

1ST PRINTING

SEGA



DAYTONATM USA

OWNER'S MANUAL



BUILT IN THE UK BY DEITH LEISURE LTD
(A SEGA OWNED COMPANY)



MANUAL NO. DO 0029

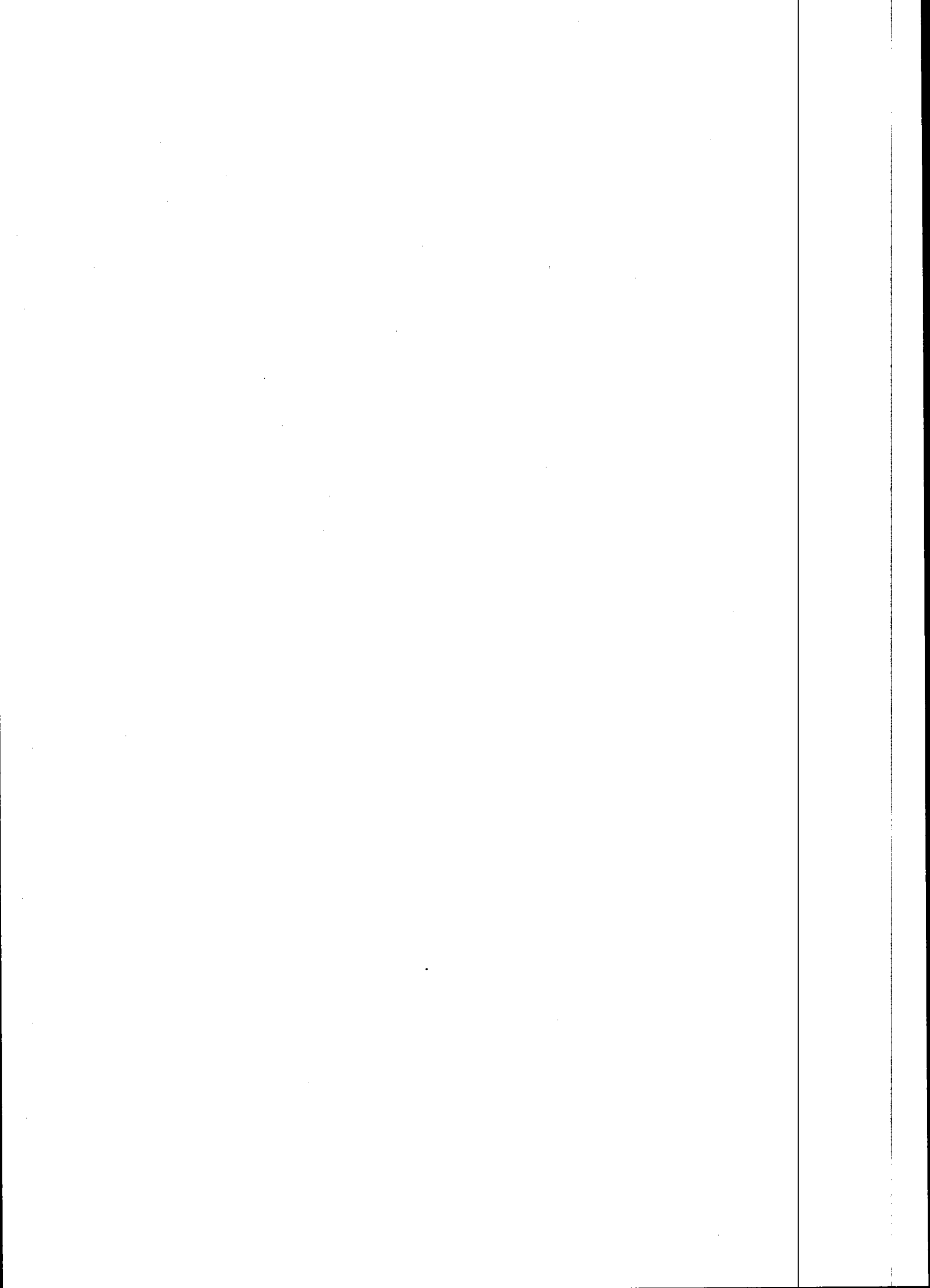


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DAYTONA™ USA

USHERING IN A NEW "INTERACTIVE CG" ERA! USING REAL TIME
TEXTURE MAPPING CG BOARD "MODEL 2"

Incorporating real time texture mapping CG Board "Model 2" which SEGA developed using state-of-the-art technology. High speed visuals with authentic realism and profound depth created by 32bit 3-D graphics engine power enabling texture mapped 300,000 polygons a second to be represented!! The world of unparalleled "VIRTUAL REALITY" unfolds before own eyes.

THE WORLD'S BEST HYPER REALISTIC 3-D RACING

⌘ SOPHISTICATED "VIRTUAL REALITY" VISUALS ALLOWS YOU TO EXPERIENCE THE UTMOST IN EXCITEMENT WITH SUPER-REALISTIC RACE SIMULATION !

Scores of eye-catching colourful racing machines in a double file column are taking a rolling start, roaring off into a 300kph high speed race. Run though the oval circuit bank by taking advantage of a slipstream! Enjoy the spectacular drifting technique as well as counter-steering skills....the neck and neck close competition gives authentic excitement and thrills....the game is targeted for a wide spectrum of customers including beginners and avid fans.

⌘ TRUE TO LIFE SOUNDS !

The Woofer provided under the seat reproduces simulated realism of a racing car's roaring sound.

⌘ THE GAME ALLOWS UP TO 8 PERSONS TO ENJOY "VS" PLAY SIMULTANEOUSLY !

The communication functions allow for the "Vs" type real time races which up to 8 people can compete, are incorporated into the machine.

⌘ DETAILED REPRESENTATION ONLY "MODEL 2" CAN OFFER !

When accidents such as collisions, crashes etc. occur, the parts scattering and machine damage are faithfully depicted. Numerous details including scenery reflecting in the racing car's rear window, tunnel lights, smoothly fluttering flags etc. are also authentically reproduced, bring you simulated realism never before experienced.

⌘ **THREE COURSES - (BEGINNERS, ADVANCED & EXPERT)**

BEGINNERS :	OVAL CIRCUIT	8 Laps with 40 entry cars.
ADVANCED :	GRAND CANYON COURSES	4 Laps with 30 entry cars
EXPERT :	SEASIDE COURSE	2 Laps with 20 entry cars.

⌘ **"TIME LAP MODE" INCORPORATED**

The time trial race in which only the player's machine fiercely keep running on the EXPERT'S SEASIDE COURSE. A high repeat play ratio can be expected from your customers....avid fans in particular!

⌘ **ON COURSE DRIVING IN THE OPPOSITE DIRECTION THAT REQUIRES SKILFUL TECHNIQUES, IS ALSO POSSIBLE.**

Enjoy the maximum thrill that you can only experience in this game by facing your opponents while they scream towards you at ultra-high speeds.

⌘ **VR. BUTTONS ALLOW YOU TO ALTERNATE THE 4 DIFFERENT VISUAL PERSPECTIVES, GIVING YOU THE ULTIMATE SPEED SENSATION**

⌘ **NEW MECHANISMS ALLOW YOU THE REALISTIC SENSATION OF DRIFTING AND ACTUAL STEERING WEIGHT & KICKBACK 1**

1. INTRODUCTION TO THE OWNER'S MANUAL

Specifications	
Installation Space	: (W) 1560mm (D) 1580mm (H) 1830mm
Weight (approx)	: 475 kgs
Supply Requirements	: 210 - 220 - 230 - 240V AC 50/60 Hz
Power, Maximum current	: 1.03kW 5.2A @ 240V

Deith Leisure Manufacturing reserves the rights to make modifications and improvements to this machine. The specifications and parts identified in this manual are therefore subject to change without notice.

SEGA ENTERPRISES LTD, supported by its high electronic technology of LSIs, microprocessors, etc. and a wealth of experience for more than 30 years has been supplying various innovative and popular game machines to the world market. This Owner's Manual is intended to provide detailed descriptions together with all the necessary information covering general operation of electronic assemblies, electromechanics, servicing control, spare parts etc. as regards the DAYTONA USA, a new SEGA product.

This manual is intended for those who have knowledge of electricity and technical expertise. Carefully read this manual to acquire sufficient knowledge before working on the machine. Should there be any malfunction, non-technical personnel should under no circumstances access the inside of the machine. Should such a case arise, contact our Main Office or the closest branch office listed below.

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2. HANDLING AND INSTALLATION PRECAUTIONS

- When installing or inspecting the machine, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.
- This game is designed for indoor use only. The game must NOT be installed outdoors or under the following conditions:
 1. In areas directly exposed to sunlight, high humidity, direct water contact, dust, high heat or extreme cold.
 2. In locations that would present an obstacle in the case of an emergency, ie. near fire equipment or emergency exits.
 3. On an unstable surface or subject to floor or other vibration.
- **IMPORTANT.** Ensure that the mains input voltage matches that of the transformer input tapping. (240V is the normal factory set-up)
- The cabinet **must** be earthed with a securely connected earthed plug
- Be sure to switch the power OFF before replacing any parts or connecting/disconnecting the electrical connectors.
- DO NOT attempt to repair the Printed Circuit Boards (PCB) yourself. This will void the warranty. The PCB contains sensitive components that could easily be damaged by the small internal voltage of a multi-meter. Always return the faulty PCB to your distributor for repair.
- When unplugging the game from the electrical outlet, grasp the plug, NOT the mains cable.
- Do not use any fuse that does not meet specified rating.
- Make complete connections to all the PCBs and other parts of the circuit. Insufficient insertion of ICs and connectors will lead to unreliability and possible damage to the machine.
- The operating (ambient) temperature range is from 5° C to 35° C.
- When cleaning the Monitor CRT Face (which should be done at regular intervals), use a soft dry cloth and glass cleaner*. Do not apply solvents such as thinners, benzene etc.

* *Mr Green's Glass Cleaner* is recommended (Deith Spares Pt. No. T0105)

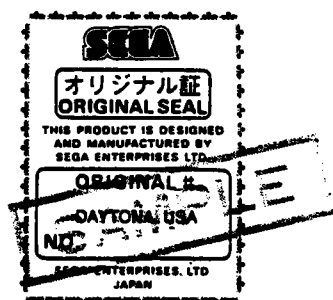
3. PREVENTION OF COUNTERFEITING AND CONVERSION

❖ LABELLING

To prevent counterfeits and conversions the following labels are put on all the SEGA products. When handling such goods, be sure to confirm the labels. These labels are used to prevent illegal acts such as unauthorised copying of the products and the printed circuit boards thereof or carrying on business by manufacturing similar merchandise or by converting, selling or such products or printed circuit boards.

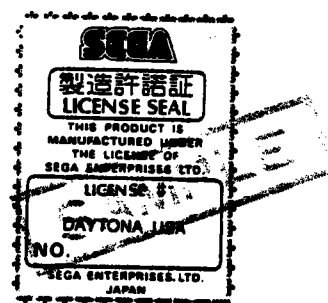
ORIGINAL SEAL

The following seal is put on the machines manufactured by SEGA.



LICENSE SEAL

The following seal is put on all SEGA kits, such as the printed circuit board.



❖ COPYRIGHT NOTICE

This SEGA product has the copyright notice as follows:

© SEGA 1994

This signifies that this work was disclosed in 1994 and is the property of SEGA ENTERPRISES LTD

4 THE INSTALLATION KIT

The DAYTONA TWIN machine is supplied in 3 cartons which contain the following parts:

1. Player 1 Main Base and Monitor Cockpit.
2. Player 2 Main Base and Monitor Cockpit.
3. Installation Kit comprising of:

DL1111
DL1097 -

SE5232 -

?

SE5235 -

2

SE5227 -

?

SE4364 -

SE0020 -

SE0018 -

SE0163 -

SE0087 -

SE0232 -

SE4930 -

SE1447 -

SE1534 -

SE1272 -

SE1535 -

SE5633 -

SE1173 -

Part No.	Description	Notes	Qty
DO0029	Owner's Manual DAYTONA	Please read	1
AY0130/AY0133	Coin Chute Tower	Assy	1
AY0134/AY0135	Billboard Top	Assy	1
AY0137	Wire Cover	Assy	1
LM1216	Wire Harness Interconnect	Wire Cover	2
LM1227	Mains Eurolead with UK plug	AC Supply	1
LM1058	Wire Harness Mech Coin Door	Accessory	1
DYN-0014UK	Billboard Holder Bracket		2
DYN-0015UK	Wood Spacer.	For Daytona Cabs	1
MP1209	Bracket Tie Main Base		2
AW1130	Decal Car No. 1-8	Accessory	1
OS1192	Dowel Wood 20x6mm dia	Cabinet	2
600-6275-0500	Fibre Cable 5000mm	Inter-linking	2
540-0006-01	Wrench M4 TMP PRF	Tool	1
540-0007-01	Wrench M5 TMP PRF	Tool	1
540-0009-01	Wrench M8 TMP PRF	Tool	1
390-5167	Lamp Mini Spot 30W 110V	Spare	2
220-5484	Potentiometer R-5KΩ	Spare	2
008-B00830-0B	M8x30 TMP PRF BH Screw	Coin Chute	3
030-000840-SB	M8x40 HEX BLT w/s Black	Billboard	8
000-P00412-WB	M4x12 Pan Hd w/fs Blk Screw	Wire Cover	12
FS1014	M8 Washer Black	Billboard + Chute	11
FX0213	M8 Nut (Bright Zinc)	Coin Chute	3
FX0216	M8 Spring Washer	Coin Chute	3
FS1025	M4 Large Washer Black	Wire Cover	6
FX0011	M4 Flange Nut	Wire Cover	2
-	Key	Coin/Service Door	2
-	Key	Cash Box	2

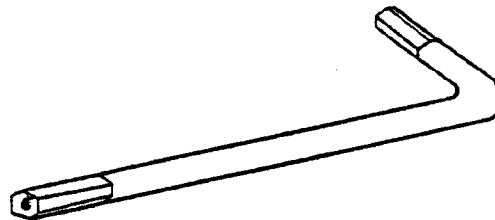


Fig. 1 Tamperproof Wrench

5. MACHINE INSTALLATION

The Machine is assembled using the following procedure:

- ① Unpacking the delivery Cartons.
- ② Assembling the Main Cabinets
- ③ Assembling the Billboard to the Main Cabinets
- ④ Connecting the Wire Cover Assy to the back of the Main Cabinets.
- ⑤ Power On Check

CAUTION

Failing to comply with these instructions, for example, inserting an electrical connector into a socket at a stage not mentioned in this procedure might cause an electrical shock accident.

Fig. 2 shows the machine completely assembled.

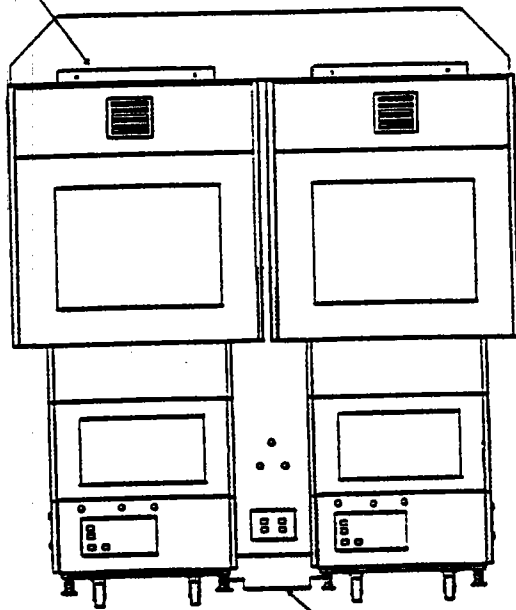
5.1 UNPACKING THE DELIVERY CARTONS

Before starting the assembly work, check to see if the parts, screws etc. in the Installation Kit listed in section 4 are present. If you discover any discrepancies contact your nearest SEGA distributor.

Please note that the following tools in addition to the M4, M5 and M8 Tamper Proof Wrenches will be required to construct the machine.

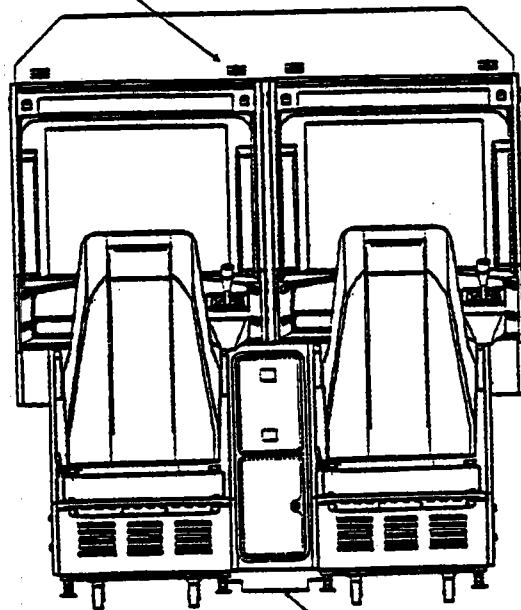
- 13mm Open Ended Flat Spanner
- 25mm Open Ended Flat Spanner
- ¼" Drive Ratchet Wrench
- ¼" Drive Extension Arm
- 13mm Socket, ¼" Drive
- No. 1 Pozidrive Screwdriver
- Small Hammer

BILLBOARD
BRACKET



TIE BARS X 2
(1 X Front, 1 X Rear)

BILLBOARD
STUDS



TIE BARS X 2
(1 X Front, 1 X Rear)

Fig. 2 The Completed Machine Assembly

5.2 ASSEMBLING THE LEFT AND RIGHT MAIN MACHINES

- Step 1. As both cabinets are identical, establish which will be the Left (Player 1) and Right (Player 2) cabinets.
- Step 2. On the Player 2 cabinet, locate the two dowel holes (using your Thumb) in the Left cheek under the Decal (see Fig 3). Insert dowels provided by puncturing Decal and tapping them into position. Fit the wood spacer provided (DYN-0015UK) onto these dowels with the curved edge facing the front.
- Step 3. Fit the Coin Chute Tower onto the side of the same cabinet using 2 M8 x 30 TMP PRF BH Bolts, nuts and washers. See Fig. 4
- Step 4. Bring together and align Player 1 cabinet to Player 2 cabinet enclosing the Coin Chute Tower.

Note At this stage it is important the two cabinets are in close alignment to allow easy fixing of the Coin Chute Tower to the other cabinet and subsequent assembly of the Billboard across the two cabinets. This can be achieved by lowering the Leg Adjusters as required. After the machine is fully assembled these may be retracted to allow the machine to be moved into position and the 8 Leg Adjusters lowered again to raise the machine of its casters. See Step 17

- Step 5. Ensure that the holes in the Player 1 cabinet align with that of the left hand side of the Coin Chute Tower. Check that the tops of both cabinets are level (re-adjust cabinet height if necessary) then insert 2x M8x30 Tamper Proof Button Head Bolts through the wooden cabinet and affix with 2x M8 nuts and washers on the inside of the Coin Chute Tower.
- Step 6. Fit the two Tie Brackets MP1209 to the inside front and rear leg adjusters. Loosely retain by closing up the 2 half nuts on the 4 inside Leg Adjusters. See Fig. 6

5.3 ASSEMBLING THE BILLBOARD TO THE MAIN CABINET

- Step 8. Place the Billboard over the 4 mounting studs across the top of the two cabinets, then mate the two connectors protruding from the cabinets with those within the Billboard.
- Step 9. Push the whole Billboard forward carefully locating the 4 keyhole shaped cut-outs on the underside of the Billboard between the gap on these 4 composite studs. **Be careful not to trap any wires in the process.**
- Step 10. Secure the Billboard to the top of the cabinet using the two Billboard Holder Brackets (DYN-0014UK) and 8 off M8 x 40 HEX Bolts.

5.4 CONNECTING THE WIRE COVER TO REAR OF CABINET

- Step 11. Offer up Part A (See Fig 5) to the back of the Coin Chute Tower and the connector panels on each of the Main Bases. Fix Part A to the back of the Main Bases using 6x M4 x 12 screws (000-P00412-WB) and the large M4 washers provided in the Installation Kit. A Pozidrive screwdriver will be needed for this operation.
- Step 12. Connect the paired end of the wiring harness interconnect LM1216 to the 2 RIGHT-HAND sockets (SKT. C2/R & SKT. C3/R) at the back of the Coin Chute Tower. Connect its other end to SKT. 1/R on the RIGHT-HAND Main Base. See Fig 7
- Step 13. Connect the other wiring harness interconnect LM1216 to the LEFT-HAND sockets on the Coin Chute Tower and Main Base in a similar way to Step 12. See Fig. 7
- Step 14. Connect the 2 Fiber Optic cables (600-6275-0500) between the Rx and Tx connectors at the back of the Main Bases.
Rx → Tx
Tx → Rx.
IMPORTANT do not bend these cables over a tight radius (must be >60mm) as damage will result. It is recommended that excess length is loosely coiled up and pushed against the connector panel on each main base.
- Step 15. **IMPORTANT.** Before fitting Part B, make sure that the Earth wire is connected to the Earth Stud on the back of the Coin Chute Tower using the fixings provided on this stud.
- Step 16. Part B should be secured to Part A using 6x M4x12 Pan HD w/fs screws together with 2x M4 Flange nuts, to the back of the Coin Chute Tower.

5.5 FIXING PLAYING POSITION

- Step 17. Move the machine into position, screw out the 8 Leg Adjusters to make contact with the floor so that the casters clear the floor by approximately 5mm. The M16 nuts can be used to lock the legs into position against the underside of the metal base. Adjust the position of Tie Bracket so that they lie flat against the floor between the two Main Bases then fully tighten the retaining nuts.

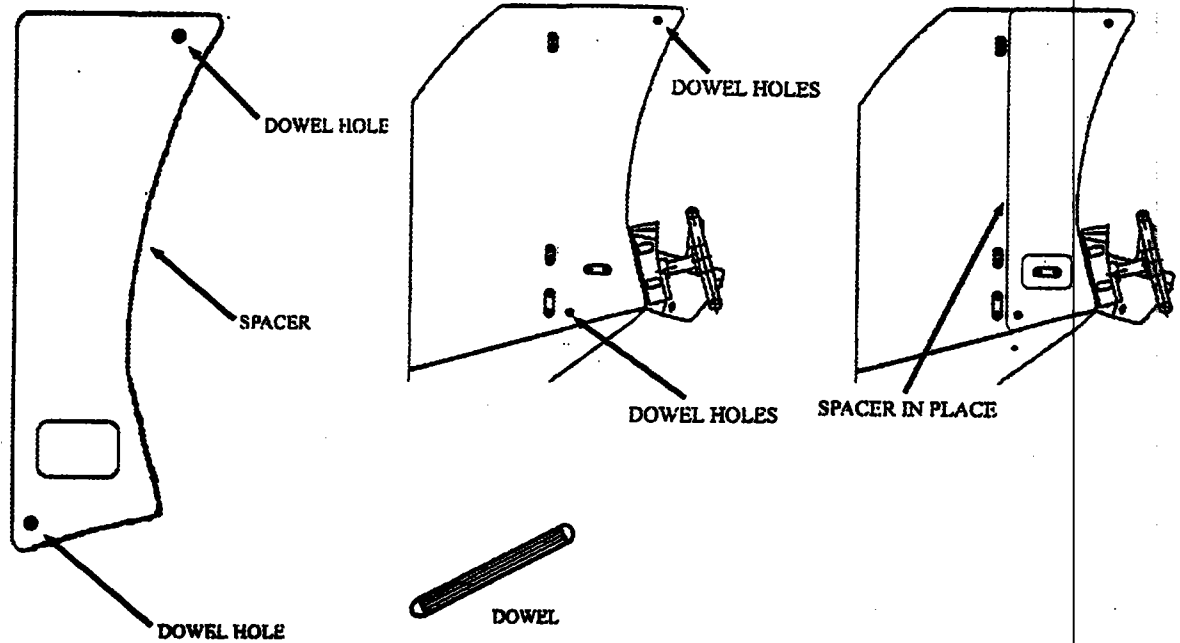


Fig. 3 Fitting the Wood Spacer to the Cabinet

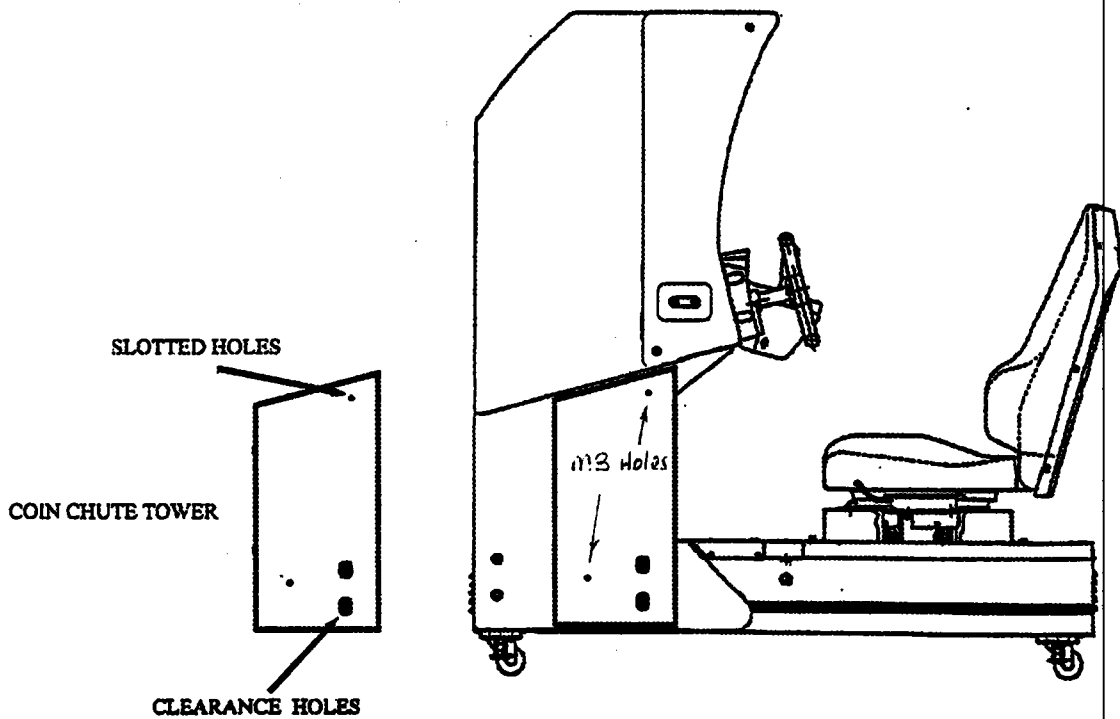


Fig. 4 Fitting Coin Chute Tower to Cabinet

MP.1215

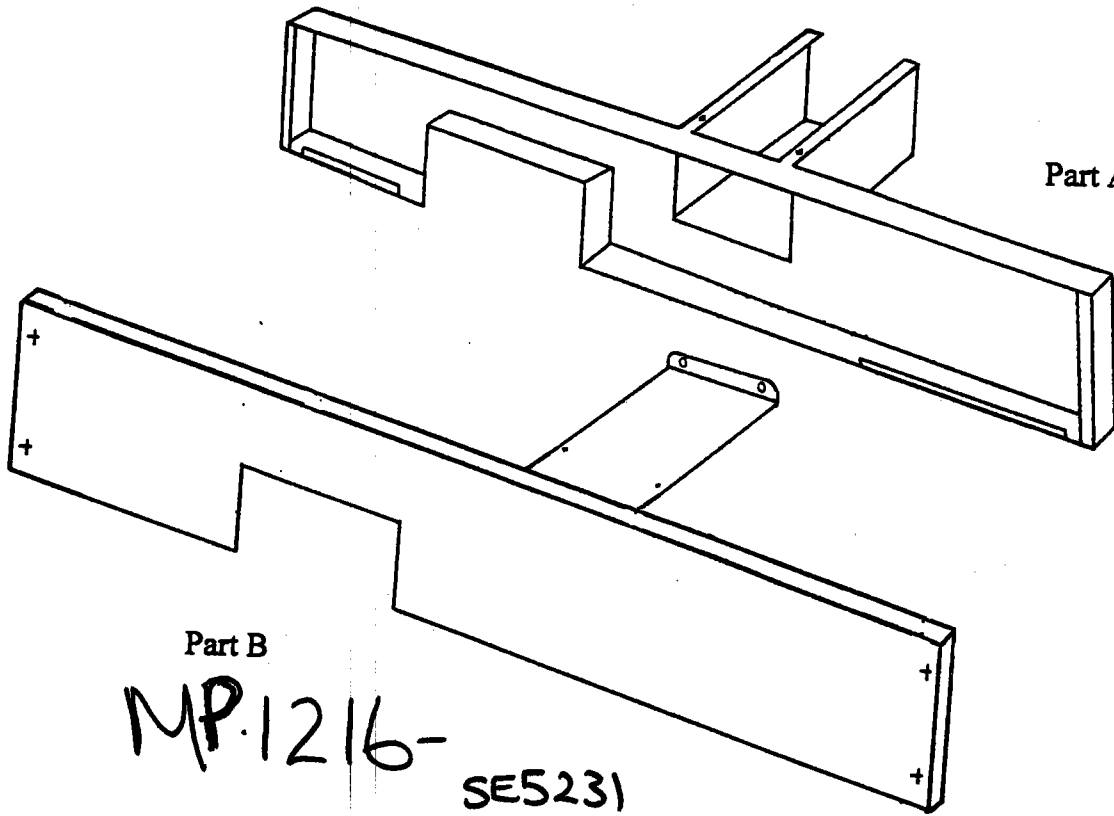


Fig. 5 Rear Wire Cover

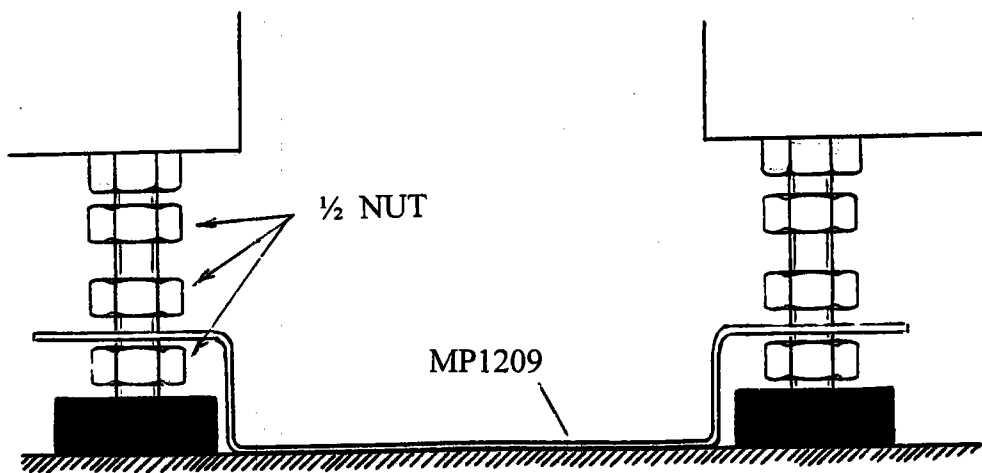


Fig. 6 Tie Bracket Fixings

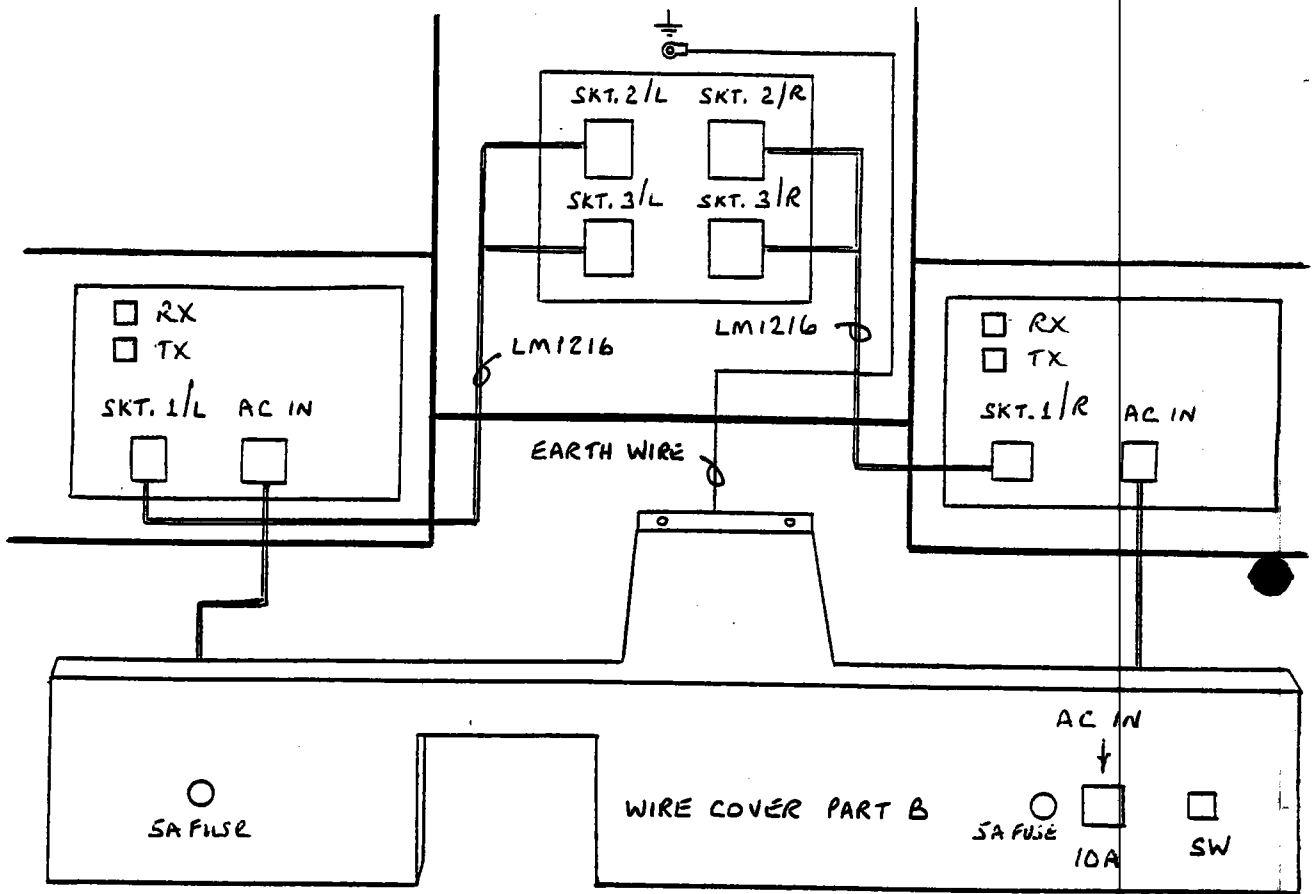


Fig. 7 Wire Cover Electrical Connections

6 POWER ON CHECK

TURNING THE POWER ON

Turning the MAIN SWITCH on will cause the machine to start the POWER ON check automatically. The steering wheel turns left and right, then returns to the centering position and stops. In this check, the values of V. R. inside the control panel are corrected. Until the check is finished (the steering wheel stops automatically), do not touch the steering wheel or play the game. If you do, the steering wheel reaction during the game (at the time of a course-out or crashing) can not be obtained correctly.

In a case of a strange reaction during the game, turn the power on again from the beginning and complete the power-on check.

For communication play, the network check is performed after the power is turned on and the on-screen display will show the check mode.

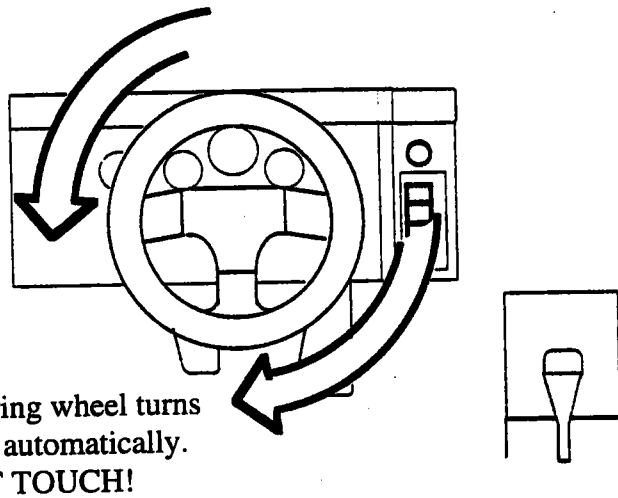


Fig. 8A POWER ON CHECK

In the TEST MODE, ascertain that the assembly has been made correctly and the electronic system is functioning satisfactory (refer to Section 8). In the test mode, perform the following tests:

(1) MEMORY TEST

MEMORY TEST		
IC. 6 GOOD	IC. 7 GOOD	IC. 8 GOOD
IC. 9 GOOD	IC. 10 GOOD	IC. 11 GOOD
IC. 12 GOOD	IC. 13 GOOD	
IC. 45 GOOD	IC. 46 GOOD	IC. 47 GOOD
IC. 48 GOOD	IC. 49 GOOD	IC. 50 GOOD
IC. 54 GOOD	IC. 55 GOOD	

Selecting the MEMORY TEST on the test mode menu screen causes the on-board memory to be tested automatically. The game board is satisfactory if the display beside each IC No. shows GOOD

(2) INPUT TEST

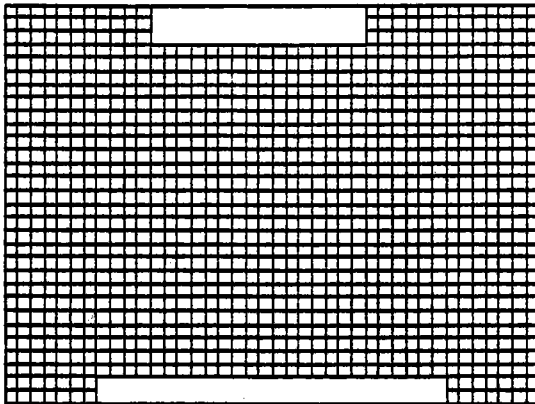
INPUT TEST			
CHUTE1	OFF	CHUTE2	OFF
SHIFT1	OFF	SHIFT2	OFF
SHIFT3	OFF	SHIFT4	OFF
VR1	OFF	VR2	OFF
VR3	OFF	VR4	OFF
START	OFF		
TEST-SW	OFF	SERVICE-SW	OFF
HANDLE	xxxH		
ACCEL	xxxH		
BRAKE	xxxH		

RED & BLUE : TO EXIT

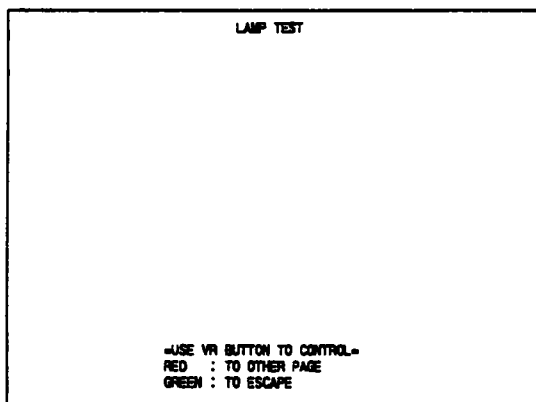
Selecting the INPUT TEST on the test mode menu screen causes the screen (on which each switch and V. R. are tested) to be displayed. Press each switch. For the coin switch test, insert a coin from the coin inlet with the coin chute door being open. If the display beside each switch indicates "ON," the switch and wiring connections are satisfactory.

Ascertain the display of V. R. value for the steering wheel and accelerator & brake. If the V. R. values are not satisfactory, refer to Sections 9 & 10.

(3) OUTPUT TEST



In the TEST mode menu, selecting OUTPUT TEST allows the screen (on which the projector is tested) to be displayed. Although the projector adjustments have been made at the time of shipment from the factory, color deviation, etc., may occur due to the affection caused by geomagnetism, the location building's steel frames and other game machines in the periphery. By watching the test mode screen, make judgment as to whether an adjustment is needed. If it is necessary, adjust the projector by referring to Section 13.



In the LAMP TEST mode, carry out the lamp test to ascertain that each lamp lights up satisfactorily.

(4) SOUND TEST

SOUND TEST	
AUTO	
BGM1	
BGM2	
SE1	
SE2	
VOICE1	
VOICE2	
VOICE3	
NAME	
RESULT	
ENGINE	
>> EXIT	

GREEN : CURSOR UP
RED : CURSOR DOWN
START : TO SELECT

In the TEST mode, selecting SOUND TEST causes the screen (on which sound related BD and wiring connections are tested) to be displayed. BGM (background music) is emitted from the tweeter speakers (a round type), one each on both sides (right/left) of the control panel and also from the rear speakers (a square type), one each on both sides (right/left) behind the seat. Other sounds (announcement and sound effects) are emitted from the front speakers (a square type), one each on both sides (right/left) of the control panel and also from the superwoofer. Be sure to check if the sound is satisfactorily emitted from each speaker and the sound volume is appropriate.

Perform the above inspections also at the time of monthly inspection.

7. HOW TO PLAY

Herein, explanations are given to the case of an independent play. Note that for communication play, some of the following points including the starting method, will not apply:

- ① Take a ride in the machine. The seat position can be adjusted forward and backward. For adjustments, pull the lever which is positioned on the lower left-hand side (facing the projector screen) of the seat.
- ② Insert a coin. The coin chute door is on the right-hand side (facing the projector screen).
- ③ 3 courses appear on the screen in the sequence of Beginner, Advanced and Expert starting from the left. Turn the steering wheel to select the course and effectuate the selection by stepping on the Accelerator.
- ④ AUTO/MANUAL selection screen appears. By turning the steering wheel, choose AUTO or MANUAL and effectuate the selection by stepping on the Accelerator.
- ⑤ When choosing AUTO or MANUAL, stepping on the Accelerator while pressing the start SW will result in a TIME ATTACK mode in which no competitor car will appear and only the player's car will run.
- ⑥ When AUTO or MANUAL is determined, the game starts. Choosing the Beginner course results in a rolling start, the same as in the Daytona race. When the Advanced or Expert course is chosen, be sure to step on the Accelerator to start the machine.
- ⑦ The on-screen upper right-hand side, below the upper right, the upper middle, below the upper middle, the upper left-hand side and the lower right respectively indicates the player's present position, where other cars are, time limit, speed & tachometer, lap time and course map.

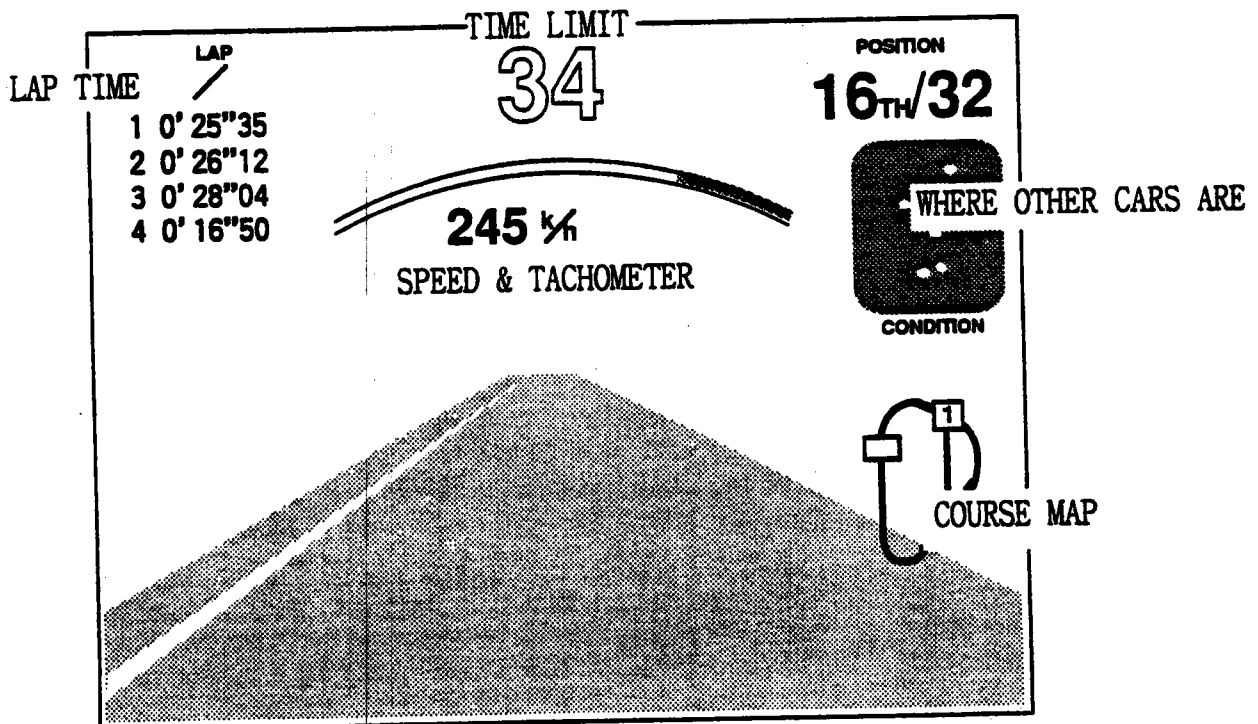
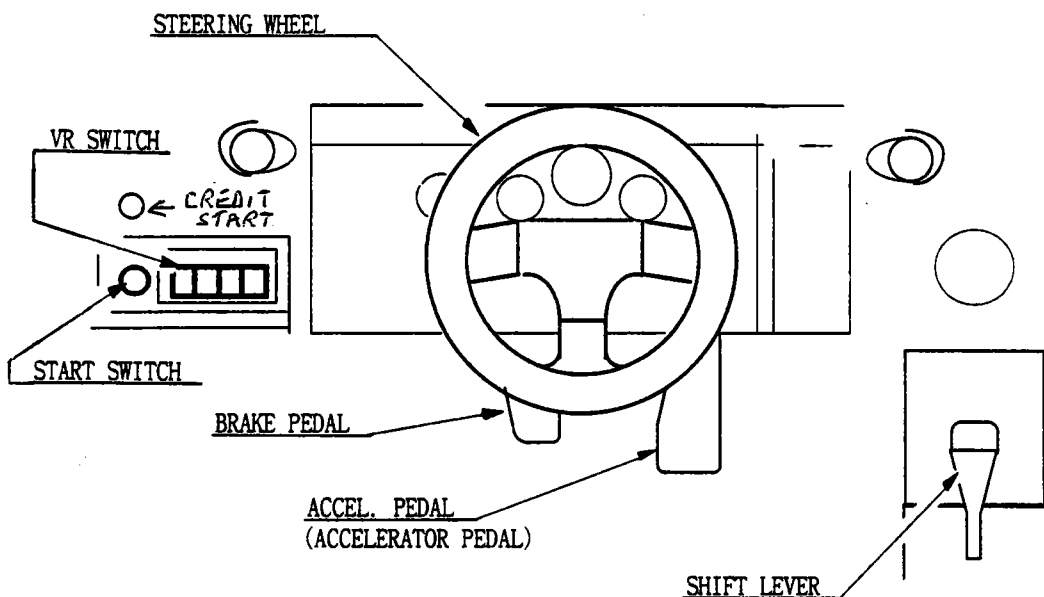


FIG. 7.1

- ⑧ After the game is started, the allotted time decreases. Passing a checkpoint allows the game to continue with the previous remaining time added to the time limit up to the next checkpoint. If you fail to pass a checkpoint within the time limit, the game will be over.
- ⑨ In case of a course-out or crash, the steering wheel reacts.
- ⑩ When you finish 8 laps, 4 laps and 2 laps, which respectively corresponds to the **BEGINNER**, **ADVANCED** and **EXPERT** course, the game will be over.
- ⑪ The player whose results are excellent is allowed to register his name. Turn the steering wheel to choose the alphabetical letters and step on the accelerator to effectuate the selection. The name will be displayed on the **DEMO** screen.



Note: "ACCEL." refers to the ACCELERATOR.

FIG. 7.2

HOW-TO-PLAY KNACK

It is recommended that you choose **AUTOMATIC** if you are not so familiar with the game. Also, note that choosing **V. R. SW No. 2 (blue)** or **No. 3 (yellow)** allows for better perspectives. At the corners, be sure to drive slower. Refrain from abruptly turning the steering wheel to avoid an accident. In this game, skillful braking is important. Also, note that it is important to grasp the features of the courses as soon as you can. Find out the best way to pass the corners.

When **MANUAL SHIFT** is chosen, refer to the engine r.p.m. for shifting. **SHIFTING UP** immediately before the indicator indicates the red zone allows the acceleration to be made in the most efficient manner.

CAUTIONS TO BE HEEDED WHEN USING THE TEST MODE:

In the case where multiple units are linked for communication play, exiting from the test mode causes the unit to perform the network check automatically. During this time, all of the linked units will not allow the game to be played in normal status. Therefore, be sure not to enter the test mode if any one of the units is in play. On the other hand, if even one unit is in the test mode, make sure that other machines are not in play.

8-1 SWITCH UNIT

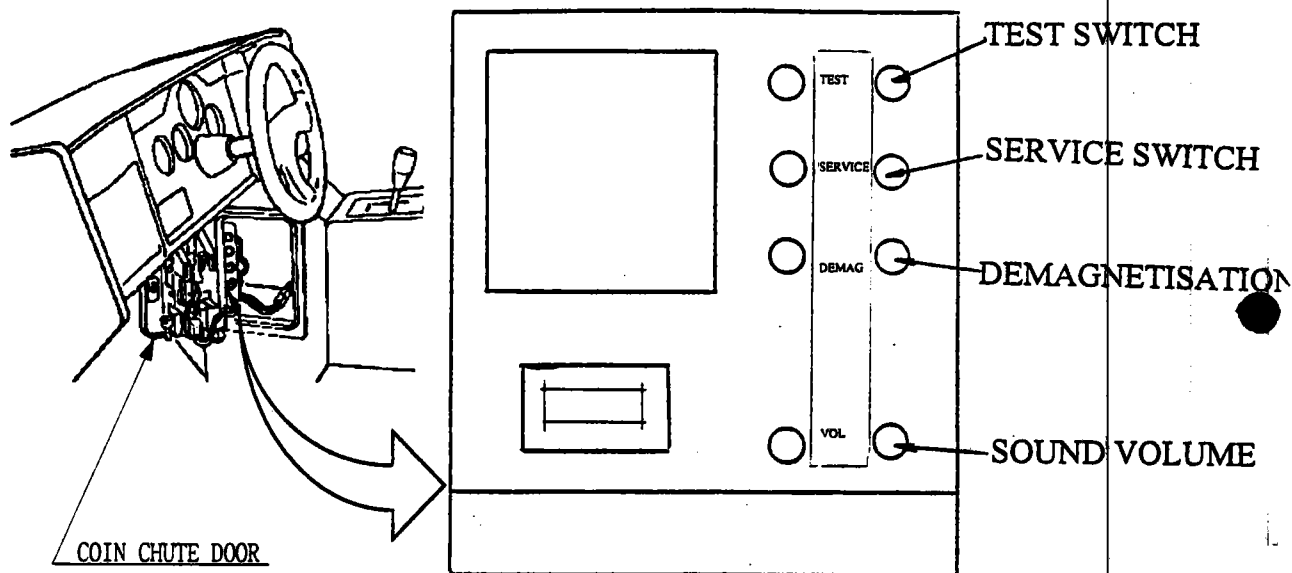
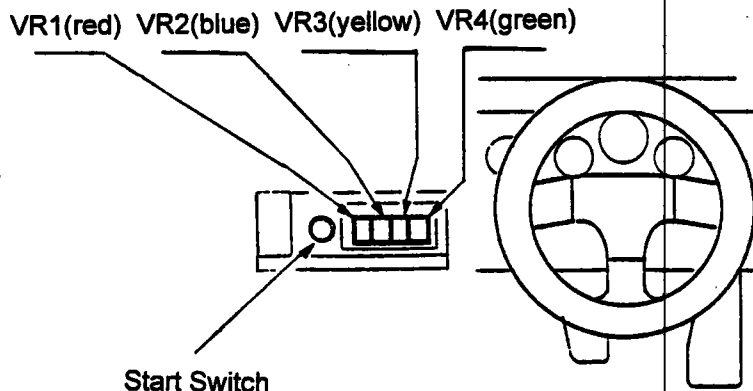


FIG. 8.1 SWITCH UNIT

Open the coin chute door, and the switch unit shown will appear. The functioning of each SW is as follows:

- ① **TEST SWITCH** : For the handling of the test button, refer to the following pages.
TEST
- ② **SERVICE SWITCH** : Gives credits without registering on the coin meter.
SERVICE
- ③ **SOUND VOLUME** : Adjusts the volume of the control panel's speakers and Superwoofer under the seat.
FRONT VOL
SUPER WOOFER
- ④ **SOUND VOLUME** : Adjusts the volume of the 2 rear speakers behind the seat and the control panel's tweeter.
REAR VOL

The control panel switches are also used in the test mode. For each functioning, refer to the following page and onward.



8-2 TEST MODE

- The Test Menu allows the functioning of each part of the Cabinet to be checked, the PROJECTOR to be adjusted, and the coins and game related various settings to be performed.
- Press the TEST SWITCH to cause the following Test Menu to be displayed on the monitor. (FIG. 8. 2)
- Press the SERVICE SWITCH until the pointer ">>" is moved to the desired item. Also, note that pressing VR1 (red) causes the arrow to move downward and pressing VR4 (green) causes the arrow to move upward.
- Bring the pointer ">>" to the desired test item and press either the TEST SWITCH or START SWITCH to cause the selected item's test to start.

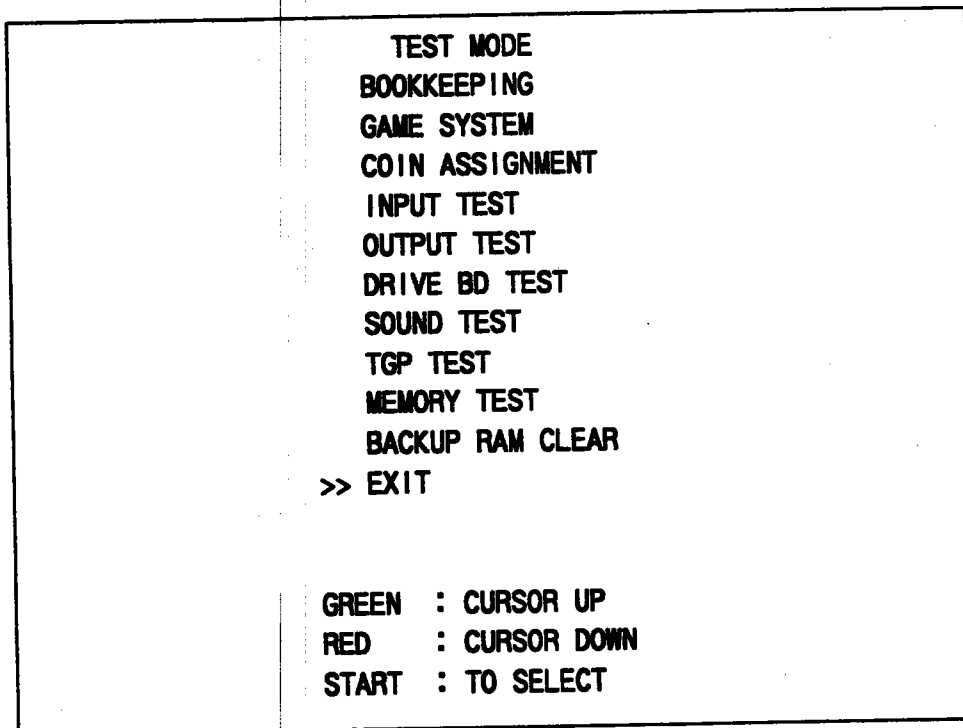


FIG. 8. 2 TEST MENU

After the test is complete, move ">>" to "EXIT" and press the TEST SWITCH or START SWITCH to return to the Game Mode.

8-3 BOOKKEEPING

Selecting the BOOKKEEPING in the menu mode causes the bookkeeping data up to the present to be displayed on 2 pages.

- Press the TEST SW or START SW to return to the MENU mode screen.
- Press VR1 (red) to proceed to the other page.

```
BOOKKEEPING
COIN CHUTE #1 XXXXXXXX
COIN CHUTE #2 XXXXXXXX
TOTAL COINS XXXXXXXX
COIN CREDITS XXXXXXXX
SERVICE CREDITS XXXXXXXX
TOTAL CREDITS XXXXXXXX
NUMBER OF GAMES XXXXXXXX
TOTAL TIME xDxxHxxMxxS
GAME PLAY TIME xDxxHxxMxxS
AVERAGE GAME TIME xxMxxS
LONGEST GAME TIME xxMxxS
SHORTEST GAME TIME xxMxxS

START : TO EXIT
RED : TO OTHER PAGE
```

FIG. 8. 3a BOOKKEEPING

- COIN CHUTE#* : Number of coins put in. As seen from the front of the cabinet, the right-hand side is #1 and the left-hand side is #2.
- TOTAL COINS: Total number of activations of coin chutes
- COIN CREDITS: Number of credits registered by inserting coins
- SERVICE CREDITS: Credits registered by the SERVICE switch
- TOTAL CREDITS: Total number of credits (COIN CREDITS + SERVICE CREDITS)
- TOTAL TIME: The total energized time.

```

BOOKKEEPING

TOTAL PLAY GAMES xxxxxxxxGAMES
BEGINNER COURSE xxxxxxxxGAMES
GOALS xxxxxxxx

AVERAGE PLAY TIME xxMxxS
FASTEST GOAL TIME xxMxxS

ADVANCED COURSE xxxxxxxxGAMES
GOALS xxxxxxxx

AVERAGE PLAY TIME xxMxxS
FASTEST GOAL TIME xxMxxS

EXPERT COURSE xxxxxxxxGAMES
GOALS xxxxxxxx

AVERAGE PLAY TIME xxMxxS
FASTEST GOAL TIME xxMxxS

START : TO EXIT
RED : TO OTHER PAGE

```

FIG. 8. 3b BOOKKEEPING

- BEGINNER COURSE: Beginner course's game play frequency
 - ADVANCED COURSE: Advanced course's game play frequency
 - EXPERT COURSE: Expert course's game play frequency
 - GOALS: Total number of GOALS of each course.
- Press the TEST SW or START SW to return to the MENU mode screen.
 - Press VR1 (red) to proceed to the other page.


```

      BOOKKEEPING

TOTAL PLAY GAMES xxxxxxxxGAMES
BEGINNER COURSE  xxxxxxxxGAMES
                  GOALS xxxxxxxx

AVERAGE PLAY TIME  xxMxxS
FASTEST GOAL TIME  xxMxxS

ADVANCED COURSE  xxxxxxxxGAMES
                  GOALS xxxxxxxx

AVERAGE PLAY TIME  xxMxxS
FASTEST GOAL TIME  xxMxxS

EXPERT   COURSE  xxxxxxxxGAMES
                  GOALS xxxxxxxx

AVERAGE PLAY TIME  xxMxxS
FASTEST GOAL TIME  xxMxxS

      START : TO EXIT
      RED   : TO OTHER PAGE

```

FIG. 8. 3b BOOKKEEPING

- BEGINNER COURSE: Beginner course's game play frequency
 - ADVANCED COURSE: Advanced course's game play frequency
 - EXPERT COURSE: Expert course's game play frequency
 - GOALS: Total number of GOALS of each course.
- Press the TEST SW or START SW to return to the MENU mode screen.
 - Press VR1 (red) to proceed to the other page.

8-4 GAME SYSTEM

Selecting the GAME SYSTEM in the menu mode causes the present game setting to be displayed and also the game setting changes can be made. Each item displays the following content. Settings at the time of shipment are as follows:

GAME SYSTEM	
LINK ID	SINGLE
CAR No.	1
CABINET	TWIN
COUNTRY	EXPORT
DIFFICULTY	NORMAL
ADVERTISE SOUND	ON
GAME MODE	ENDURANCE
RIVAL ARROW	ON
EXIT	
GREEN	CURSOR UP
RED	CURSOR DOWN
YELLOW	MODE UP
BLUE	MODE DOWN
START	TO SELECT

FIG. 8. 4 GAME SETTING

- **ADVERTISE SOUND** Advertisement sound during standby.
No sound is produced with "OFF." Standard setting is "OFF."
- **COUNTRY** This must be set to EXPORT
- **CABINET** This must be set to TWIN
- **DIFFICULTY** The game difficulty is classified into 4 different categories from EASY to HARDEST. Standard setting is "NORMAL."

SETTING CHANGE PROCEDURE

- ① Press the SERVICE SW or VR1 (red), or VR 4 (green) to move the arrow (>>) to the desired item.
- ② Choose the desired setting change item by using any one of VR2 (blue), VR3 (yellow), TEST SW and START SW.
- ③ To return back to the MENU mode, move the arrow to EXIT and press the TEST SW or START SW.

8-5 COIN ASSIGNMENT

The "COIN ASSIGNMENTS" mode permits you to set the start number of credits, as well as the basic numbers of coins and credits. This mode expresses "how many coins correspond to how many credits."

COIN ASSIGNMENT	
CREDIT TO START	1CREDIT(S)
COIN/CREDIT SETTING #1	
CHUTE1	1COIN 1CREDIT
CHUTE2	1COIN 1CREDIT
>> EXIT	

GREEN	: CURSOR UP
RED	: CURSOR DOWN
YELLOW	: MODE UP
BLUE	: MODE DOWN
START	: TO SELECT

FIG. 8.5 COIN ASSIGNMENTS

- **CREDIT TO START** Number of credits required for starting game (1~5 credits are selected.)
- **COIN/CREDIT SETTING** "How many coins correspond to how many credits."
In this machine, selection as per Table 8.2 is possible.

SETTING CHANGE PROCEDURE

- ① Press the SERVICE SW or VR1 (red), or VR 4 (green) to move the arrow (>>) to the desired item.
- ② Choose the desired setting change item by using any one of VR2 (blue), VR3 (yellow), TEST SW and START SW.
- ③ To return back to the MENU mode, move the arrow to EXIT and press the TEST SW or START SW.

TABLE 8.2 COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)

NAME OF SETTING	FUNCTIONING OF COIN CHUTE #1		FUNCTIONING OF COIN CHUTE #2	
SETTING #1	1 COIN	1 CREDIT	1 COIN	1 CREDIT
SETTING #2	1 COIN	1 CREDIT	1 COIN	2 CREDITS
SETTING #3	1 COIN	1 CREDIT	1 COIN	3 CREDITS
SETTING #4	1 COIN	1 CREDIT	1 COIN	4 CREDITS
SETTING #5	1 COIN	1 CREDIT	1 COIN	5 CREDITS
SETTING #6	1 COIN	2 CREDITS	1 COIN	2 CREDITS
SETTING #7	1 COIN	2 CREDITS	1 COIN	5 CREDITS
SETTING #8	1 COIN	3 CREDITS	1 COIN	3 CREDITS
SETTING #9	1 COIN	4 CREDITS	1 COIN	4 CREDITS
SETTING #10	1 COIN	5 CREDITS	1 COIN	5 CREDITS
SETTING #11	1 COIN	6 CREDITS	1 COIN	6 CREDITS
SETTING #12	2 COINS	1 CREDIT	2 COINS	1 CREDIT
SETTING #13	2 COINS	1 CREDIT	1 COIN	1 CREDIT
SETTING #14	2 COINS	1 CREDIT	1 COIN	2 CREDITS
SETTING #15	1 COIN	1 CREDIT	1 COIN	1 CREDIT
	2 COINS	3 CREDITS	2 COINS	3 CREDITS
SETTING #16	1 COIN	1 CREDIT	1 COIN	3 CREDITS
	2 COINS	3 CREDITS		
SETTING #17	3 COINS	1 CREDIT	3 COINS	1 CREDIT
SETTING #18	4 COINS	1 CREDIT	4 COINS	1 CREDIT
SETTING #19	1 COIN	1 CREDIT	1 COIN	1 CREDIT
	2 COINS	2 CREDITS	2 COINS	2 CREDITS
	3 COINS	3 CREDITS	3 COINS	3 CREDITS
	4 COINS	5 CREDITS	4 COINS	5 CREDITS
SETTING #20	1 COIN	1 CREDIT	1 COIN	5 CREDITS
	2 COINS	2 CREDITS		
	3 COINS	3 CREDITS		
	4 COINS	5 CREDITS		
SETTING #21	5 COINS	1 CREDIT	5 COINS	1 CREDIT
SETTING #22	3 COINS	1 CREDIT	1 COIN	2 CREDITS
	5 COINS	2 CREDITS		
SETTING #23	2 COINS	1 CREDIT	2 COINS	1 CREDIT
	4 COINS	2 CREDITS	4 COINS	2 CREDITS
	5 COINS	3 CREDITS	5 COINS	3 CREDITS
SETTING #24	2 COINS	1 CREDIT	1 COIN	3 CREDITS
	4 COINS	2 CREDITS		
	5 COINS	3 CREDITS		
SETTING #25	1 COIN	1 CREDIT	1 COIN	1 CREDIT
	2 COINS	2 CREDITS	2 COINS	2 CREDITS
	3 COINS	3 CREDITS	3 COINS	3 CREDITS
	4 COINS	4 CREDITS	4 COINS	4 CREDITS
	5 COINS	6 CREDITS	5 COINS	6 CREDITS
SETTING #26	1 COIN	1 CREDIT	1 COIN	6 CREDITS
	2 COINS	2 CREDITS		
	3 COINS	3 CREDITS		
	4 COINS	4 CREDITS		
	5 COINS	6 CREDITS		
SETTING #27	FREE PLAY		FREE PLAY	

8-6 INPUT TEST

When INPUT TEST is selected, the monitor will show the following, allowing you to watch the status of each switch and the value of each V. R. of the CONTROL PANEL.

On this screen, periodically check the status of each switch & V. R.

- By pressing each switch, if the display on the right-hand side of the name of each switch changes to ON from OFF, the SW and the wiring connections are satisfactory.
- To check CHUTE 1 & CHUTE 2 coin switches, open the COIN CHUTE DOOR and insert a coin(s) from the coin entry.
- To return back to the MENU mode, simultaneously press VR1 & VR2, or press the TEST SW.

INPUT TEST			
CHUTE1	OFF	CHUTE2	OFF
SHIFT1	OFF	SHIFT2	OFF
SHIFT3	OFF	SHIFT4	OFF
VR1	OFF	VR2	OFF
VR3	OFF	VR4	OFF
START	OFF		
TEST-SW	OFF	SERVICE-SW	OFF
HANDLE	xxxH		
ACCEL	xxxH		
BRAKE	xxxH		
RED & BLUE : TO EXIT			

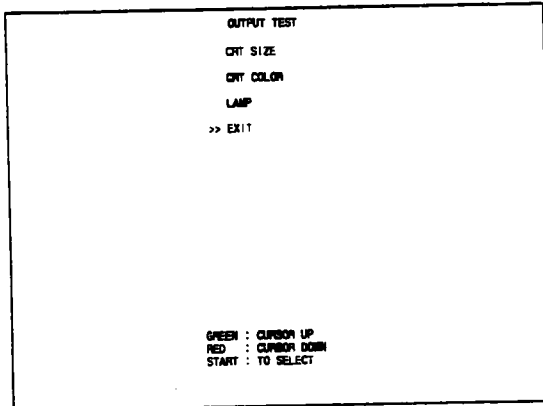
FIG. 8. 6 INPUT TEST

An appropriate value of each V. R. is as follows:

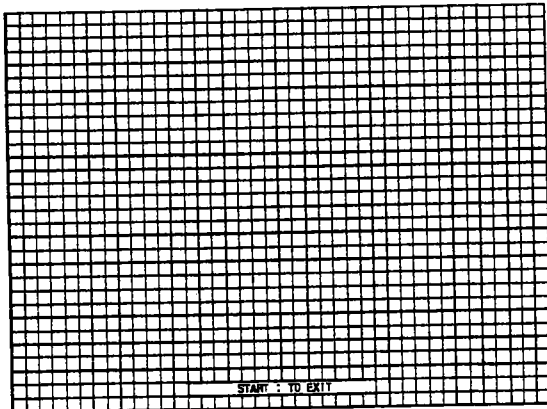
HANDLE:	Under 2DH left	← 7D~83H → (Centering position)	Over D3H right
ACCEL:	Under 30H	→	Over C0H
BRAKE:	Under 30H (the pedal released)	→	Over D2H (the pedal stepped)

8-7 OUTPUT TEST

Choose **OUTPUT TEST** to cause the following topmost screen to appear. In this test, periodically adjust the projector and check the status of each lamp.

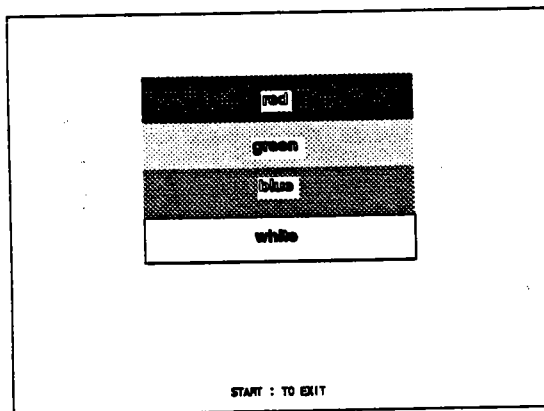


The FIG. at the left shows the menu mode of **OUTPUT TEST**. Press the **SERVICE SW** or **VR4 (green)/VR1 (red)** and bring the arrow (>>) to the desired test item. Press the **TEST SW** or **START SW** to cause the test mode screen below to appear. To return back to the menu mode, bring the arrow to **EXIT** and press the **TEST SW** or **START SW** (FIG. 8.2)

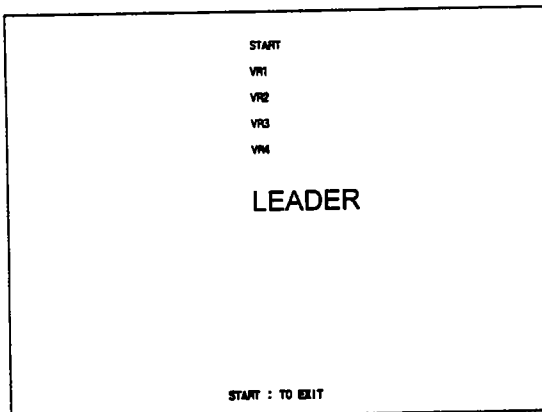


Choose **CRT SIZE** to cause the screen shown at the left to appear.

Adjust the monitor to make sure that the crosshatch lines do not go beyond the screen size and crosshatch distortion does not occur. Press the **START SW** to return to the above **OUTPUT TEST** menu screen.



Choose **CRT COLOR** to cause the screen shown at the left to appear. This test allows the on-screen color adjustment to be performed. The color of a color bar (for each of the 4 colors, i. e., red, green, blue, and white) is darkest at the leftmost end and brightest at the rightmost end.



Choose **LAMP** to cause the screen shown at the left to appear.

This enables the status of each lamp to be checked. Causes the **START SW** lamp and the lamp of each **V. R.** switch to light up in a sequential order. Press the **START SW** to return to the above **OUTPUT TEST** menu screen.

FIG. 8.7 OUTPUT TEST

8-8 DRIVE BD TEST

Choosing DRIVE BD TEST allows the reaction mechanism of the steering wheel to be checked. Also, this enables the V. R. value for the steering wheel's DRIVE BD and the setting status of the DIP SWes on the Drive BD to be checked.

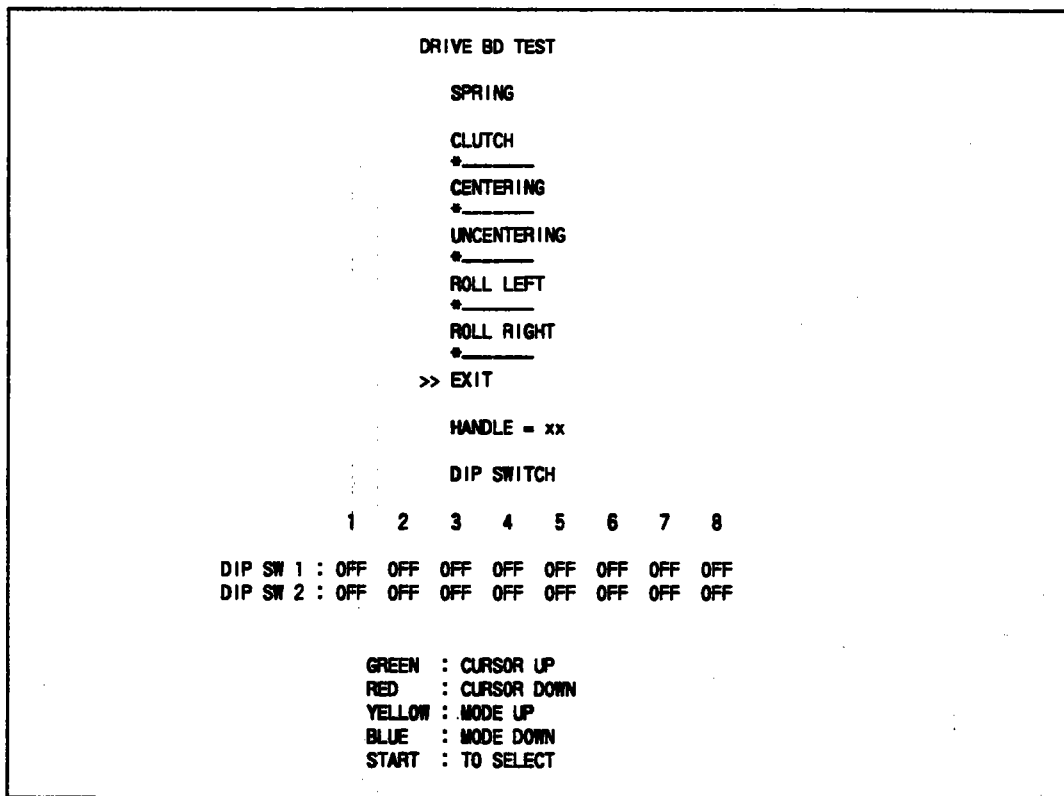


FIG. 8.8 DRIVE BD TEST

Bring the arrow (>>) to the desired item by using the SERVICE SW or VR1 (red) or VR4 (green). The steering wheel functions to the setting selected by the arrow. Pressing VR2 (blue) or VR3 (yellow) allows the force transmitted to the steering wheel to increase or decrease.

- **SPRING** Status in which the motor and clutch are not activated. Centering of the handle is caused by only the spring inside the handle mechanism.
- **CLUTCH** Status in which the clutch is activated. The handle is fixed.
- **CENTERING** Status in which the handle (of itself) returns to the center position.
- **UNCENTERING** Status in which the handle is caused not to be in the center.
- **ROLL LEFT** Status in which the handle is rotated in the left-hand side direction.
- **ROLL RIGHT** Status in which the handle is rotated in the right-hand direction.
- **EXIT** Causes the menu mode to return on to the screen.

- HANDLE Displays the HANDLE V. R. value. Make sure that the appropriate V. R. value is as follows:

APPROPRIATE V. R. VALUE: Under 2DH ← 7D~83H → Over D3H
 Left Centering Right

- DIP SW Displays the setting status of DIP SWes on the DRIVE BD.

DIP SW SETTING TABLE

The setting of DIP SW Nos. 1~4 on the DRIVE BD allows the handle's weight (via "feeling") to be set and ON or OFF of POWER ON CHECK to be selected. DIP SW Nos. 5 to 8 are to be OFF.

The DRIVE BD is mounted on the ASSY ELEC. Refer to 17-1 when changing the settings.

DIP SW SETTING

NOTE: The shaded portion refers to the setting at the time of shipment.

HANDLE'S WEIGHT

1	2	3	FUNCTION
OFF	OFF	OFF	Light
ON	OFF	OFF	↑
OFF	ON	OFF	
ON	ON	OFF	↓
OFF	OFF	ON	
ON	OFF	ON	↓
ON	ON	ON	

POWER ON CHECK

4	FUNCTION
OFF	Performed
ON	Not performed

When DIP SW changes are made, be sure to turn the power off and then turn it back on again. The new setting is not effective unless it is turned back on again. The handle's reaction mechanism is subject to a secular change. When the reaction becomes lighter, change the DIP SW setting.

DRIVE BD ERROR DISPLAY

When malfunctioning occurs in the DRIVE BD, testing will not be performed even if DRIVE BD TEST is selected. In this case, the error No. will be displayed by the 7-SEG display on the DRIVE BD.

Also, when a POWER-ON CHECK ERROR occurs, the 7-SEG. display data repeatedly flashes. First check the handle mecha's V. R., the motor, clutch, etc.

8-9 SOUND TEST

Choosing SOUND TEST causes the following mode to appear on the screen. This allows the desired sound (BGM, announcement and sound effects) to be chosen and heard. Enables the SOUND BD, AMP BD and each speaker to be checked.

Press the SERVICE SW or VR1 (red) or VR4 (green) and bring the arrow (>>) to the desired sound item to be tested. Pressing the TEST SW or START SW allows the selected sound test to be performed. The BGM (background music) is emitted from the tweeter speakers (a round type), one each on the upper left and upper right of the control panel and also from the rear speakers (one each on both sides) behind the seat. Other sounds (sound effects, announcement, etc.) are emitted from the front speakers (a square type), one each on both sides of the control panel and also from the super-woofer under the seat.

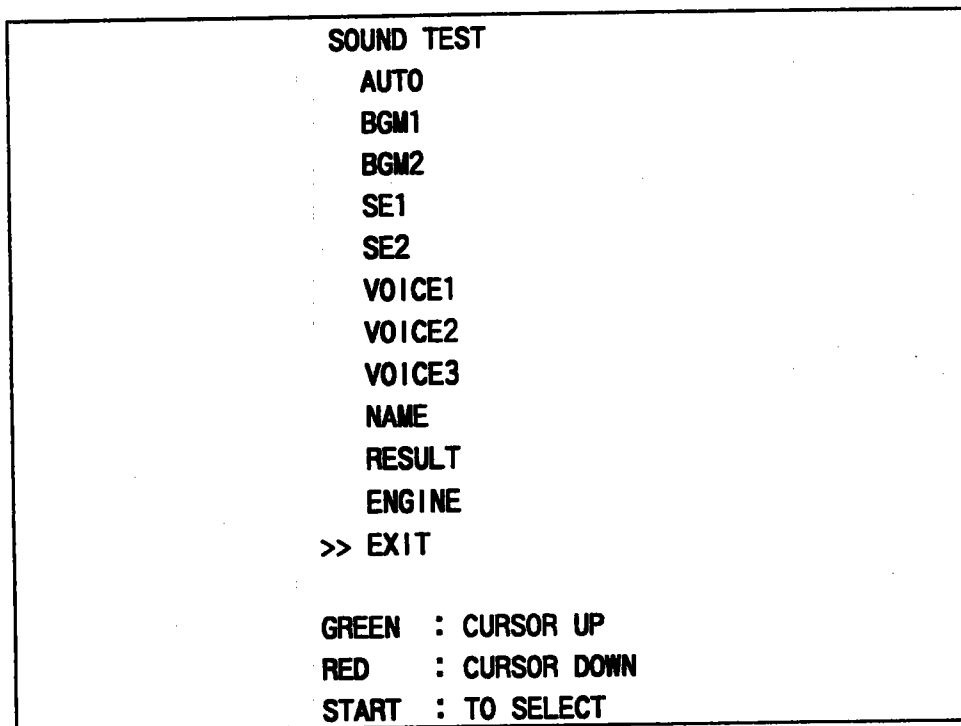


FIG. 8.9 SOUND TEST

- **AUTO** Auto play covering from BGM to RESULT. Bring the arrow to this item and press TEST SW or START SW to cause SOUND TEST covering from BGM to RESULT will be automatically and repeatedly be performed.
- **BGM** Background music during game.
- **SE** Sound effects during game.
- **VOICE** Announcement and comment during game.
- **NAME** Announcement and comment during name entry.
- **RESULT** Announcement during the display of the results.
- **ENGINE** Engine/Slip/Brake sounds can be emitted by using the ACCEL. pedal, HANDLE pedal and BRAKE pedal respectively.
- **EXIT** Causes the menu mode to return on to the screen.

8-10 TGP TEST

TGP TEST		
47	GOOD	GOOD
56	GOOD	GOOD
60	GOOD	GOOD
64	GOOD	GOOD

STRT : TO EXIT

In this test, TGP (on-screen display related IC) is checked. As shown at the left, if "GOOD" is displayed for all, it is satisfactory. Press TEST SW or START SW to return to the menu screen.

FIG. 8.10 TGP TEST

8-11 MEMORY TEST

The MEMORY TEST mode is for checking the on-BD memory IC functioning. "GOOD" is displayed for normal ICs and "BAD" is displayed for abnormal ICs.

MEMORY TEST					
IC. 6	GOOD	IC. 7	GOOD	IC. 8	GOOD
IC. 9	GOOD	IC. 10	GOOD	IC. 11	GOOD
IC. 12	GOOD	IC. 13	GOOD		
IC. 45	GOOD	IC. 46	GOOD	IC. 47	GOOD
IC. 48	GOOD	IC. 49	GOOD	IC. 50	GOOD
IC. 54	GOOD	IC. 55	GOOD		

START TO EXIT

FIG. 8.11 MEMORY TEST

- When the test is completed, if the results are shown as above, it is satisfactory.
- It takes approximately thirty seconds to complete the test. If the period exceeds thirty seconds, this may have been caused by board malfunctioning.
- After finishing the test, pressing the TEST SW or START SW allows the MENU mode to return on to the screen.

8-12 BACKUP RAM CLEAR

Clears the contents of BOOKKEEPING.

When clearing, bring ">>" to "YES" and when not clearing, to "NO", by using the SERVICE SW or VR1(red)/VR4(green), and then push the TEST SW or START SW.

When the data has been cleared, "COMPLETED" will be displayed. Bring ">>" to "NO" and press the TEST SW to cause the Menu mode to return on to the screen.

Also, note that the game setting contents are not affected by BACKUP RAM CLEAR operation.

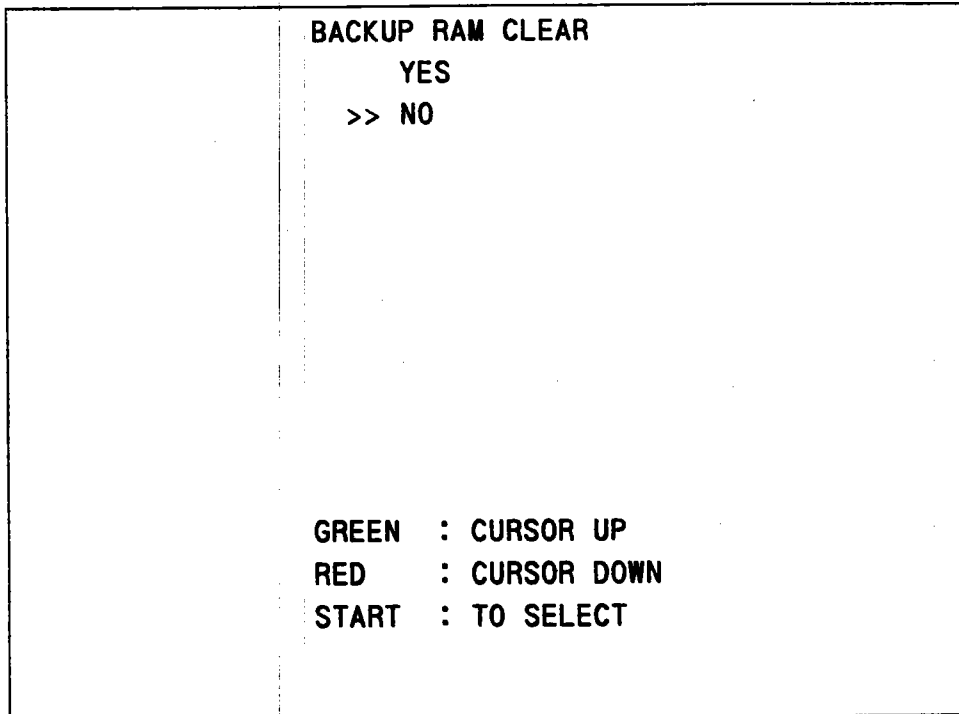


FIG. 8. 12 BACKUP RAM CLEAR

9. CONTROL PANEL(HANDLE MECHA)

In the TEST mode, if the steering wheel V. R. value variations are not within the allowable range, an adjustment of the V. R. installation position or replacement of the V. R. are needed. Also, apply grease to the steering wheel mechanism's shaft and sliding portions once every 3 months.

When carrying out the above work, take off the 4 truss screws and remove the front cab's Front Lid Upper.

9-1 REPLACING AND ADJUSTING THE HANDLE's (STEERING WHEEL's) V. R.

The upper side V. R. of the HANDLE MECHA is for the GAME BD., and the lower side one, for the DRIVE BD.

Check the value of the V. R. for the DRIVE BD. The appropriate value of each V. R. is as follows:

When the steering wheel is turned to or positioned at:	Left	Centering position	right
V. R. for the GAME BD. :	Under 2 DH	← 7DH ~ 83H →	Over D3H
V. R. for the DRIVE BD. :	Under 2 DH	← 7DH ~ 83H →	Over D3H

Method of V. R. replacement

To replace the V. R., after taking off the connector from the V. R. to be replaced, take out the 2 screws which secure the VR BRACKET, and remove the V. R. together with the bracket and gear. After the replacement, check the V. R. value variations in the test mode.

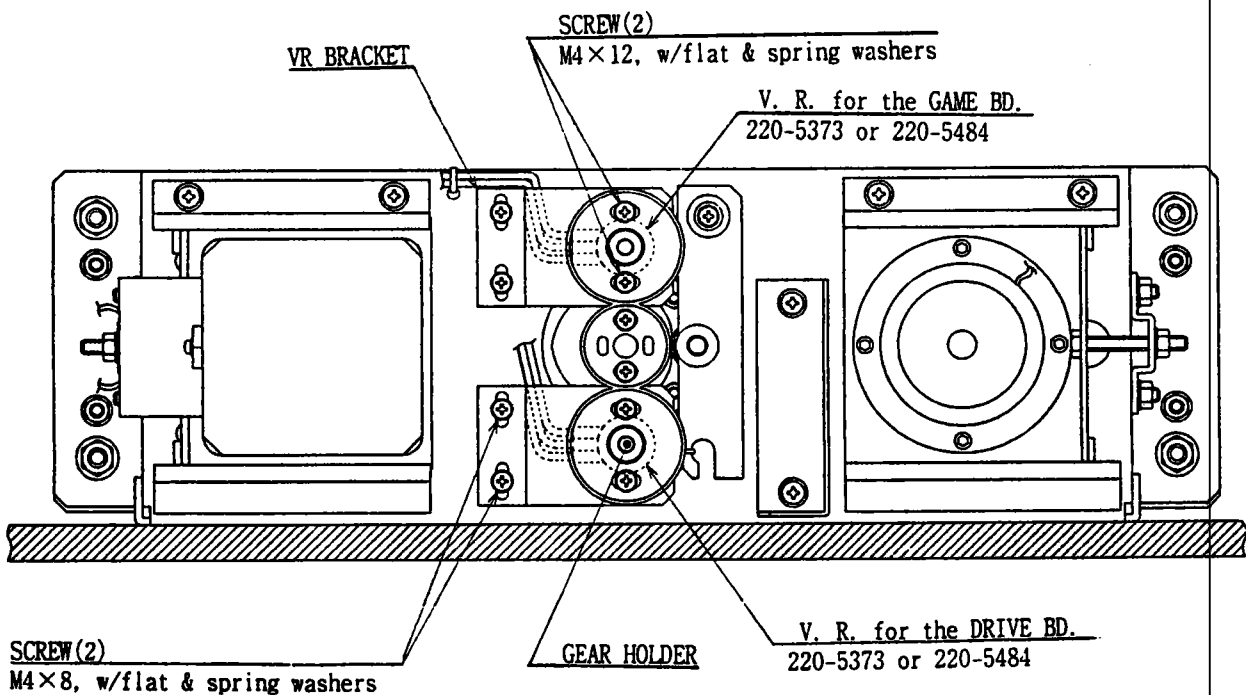


FIG. 9.2

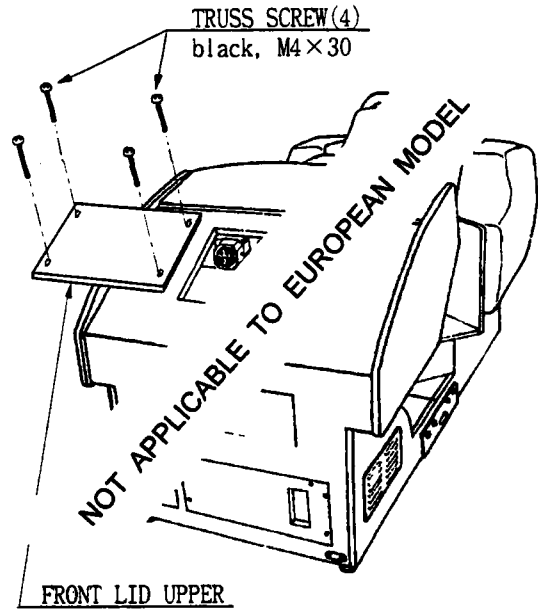


FIG. 9.1

Method of V. R. adjustment

- ① Loosen the 2 screws which secure the V. R. BRACKET, move the V. R. BRACKET and detach the gears.
- ② Adjust the V. R. so that it is consistent with the value near the centering position.
- ③ Cause the gears to be engaged and secure the V. R. BRACKET. At this time, make sure that an appropriate backlash is obtained.
- ④ If the V. R. value is not appropriate when the steering wheel is at the centering position, loosen the 2 screws which secure the V. R. gear, turn the gear holder to make a fine adjustment so that the V. R. value is within the allowable range.
- ⑤ Check the V. R. value variations by turning the handle.

9-2 GREASING

Once every 3 months, grease the gears, bearings, springs, and cam & arm's sliding portions.



CONNECTOR (2)

10. ACCELERATOR & BRAKE

11-2 REPLACEMENT AND ADJUSTMENT OF SWITCH

Method of replacement

- ① Disconnect the wiring connector of the SW to be replaced.
- ② Take off the 2 screws which secure the BRACKET (SW BRACKET A & B) to which the SW is attached, and remove the SW together with the bracket. (FIG. 11.2)
- ③ Take off the 2 screws which secure the SW, and replace the SW.

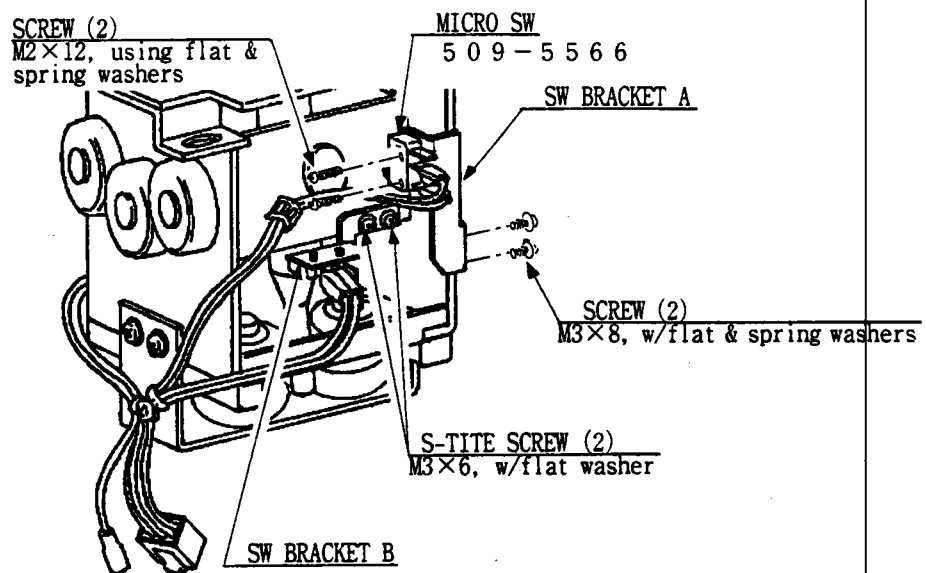


FIG. 11.2

- ④ To secure the replaced SW to the bracket, incline it as shown (FIG. 11.3). Securely fasten the screws by applying an anti-loosening agent to the screws.
- ⑤ Install the SW bracket with 2 screws. When installing SW BRACKET A, an adjustment in the following procedure is required.
- ⑥ After SW replacement, check the SW input in the test mode.

Secure the SW by inclining it clockwise.

Secure the SW by inclining it counterclockwise.

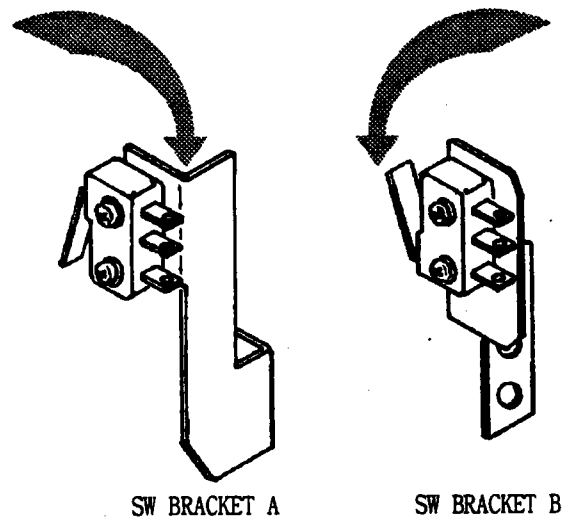


FIG. 11.3

Adjustment to be made at the time of installing SW BRACKET A

- ① Shift to the first or second gear.
- ② At this time, secure SW bracket A with 2 screws in a manner so that the SW attached to SW Bracket A is caused to be ON.

11-3 GREASING

Apply grease to the following points once every 3 months as a standard. Also, note that RUBBER RING 70 is not of an oil-resistant type and is susceptible to a quality deterioration if oil attaches.

Make sure that grease and any other type of oil do not adhere to it.

The portion where the micro-SW actuator and the shaft come into contact with each other.

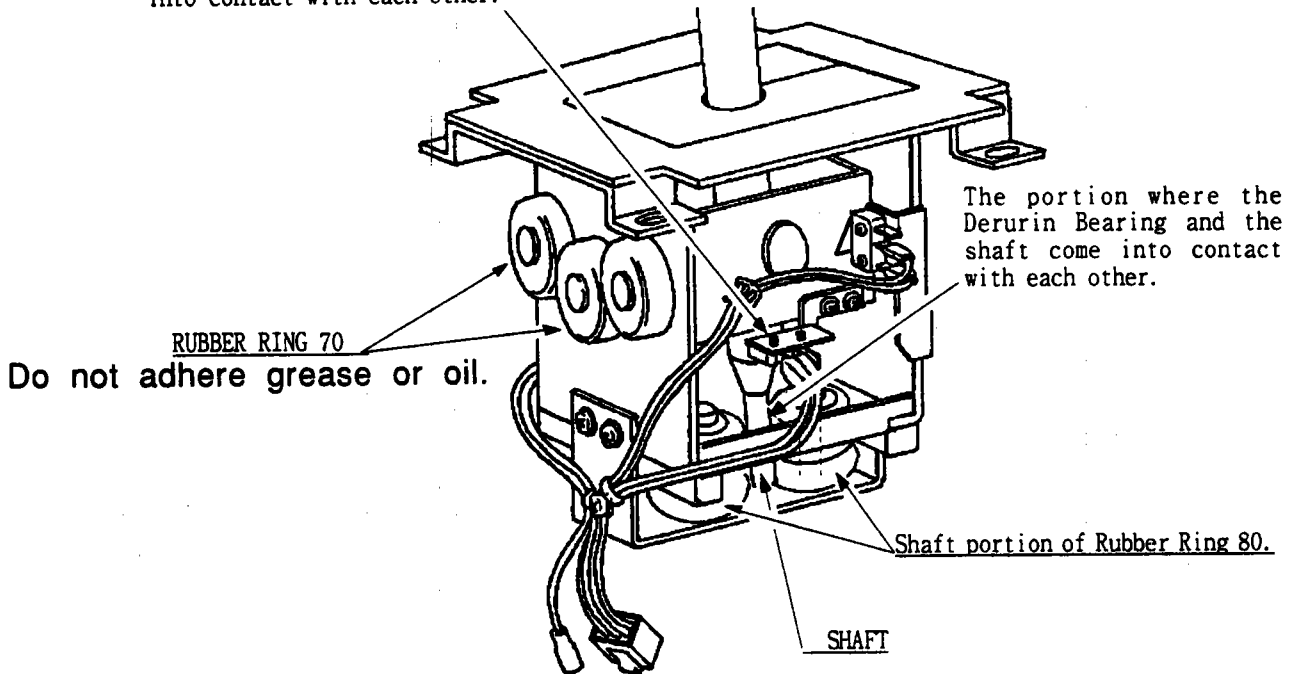


FIG. 11.4

11-4 REPLACEMENT OF RUBBER STOPPERS

Once every 6 months as a standard, check to see if any damage is caused to the rubber stoppers. If they are damaged, replace them with the spare parts in the procedure shown in the FIG. below.

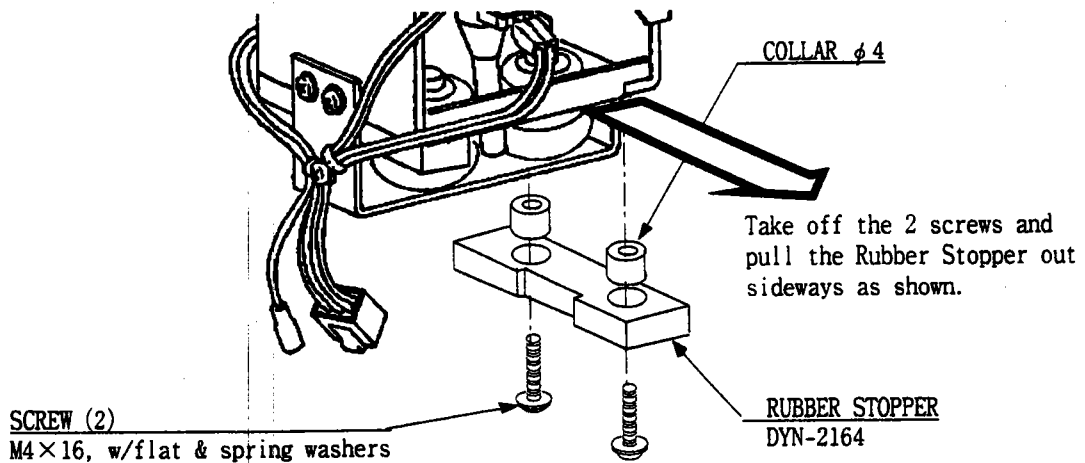


FIG. 11.5

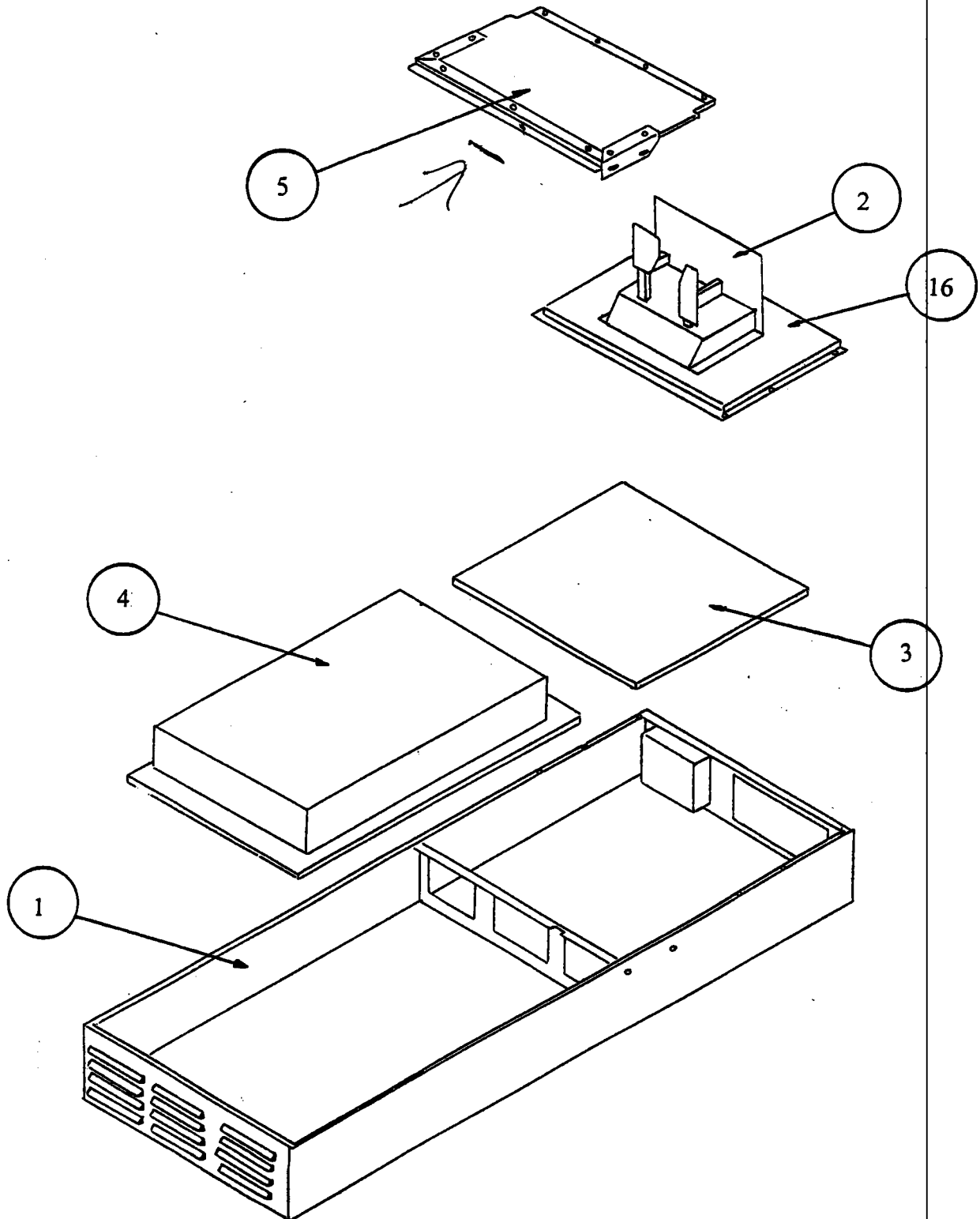
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12 PARTS

12.1 Main Base

<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>	
1	DYN-2021UK	Main Base Box	
2	DYN-1300	Brake & Accel Unit	Assy See 12.7
3	AY0121 SE4498	PSU/Sound Tray	Assy See 12.8
4	AY0122	Shield Case Tray	Assy See 12.9
5	AY0123	Floor Front	Assy See 12.10
6	FN1000	Axial Fan 240V AC	
7	FN1013	Axial Fan 240V AC	Slim Model
8	FN1012	Metal Fan Guard	
9	MP1208	Bracket For Item 7	
10	601-5471	Caster	Sega Part
11	601-5699X	Leg Adjuster M16x75mm	Sega Part
SE24 12	600-6275-0300	Fiber Optic Cable (300mm)	Sega Part
13	SW1020	Cherry switch mains interlock	Use 600-6275-0300 SE4364
14	DYN-2004UK	Lock TNG	
15	CH1165	Lock 1" Radial Key 284321	
16	DYN-2016	Pedal Base	
17	DYN-0401UK	AC Bracket	
19	EP1306	Mains input Filter 10Amp	
20	211-5479	Conn Opt Joint PNL-TOCA150	
21	LM1212	Wire Harness, Interlock Int.	
22	LM1213	Wire harness, AC Supply Internal	
23	LM1206	Wire Harness, Seat Speaker Int.	
24	LM1216	LOOM PAIR (+ FIBER OPTIC)	

12.1 Main Base (View)



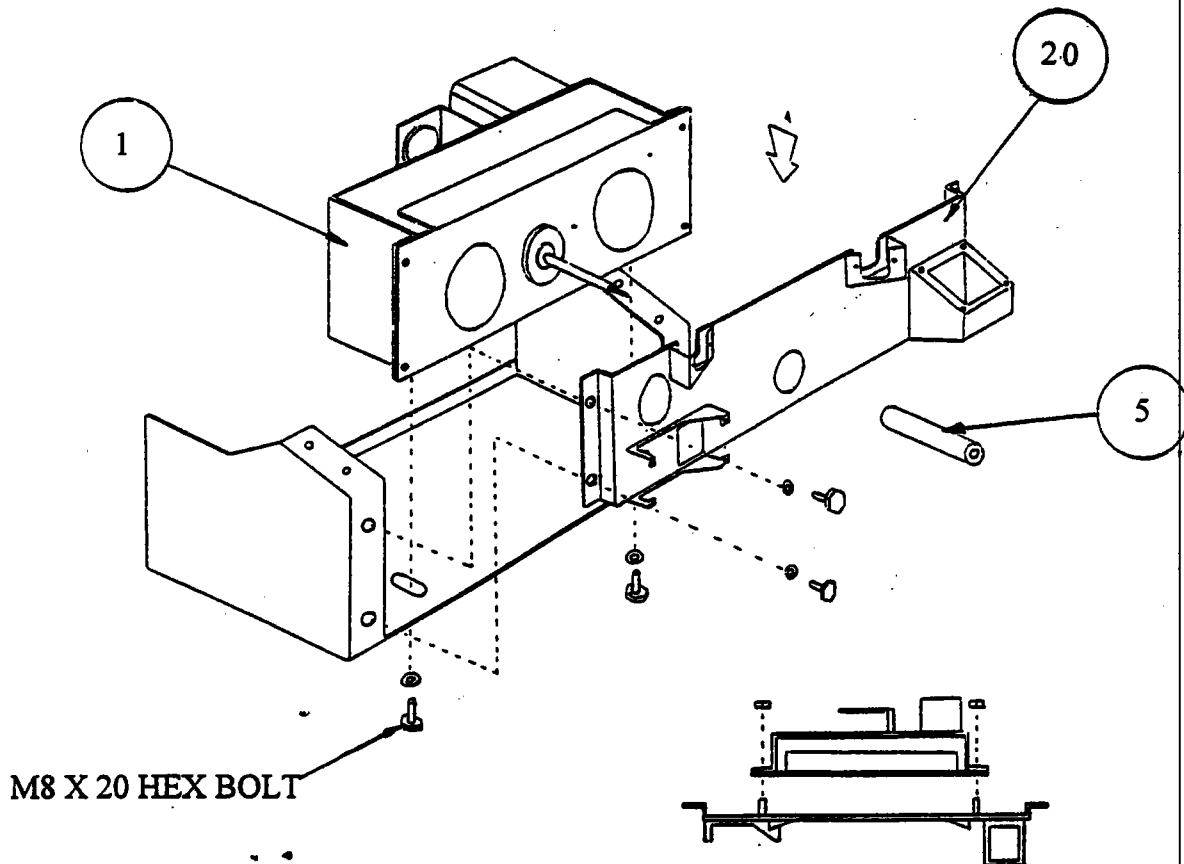
12.2 Cockpit Cabinet

<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>	
1	DYN-1701UK	Wood Cabinet	
2	FN1004	Fan Grill White	
3	200-5242-24-02	Monitor Nanao 29"	
4	AW1126	Decal Cheek Upper L	
5	AW1127	Decal Cheek Upper R	
6	AW1128	Decal Cheek Lower L	
7	AW1129	Decal Cheek Lower R	
8	422-0478-01UK	Decal Play Instructions	
9	600-6373-31UK	Wire Harness, Monitor	
10	600-6373-32UK	Wire Harness, Ext Speaker	
11	600-6373-39UK	Wire Harness, Clutch	
12	600-6373-40UK	Wire Harness, Ext Steering	
13	600-6373-44UK	Wire Harness, Button & Shift	
14	LM1015	Wire Harness, Std. FL Supply #2	
15	LM1214	Wire Harness, Main Earth	
16	LM1222	Wire Harness, Credit SW Main	
17	LM1224	Wire Harness, Leader lamp Int.	
18	130-5113	Speaker Box Dome	Sega Part
19	PP1000	Bush for Nanao Monitor	
20	PP1001	Collar for Nanao Monitor	
21	DYN-1016	Monitor mask	Sega Part
22	DYN-1702UK	Side Edge L	
23	DYN-1703UK	Side Edge R	
24	DYN-1704UK	Panel Mount Case	
25	DYN-1705UK	Lower Mask Bracket	
26	DYN-1706UK	Upper Mask Bracket	
27	DYN-1707UK	Lower Monitor Bracket	
28	DYN-1708UK	Upper Monitor Bracket	
29	DYN-1709UK	Plate 8-25 Black	
30	DYN-1710UK	Plate 8-50 Black	
31	DYN-2115UK	Nut Plate M8	
32	DYN-1501UK	Speaker Bracket Front	
33	DYN-1551UK	Speaker Bracket Rear	
34	OS1071	PCB Feet	
35	EP1308	Ferrite Ring	

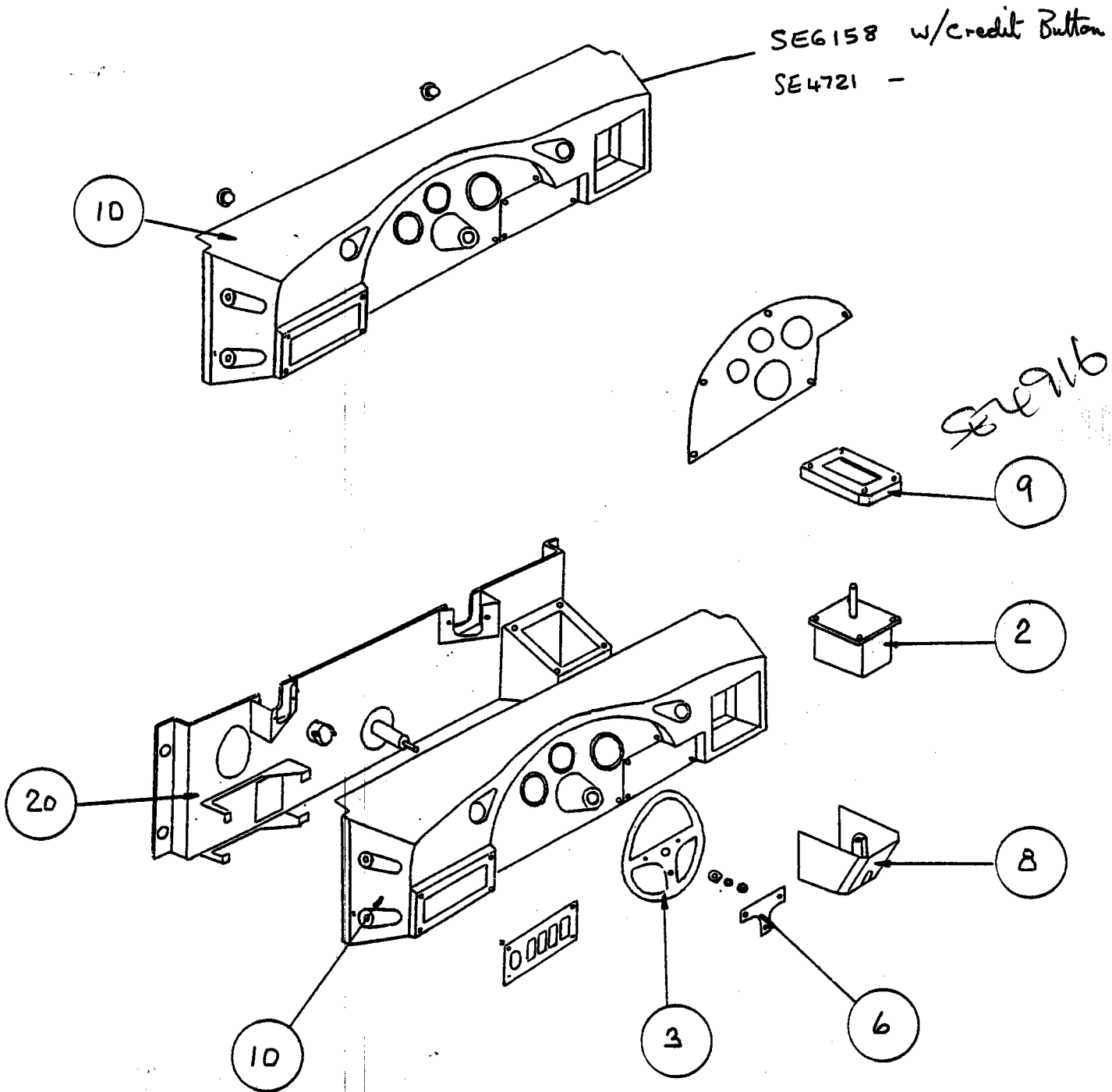
24kHz Line Freq
 SE 4839
 SE 4844
 SE 4845
 SE 4848
 SE 4839
 SE 4840

12.3 Control Panel

	<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>
	1 DYN-1250	Assy Handle Mecha	Sega Part
	2 DYN-2150	Assy 4 Speed Shifter	Sega Part
SE4500	3 DYN-1201	Steering Wheel	Sega Part
	4 DYN-1290	Assy Virtua Buttons	Sega part
	5 DYN-1209	Handle Collar	Sega Part
	6 DYN-1210	Steering Emblem	Sega Part
	7 DYN-1212UK	Control Panel Base	
9	9 DYN-1222	Shift Cover A	Sega Part
8	8 DYN-1223	Shift Cover B	Sega Part
SE4721	10 DYN-1214	Control Panel Cover	Sega Part
	11 DYN-1224UK	M8 BLT Special	
SE4529	12 130-5112 START PLATE	Tweeter 8Ω 2W 35mm	£9.05
	13 117-5164	Start Plate	Sega Part
	14 509-5440	Push Button Switch IT Green	Sega Part
SE5492	15 422-0479-02	Play Instructions VR Buttons	Sega Part
	16 600-6373-33UK	Wire Harness, Ext. Tweeter	
	17 600-6373-45UK	Wire Harness, Ext. Shift	
	18 600-6373-46UK	Wire Harness, Virtua Buttons	
	19 LM1221	Wire Harness, Credit Switch Int.	
	20 DYN-1212UK	Control Panel Bracket	

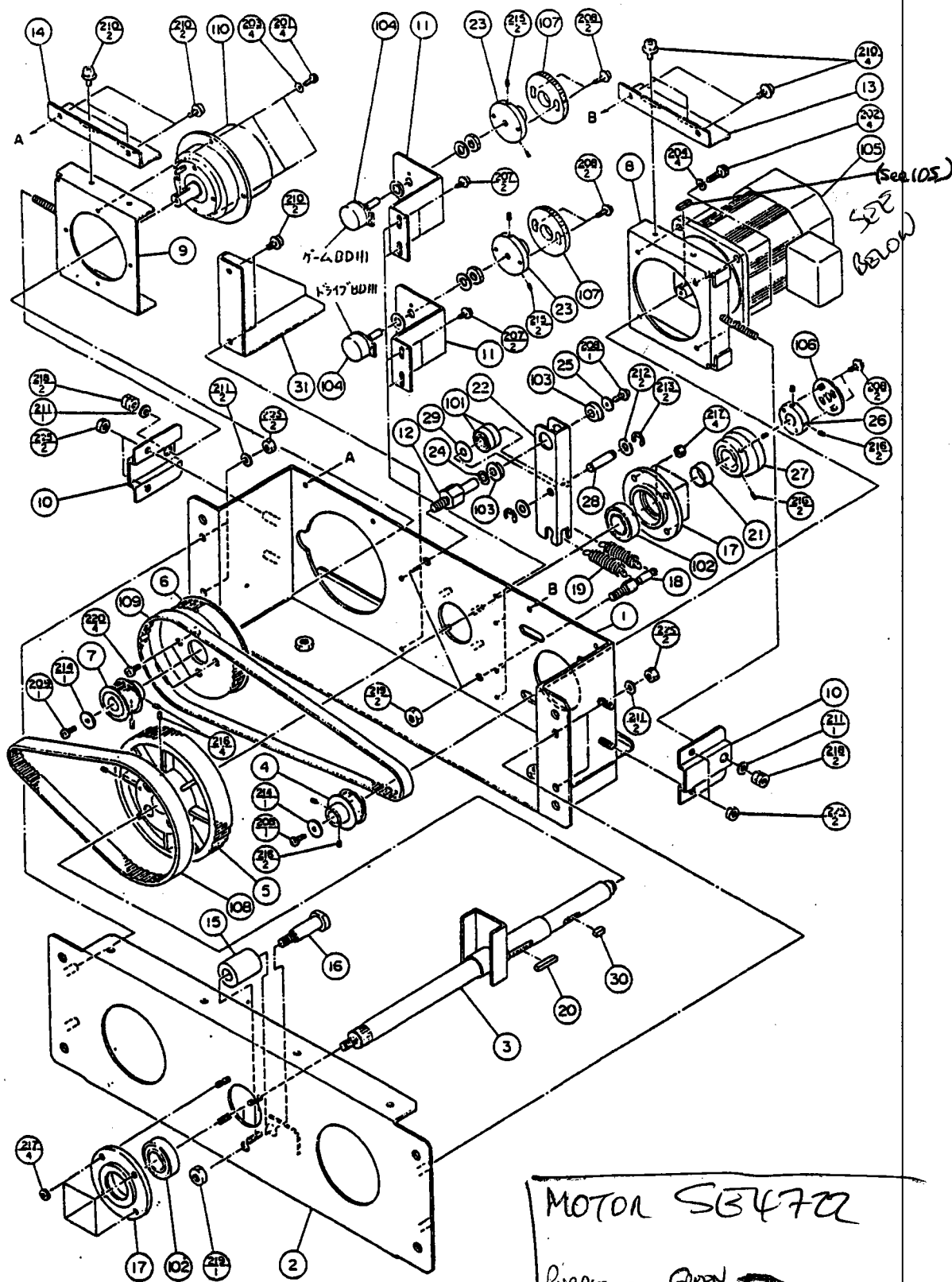


12.3 Control Panel (View)



S/WHEEL BOLTS
SE 5305

12.4 Assy Handle Mecha (DYN-1250)



MOTOR SB4702

PURPLE — GREEN
 BROWN — YELLOW
 PINK — GREY

MOTOR

12.4 Assy Handle Mecha (DYN-1250)

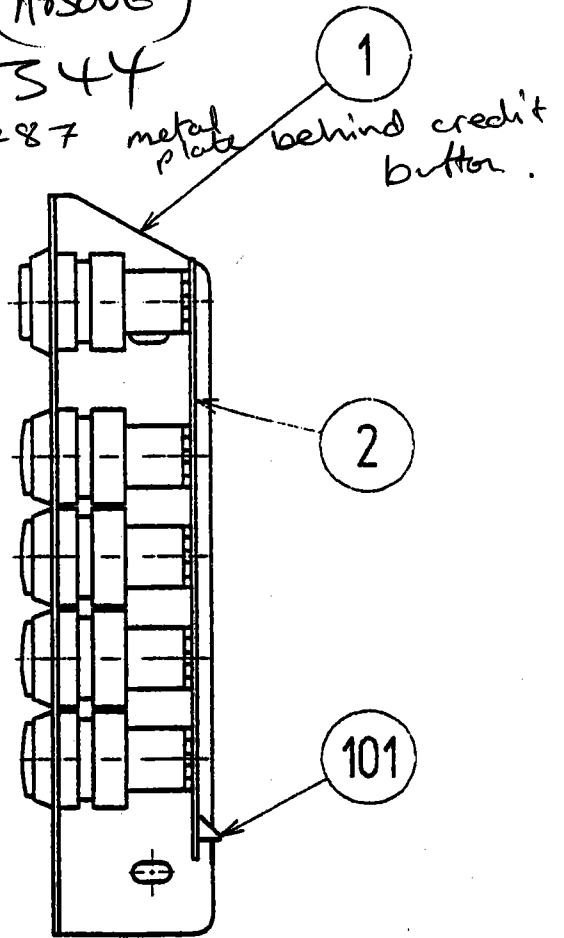
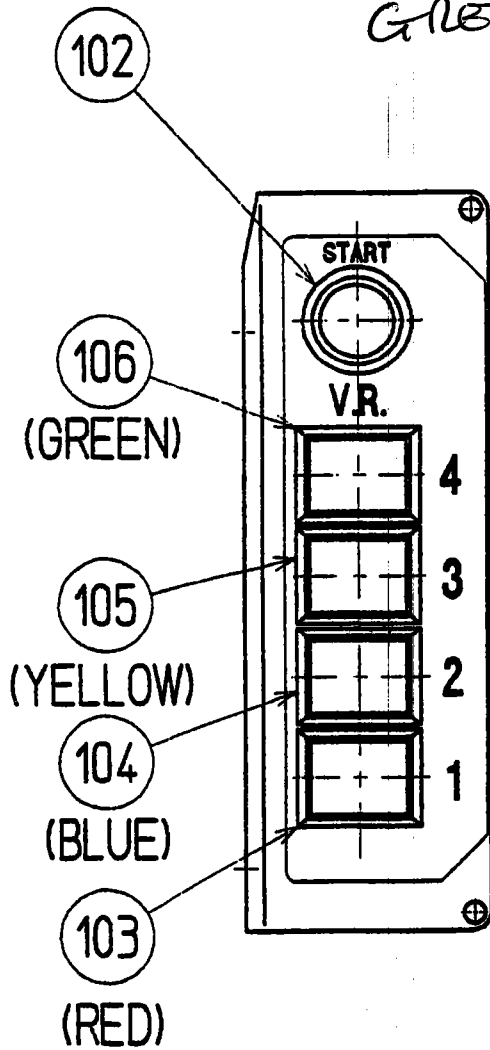
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	DYN-1251	HANDLE BASE	
2	DYN-1252	BASE LID	
3	DYN-1253	HANDLE SHAFT	
4	DYN-1254	DRIVE PULLEY	
5	DYN-1255	HANDLE PULLEY	
6	DYN-1256	CLUTCH PULLEY A	
7	DYN-1257	CLUTCH PULLEY B	
8	DYN-1258	MOTOR BRACKET	
9	DYN-1259	CLUTCH BRACKET	
10	DYN-1260	TENSIONER BRACKET	
11	DYN-1261	VR BRACKET	
12	DYN-1262	SWING ARM SHAFT	
13	DYN-1263	GUIDE HOLDER A	
14	DYN-1264	GUIDE HOLDER B	
15	DYN-1265	STOPPER RUBBER	
16	DYN-1266	STOPPER BOLT	
17	DYN-1267	HOUSING	
18	DYN-1268	SPRING HOOK	
19	DYN-1269	EXT SPRING	
20	DYN-1270	STOPPER KEY	
21	DYN-1272	SPACER RING	
22	DYN-1273	SWING ARM	
23	BVG-1221	GEAR HOLDER	
24	BVG-1340	FLT WSHR 8. 1-12×2	
25	BVG-1341	FLT WSHR 4. 1-12×2	
26	SLC-1130	ADJUST RING	
27	SLC-1141X	WHITE CAM	
28	SOR-2112	BEARING SHAFT	
29	SOR-2113	SPACER	
30	SOR-2115	KEY 5×10	
31	DYN-1274	GUARD BRKT	
101	100-5018	BALL BEARING $\phi 8$ (NSK 608ZZ)	
102	100-5112	BEARING $\phi 17$ (NSK 6003ZZ)	
103	100-5041	BEARING (NSK F688ZZ)	
104	220-5373	VOL CONT B-5K OHM	
	220-5484	VOL CONT B-5K OHM	
105	350-5235	MOTOR AC100V 1250/1550rpm W/H (Key 350-5433)	
	350-5294	MOTOR AC100V 60W	
106	601-6172	GEAR 48	
107	601-6959	GEAR 64	
108	601-7487	TIMING BELT (150 5M 550)	
109	601-7488	TIMING BELT (100 5M 750)	
110	601-7489	PARTICLE CLUTCH BRAKE	
111	310-5029-F20	SUMITUBE F F20MM	$\phi 4$
112	601-0460	PLASTIC TIE BELT 100mm	
114	209-0023	CONN CLOSED END	SMALL TYPE
201	020-000410-HZ	HEX SKT CAP SCR BLK OZ M4×10	
202	020-000512-HZ	HEX SKT CAP SCR BLK OZ M5×12	
203	060-S00400	SPR WSHR M4	
204	060-S00500	SPR WSHR M5	

12.4 Assy Handle Mecha (DYN-1250)

ITEM NO.	PART NO.	DESCRIPTION
207	000-P00408-W	M SCR PH W/FS M4×8
208	000-P00412-W	M SCR PH W/FS M4×12
209	000-P00416-S	M SCR PH W/S M4×16
210	000-P00508-W	M SCR PH W/FS M5×8
211	060-F00600	FLT WSHR M6
212	060-F00800	FLT WSHR M8
213	065-E00700	E RING 7MM
214	068-441616	FLT WSHR 4.4-16×1.6
215	028-A00308-P	SET SCR HEX SKT CUP P M3×8
216	028-A00408-P	SET SCR HEX SKT CUP P M4×8
217	050-U00500	U NUT M5
218	050-H00600	HEX NUT M6
219	050-U00800	U NUT M8
220	000-P00408-S	M SCR PH W/S M4×8
221	000-P00310	M SCR PH M3×10
222	060-F00300	FLT WSHR M3
223	060-S00300	SPR WSHR M3
225	050-U00600	U NUT M6
301	600-6363-64	WIRE HARN HANDLE MECHA
302	600-6363-65	WIRE HARN STEERING
303	600-6363-85	WIRE HARN EARTH HANDLE MECHA

12.5 Assy Virtua Buttons (DYN-1290) - SE 5204 - £57.96

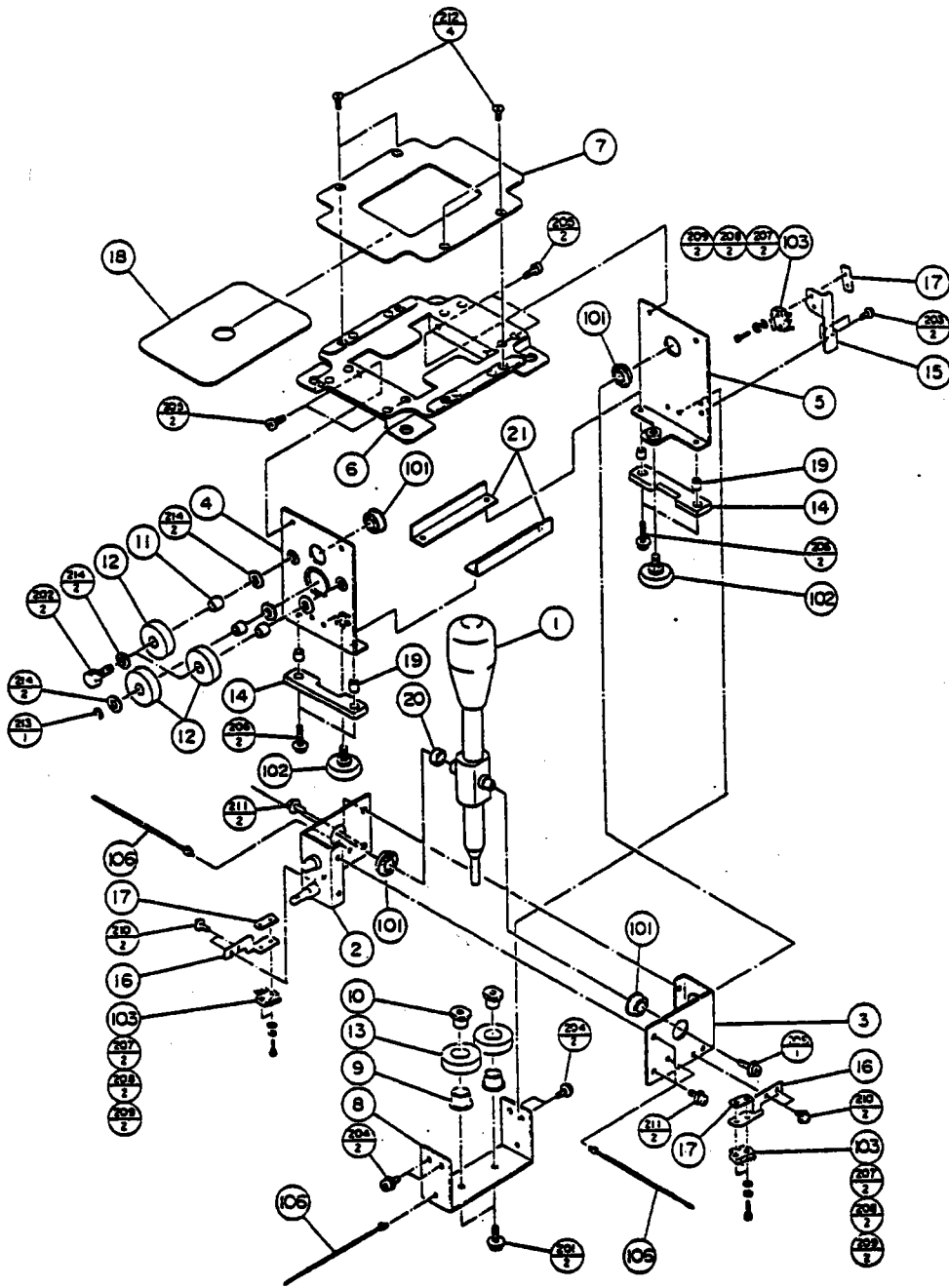
CREDIT
 GREEN ~~START~~ (ABOVE)
 SE 4344
 SE 5787 metal plate behind credit button.



lamp SE 9718.

ITEM NO.	PART NO.	DESCRIPTION
1	DYN-1281	VR SW BRKT
2	171-6478B	PC BD LIGHTING SW×5
101	212-5205-12	CONN JST M 12P RTA
102	509-5560-Y	PB SW W/L 6V 1L Y → SE 4536
103	509-5561-R	PB SW W/L 6V 5L R
104	509-5561-S ✓	PB SW W/L 6V 5L S
105	509-5561-Y ✓	PB SW W/L 6V 5L Y
106	509-5561-G ✓	PB SW W/L 6V 5L G

12.6 Assy 4 Speed Shifter (DYN-2150)
REPLACED (RAL-2150)

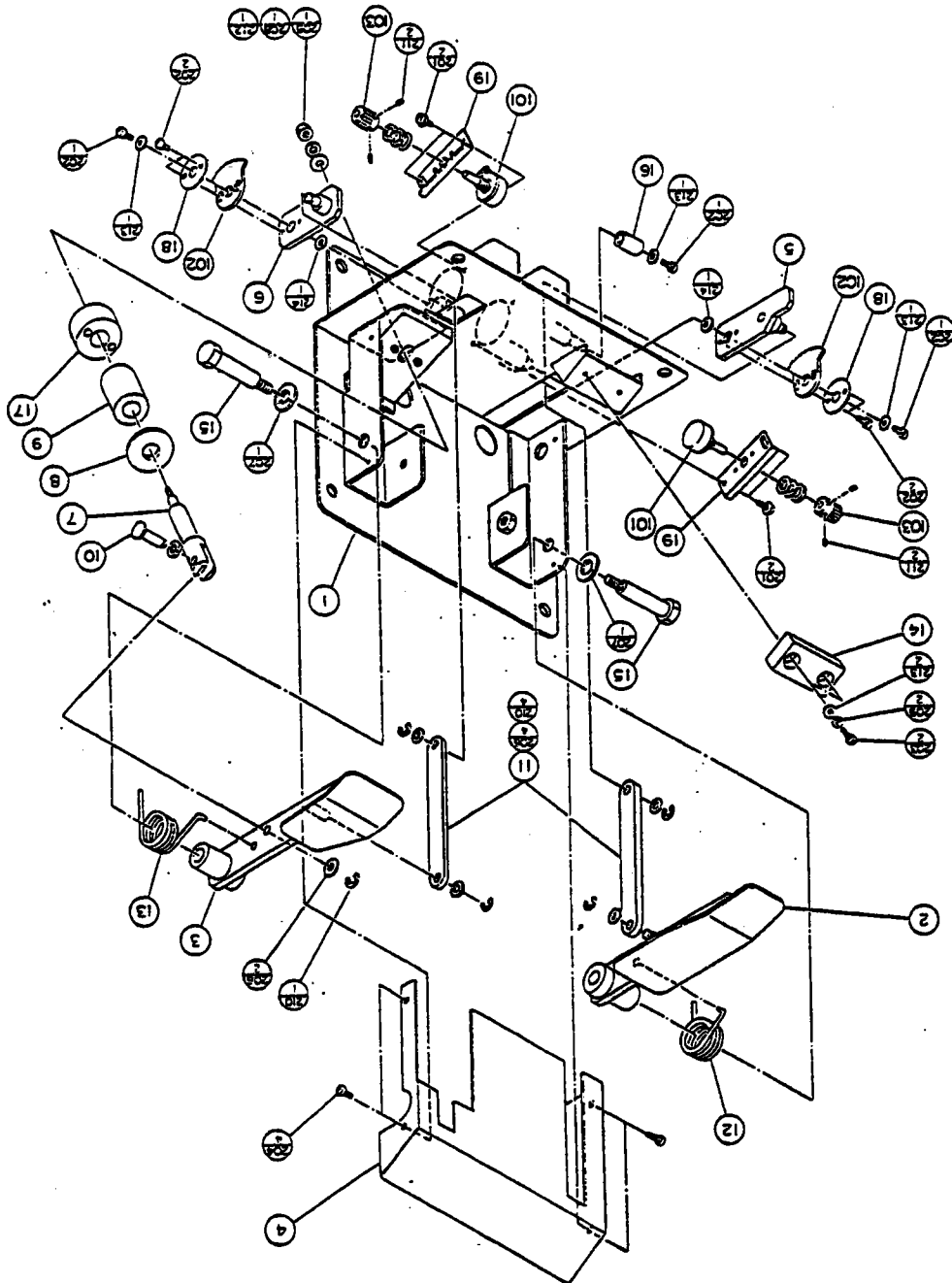


5078
SE4973

12.6 Assy 4 Speed Shifter (DYN-2150) = RAL-2150.

ITEM NO.	PART NO.	DESCRIPTION
1	DYN-2151	SHIFT KNOB
2	DYN-2152	SHAFT CASE FRONT ✓ SE4924 #1
3	DYN-2153	SHAFT CASE REAR ✓ SE4925 #1
4	DYN-2154	FRONT BASE
5	DYN-2155	REAR BASE
6	DYN-2156	UPPER BASE -
7	DYN-2157	UPPER COVER
8	DYN-2158	ROLLER BRKT
9	DYN-2159	COLLAR φ 10
10	DYN-2160	ROLLER SHAFT
11	DYN-2161	COLLAR φ 6
12	DYN-2162 SE4554	RUBBER RING 70
13	DYN-2163	RUBBER RING 80
14	DYN-2164 SE4555	RUBBER STOPPER
15	DYN-2165	SW BRKT A ✓ SE4781
16	DYN-2166	SW BRKT B ✓ SE4782
17	DYN-2167	NUT PLATE M2
18	DYN-2169 SE4558	SLIDE PLATE - SE4558
19	DYN-2170	COLLAR φ 4
20	DYN-2171	COLLAR φ 8
21	DYN-2172	BOTTOM PLATE
101	100-5041	BEARING (NSK F688ZZ) x 3 SE0830
102	100-5176	DERURIN BEARING φ 26
103	509-5566	SW MICRO TYPE (OMRON SS-5GLT) x 5 SE4720.
104	601-0460	PLASTIC TIE BELT 100mm
105		
106	280-5251	SELF MOUNT TIE 2.5
107	601-6231-D070	EDGING NEW TYPE
201	000-P00514-W	M SCR PH W/FS M5×14
202	000-000616-S	HEX BLT W/S M6×16
203	000-P00308-W	M SCR PH W/FS M3×8
204	000-P00408-W	M SCR PH W/FS M4×8
205	000-P00412-W	M SCR PH W/FS M4×12
206	000-P00416-W	M SCR PH W/FS M4×16
207	000-P00212	M SCR PH M2×12
208	060-F00200	FLT WSHR M2
209	060-S00200	SPR WSHR M2
210	010-P00306-F	S-TITE SCR PH W/F M3×6
211	010-P00406-F	S-TITE SCR PH W/F M4×6
212	000-F00408	M SCR PH M4×8
213	065-E00400	E RING 4MM
214	060-F00600	FLT WSHR M6
301	600-6363-75	WIRE HARN SHIFT MECHA
302	600-6363-89	WIRE HARN EARTH SHIFT MECHA

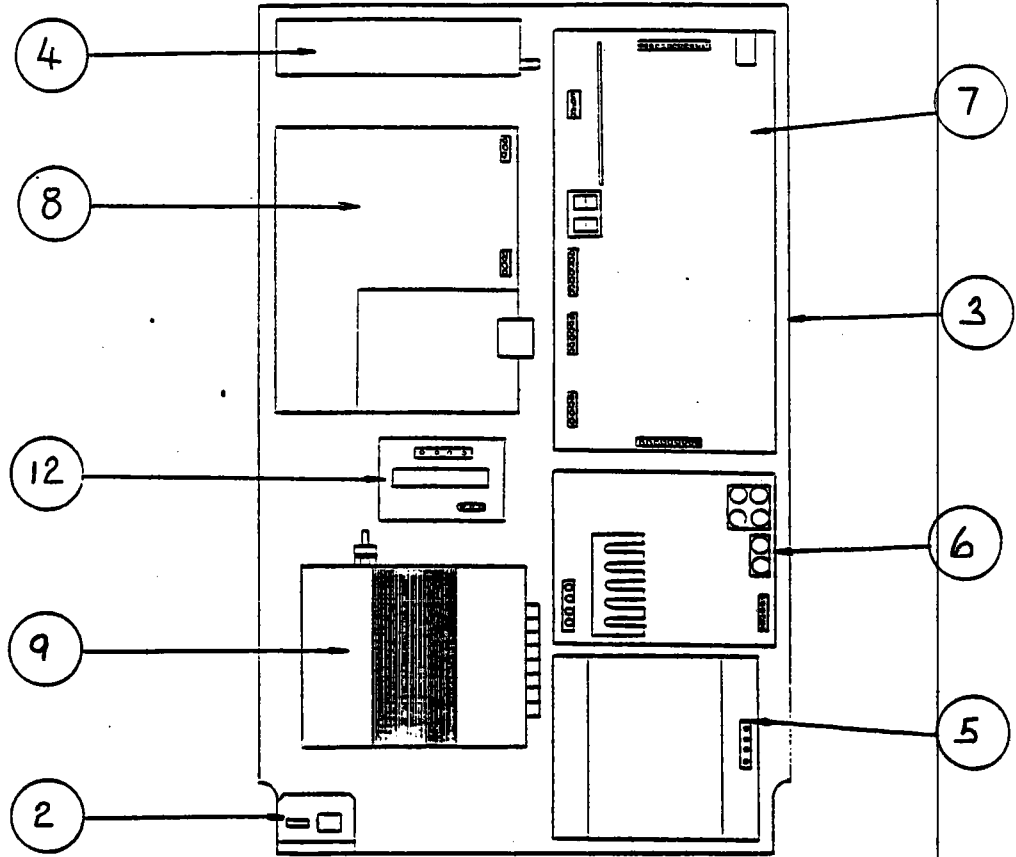
12.7 Assy Brake and Accelerator (DYN-1300)



12.7 Assy Brake and Accelerator (DYN-1300) SE4795

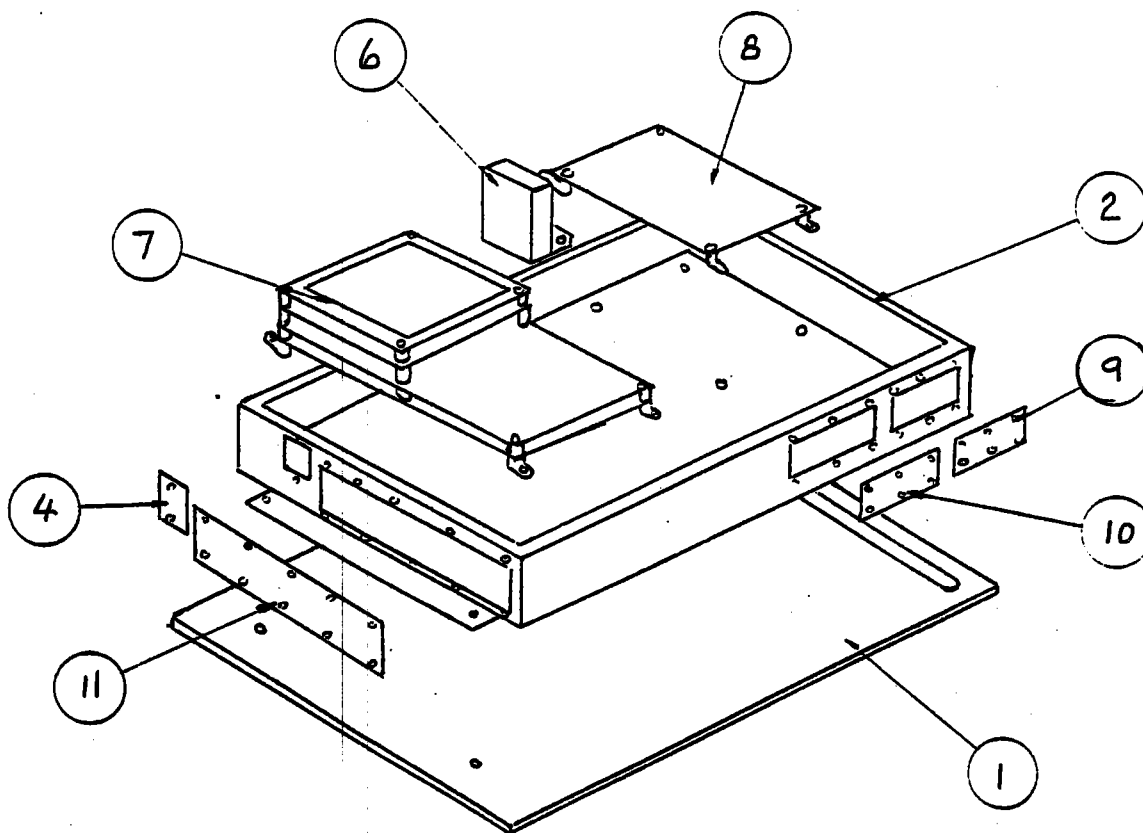
ITEM NO.	PART NO.	DESCRIPTION	NOTE
1	DYN-1301	PEDAL BASE	
2	BVG-1402	ACCEL PEDAL	
	DYN-1306	ACCEL PEDAL AL	
3	BVG-1403	BRAKE PEDAL	
	DYN-1307	BRAKE PEDAL AL	
4	BVG-1404	PEDAL COVER	
5	BVG-1405	SWING ARM A	
6	BVG-1406	SWING ARM B	
7	SE4564 BVG-1407	PUSH ROD	
8	SE4751 BVG-1408	PUSH PLATE	
9	SE4713 DYN-1302	RUBBER DUMPER	
10	SE5613 BVG-1410	PUSH ROD PIN	
11	BVG-1411	LINK ROD	
12	DYN-1303	TORSION SPRING ACCEL	
13	BVG-1413	TORSION SPRING B	
14	BVG-1414	RUBBER STOPPER	
15	BVG-1415	PEDAL SHAFT	
16	BVG-1416	SWING ARM STOPPER	
17	SE4078 BVG-1417	SPACER	
18	GLC-2122	GEAR PLATE	
19	RDM-1210	VR BRACKET	
101	220-5373	VOL CONT B-5K OHM	
	220-5484	VOL CONT B-5K OHM	
102	601-6005 SE1001	ADJUST GEAR	
103	601-5943	GEAR 20 ϕ 15	
104	310-5029-F20	SUMITUBE F F20MM	ϕ 4
105	601-0460	PLASTIC TIE BELT 100mm	
106	280-5009	CORD CLAMP ϕ 21	-01 also acceptable.
201	000-P00408-W	M SCR PH W/FS M4 \times 8	
202	000-P00408-S	M SCR PH W/S M4 \times 8	
203	000-P00416-0B	M SCR PH BLK M4 \times 16	
204	008-T00408-0B	TMP PRF SCR TH BLK M4 \times 8	
205	050-H00600	HEX NUT M6	
206	060-F00800-0B	FLT WSHR BLK M8	
207	060-S01200-0B	SPR WSHR BLK M12	
208	060-S00600	SPR WSHR M6	
209	060-S00400-0B	SPR WSHR BLK M4	
210	065-E00600	E RING 6MM	
211	028-A00308-P	SET SCR HEX SKT CUP P M3 \times 8	
212	068-652016	FLT WSHR 6.5-20 \times 1.6	
213	DYN-1304	FLT WSHR BLK 4.4-12 \times 1.6	
214	DYN-1305	FLT WSHR 12.2-22 \times 0.5	
301	600-6178-54	WIRE HARN ACCEL & BRAKE	
302	600-6178-113	WIRE HARN EARTH ACCEL & BRAKE	

12.8 PSU/Sound Tray



Item and Part No.	Description	Note	
1	DYN-4002UK	Wood base PSU/Sound	
2	DYN-4003UK	Connector Bracket DYN	
3	DYN-4004UK	Drive Board Stand	
4	400-5221	SW Regulator 5V , 12V , -5V	Sega Part
5	601-6227-01	Power Amp. w/sw Regu	Sega Part
6	838-10141	Mixer & EQ Amp For Woofer	Sega Part
SE 5215.7	838-10646	Drive Board Daytona	Sega Part
8	837-10652	Sound Board Daytona	Sega Part
9	TX1060	Transformer	
10	OS1071	PCB Feet	
11	OS1188	Terminal Block 5W 20Amp 0.25"	
12	AY0138	PCB SSR Board	
13	EP1093	Fuse 7A 32mm QB	
14	LM1209	Wire Harness, Power/Audio	
15	LM1210	Wire Harness, SMPSU Low Volts	
16	LM1211	Wire Harness, Trans/SMPSU AC	

12.9 Shield Case Assy



<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>
1	DYN-2404UK Wood Base Shield Case Tray	
2	DYN-2401UK Case Shield Main	
3	DYN-2402UK Case Lid	
4	DYN-2403UK Cover Optic Cable	
5	DYN-2405UK Fan Bracket Small	
6	FN1011 Axial Fan 12V DC 80mm	
7	833-10651 Game Board DAYTONA	Sega Part
8	837-10539 I/O Board Daytona	Sega Part
9	839-0657 Filter Board Daytona I/O A	Sega Part
10	839-0658 Filter Board Daytona I/O B	Sega Part
11	839-0683 Filter Board Daytona Mod-2	Sega Part
12	600-6363-76 Wire harness, Shield Case 7	Sega Part
13	600-6363-77 Wire harness, Shield Case 8	Sega Part
14	600-6363-79 Wire harness, Shield Case 10	Sega Part
15	600-6363-80 Wire harness, Shield Case 11	Sega Part
16	600-6363-69 Wire harness, Shield Case Amp	Sega Part
17	LM1208 Wire Harness, Ext. Shield Case	

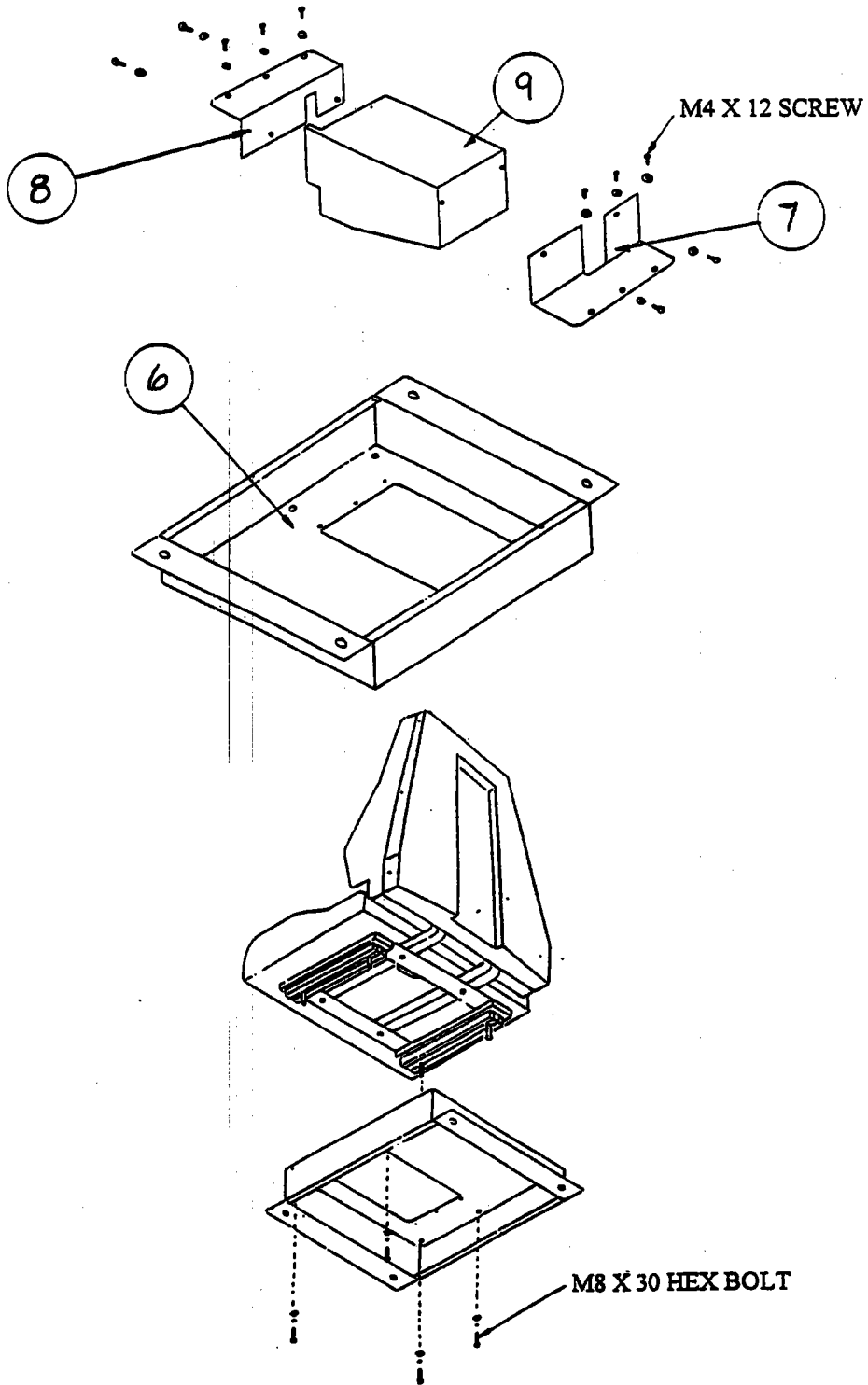
12.10 Seat Floor Front

<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>	
1	DYN-2031UK	Floor Front	
2	DYN-2032UK	Floor Edge F F	
3	DYN-2033UK	Floor Edge F R	
4	DYN-2034UK	Floor Edge F Left	
5	DYN-2035UK	Floor Edge F Right	
6	031-000530-0C	M5 x 30 CRG BLT Chrome	Sega Part
7	000-T00420-0C	M4 x 20 M SCR TH Chrome	Sega Part
8	FX0302	M5 NUT FLG	
9	FX0249	M5 Washer (3/16"x3/4")	

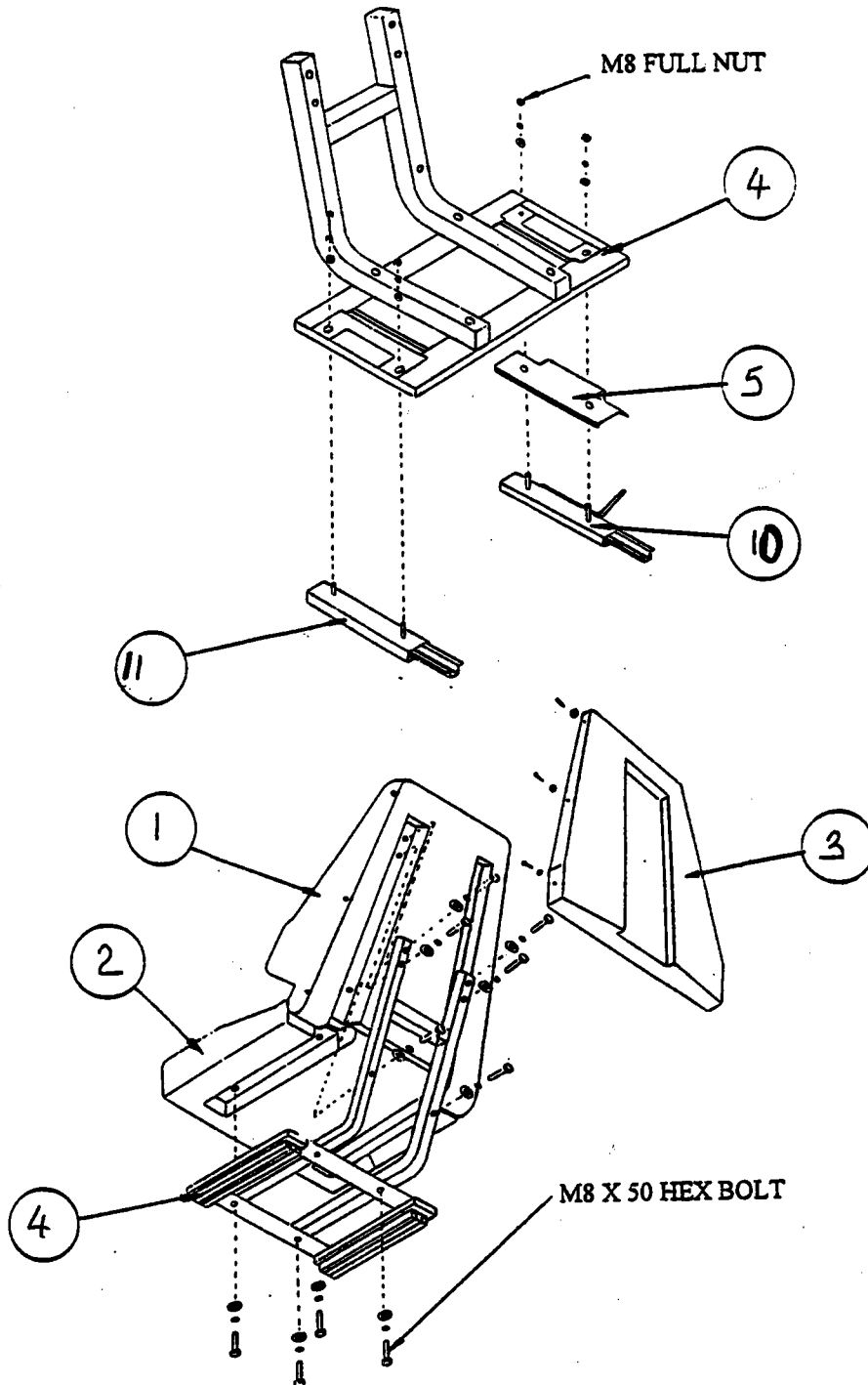
12.11 Seat Floor Rear

<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>	
1	DYN-2041UK	Floor Rear	
2	DYN-2042UK	Floor Edge R F	
3	DYN-2043UK	Floor Edge R R	
4	DYN-2044UK	Floor Edge R Left	
5	DYN-2045UK	Floor Edge R Right	
6	DYN-2046	Lock Rod A Exp	Sega Part
7	DYN-2047	Lock Rod B Exp	Sega Part
8	DYN-2048UK	Lock Arm Exp	
9	DYN-2049UK	Nut Plate (Seat)	
10	DYN-2014UK	Rod Holder	
11	DYN-2006UK	Hinge 480	
12	601-7551	Lock Handle (Takigen A-88)	Sega Part
13	000-T00420-0C	M4x20 M SCR TH Chrome	Sega Part
14	031-000530-0C	M5x30 CRG BLT Chrome	Sega Part
15	FS1026	Split Pin (Cotter 2.5x20mm)	
16	FX0163	No. 8 x 1/2" S/Tap Pozi FLG HD	

12.12 Seat and Slide Base



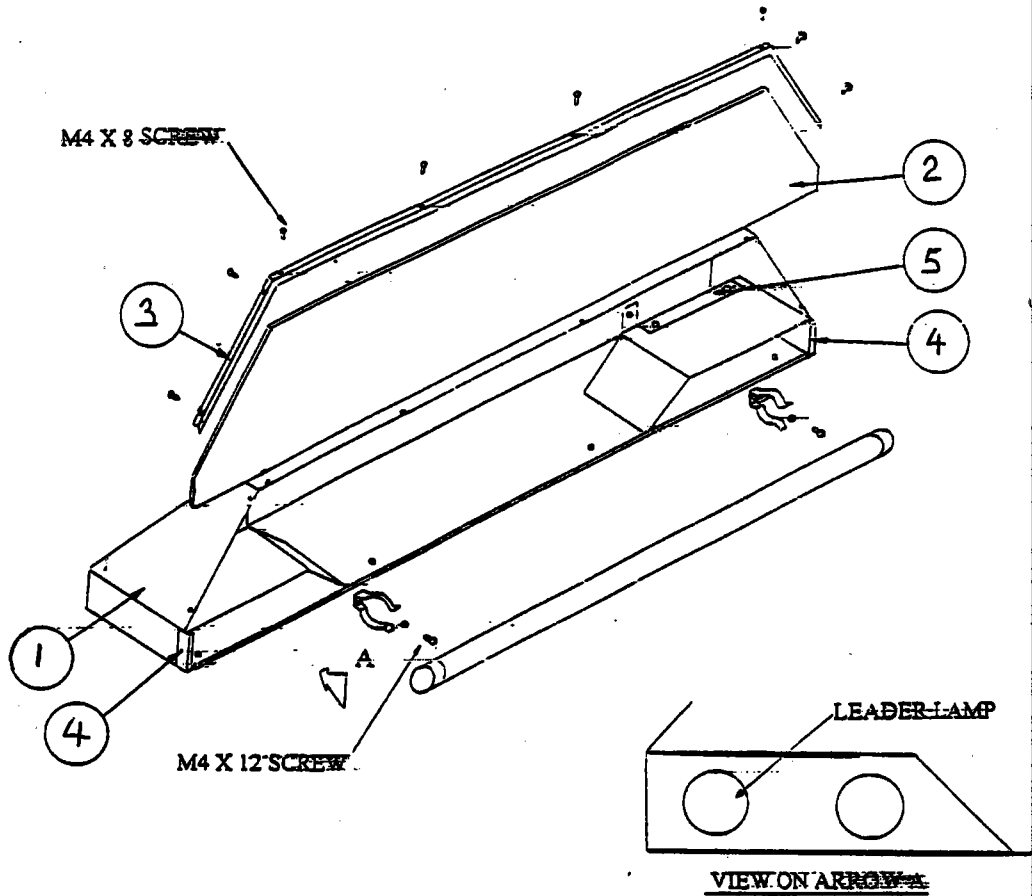
12.12 Seat and Slide Base (2/3)



12.12 Seat and Slide Base (3/3)

<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>
1	DYN-2131UK - Upper Seat, Daytona	SE4802
2	DYN-2132UK Lower Seat, Daytona	SE4803
3	DYN-2133UK - Seat Back Cover, Daytona	SE4873
4	DYN-2081UK - Seat Frame Twin	SE5237
5	DYN-2083UK Rail Cover	SE5420
6	DYN-2091UK - Seat Base EXP	SE5416
7	DYN-2061UK - Bracket, Woofer Left	
8	DYN-2062UK Bracket, Woofer Right	
9	130-5114 Speaker Sub Woofer	Sega Part
10	601-7494 Seat Rail Right	SE4921
11	601-7493 Seat Rail Left	SE4919
12	000-T00412-0B M4x12 M SCR TH Black	Sega Part
13	030-000850-SB M8x50 HEX BLT w/s Black	Sega Part

12.13 Billboard Case Assy



Item and Part No.

Description

Note

1	DYN-0251UK	Billboard Case Exp.	
2	DYN-0252UK	Billboard Plate Exp	
3	DYN-0253UK	Upper Holder Exp	
4	DYN-0204UK	Side Holder	
5	DYN-0211UK	Bracket lamp panel	
6	214-0110	Socket Lamp Screw Fit	Sega Part
SE0669 7	390-5167	Lamp Mini Spot 30W 110V	Sega Part
8	600-6373-37UK	Wire Harness, Lamp Unit	
9	LM1048	Wire Harness, Std. FL Int.	
10	LT1021	FL Tray 30W 240V	
E3035-11	LT1014	Tube FL 30W 240V 36"	
12	000-T00408-0C	M4x8 M SCR TH Chrome	Sega Part
13	000-P00416-W	M4x16 M SCR PH w/sf CRM	Sega Part
14	030-000840-SB	M8x40 HEX BLT w/s Black	Sega Part
15	030-000830-SB	M8x30 HEX BLT w/s Black	Sega Part

12.14 Coin Chute Tower

<u>Item and Part No.</u>	<u>Description</u>
1 DYN-0301UK	Coin Chute Tower Case
2 AY0129	Assy VTS Bracket (See 12.15)
2 MP1207	Plate VTS Fixing
3 MP1210	Plate Floor Daytona
4 LM1056	Wire harness, Multi-purpose Coin Handling
5 LM1225	Wire Harness, Coin Door Earth
6 OS1189	Terminal Block 4W 20Amp
7 LB1014	Label C-D-E-F Hedgehog
8 PP1087	Cash Box for Mini Door

12.15 VTS Bracket (AY0129)

<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>
1 MP1029	Bracket Panel VTS	
2 SW1025	Push Buttons	
3 LM1215	Wire Harness, VTS Daytona	
4 EP1004	PEC Credit Board (Klingon)	
5 EP1003	Impulse Counter, Panel W/Clip	
6 EP1011	Potentiometer 4k7 carbon LIN	
7 EP1015	Knobs	
8 PP1002	Insulating Boot	
9 LB1006	Label VTS Controls	
10 LB1028	Label 110V AC	

12.16 Wire Cover

<u>Item and Part No.</u>	<u>Description</u>	<u>Note</u>
1 DYN-0016UK	AC Cover A Exp.	
2 DYN-0017Uk	AC Cover B Exp.	
3 EP1302	Eurosocket Fused Push Fit	
4 EP1092	Fuse 10Amp 20mm QB	
5 EP1303	Switch Rocker 240V 10A	
6 EP1081	Fuse Holder 32mm	
7 EP1307	Fuse 5Amp 32mm QB	
8 LM1223	Wire harness, AC IN	
9 LB1037	Label 10A Fuse	
10 LB1038	Label 5A Fuse	

13 TROUBLESHOOTING

PROBLEM

POSSIBLE SOLUTION

Machine fails to start

1 Check that all Mate-n-Lock connectors are fully locked together. Pay particular attention to those behind the Control Panels. These can be accessed from the rear by first removing the upper service panel.

No Communication Play.

2 Check that the Fibre Optic cables are correctly connected and not damaged by tight bends along their length. Ensure that the first Machine in the line is set to MASTER and all other machines are set to SLAVE. See Appendix D of this manual.

Credit deducted but no Game given.

3 See solution 1 above.

No steering during Game.

4 If the Steering Wheel is held during initial start-up, preventing it from completing a full Left and Right rotation then the steering will be inoperative during Game play. To correct this situation, switch off then allow the machine to go through its initial start-up after switch on without intervention.

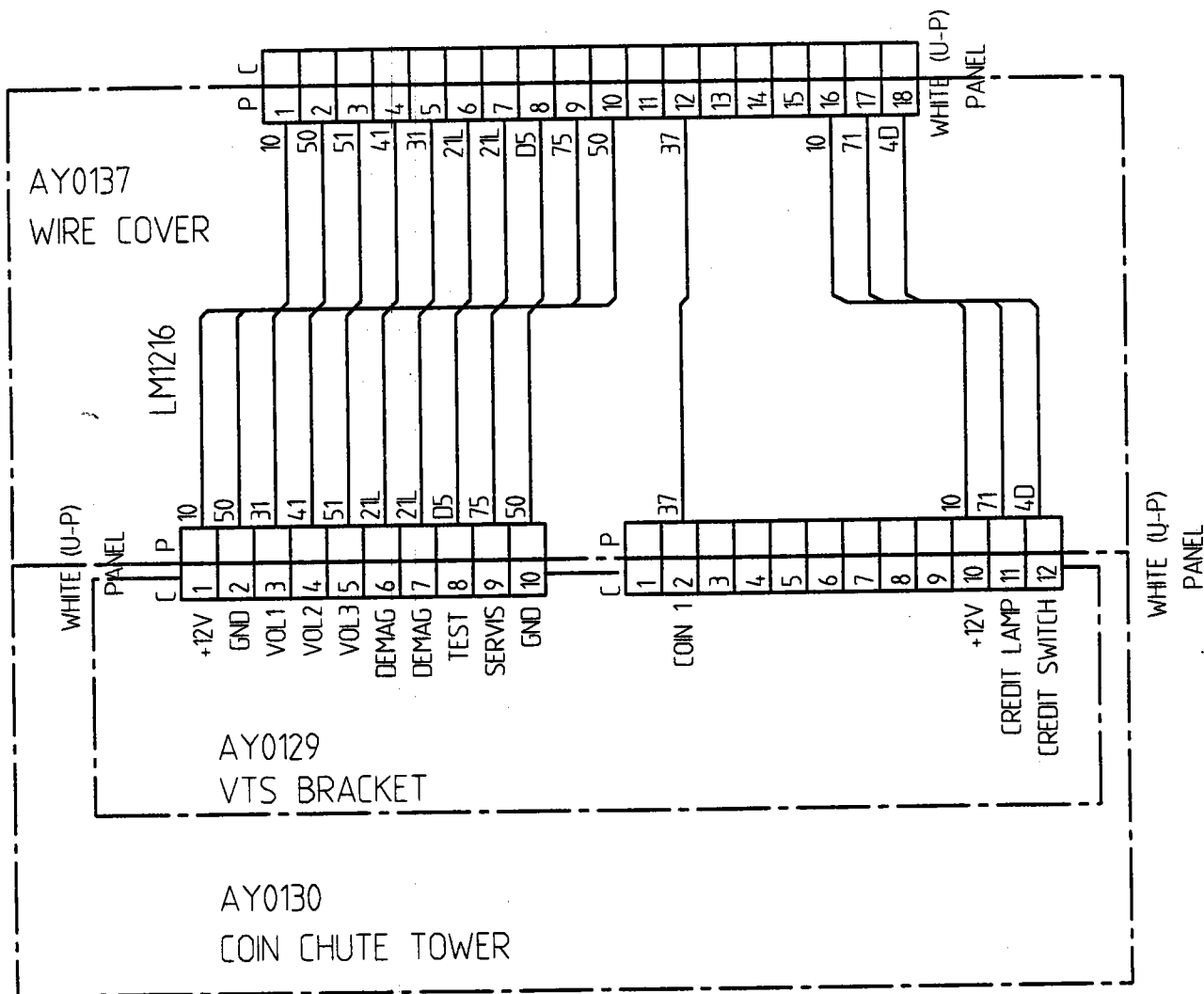
Monitor fails to power up.

5 Check continuity of the 7Amp SB fuse located beside the Transformer in the main base.

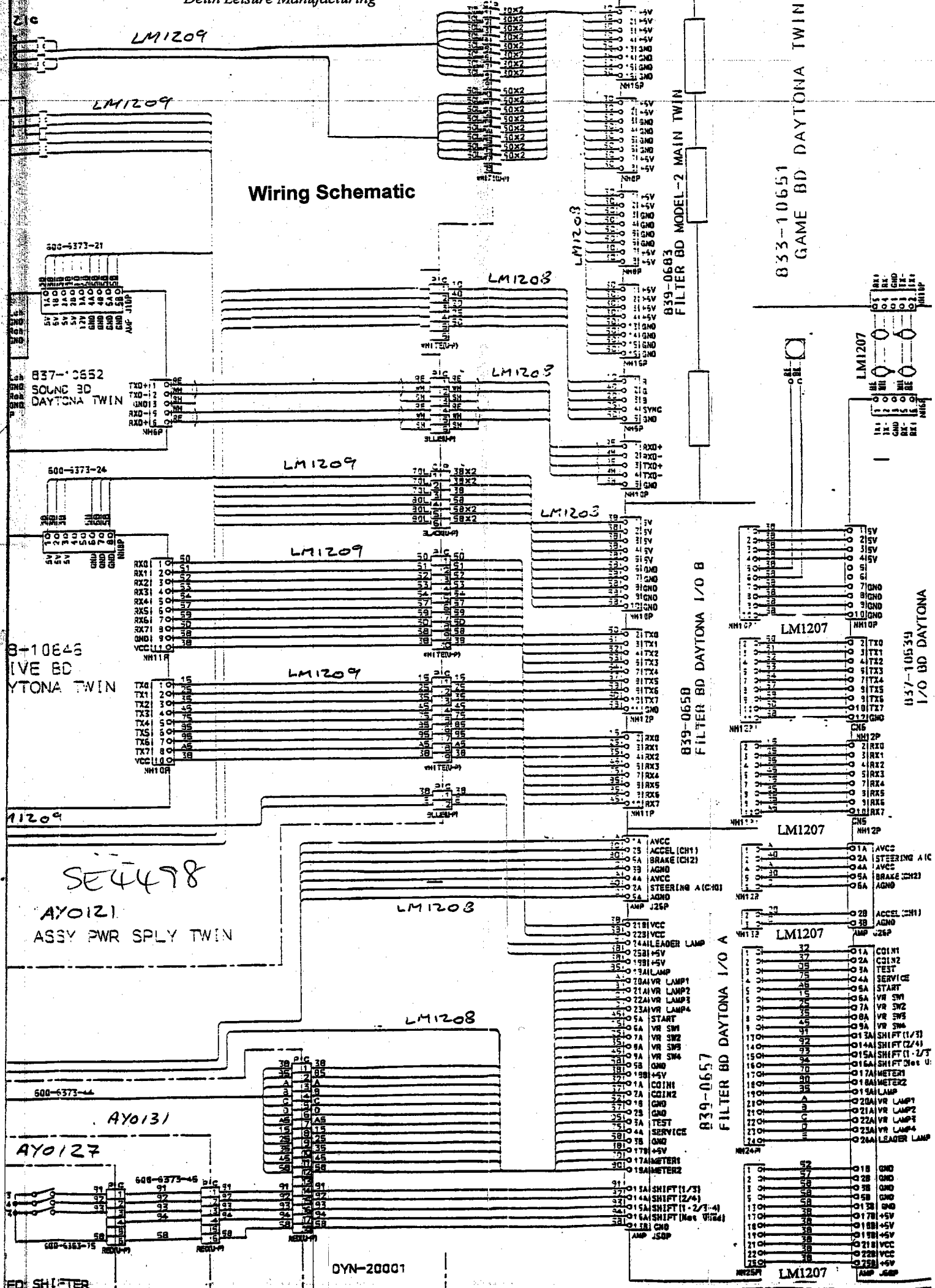
APPENDIX A

Wiring Schematic

Sheet 1 of 2



Wiring Schematic



833-10651
GAME BD DAYTONA TWIN

837-10534
I/O BD DAYTONA

8-10646
IVE BD
YTONA TWIN

SE4478
AY0121
ASSY PWR SPLY TWIN

AY0131
AY0127

ED SHIFTER

DYN-20001

PLAYER

AC UNIT MAIN RBD (D-2) PANEL

LM1211

LM1209

LM

AY0127

AY0131

AY0136

AY0124

AY0126

AY0134

LM1209

SSR AY0138

LEADER LAMP

POWER CLUTCH

AY0127

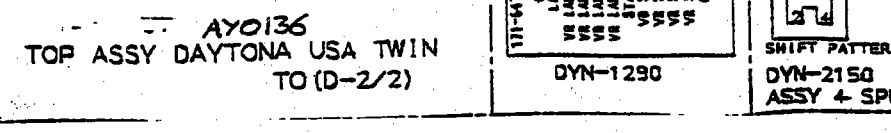
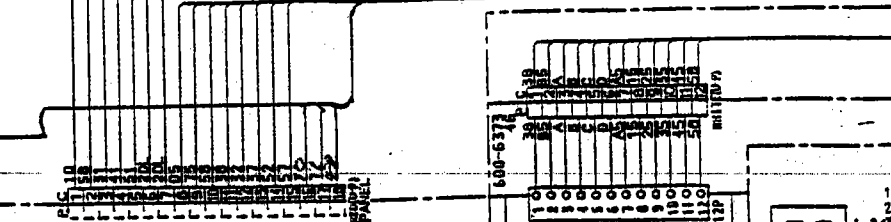
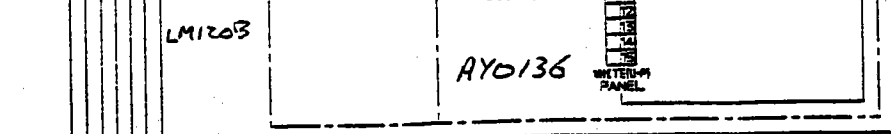
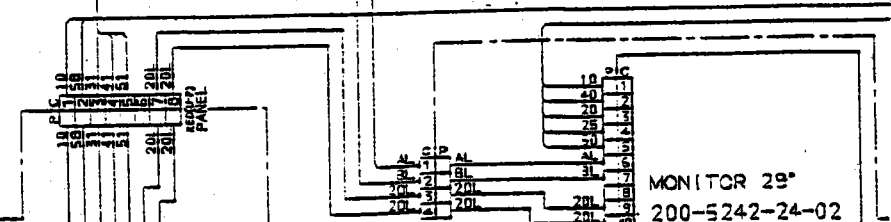
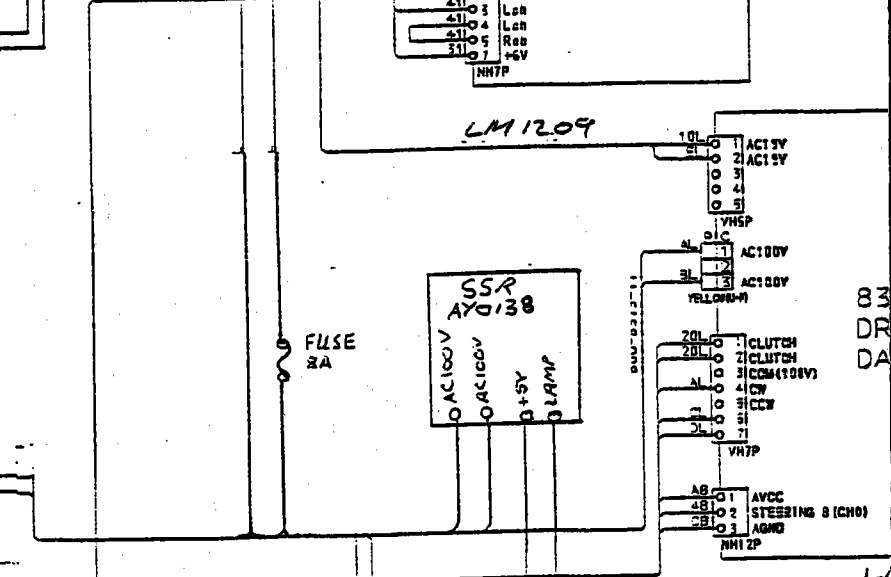
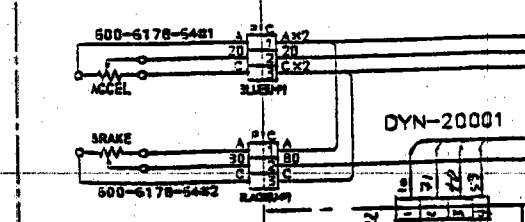
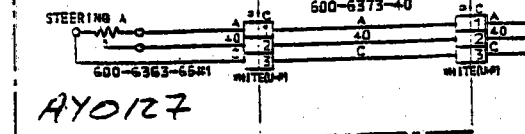
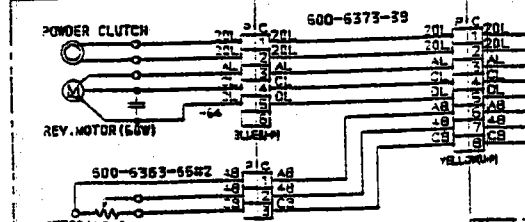
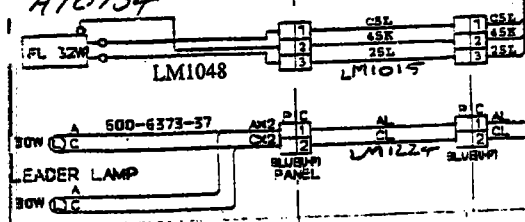
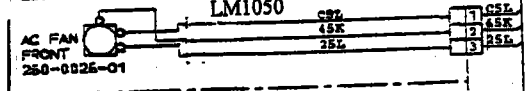
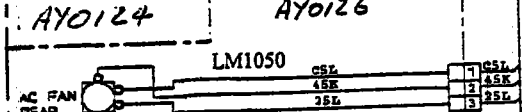
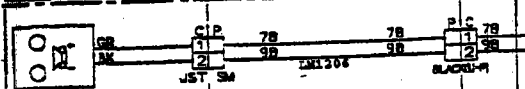
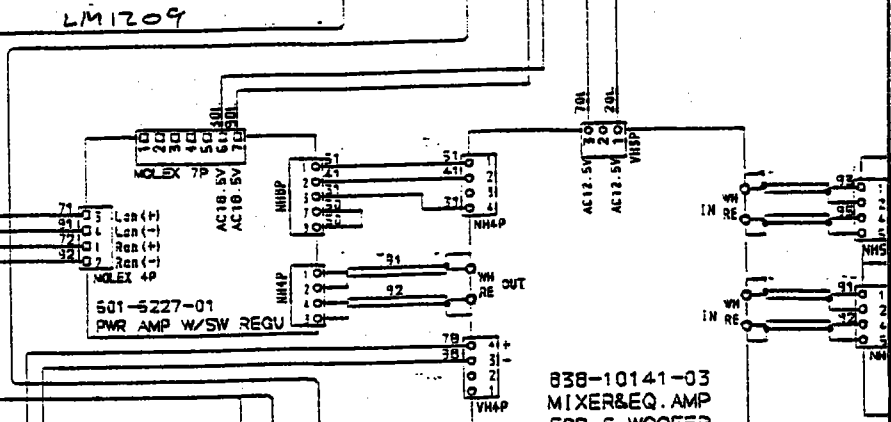
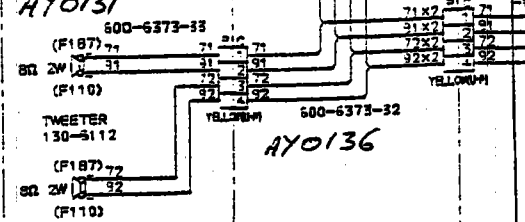
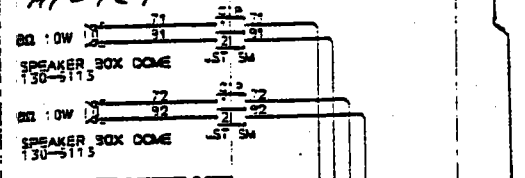
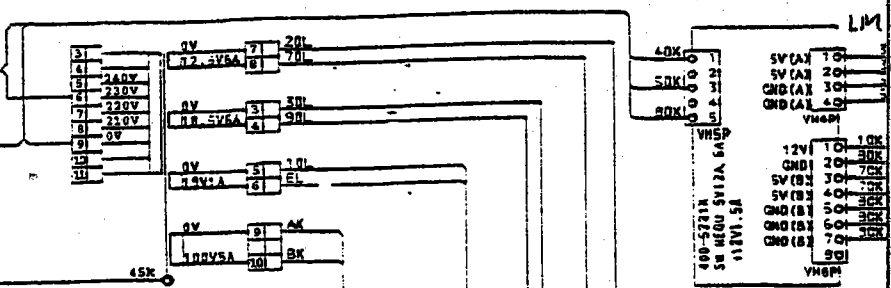
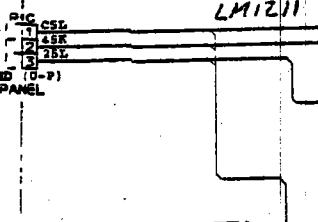
AY0127

DYN-1300 ASSY ACCEL & BRAKE

AY0136 TOP ASSY DAYTONA USA TWIN TO (D-2/2)

DYN-1290

DYN-2150 ASSY 4 SP



APPENDIX B

COIN MECH INSTALLATION

COIN MECH INSTALLATION AND CREDIT BOARD SETUP

Game credits between the Coin Mech and the game board for the Daytona machine are controlled by a *Klingon* board. This electronic circuit allows the price of play to be set for a range of different countries. These functions are set on Dual In Line PCB mounted switches.

DIL-2 is used to set the currency (or coin ratio) and DIL-1 the price of play. Refer to the Tables on the following pages for the correct settings for your environment.

The *Klingon* board pictured is mounted on the VTS Bracket within the Coin Chute Tower.

The *Klingon* board is connected to the coin validator and lamps via a universal Coin Door Loom #1 to the coin mech as follows

Coin Controls :	Use 15 way connector
Mars :	Use 13 way connector
NRI :	See note below
Mechanical :	Use Universal Coin Door Loom #2 and connect to the required coin paths (see table) via multi way terminal block located behind coin door.

Notes

1. If NRI mechs are to be used, these should be ordered with the highest denomination coin on coin path #1 and the lowest denomination on coin path #4. The *Klingon* board should then be set up for either the UK or Switzerland settings. A minimum connecting lead length of 600mm is required.
2. Mechanical coin mechs may be connected in parallel allowing two identical mechs to be fitted.

Klingon Credit Board Option Settings

DIL Switch 2 (under IC socket)

Coin Controls:

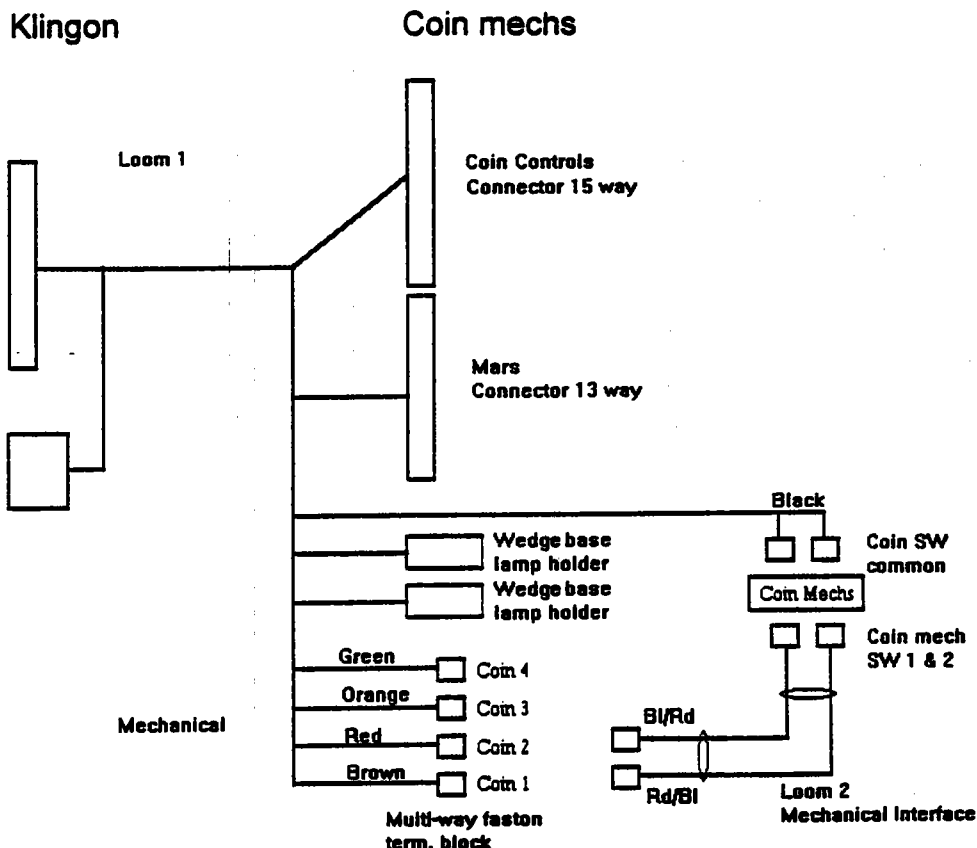
Mars:

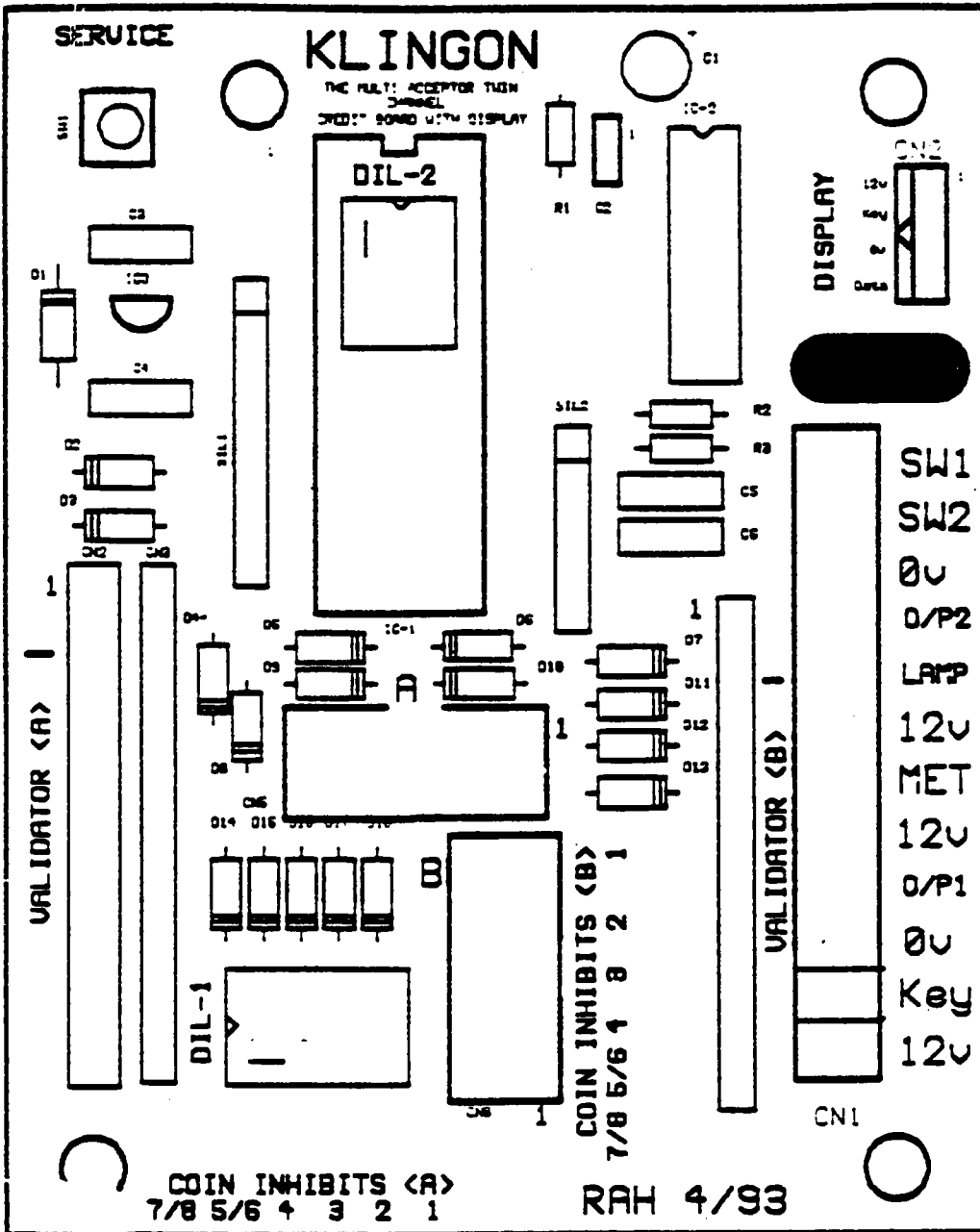
SW1	SW2	SW3	SW4	OPTIONS	COIN 1 F	COIN 2 E	COIN 3 D	COIN 4 C
OFF	OFF	OFF		UK Coin Setting	£1	50p	20p	10p
ON	OFF	OFF		Belgium Coin Setting	n/u	50Bf	20Bf	25Pst
OFF	ON	OFF		Spain Coin Setting	100Pst	50 Pst	n/u	5 Pst
ON	ON	OFF		German Coin setting using NRI				
OFF	OFF	ON		Holland Coin Setting	n/u	5G	2.5G	1G
ON	OFF	ON		Portugal Coin Setting	100Esu	50 Esu	n/u	n/u
OFF	ON	ON		Austria Coin Setting	20	10	5	1
ON	ON	ON		Switzerland Coin Setting	5Sf	2Sf	1Sf	n/u
			OFF	Direct mode				
			ON	2 Channel Mode				

Set DIL switches (DIL-1) SW-1 to SW-5 according to the option settings found in the relevant Price Of Play Settings Table on the following pages.

Set DIL switches (DIL-2) on the *Klingon* board located under the IC socket as shown in the table above. SW-4 must always be set 'ON' as the game board only operates in common mode. Care must be exercised when removing IC-1 so as not to damage its lead-outs pins. After setting the switches return the IC to its socket with the package indent mark adjacent to the board edge.

Universal Coin Handling Loom Connections





Display

12V
- key -
0V
data

PLY 1 SWITC
PLY 2 SWITC
GROUND
O/P PLY 2
START LAMP
12 VOLTS
METER O/P
12 VOLTS
O/P PLY 1
GROUND
- Key -
12 VOLTS

THE 'KLINGON' CREDIT BOARD

PRICE OF PLAY SETTINGS FOR THE UK

			DIP SWITCH				
			1	2	3	4	5
10p Play	50p = 5	£1 = 10	OFF	OFF	OFF	OFF	OFF
10p Play	50p = 5	£1 = 11	ON	OFF	OFF	OFF	OFF
10p Play	50p = 6	£1 = 12	OFF	ON	OFF	OFF	OFF
20p Play	50p = 2½	£1 = 5	ON	ON	OFF	OFF	OFF
20p Play	50p = 3	£1 = 6	OFF	OFF	ON	OFF	OFF
20p Play	50p = 3	£1 = 7	ON	OFF	ON	OFF	OFF
30p Play	50p = 1 2/3	£1 = 3 1/3	OFF	ON	ON	OFF	OFF
30p Play	50p = 2	£1 = 4	ON	ON	ON	OFF	OFF
30p Play	50p = 2	£1 = 5	OFF	OFF	OFF	ON	OFF
40p Play	50p = 1¼	£1 = 2½	ON	OFF	OFF	ON	OFF
40p Play	50p = 1¼	£1 = 3	OFF	ON	OFF	ON	OFF
50p Play	50p = 1	£1 = 2	ON	ON	OFF	ON	OFF
50p Play	50p = 1	£1 = 3	OFF	OFF	ON	ON	OFF
60p Play	50p = 5/6	£1 = 1 2/5	ON	OFF	ON	ON	OFF
60p Play	50p = 5/6	£1 = 2	OFF	ON	ON	ON	OFF
80p Play	50p = 5/8	£1 = 1¼	ON	ON	ON	ON	OFF
£1 Play	£1 = ½	£1 = 1	OFF	OFF	OFF	OFF	ON
£1 Play	£1 = ½	£1 = 1 £1 = 3	ON	OFF	OFF	OFF	ON
£2 Play	50p = ¼	£1 = ½	OFF	ON	OFF	OFF	ON
£2 Play	50p = ¼	£1 = ½ £1 = 3	ON	ON	OFF	OFF	ON
£3 Play	50p = ¼	£1 = ½ £5 = 3	ON	ON	OFF	OFF	ON
£3 Play	NO BONTSES		OFF	OFF	ON	OFF	ON
£3 Play	-	£5 = 3	ON	OFF	ON	OFF	ON
£5 Play	-	-	OFF	ON	ON	OFF	ON
£5 Play	-	£10 = 3	ON	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

PRICE OF PLAY SETTINGS FOR SPAIN

			DIP SWITCH				
			1	2	3	4	5
25Pst Play	50Pst = 2	100Pst = 4	OFF	OFF	OFF	OFF	OFF
25Pst Play	50Pst = 2	100Pst = 5	ON	OFF	OFF	OFF	OFF
			OFF	ON	OFF	OFF	OFF
50Pst Play	100Pst = 2	-	ON	ON	OFF	OFF	OFF
50pst Play	100pst = 3	-	OFF	OFF	ON	OFF	OFF
50Pst Play	100Pst = 3	200Pst = 7	ON	OFF	ON	OFF	OFF
75Pst = Play	100Pst = 2/3	-	OFF	ON	ON	OFF	OFF
75Pst Play	100Pst = 2/3	200Pst = 3	ON	ON	ON	OFF	OFF
75Pst Play	200Pst = 3	400Pst = 7	OFF	OFF	OFF	ON	OFF
100Pst Play	-	-	ON	OFF	OFF	ON	OFF
100Pst Play	200Pst = 3	-	OFF	ON	OFF	ON	OFF
200Pst Play	-	-	ON	ON	OFF	ON	OFF
200Pst Play	500Pst = 3	-	OFF	OFF	ON	ON	OFF
300Pst Play	-	-	ON	OFF	ON	ON	OFF
300Pst Play	500Pst = 2	-	OFF	ON	ON	ON	OFF
400Pst Play	-	-	ON	ON	ON	ON	OFF
400Pst Play	1000Pst =	-	OFF	OFF	OFF	OFF	ON
			ON	OFF	OFF	OFF	ON
			OFF	ON	OFF	OFF	ON
[Coin Metering: 1 Pulse = 25Pst]			ON	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			OFF	OFF	ON	OFF	ON
			ON	OFF	ON	OFF	ON
			OFF	ON	ON	OFF	ON
			ON	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

PRICE OF PLAY SETTINGS FOR PORTUGAL

			DIP SWITCH				
			1	2	3	4	5
10Esc Play	50Esc = 5	100Esc = 10	OFF	OFF	OFF	OFF	OFF
10Esc Play	50Esc = 5	100Esc = 11	ON	OFF	OFF	OFF	OFF
10Esc Play	50Esc = 6	100Esc = 12	OFF	ON	OFF	OFF	OFF
20Esc Play	50Esc = 2½	100Esc = 5	ON	ON	OFF	OFF	OFF
20Esc Play	50Esc = 3	100Esc = 6	OFF	OFF	ON	OFF	OFF
20Esc Play	50Esc = 3	100Esc = 7	ON	OFF	ON	OFF	OFF
30Esc Play	50Esc = 1 2/3	100Esc = 1 1/3	OFF	ON	ON	OFF	OFF
30Esc Play	50Esc = 2	100Esc = 4	ON	ON	ON	OFF	OFF
30Esc Play	50Esc = 2	100Esc = 5	OFF	OFF	OFF	ON	OFF
40Esc Play	50Esc = 1 ¼	100esc = 2½	ON	OFF	OFF	ON	OFF
40Esc Play	50Esc = 1 ¼	100Esc = 3	OFF	ON	OFF	ON	OFF
50Esc Play	50Esc = 1	100Esc = 2	ON	ON	OFF	ON	OFF
50Esc Play	50Esc = 1	100Esc = 3	OFF	OFF	ON	ON	OFF
60Esc Play	50Esc = 5/6	100Esc = 1 2/5	ON	OFF	ON	ON	OFF
60Esc Play	50Esc = 5/6	100Esc = 2	OFF	ON	ON	ON	OFF
80Esc Play	50Esc = 5/8	100Esc = 1¼	ON	ON	ON	ON	OFF
100Esc Play	50Esc = ½	100Esc = 1	OFF	OFF	OFF	OFF	ON
100Esc Play	50Esc = ½	100Esc = 1 200Esc = 3	ON	OFF	OFF	OFF	ON
200Esc Play	50Esc = ¼	100Esc = ½	OFF	ON	OFF	OFF	ON
200Esc Play	50Esc = ¼	100Esc = ½ 500Esc = 3	ON	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			OFF	OFF	ON	OFF	ON
			ON	OFF	ON	OFF	ON
			OFF	ON	ON	OFF	ON
			ON	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

PRICE OF PLAY SETTINGS FOR AUSTRIA

			DIP SWITCH				
			1	2	3	4	5
1Sch Play	5Sch = 5	10Sch = 10	OFF	OFF	OFF	OFF	OFF
1Sch Play	5Sch = 5	10Rch = 11	ON	OFF	OFF	OFF	OFF
1Sch Play	5Sch = 6	10Sch = 12	OFF	ON	OFF	OFF	OFF
2Sch Play	5Sch = 2½	10Sch = 5	ON	ON	OFF	OFF	OFF
2Sch Play	5Sch = 3	10Sch = 6	OFF	OFF	ON	OFF	OFF
2Sch Play	5Sch = 3	10Sch = 7	ON	OFF	ON	OFF	OFF
3Sch Play	5Sch = 1 2/3	10Sch = 2 1/3	OFF	ON	ON	OFF	OFF
3Sch Play	5Sch = 2	10Sch = 4	ON	ON	ON	OFF	OFF
3Sch Play	5Sch = 2	10Sch = 5	OFF	OFF	OFF	ON	OFF
4Sch Play	5Sch = 1¼	10Sch = 2½	ON	OFF	OFF	ON	OFF
4Sch Play	5Sch = 1¼	10Sch = 3	OFF	ON	OFF	ON	OFF
5Sch Play	5Sch = 1	10Sch = 2	ON	ON	OFF	ON	OFF
5Sch Play	5Sch = 1	10Sch = 3	OFF	OFF	ON	ON	OFF
6Sch Play	5Sch = 5/6	10Sch = 1 2/5	ON	OFF	ON	ON	OFF
6Sch Play	5Sch = 5/6	10Sch = 2	OFF	ON	ON	ON	OFF
8Sch Play	5Sch = 5/8	10Sch = 1¼	ON	ON	ON	ON	OFF
10Sch Play	5Sch = ½	10Sch = 1	OFF	OFF	OFF	OFF	ON
10Sch Play	5Sch = ½	10Sch = 1 20Sch = 3	ON	OFF	OFF	OFF	ON
20Sch Play	5Sch = ¼	10Sch = ½	OFF	ON	OFF	OFF	ON
20Sch Play	5Sch = ¼	10Sch = ½ 50Sch = 3	ON	ON	OFF	OFF	ON
30Sch Play	NO BONUSES		OFF	OFF	ON	OFF	ON
30Sch Play	50Sch = 3	-	ON	OFF	ON	OFF	ON
50Sch Play	-	-	OFF	ON	ON	OFF	ON
50Sch Play	100Sch = 3	-	ON	ON	ON	OFF	ON
FREE PLAY OPTION	-	-	ON	ON	ON	ON	ON

Coin Assignment:

Coin 1 = 20Sch, Coin 2 = 10Sch, Coin 3 = 5Sch, Coin 4 = 1Sch

PRICE OF PLAY SETTINGS FOR FRANCE / SWITZERLAND

				DIP SWITCH				
				1	2	3	4	5
1F Play	5F = 5	10F = 10		OFF	OFF	OFF	OFF	OFF
1F Play	5F = 5	10F = 11		ON	OFF	OFF	OFF	OFF
1F Play	5F = 6	10F = 12		OFF	ON	OFF	OFF	OFF
2F Play	5F = 2½	10F = 5		ON	ON	OFF	OFF	OFF
2F Play	5F = 3	10F = 6		OFF	OFF	ON	OFF	OFF
2F Play	5F = 3	10F = 7		ON	OFF	ON	OFF	OFF
3F Play	5F = 1 2/3	10F = 3 1/3		OFF	ON	ON	OFF	OFF
3F Play	5F = 2	10F = 4		ON	ON	ON	OFF	OFF
3F Play	5F = 2	10F = 5		OFF	OFF	OFF	ON	OFF
4F Play	5F = 1½	10F = 2½		ON	OFF	OFF	ON	OFF
4F Play	5F = 1½	10F = 3		OFF	ON	OFF	ON	OFF
5F Play	5F = 1	10F = 2		ON	ON	OFF	ON	OFF
5F Play	5F = 1	10F = 3		OFF	OFF	ON	ON	OFF
6F Play	5F = 5/6	10F = 1 2/5		ON	OFF	ON	ON	OFF
6F Play	5F = 5/6	10F = 2		OFF	ON	ON	ON	OFF
8F Play	5F = 5/8	10F = 1¼		ON	ON	ON	ON	OFF
10F Play	5F = ½	10F = 1		OFF	OFF	OFF	OFF	ON
10F Play	5F = ½	10F = 1	20F = 3	ON	OFF	OFF	OFF	ON
20F Play	5F = ¼	10F = ½		OFF	ON	OFF	OFF	ON
20F Play	5F = ¼	10F = ½	50F = 3	ON	ON	OFF	OFF	ON
				ON	ON	OFF	OFF	ON
				OFF	OFF	ON	OFF	ON
				ON	OFF	ON	OFF	ON
				OFF	ON	ON	OFF	ON
				ON	ON	ON	OFF	ON
FREE PLAY OPTION				ON	ON	ON	ON	ON

PRICE OF PLAY SETTINGS FOR BELGIUM

				DIP SWITCH				
				1	2	3	4	5
5F Play	20F = 4	50F = 10		OFF	OFF	OFF	OFF	OFF
5F Play	20F = 4	50F = 11		ON	OFF	OFF	OFF	OFF
5F Play	20F = 5	50F = 12		OFF	ON	OFF	OFF	OFF
10F Play	20F = 2	50F = 5		ON	ON	OFF	OFF	OFF
10F Play	20F = 2	50F = 5		OFF	OFF	ON	OFF	OFF
10F Play	20F = 3	50F = 7		ON	OFF	ON	OFF	OFF
15F Play	20F = 1 1/3	50F = 3 1/3		OFF	ON	ON	OFF	OFF
15F Play	20F = 1 1/3	50F = 4		ON	ON	ON	OFF	OFF
15F Play	20F = 2	50F = 5		OFF	OFF	OFF	ON	OFF
20F Play		50F = 2 1/2		ON	OFF	OFF	ON	OFF
20F Play		50F = 3		OFF	ON	OFF	ON	OFF
20F Play	50F = 3	100F = 7		ON	ON	OFF	ON	OFF
25F Play	20F = 4/5	50F = 2		OFF	OFF	ON	ON	OFF
25F Play	20F = 4/5	50F = 2	100F = 5	ON	OFF	ON	ON	OFF
25F Play	20F = 4/5	50F = 3	100F = 6	OFF	ON	ON	ON	OFF
30F Play	20F = 2/3	50F = 1 1/2		ON	ON	ON	ON	OFF
30F Play	20F = 2/3	50F = 1 2/3	100F = 4	OFF	OFF	OFF	OFF	ON
30F Play	20F = 2/3	50F = 2	100F = 4	ON	OFF	OFF	OFF	ON
40F Play	20F = 1/2	50F = 1 1/4		OFF	ON	OFF	OFF	ON
40F Play	20F = 1/2	50F = 2 1/4	100F = 3	ON	ON	OFF	OFF	ON
				ON	ON	OFF	OFF	ON
				OFF	OFF	ON	OFF	ON
				ON	OFF	ON	OFF	ON
				OFF	ON	ON	OFF	ON
FREE PLAY OPTION				ON	ON	ON	ON	ON

Meter Operates on 1BF = 1 Pulse

Coin 1 = 50F, Coin 2 = 20F, Coin 3 = 5F, Coin 4 = 1F

PRICE OF PLAY SETTINGS FOR HOLLAND

			DIP SWITCH				
			1	2	3	4	5
1G Play	NO BONUS		OFF	OFF	OFF	OFF	OFF
1G Play	2.5G = 3	5G = 6	ON	OFF	OFF	OFF	OFF
1G Play	2.5G = 3	5G = 7	OFF	ON	OFF	OFF	OFF
2G Play	NO BONUS		ON	ON	OFF	OFF	OFF
2G Play	5G = 3		OFF	OFF	ON	OFF	OFF
2G Play	5G = 3	10G = 7	ON	OFF	ON	OFF	OFF
3G Play	NO BONUS		OFF	ON	ON	OFF	OFF
3G Play	5G = 2		ON	ON	ON	OFF	OFF
3G = Play	5G = 2	10G = 5	OFF	OFF	OFF	ON	OFF
4G Play	NO BONUS		ON	OFF	OFF	ON	OFF
4G Play	10G = 3		OFF	ON	OFF	ON	OFF
5G Play	NO BONUS		ON	ON	OFF	ON	OFF
5G Play	10G = 3		OFF	OFF	ON	ON	OFF
6G Play	NO BONUS		ON	OFF	ON	ON	OFF
6G Play	15G = 3		OFF	ON	ON	ON	OFF
8G Play	NO BONUS		ON	ON	ON	ON	OFF
8G Play	20G = 3		OFF	OFF	OFF	OFF	ON
10G Play	NO BONUS		ON	OFF	OFF	OFF	ON
10G Play	20G = 3		OFF	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			OFF	OFF	ON	OFF	ON
			ON	OFF	ON	OFF	ON
			OFF	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

1 Meter Pulse = 0.5G

Coin 1 = N/U, Coin 2 = 5G, Coin 3 = 2.5G, Coin 4 = 1G

APPENDIX C

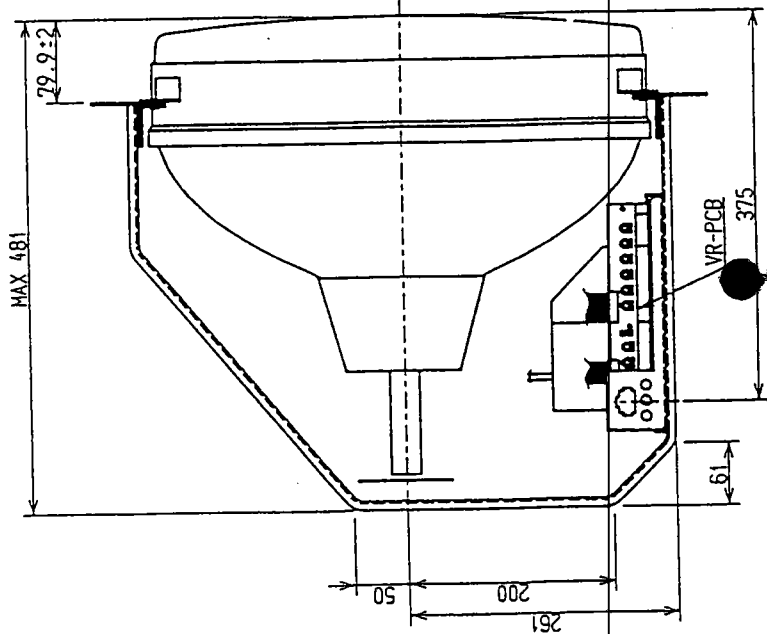
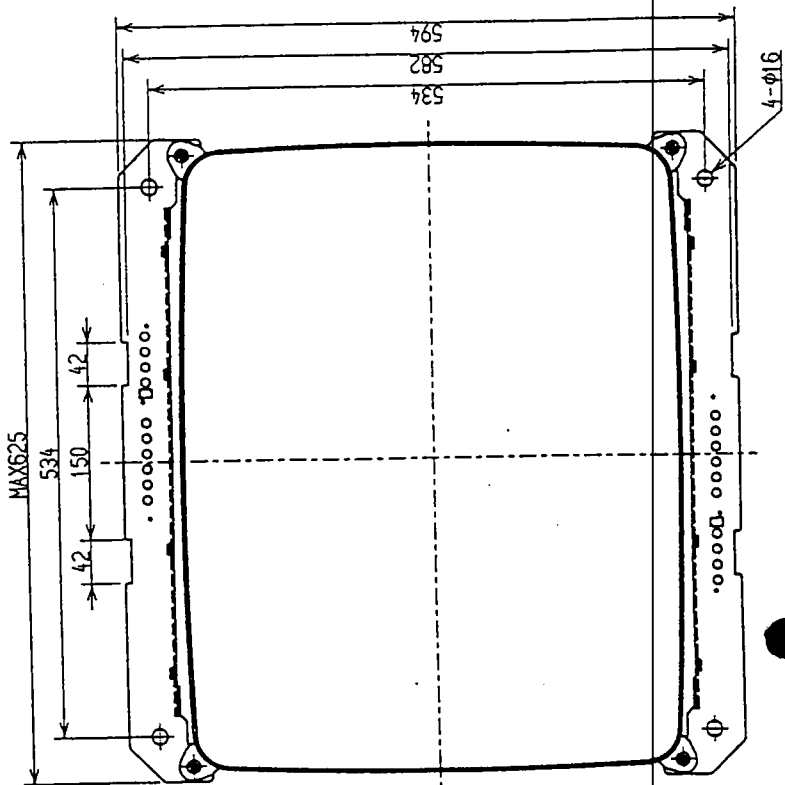
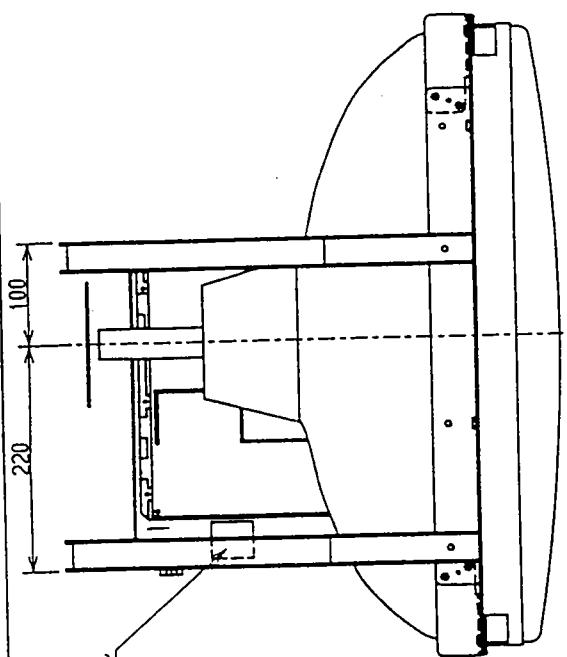
NANAO MONITOR SETUP

200-5242-24-02

コネクタピンアサインラベル

OUTLINE OF MONITOR MS8-29FSG

DIM IN mm
TOLERANCE ± 3



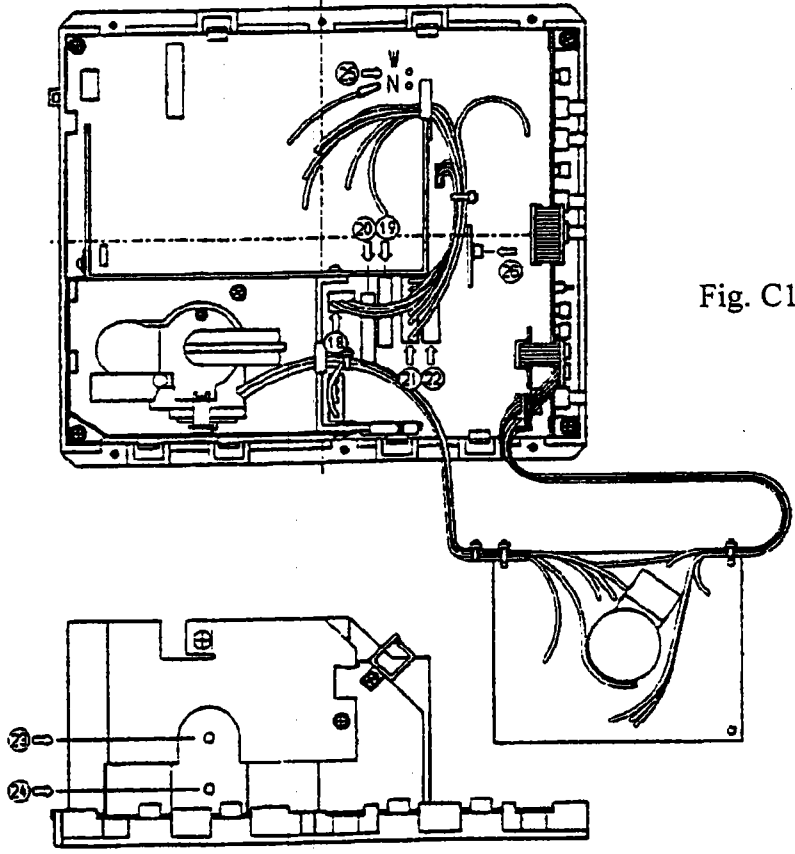


Fig. C1 Monitor Chassis

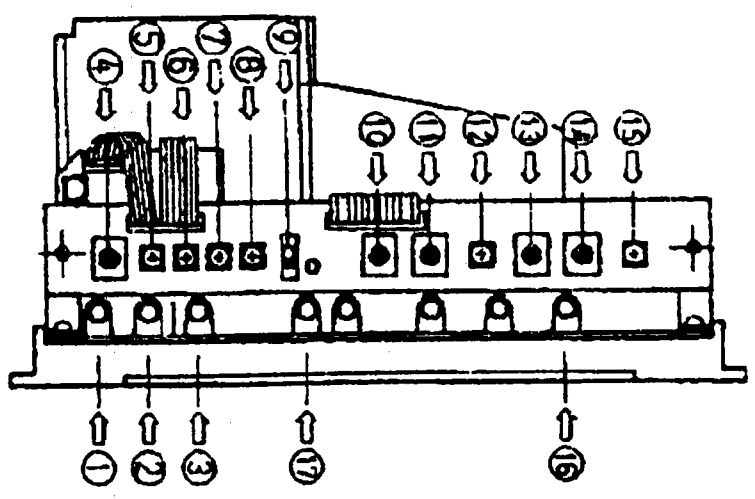


Fig. C2 Adjustment Panel

NANAO MONITOR TYPE 200-5242-24-02

ADJUSTMENT FUNCTIONS

See Fig. C2

[1] R-BIAS (VR102)
Turning this to the right will result in the **Red** becoming darker.

[2] G-BIAS (VR112)
Turning this to the right will result in the **Green** becoming darker.

[3] B-BIAS (VR122)
Turning this to the right will result in the **Blue** becoming darker.

[4] CONTRAST (VR250)
Turning this to the right will result in increased Contrast.

[5] R-GAIN (VR101)
Turning this to the right will result in the **Red** becoming darker.

[6] G-GAIN (VR111)
Turning this to the right will result in the **Green** becoming darker.

[7] B-GAIN (VR121)
Turning this to the right will result in the **Blue** becoming darker.

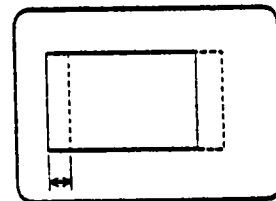
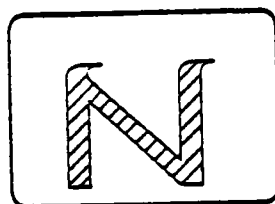
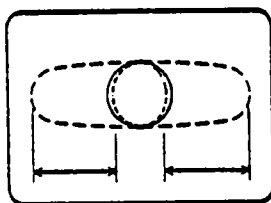
[8] BRIGHT (VR570)
This adjusts the on-screen image brightness.

[9] SS SWITCH (SW502)
Controls the visual quality.
A: Ordinary
B: Super-sharpness

[10] H SIZE (VR533)
The horizontal image dimensions are adjustable

[11] H POSITION (VR532)
The horizontal image's position is adjustable.

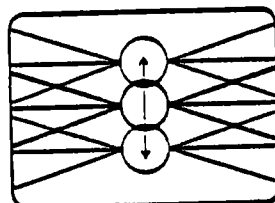
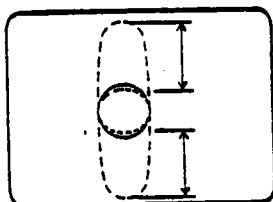
[12] H HOLD (VR531)
This adjusts the horizontal distortions.



[13] V SIZE (VR433)
The vertical image dimensions are adjustable.

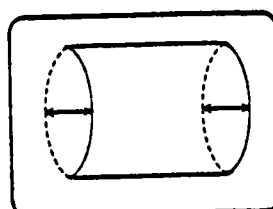
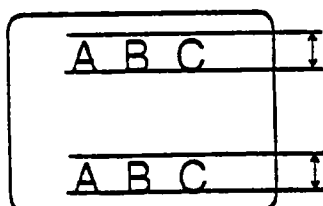
[14] V POSITION (VR435)
The horizontal image's position is adjustable.

[15] V HOLD (VR431)
This adjusts the vertical distortions.






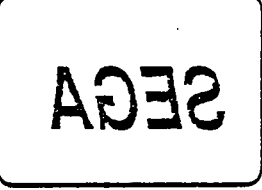
[16] V LIN (VR432)

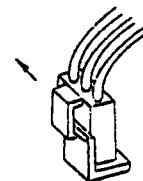
[17] S.P.C (VR434)



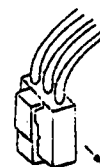
20 18 19 DEFLECTING YOKE POLARITY CHANGE CONNECTOR

18

	NORMAL	REFLEX
<p>19</p> <p>NORMAL</p> <p>CN531</p>	 <p>The image displayed is normal.</p>	 <p>A vertically inverted image is displayed by reflex on a mirror.</p>
<p>20</p> <p>INVERSION</p> <p>CN530</p>	 <p>An image which is turned a 180 degrees is displayed.</p>	 <p>An image reflected on a mirror appears.</p>



18 NORMAL



19 REFLEX

21 HORIZONTAL FREQUENCY CHANGE CONNECTOR(CN540)
After changing, the horizontal frequency will be 15.75KHz.

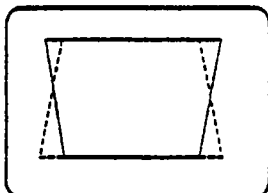
22 HORIZONTAL FREQUENCY CHANGE CONNECTOR(CN541)
After changing, the horizontal frequency will be 24.83KHz.

23 FOCUS
To be adjusted to the best status.

24 SCREEN
Adjusts to the CUTOFF point.

25 H-SIZE CHANGE TAP.
After H. SIZE adjustments are made, if the size is still narrow, change it to W side. However, this is effective only in the case where the horizontal frequency change connector is CN 540. (15.75 KHz)

26 TRAPEZOID Adjustment
Controls trapezoidal distortions.



REF. NO.	PART NO.	DESCRIPTION			QTY.
R461	OBK10272JT	CARBON	1 / 4	2.7K-J	1
R462	OBK10472JT	CARBON	1 / 4	4.7K-J	1
R463	OBK10222JT	CARBON	1 / 4	2.2K-J	1
R464	OCL081R0JL	FUSING	1 / 2	1.0-J	1
R465	OBK10222JT	CARBON	1 / 4	2.2K-J	1
R466	OBK10222JT	CARBON	1 / 4	2.2K-J	1
R467	OBK10222JT	CARBON	1 / 4	2.2K-J	1
R468	OBK10104JT	CARBON	1 / 4	100K-J	1
R469	02G21303BB	SEMIFIXED	VZ068TH1 34	30K-B	1
OR R469	02G21303EB	SEMIFIXED	VZ067TH1 34	30K-B	1
R508	OBK10102JT	CARBON	1 / 4	1K-J	1
R509	OBK10102JT	CARBON	1 / 4	1K-J	1
R510	OBK10102JT	CARBON	1 / 4	1K-J	1
R511	OBK10331JT	CARBON	1 / 4	330-J	1
R520	OBK10471JT	CARBON	1 / 4	470-J	1
R521	OBK10471JT	CARBON	1 / 4	470-J	1
R522	OBK10392JT	CARBON	1 / 4	3.9K-J	1
R523	OBK10123JT	CARBON	1 / 4	12K-J	1
R524	OBK10103JT	CARBON	1 / 4	10K-J	1
R529	OBK10103JT	CARBON	1 / 4	10K-J	1
R530	OBK10912JT	CARBON	1 / 4	9.1K-J	1
R531	02G21302BB	SEMIFIXED	VZ068TH1 33	3K-B	1
OR R531	02G21302EB	SEMIFIXED	VZ067TH1 33	3K-B	1
R532	OBK10183JT	CARBON	1 / 4	18K-J	1
R533	02G21302BB	SEMIFIXED	VZ068TH1 33	3K-B	1
OR R533	02G21302EB	SEMIFIXED	VZ067TH1 33	3K-B	1
R534	OBK10223JT	CARBON	1 / 4	22K-J	1
R536	OBK10562JT	CARBON	1 / 4	5.6K-J	1
R538	OBK10153JT	CARBON	1 / 4	15K-J	1
R539	OBK10471JT	CARBON	1 / 4	470-J	1
R540	OBK10681JT	CARBON	1 / 4	680-J	1
R541	OBK10270JT	CARBON	1 / 4	27-J	1
R542	OCL04182JT	CARBON	1 / 2	1.8K-J	1
R543	ODG05470JL	FUSING	FMR 1W	47-J	1
R546	OCL04330JT	CARBON	1 / 2	33-J	1
R547	OBK10822JT	CARBON	1 / 4	8.2K-J	1
R548	OEL32550KM	METAL	BPR28	0.05-K	1
R550	OBK10103JT	CARBON	1 / 4	10K-J	1

REF.NO.	PART NO.	DESCRIPTION			QTY.
R551	0FL09272JL	METAL	RSS 3W	2.7K-J	1
R552	OBK10105JT	CARBON	1 / 4	1M-J	1
R553	OBK10105JT	CARBON	1 / 4	1M-J	1
R554	OBK10105JT	CARBON	1 / 4	1M-J	1
R555	OCL04105JT	CARBON	1 / 2	1M-J	1
R556	OCL04105JT	CARBON	1 / 2	1M-J	1
R557	OCL04105JT	CARBON	1 / 2	1M-J	1
R560	OBK181502F	METAL	SN2C 1/4	15K-F	1
R561	OBK181502F	METAL	SN2C 1/4	15K-F	1
R562	OBK183923F	METAL	SN2C 1/4	392K-F	1
R563	OBK188253F	METAL	SN2C 1/4	825K-F	1
R564	OBK184641S	METAL	1 / 4	4.64K-F	1
R565	OBK10103JT	CARBON	1 / 4	10K-J	1
R566	OBK10104JT	CARBON	1 / 4	100K-J	1
R567	OBK10103JT	CARBON	1 / 4	10K-J	1
R568	OBK10154JT	CARBON	1 / 4	150K-J	1
R569	OBK10563JT	CARBON	1 / 4	56K-J	1
R570	OCL084R7JL	FUSING	1 / 2	4.7-J	1
R571	0EG054R7JH	FUSING	FMR 2W	4.7-J	1
R572	OCL084R7JL	FUSING	1 / 2	4.7-J	1
R573	OBK10153JT	CARBON	1 / 4	15K-J	1
R574	OBK10471JT	CARBON	1 / 4	470-J	1
R575	OBK10392JT	CARBON	1 / 4	3.9K-J	1
R576	OCL04472JT	CARBON	1 / 2	4.7K-J	1
R577	OCL04104JT	CARBON	1 / 2	100K-J	1
R578	OBK10333JT	CARBON	1 / 4	33K-J	1
R579	OBK10471JT	CARBON	1 / 4	470-J	1
R580	OBK10182JT	CARBON	1 / 4	1.8K-J	1
R581	OBK10471JT	CARBON	1 / 4	470-J	1
R582	OBK10471JT	CARBON	1 / 4	470-J	1
R583	OBK10474JT	CARBON	1 / 4	470K-J	1
R584	OBK10752JT	CARBON	1 / 4	7.5K-J	1
R585	OCL04562JT	CARBON	1 / 4	5.6K-J	1
R586	0EL09102JL	METAL	RSS 2W	1K-J	1
R587	OBK10682JT	CARBON	1 / 4	6.8K-J	1
R588	OBK10102JT	CARBON	1 / 4	1K-J	1
R901	ONL171ROKZ	CEMENT	MZS15N	1-K	1
R902	OBK10154JT	CARBON	1 / 4	150K-J	1

REF. NO.	PART NO.	DESCRIPTION			QTY.
R903	OBL08331JL	FUSING	1 / 4	330-J	1
R904	OBL08680JL	FUSING	1 / 4	68-J	1
R905	OBK12105JT	CARBON	1 / 4	1M-J	1
R906	OBK12153JT	CARBON	1 / 4	15K-J	1
R907	OBK12683JT	CARBON	1 / 4	68K-J	1
R908	OBK12683JT	CARBON	1 / 4	68K-J	1
R909	OBK12472JT	CARBON	1 / 4	4.7K-J	1
R910	02G21302BB	SEMIFIXED	VZ068TH1 33	3K-B	1
OR R910	02G21302EB	SEMIFIXED	VZ067TH1 33	3K-B	1
R911	OCL04333JT	CARBON	1 / 2	33K-J	1
R912	OBK12153JT	CARBON	1 / 4	15K-J	1
R913	OHL09562JH	METAL	RSS 5W	5.6K-J	1
R914	OCL04121JT	CARBON	1 / 2	120-J	1
R915	OCL04333JT	CARBON	1 / 2	33K-J	1
R916	OBK10335JT	CARBON	1 / 4	3.3M-J	1
R917	OCG16226KM	SOLID	RC 1/2	22M-K	1
R918	OBL081ROJL	FUSING	1 / 4	1.0-J	1
R919	OEL32R22JM	METAL	BPR28	0.22-J	1

VARIABLE RESISTORS

VR101	OBH13302MB	VARIABLE	RVA0911	302M	1
VR102	02G21502BB	SEMIFIXED	VZ068TH1 53	5K-B	1
OR VR102	02G21502EB	SEMIFIXED	VZ067TH1 53	5K-B	1
VR111	OBH10302MB	VARIABLE	RVA0911	302M	1
VR112	02G21502BB	SEMIFIXED	VZ068TH1 53	5K-B	1
OR VR112	02G21502EB	SEMIFIXED	VZ067TH1 53	5K-B	1
VR121	OBH13302MB	VARIABLE	RVA0911	302M	1
VR122	02G21502BB	SEMIFIXED	VZ068TH1 53	5K-B	1
OR VR122	02G21502EB	SEMIFIXED	VZ067TH1 53	5K-B	1
VR431	OBH13502MB	VARIABLE	RVA0911	502M	1
VR432	02G21102BB	SEMIFIXED	VZ068TH1 13	1K-B	1
OR VR432	02G21102EB	SEMIFIXED	VZ067TH1 13	1K-B	1
VR433	OBH13501MB	VARIABLE	RVA0911	501M	1
VR434	02G21502BB	SEMIFIXED	VZ068TH1 53	5K-B	1
OR VR434	02G21502EB	SEMIFIXED	VZ067TH1 53	5K-B	1
VR435	OBH03103MB	VARIABLE	RVA0911	103M	1
VR531	OBH13302MB	VARIABLE	RVA0911	302M	1

REF. NO.	PART NO.	DESCRIPTION			QTY.
VR532	OBH13302MB	VARIABLE	RVA0911	302M	1
VR533	OBH39103MB	VARIABLE	RVA0911	103M	1
VR570	OBH13502MB	VARIABLE	RVA0911	502M	1

CAPACITORS

C401	OKM871ROMW	ELECTRO.	KME	50V	1 μ F-M	1
C402	OKP13223JT	PLASTIC	ECQ-B	1H	223J	1
C405	OKP13183JT	PLASTIC	ECQ-B	1H	183J	1
C406	OKH81103ZF	CERAMIC	DD106	50V F	103Z	1
C421	OKP13183JT	PLASTIC	ECQ-B	1H	183J	1
C422	OEM87471MW	ELECTRO.	KME	16V	470 μ F-M	1
C431	OIM87471MW	ELECTRO.	KME	35V	470 μ F-M	1
C432	OIM87101MW	ELECTRO.	KME	35V	100 μ F-M	1
C434	OKH81391KB	CERAMIC	DD104	50V	391K	1
C435	OKP13332JT	PLASTIC	ECQ-B	1H	332J	1
C436	OKP13473JT	PLASTIC	ECQ-B	1H	473J	1
C437	OGM714R7KF	TANTAL	DN	25V	4.7 μ F-K	1
C438	OGP47471M1	ELECTRO.	SXE	25V	470 μ F-M	1
C443	OKM871ROMW	ELECTRO.	KME	50V	1 μ F-M	1
C444	OKP13104JT	PLASTIC	ECQ-B	1H	104J	1
C446	OEP76330MT	ELECTRO.	KME-BP16V		33 μ F-M	1
C447	OEM87470MW	ELECTRO.	KME	16V	47 μ F-M	1
C448	OIM87101MW	ELECTRO.	KME	35V	100 μ F-M	1
C449	OEM87330MW	ELECTRO.	KME	16V	33 μ F-M	1
C501	OKM871ROMW	ELECTRO.	KME	50V	1 μ F-M	1
C520	OKH81331KB	CERAMIC	DD104	50V B	331K	1
C521	OEP69330MT	ELECTRO.	16SC		33 μ F-M	1
C531	OKH81103ZF	CERAMIC	DD106	50V F	103Z	1
C532	OKP13822JT	PLASTIC	ECQ-B	1H	822J	1
C533	OKP13272JT	PLASTIC	ECQ-B	1H	272J	1
C534	OKP13472JT	PLASTIC	ECQ-B	1H	472J	1
C536	OWH81561KB	CERAMIC	DD05	500V B	561K	1
C540	OZP44102KR	CERAMIC	DE0905	1KV	102K	1
C541	OZP44102KR	CERAMIC	DE0905	1KV	102K	1
C542	OZP44102KR	CERAMIC	DE0905	1KV	102K	1
C543	OZP44102KB	CERAMIC	DE0905	1KV	102K	1

REF. NO.	PART NO.	DESCRIPTION			QTY.
C544	07H73752JF	PLASTIC	DKR 1.8KV	752J	1
C545	06H73133JF	PLASTIC	DKR 1.6KV	133J	1
C546	0XG77333JF	PLASTIC	DTW 630V	333J	1
C547	0XG77563JF	PLASTIC	DTW 630V	563J	1
C548	0QG77564JF	PLASTIC	DTW 200V	564J	1
C549	0QG77683JF	PLASTIC	DTW 200V	683J	1
C550	0NP80275KF	PLASTIC	DFZ 100V	275K	1
C551	0NP80275KF	PLASTIC	DFZ 100V	275K	1
C552	0UG77103GF	PLASTIC	DTW 400V	103G	1
C553	0UG77153GF	PLASTIC	DTW 400V	153G	1
C554	0QK66334JF	PLASTIC	DHS 200V	334J	1
C555	07H73822JF	PLASTIC	DKR 1.8KV	822J	1
C560	0PM87R47MW	ELECTRO.	KME 160V	0.47 μ F-M	1
C561	0QM871ROMW	ELECTRO.	KME 200V	1 μ F-M	1
C562	0GM874R7MW	ELECTRO.	KME 25V	4.7 μ F-M	1
C563	0KH81103ZF	CERAMIC	DD106 50V F	103Z	1
C564	0KH81103ZF	CERAMIC	DD104 50V	103Z	1
C565	0NM874R7MW	ELECTRO.	KME 100V	4.7 μ F-M	1
C566	0NM874R7MW	ELECTRO.	KME 100V	4.7 μ F-M	1
C570	0RP41220MW	ELECTRO.	KME 250V	22 μ F-M	1
C571	0WH81222KB	CERAMIC	DD09 500V B	222K	1
C572	0EM87470MW	ELECTRO.	KME 16V	47 μ F-M	1
C573	0EM87471MW	ELECTRO.	KME 16V	470 μ F-M	1
C574	0IM87330MW	ELECTRO.	KME 35V	33 μ F-M	1
C575	0RP80104KF	PLASTIC	DFZ 250V	104K	1
C576	0EM87471MW	ELECTRO.	KME 16V	470 μ F-M	1
C577	0NM871ROMW	ELECTRO.	KME 100V	1 μ F-M	1
C578	0KH81103ZF	CERAMIC	DD106 50V B	103Z	1
C579	0KH81471KB	CERAMIC	DD104 50V B	471K	1
C580	0KM871ROMW	ELECTRO.	KME 50V	1 μ F-M	1
C901	0RP15473MS	PLASTIC	LFX 250WV	473M	1
C902	0RL75472ZF	CERAMIC	DE0807F AC250V	472Z	1
C903	0RL75472ZF	CERAMIC	DE0807F AC250V	472Z	1
C904	0WH81222KB	CERAMIC	DD09 500V B	222K	1
C905	08P59102M1	ELECTRO.	KMG 180V	1000 μ F-M	1
C906	0PQ80101MW	ELECTRO.	KHA 160V	100 μ F	1
C907	0WH81222KB	CERAMIC	DD09 500V B	222K	1
C908	0EM87470MW	ELECTRO.	KME 16V	47 μ F-M	1

REF. NO.	PART NO.	DESCRIPTION			QTY.
C909	0PQ80101MW	ELECTRO.	KHA 160V	100 μ F	1
C910	0KP47221M1	ELECTRO.	SXE 50V	220 μ F-M	1
C911	0GM87221MW	ELECTRO.	KME 25V	220 μ F-M	1
C913	0EM87221MW	ELECTRO.	KME 16V	220 μ F-M	1
C914	0WH81472KB	CERAMIC	DD12 500V B	472K	1
C915	0OK58102KB	CERAMIC	DE7090B VAI-KC	102K	1
C916	0OK58102KB	CERAMIC	DE7090B VAI-KC	102K	1
C917	0OK58102KB	CERAMIC	DE7090B VAI-KC	102K	1

TRANSISTORS

Q401	0CF23621ZZ	SILICON	2SC3621		1
Q402	0AF21408ZZ	SILICON	2SA1408		1
Q404	0AH21091ZZ	SILICON	2SA1091		1
Q405	0AH20933SZ	SILICON	2SA933S		1
Q521	0CH21740SZ	SILICON	2SC1740S		1
Q530	0AH20933SZ	SILICON	2SA933S		1
Q532	0CF22688ZZ	SILICON	2SC2688		1
Q560	0AH21091ZZ	SILICON	2SA1091		1
Q561	0CH22705ZZ	SILICON	2SC2705		1
Q570	0AH20933SZ	SILICON	2SA933S		1
Q571	0AH20933SZ	SILICON	2SA933S		1
Q572	0AF20966ZZ	SILICON	2SA966		1
Q902	0AF21091ZZ	SILICON	2SA1091		1
Q903	0CF22610ZZ	SILICON	2SC2610		1
Q904	0CF22610ZZ	SILICON	2SC2610		1
PC501	00J28414AB	(PHOTO-TR)	TLP521-2 GB		1

DIODES

D101	00J25891A1		1SS133		1
D102	00J25891A1		1SS133		1
D111	00J25891A1		1SS133		1
D112	00J25891A1		1SS133		1
D121	00J25891A1		1SS133		1
D122	00J25891A1		1SS133		1
D401	00J25891A1		1SS133		1
D402	00J25234A3		ERB44-04		1

REF. NO.	PART NO.	DESCRIPTION		QTY.
D403	00J25791A1		ERB43-02	1
D404	00J25891A1		1SS133	1
D405	00N25030T1		1SS244	1
D406	00R25398R2		1DL42	1
D520	00J25891A1		1SS133	1
D521	00J25891A1		1SS133	1
D531	00J25234A3		ERB44-04	1
D561	00N25030T1		1SS244	1
D562	00N25030T1		1SS244	1
D563	00N25030T1		1SS244	1
D564	00N25030T1		1SS244	1
D565	00N25030T1		1SS244	1
D566	00J25891A1		1SS133	1
D567	00J25891A1		1SS133	1
D570	00J25234A3		ERB44-04	1
D571	00J25791A1		ERB43-02	1
D572	00N25030T1		1SS244	1
D573	00J25891A1		1SS133	1
D574	00J25891A1		1SS133	1
D575	00N25030T1		1SS244	1
D576	00J25791A2		ERB43-04	1
D901	00J25234A3		ERB44-04	1
D902	00N25030T1		1SS244	1
D903	00N25030T1		1SS244	1
D904	00J25045A2		RU4AM	1
D905	00J25791A1		ERB43-02	1
BD901	08F25473A2	(BRIGE)	DBF40E	1
ZD101	00N25734B5	(ZENER)	HZS12NB2	1
ZD111	00N25734B5	(ZENER)	HZS12NB2	1
ZD121	00N25734B5	(ZENER)	HZS12NB2	1
ZD501	00N25732B2	(ZENER)	HZS6.2NB2	1
ZD901	00N25734B5	(ZENER)	HZS12NB2	1
ZD902	00N25732B7	(ZENER)	HZS7.5NB1	1
ZD903	00N25732B2	(ZENER)	HZS6.2NB2	1
ZD904	00N25732B2	(ZENER)	HZS6.2NB2	1

REF. NO.	PART NO.	DESCRIPTION		QTY.
<u>TRANS FORMERS</u>				
T530	05F13171A1	(H. DRIVE)		1
T531	05F13401A1	(FLYBACK)		1
T901	05F13121B1	(CHOKE)		1
<u>POSISTOR</u>				
PTH901	08J29031A1		PTH451C263BG8ROM140	1
<u>THERMISTOR</u>				
NTH401	08J38097A1		NTH5D104LA	1
NTH901	00N38508A1		115-050-41205	1
<u>COILS</u>				
L530	05F16377A1	(CHOKE)		1
L531	05F16378B1	(LINEAR)		1
L532	05F16379A1	(CHOKE)	930 μ H	1
L533	05F16376B1	(CHOKE)	190 μ H	1
L570	00K00101K0	(CHOKE)	EL0606RA-101K	1
L901	05F16382A1	(CHOKE)	1.5m	1
L902	04F16086AA	(CHOKE)	125 μ	1
<u>OTHER PARTS</u>				
IC101	05V00600B1		ASS'Y PCB VIDEO	1
IC102	05V00186B1		ASS'Y PCB SYNC	1
IC103	05V0022012		ASS'Y PCB DEF	1
IC402	05U02038A2		ASS'Y PCB IC402	1
F901	00F32560A3	FUSE	TSC B 125V 3A	1
F902	00F32560A5	FUSE	TSC B 125V 2A	1
CF901	08N51217T1	FUSE-CLIP	PFC5000-0202	2
CF902	08N51217T1	FUSE-CLIP	PFC5000-0202	2
CN101	00J40190A5	CONNECTOR	B6BEH	1
CN103	00J40643A1	CONNECTOR	B11B-PH-K-S	1

REF. NO.	PART NO.	DESCRIPTION		QTY.
CN104	00J40645A1	CONNECTOR	S11B-PH-K-S	1
CN105	00J40643A4	CONNECTOR	B14B-PH-K-S	1
CN106	00J40645A4	CONNECTOR	S14B-PH-K-S	1
CN402	00F40831A1	CONNECTOR	B2P-VH	1
CN530	00F40019A3	CONNECTOR	YP115S-4P	1
CN531	00F40019A3	CONNECTOR	TP115S-4P	1
CN540	00F40831A7	CONNECTOR	B8P-VH	1
CN541	00F40831A7	CONNECTOR	B8P-VH	1
CN550	00F44547A1	CONNECTOR	GT PIN	1
CN551	00F44547A1	CONNECTOR	GT PIN	1
CN901	00F40916A1	CONNECTOR	B2P3-VH	1
CN902	00F40019A1	CONNECTOR	YP115S-2P	1
CN903	00F40916A4	CONNECTOR	B5P9-VH	1
TP1	00J44862A2	PIN-TERMINAL	RT-01T-1.0B	1
TP2	00J44862A2	PIN-TERMINAL	RT-01T-1.0B	1
TP3	00J44862A2	PIN-TERMINAL	RT-01T-1.0B	1
SW502	08F45575A1	SW	SSSS91	1
	05U01898A2	ASS'Y H. OUT	(Q533)	1
	05V01648A1	ASS'Y CN402		1
	05V02180A1	ASS'Y CN550		1
	05V01897A2	ASS'Y PVD		1
	05V01650A1	ASS'Y CN540		1
	05V02175A1	ASS'Y CN102		1
	05V02176A1	ASS'Y CN570		1
	05V02416A1	ASS'Y CN901S		1

REF. NO.	PART NO.	DESCRIPTION	QTY.
	05F18389A1	DEFLE-YOKE YS-58807	1
	00F52509A1	C. P-MAGNET YS6634 / 2771831	1
	05D03444A1	RUBBER-WEDGE-31 5D03444A1	3
	05U01695D1	ASSY-COATING EARTH 5U01695-1	1
	00N08110A1	ACETATE TAPE No.156 日東巾19mm l=100mm	2
	00F08554A1	GLASS TAPE No.188 UL 巾25mm l=40mm	1
	0FN803010D	TAP-TITE-P-TP 3×10	15
	0FJ924016N	TAP-TITE-P-BIND 4×16	1
	08N54089A1	CLAMPER T18R	16
	00N54335A1	LOCKING WIRE SADDLE LWS-2C	3
	05U01694E1	ASSY-D. G-COIL 5U01694-1	1
	05D05695A1	HOLDER-18 5D05695	4
	05C02275B1	BRACKET SGT 5C02275	2
	05B00893A1	BASE FSG 5B00893	1
	05B00823B1	STAY-SG 5B00823	2
	05D06471A1	PCB-HOLDER 5D06471	1
	05D06724A1	VR-COVER-FSG	1
	05D06224A1	CRT SCREW	4
	0FF706012D	SCREW-SEMS-P-PAN M6×12 (SW付)	4
	0FJ924008D	TAP-TITE-P-BIND 4×8	4
	05D06327A1	LABEL-S	1
	05D06102A1	CN LABEL	1
	05D06101A1	LABEL-HV	4
	02D51526A1	LABEL-B	1
	08F08342A1	ファイラメントテープ No. 901A L=350mm	2
	00R54072A1	CLAMPER ノート・クランパー	1
	05A00362G1	PCB-MAIN 5A00362	1
	05C02108A1	PCB-CRT 5C02108	1/2
	05V02619A1	ASSY CN104F (900mm ハーネス)	1
	05V02620A1	ASSY CN106F (900mm ハーネス)	1
	05D06408A1	SUPPORT-VR	2
	00F55550A1	PLASTI-LIVET No615 φ4	2

APPENDIX D

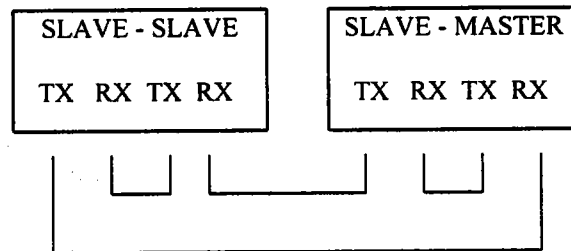
COMMUNICATION PLAY USING OPTICAL CABLES

COMMUNICATION PLAY

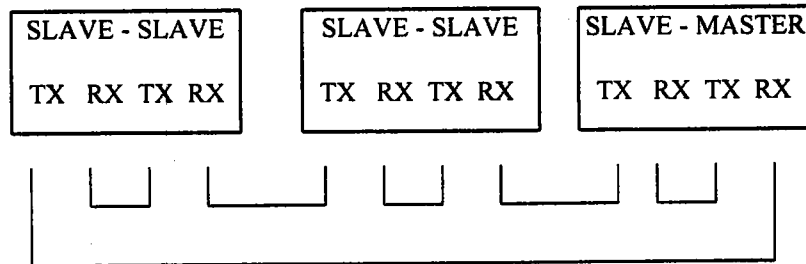
The following Installation Precautions should be noted:

1. When linking a number of machines, be sure to supply sufficient power for the corresponding number of machines. This will be approximately 1000 Watts (4 Amps @ 240V) for each Daytona Twin machine.
2. Because of the length of the Fibre Optic communication cable, the distance in between the machines will be approximately 1.2M or less.

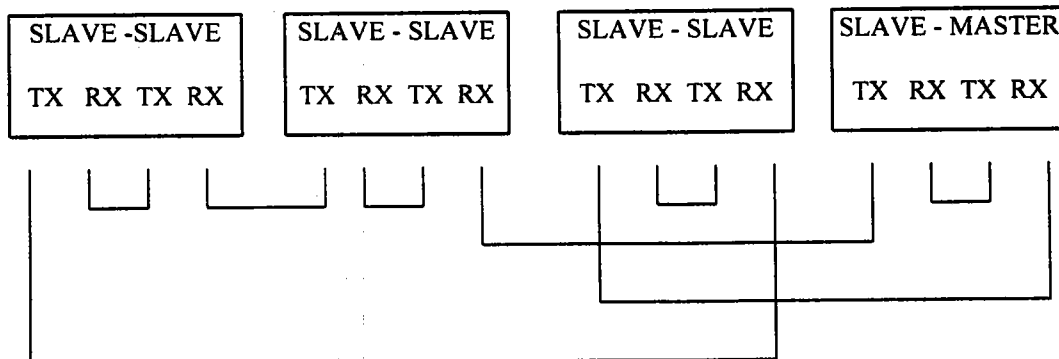
COMMUNICATIONS CABLE CONNECTIONS (VIEWED FROM REAR)



4P LINK SYSTEM



6P LINK SYSTEM



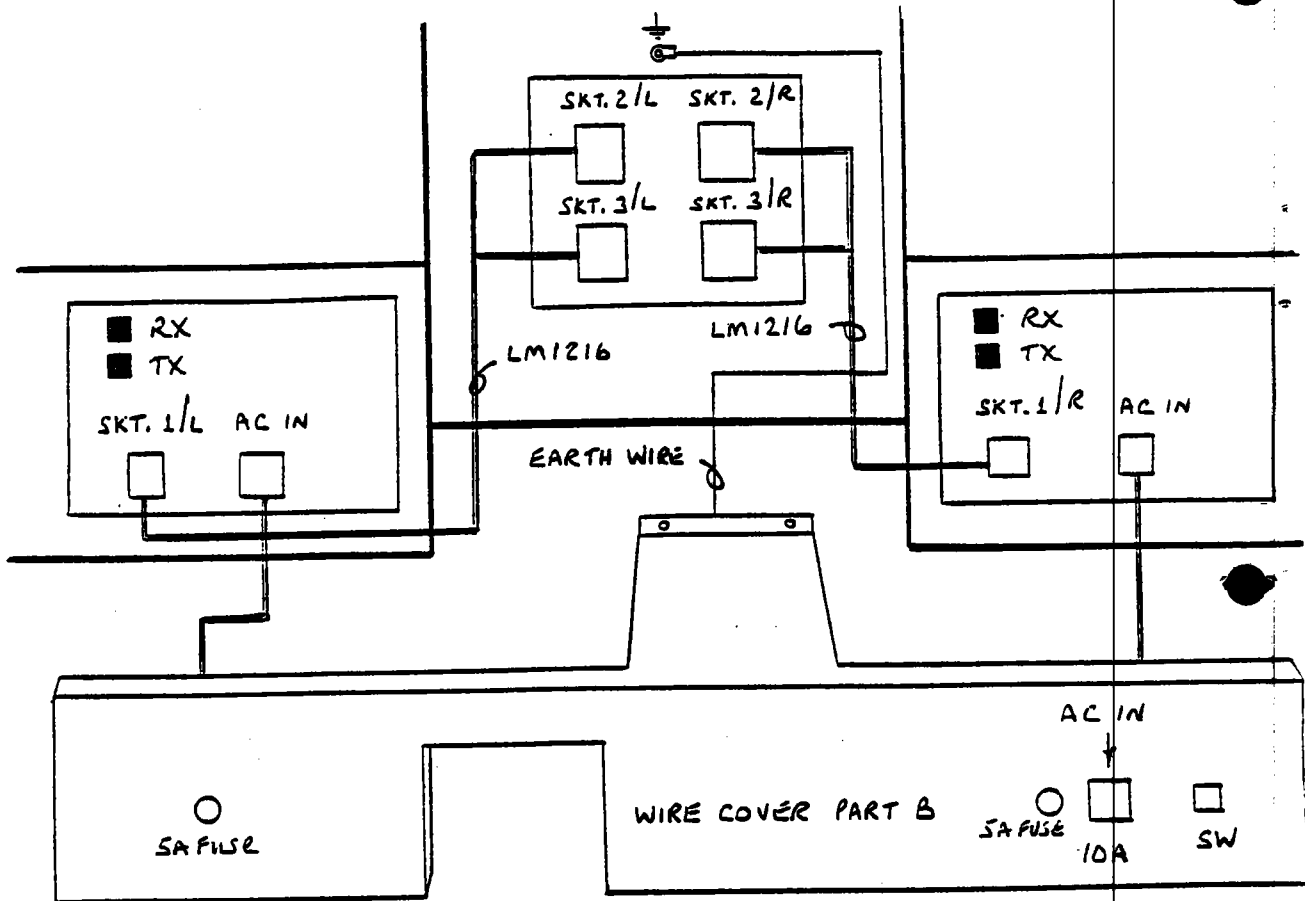
8P LINK SYSTEM

CONNECTIONS WITH OTHER CABINETS

To gain access to the Fibre Optic RX and TX connectors at the rear of the Player 1 and Player 2 cabinets, first remove the Wire Cover (Part B). The Communication cable should be feed through the cut-out in the fixed part of the wire cover.

When handling and connecting the Communication links be careful NOT TO CAUSE A SHARP BEND in these cables.

View on rear of the Daytona machine with the Wire Cover Part B removed.



SETTING COMMUNICATIONS LINK

Place all linked machines into TEST MODE and select GAME SYSTEM.

Set LINK ID to MASTER for the first machine in the line and SLAVE for all subsequent machines.

Set CAR NUMBER sequentially from number 1 (MASTER machine). If the same car number is set for 2 or more cabinets, or if the sequential order is incorrect, the game display, etc. will be confused.

Set CABINET to TWIN.

SETTING GAME DIFFICULTY

In the case of communications PLAY, THE GAME DIFFICULTY SETTING IS MADE BY THE master CABINET. Even if the setting is changed on the SLAVE machines, the setting will not be effective for the game. Changing the setting on the MASTER cabinet causes all of the SLAVE machines to change their settings by following the MASTER.

CAUTIONS TO BE HEEDED WHEN IN TEST MODE

The machines connected for the communications play perform a NETWORK check at the time when the power is turned on and when exiting test mode. All linked machines must perform this test at the same time. Therefore all machines must be powered up or exit test mode at the same time. If one machine requires testing, all remaining machines should be put into test mode. When the test is finished for the unit requiring test, all of the machines should exit test mode at the same time.

APPLICATION OF SEAT # DISPLAY DECALS

After the Daytona machines have been linked together for Communication Play the seat number Decals should be applied so that they line up in a sequential order No. 1, No. 2, No. 3 and so on starting from the left hand side when viewed from the front of the machines. These Decals are supplied in the Installation Kit as AW1130.

