1 GND
GND
GND
GND
+5V
+5V
+5V
+5V
+12V
+12V

COIN COUNTER1

TEST
1PCOIN
1PSTART
1PUP
1PDOWN
1PLEFT

1P PUSH 1

1PAD CH0
1PAD CH2
1PAD CH1
1PAD CH3
GND
GND
GND
GND

404219
VIEW   S-UP S-DOWN

404182
HAND BRAKE

403002
LEFT SPEAKER BOX

SP CH1(L)+
SP CH1(L)-
SP CH2(R)-
SP CH2(R)+

404181

403002
RIGHT SPEAKER BOX

057885
to 1/3 LINK OUT
to 3/3 PWB302008B:CN4
057885

402851
PEDAL UNIT
BRAKE   GUS

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Wiring diagram

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

PWB403454

404218

402853

PWB302009A
PWB302008B

403010

to 1/3 MONITOR
RGB INPUT

403002

404181

LEFT SPEAKER BOX

RIGHT SPEAKER BOX

403002

057835

to 2/3 PWB302008B:CN5

303141

GEC-561(JST)

FAN

175778-3(AMP)

HANDLE UNIT
STEERING
402847

404219

VIEW   SLIP S DOWN AT

HAND BRAKE
404182

PEDAL UNIT
BRAKE   GUS
402851

GTI·CLUB
RALLY COTE D'AZUR