## KLINGON.. <br> KREDITPLATINE KLINGON V1.1

FOR ELEKTR.MONZPRUFER COIN CONTROI.S CZZO (A) ODER ELEKTR.MUNZPRUFER -NRI- G13 (A)

$3=$ GND
$4=$ AUSGANG/LOGIC


```
7=+12 V 
```

$9=$ AUSGANG/LOGIC 2
$10=$ GND
$11=$ PLAYER ; START
$!:=$ PLAYER 2 SIART

MÜNZEN

| SW1 | SW2 | SW3 | SW4 | OPTIONS | COIN 1 | COTN 2 | CoIn 3 | COTN 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ON ON JFF JN JFF JN JFF | OFF: <br> OFF <br> ON <br> ON <br> OFF <br> OFF <br> ON <br> ON | OFF <br> OFF <br> OFF <br> OFF <br> ON <br> ON <br> ON <br> ON |  | UK COIN SETTINGS BELGIUM COIN SETTINGS SPAIN COIN SETTINGS COIN CONTROLS C22O HOLLAND COIN SETTINGS PORTUGAL COIN SETTINGS AUSTRIA COIN SETTINGS SWITZERL.COIN SETTINGS | ```2. 1 n/u 100Pst: n/u n/u 100Esc 20 S- 5 SF``` | $\begin{aligned} & 50 \mathrm{p} \\ & 50 \mathrm{BF} \\ & 50 \mathrm{PSt} \\ & 5,-\mathrm{DM} \\ & 5 \mathrm{G} \\ & 50 \mathrm{Esc} \\ & 10 \mathrm{~S} \\ & 2 \mathrm{SF} \end{aligned}$ | $\begin{aligned} & 20 \mathrm{D} \\ & 20 \mathrm{BF} \\ & \mathrm{n} / \mathrm{u} \\ & 2,-0 \mathrm{M} \\ & 2.5 \mathrm{G} \\ & n / \mathrm{l} \\ & 5 \mathrm{~S} \\ & 1 \mathrm{SF} \end{aligned}$ | $\left\lvert\, \begin{gathered} : 0 p \\ 10 \mathrm{BF} \\ 25 \mathrm{Pst} \\ 1-0 M \\ 1 \mathrm{G} \\ \mathrm{n} / \mathrm{u} \\ 1 \mathrm{~s} \\ \mathrm{n} / \mathrm{u} \end{gathered}\right.$ |
|  |  |  | DFF | DIREKT KREDIT (EETM ETNZEL GERAT) |  |  |  |  |
|  |  |  | ON | SPEICHERUNG (BEIM "TWIN" GERAT) START HE./LT. |  |  |  |  |

DIP SWITCH $1:$

| SW1 | SW2 | SW3 | SW4 | SW5 | EINWURF | EINWURF | EINWURF | KREDITE |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| OFF | OFF | OFF | OFF | OFF | $1 \times 1$, DM | $1 \times 2$, DM | $1 \times 5 ;$ DM | $1 / 2 / 5$ |
| OFF | ON | OFF | OFF | OFF | $1 \times 1$, OM | $1 \times 2$, DM | $1 \times 5$, OM | $1 / 2 / 6$ |
| OFF | OFF | ON | OFF | OFF | $2 \times 1$, DM | $1 \times 2, D M$ | $1 \times 5$, OM | $1 / 1 / 3$ |

## BEFORE USING THE PRODUCT, be sune to pead the following:

To ensure the safe usage of the product, be sure to read the following before using the product. The following instructions are intended for the owners, operators and the personnel in charge of the operation of the product. After carefully reading and sufficiently understanding the instructions, handle the product appropriateiy.

Herein, explanations which require special attention are enclosed with dual lines. Depending on the potentially hazardous degrees, terms of WARNING!, CAUTION! and IMPORTANT! are used. SEGA is not liable whatsoever, even during the Liability period, for any injury or damage caused by the usage in the manner counter to the instructions herein stated. In order to prevent accidents, warning stickers and printed instructions are applied to the places where a potentially hazardous situation relating to the product can occur. For safety cause, be sure to comply with such warnings. WARNING:

Indicates that mishandling the product by disregarding this waming will cause a potentially hazardous situation which can result in death or serious injury.

This is cautionary information which should be complied with when handling the product. Indicates that mishandling the product by disregarding this will cause a potentially hazardous situation which might not resuit in personal injury but can damage the equipment, etc.
 CAUTION!

Indicates that mishandling the product by disregarding this caution will cause a potentially hazardous situation which can result in personal injury and or material damage.

## O

Be sure to turn off power before working on the machine.
To prevent electric shock, be sure to turn off power before starting the work in which the worker touches the interior of the product. If the work is to be performed in the power-on status, the Instruction Manual herein always states to that effect.

O Be sure to ground the Earth Terminal (this, however, is not required in the case where a power cord with earth is used).
This product is equipped with the Earth Terminal. When installing the product, Connect the Earth Terminal to the "accurately grounded indoor earth terminal" by using an earth wire. Unless the product is grounded appropriately, the user can be subject to electric shock. After performing repair, etc. for the Control equipment, be sure to firmly connect the Earth Wire to the Control equipment.

Ensure that the Power Supply used is equipped with a Circuit Protector. This product does not incorporate the Circuit Protector. Using a power supply which is not equipped with the Circuit Protector can cause a fire when short circuit occurs.

O Be sure to use fuses which meet the specified rating.
Specification changes (removal of equipment, conversion and addition) not designated by SEGA are not allowed.
The parts of the product include warning labels for safety, covers for personal protection, etc. It is ver hazardous to operate the product by removing parts and or modifying the circuits. Should doors, lids and protective parts be damaged or lost, refrain from operating the product. SEGA is not liable whatsoever for any injury and or damage caused by Specification changes (using other firm's parts, or by conversion) not designated by SEGA.

## O Ensure that the product is of appropriate Electrical Specifications.

Before installing the product, check for Electrical Specifications. SEGA products have a nameplate on which Electrical Specifications are described. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location.

O Install and operate the product in places where appropriate lighting is available, allowing warning labels to be clearly read.
To ensure safety for the customers, labels and printed instructions describing potentially hazardous situation are applied to places where accidents can be caused. Ensure that where the product is operated has sufficient lighting allowing the warnings to be read. If any label is peeled off. apply it again immediately.
O When handling the Monitor, be very careful. (Applies only to the product w/ monitor).
Some of the monitor (TV) parts are subject to high tension voltage. Even after turning off power. some portions are still subject to high tension voltage sometimes. Monitor repair and replacement should be performed only by those technical personnel who have knowledge of electricity and technical expertise.

In the case where commercially available monitors and printers are used in this product, only the contents relating to this product are explained herein. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual together with the specific Instruction Manual of such equipment.

- Descriptions herein contained may be subject to improvement changes without notice.
- The contents described herein are fully prepared with due care However, should any question arise or errors be found. please contact SEGA.


## IISPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION.

Normally, at the time of shipment, SEGA products are in a status allowing for usage immediately after transporting to the location. Nevertheless, an irregular situation may occur during transportation. Before turning on power, check the following points to ensure that the product has been transported in a satisfactory status.
$\square$ Are there any dented portions or defects (cuts, etc.) on the external surfaces of the cabinet?
$\square$ Are Casters and Leg Adjusters damaged?
$\square$ Do the power supply voltage and frequency requirements meet with those of the location?
$\square$ Are all wiring connectors correctly and securely connected? Unless connected in the correct direction, connector connections can not be made accurately. Do not insert connectors forcibly.
$\square$ Are all IC's of each IC BD firmly inserted?
$\square$ Do power cords have cuts and dents?
$\square$ Do the fuses used meet specified rating? Is the Circuit Protector in an energized status?
$\square$ Are such units as Monitors, Control equipment, IC BD, etc. firmly secured? Are all Earth Wires connected?
$\square$ Are all accessories available?
$\square$ Can all Doors and Lids be opened with the Accessory keys? Can Doors and Lids be firmly closed?
INTRODUCTION TO THE OWNER' S MANUAL

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## SPECIFICATIONS

| Installation space | $\begin{aligned} & : \begin{array}{l} 1,640 \mathrm{~mm}(\text { W }) \times 1,700 \mathrm{~mm}(\mathrm{D}) \\ (64.6 \mathrm{in} . \times 66.9 \mathrm{in} .) \end{array} \end{aligned}$ |  |
| :---: | :---: | :---: |
| Height | : $1,920 \mathrm{~mm}$ ( 75.6 in.$)$ |  |
| Weight | Appro | x. 480 kg . ( $1,058 \mathrm{lbs}$. |
| Power, maximum current | 861 F | 9.5A (AC $110 \mathrm{~V} 50 \mathrm{~Hz} \mathrm{AREA)}$ |
|  | 826\% | 8.7A (AC $110 \mathrm{~V} 60 \mathrm{~Hz} \mathrm{AREA)}$ |
|  | 790\% | 7.8A (AC $120 \mathrm{~V} 60 \mathrm{~Hz} \mathrm{AREA)}$ |
|  | 886\% | 5.0A (AC $220 \mathrm{~V} 50 \mathrm{~Hz} \mathrm{AREA)}$ |
|  | 8717 | 4.9A (AC $220 \mathrm{~V} 60 \mathrm{~Hz} \mathrm{AREA)}$ |
|  | 852\% | 4.5A (AC $240 \mathrm{~V} 50 \mathrm{~Hz} \mathrm{AREA)}$ |
|  | 825\% | 4.3A (AC $240 \mathrm{~V} 60 \mathrm{~Hz} \mathrm{AREA)}$ |
| For TAIWAN |  |  |
| Power, curtent | : 930/ | 10.6A(MAX.) |
|  | 520 F | 5.9A(MIN.) |
| MONITOR | : 29 IN | CH COLOR MONITOR $\times 2$ |

NOTE: Descriptions in this manual are subject to change without prior notice.

## INTRODUCTION TO THE OWNER'S MANUAL

SEGA ENTERPRISES, LTD., supported by its high electronic technology of LSIs, microprocessors, etc. and a wealth of experience, has for more than 30 years 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 the general operation of electronic assemblies, electromechanicals, servicing control, spare parts, etc. as regards SEGA RALLY CHAMPIONSHIP TWIN TYPE, a new SEGA product . This manual is intended for those who have knowledge of electricity and technical expertise especially in ICs, CRTs, microprocessors, etc. Carefully read this manual to acquire sufficient knowledge before working on the machine. Should there be a malfunction, non-technical personnel should under no circumstances touch the interior system. Should such a case arise, contact our Main Office or the closest branch office listed as follows:

SEGA ENTERPRISES, INC. (U.S.A.)/CUSTOMER SERVICE 45133 Industrial Drive, Fremont, California 94538, U.S.A.
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Phone : (081) 336-2256
Fax : (081) 336-1715

## 1. HANDLING 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.
o Be sure to turn the power off before working on the machine.
O To insert or pull out the plug quickly is dangerous.
O It is necessary to make sure that the power cord or the grounding wire is not exposed on the surface (floor, ground, etc.) in a manner so as to be dangerous. Make sure that grounding connections are made safely at the position where so specified.

- Do not use any fuse that does not meet specified rating.

O Make complete connections for the IC board and other connectors.
Incomplete insertion is very dangerous.

- The operating (ambient) temperature range is from $5^{\circ} \mathrm{C}$ to $40^{\circ} \mathrm{C}$.
- When cleaning the CRT surfaces, use a soft, dry cloth. Do not apply chemicals such as thinner, benzine, etc.

Also, for the IC board circuit inspections, only a logic tester is allowed. The use of a tester is not permitted, so be careful in this regard.
After confirming that there are no irregularities, turn the power ON.

## CONCERNING COMMUNICATION PLAY:

Sections in this manual mainly describe the use of the machine when used alone. This game. when linked with other units, allows multiple persons to enjoy "communication play" simultaneously. For communication play, refer to Section 19.

## 2. PREVENTION OF COUNTERFEITING AND CONVERSION

 LABELLINGTo prevent counterfeits and conversions, the following labels are put on all the SEGA products. When handling such goods, be sure to confirm the labels. They are used to prevent illegal acts such as the unauthorized copying of the products and the printed circuit boards thereof or carrying on business by manufacturing similar merchandise or by converting, selling or using 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:
(C) SEGA 1994

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

## 3. PRECAUTIONS CONCERNING INSTALLATION LOCATION

The SEGA RALLY CHAMPIONSHIP TWIN TYPE is an indoor game machint Absolutely do not install it outside. Even indoors, avoid installing in places men tioned below so as to ensure proper usage:

- Places subject to rain or water leakage, or condensation due to humidity.
- In the proximity of an indoor swimming pool and/or shower.
- Places subject to direct sunlight.
- Places subject to heat sources from heating units, etc., or hot air.
- Vicinity of highly inflammable/volatile chemicals or hazardous matter.
- Sloped surfaces.
- Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
- Places subject to any type of violent impact.
- Dusty places.


## INSTALLATION PRECAUTIONS

Do not insert more than one electrical plug into the power plug socket.The per unit standard voltage/amperage is $100 \sim 120 \mathrm{~V} / 15 \mathrm{~A}$ and $200 \sim 240 \mathrm{~V} / 10 \mathrm{~A}$.
Use of extension cables should be avoided. If you must use, ensure the extension cables a rated at 15A or higher for 100~120 volt areas or 10A or higher for 200~240 volt areas.

Note that for transporting the machine into the location's building, the minimum necessar dimensions of the opening (of doors, etc.) are $0.85 \mathrm{~m}(\mathrm{~W})$ and $1.55 \mathrm{~m}(\mathrm{H})$.

For the operation of this machine, secure a minimum area of $2 \mathrm{~m}(\mathrm{~W}) \times 1.8 \mathrm{~m}$ (D).

Electric current consumption
MAX. 9.5A (AC 110 V 50 Hz )
MAX. $8.7 \mathrm{~A}(\mathrm{AC} 110 \mathrm{~V} 60 \mathrm{~Hz})$
MAX. $7.8 \mathrm{~A}(\mathrm{AC} 120 \mathrm{~V} 60 \mathrm{~Hz})$
MAX. 5.0 A (AC 220 V 50 Hz )
MAX. 4.9 A (AC 220 V 60 Hz )
MAX. 4.5 A (AC 240 V 50 Hz )
MAX. 4.3 A (AC 240 V 60 Hz )
MAX. 10.6A (For TAIWAN )


FIG. 4. 2 REAR VIEW
TABLE 4

|  | Width |  | Length | Height (mm.) |  |  | Weight (kg.) |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| COCKPIT (per seat) | 820 | $\times$ | 1,500 | $\times$ | 1,520 | 214.5 |  |
| COIN CHUTE TOWER | 305 | $\times$ | 330 | $\times$ | 570 | 13.5 |  |
| BBLLBOARD | 1,600 | $\times$ | 460 | $\times$ | 405 | 30.0 |  |
| When assembled | 1,640 | $\times$ | 1,700 | $\times$ | 1,920 | 480.0 |  |

## 5. ACCESSORIES

When transporting the machine, make sure that the following parts are supplied.

TABLES ACCESSORIES

| Part Number | QTY | Description |
| :--- | :--- | :--- |
| DYN-0013 | 1 | Joint Pipe |
| DYN-0014 | 2 | Billboard Holder |
| RAL-XXXX-14 | 1 | Tie Bracket |
| DO0041 | 1 | Owners Manual Rally |
| $540-0006-01$ | 1 | Wrench for TMP PRF screw M4 |
| $540-0007-01$ | 1 | Wrench for TMP PRF screw M5 |
| $540-0009-01$ | 1 | Wrench for TMP PRF screw M8 |
| $600-6275-0500$ | 2 | Assy Fibre Cable 500cm |
| $421-8792$ | 1 | Sticker Billboard No.1 |
| $421-8793$ | 1 | Sticker Billboard No.2 |
| $421-8766$ | 1 | Sticker Cabinet No.1 |
| $421-8767$ | 1 | Sticker Cabinet No.2 |
| $421-8778$ | 1 | Sticker Car No. Twin |
| $421-8794$ | 1 | Sticker Billboard Twin |
| $390-5167$ | 2 | Lamp 100V 30W |

TOOL


FIG. 6 TAMPERPROOF WRENCH

## 6. PRECAUTIONS TO BE HEEDED WHEN ASSEMBLING AND MOVING THE MACHINE

## WARNING:

- Perform the assembly work by following the procedure herein stated. Failing to comply with the instructions, for example, inserting the plug into an outlet at the stage not mentioned in this manual might cause an electric shock accident.
- Assembling should be performed as per this manual. Since this is a complex machine, erroneous assembling may cause damage to the machine, or malfunctioning to occur.
- When assembling, be sure to perform the work by plural persons.

When carrying out the assembly work, follow the procedure in the following 7-item sequence:


ASSEMBLING THE COCKPIT
2 SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT)
INSTALLING THE BILLBOARD
4 INSTALLING THE AC COVERS (WIRING CONNECTION)
5 POWER SUPPLY, AND EARTH CONNECTION
6 TURNING THE POWER ON
7 ASSEMBLY CHECK
Note that the master key and the cashbox door key (accessories) in addition to the tools such as a plus screwdriver, wrench for M16 hexagon bolt and socket wrench are required for the assembly work.

## CAUTION:

Perform the tightening of hexagon bolts described in 1 above after adjusting the leg adjusters as per 2. Make sure that until the leg adjuster adjustments are made, keep the hexagon bolts tightened temporarily.

## 1 ASSEMBLING THE COCKPIT

Place the two cockpits side by side. Position the 1 P cabinet - which has the Eurosocket on the AC Unit - to the left as viewed from facing the monitor. Place the 2 P cabinet to the right of the IP cabinet as viewed from facing the monitor (fig 6.1).


FIG. 6.1
(2) Install the coin chute tower inbetween both cabinets. Open the coin and cashbox doors to secure the 4-off (M8X20 ZINC BOLTS, SPRING WASHERS \& M8 22OD WASHERS) from inside into the frame legs - do not tighten fully yet (Fig 6.2).


FIG. 6.2

Install the joint pipe onto the back of the frame legs with 4-off (M8X20 BLACK BOLTS, SPRING WASHERS \& M8 FORM C WASHERS) - do not tighten fully yet (Fig 6.3)


HEXAGON BOLT (black) (4) $48 \times 25$, using FLAT WASHER

FIG. 6.3

## WARNING!

## Make sure that all of the leg adjusters are in contact with the floor. If they are not, the cabinet may move and cause an accident to occur.

This machine has eight casters and eight leg adjusters (Fig. 6.5). When the installation position is determined, cause the leg adjusters to come into contact with the floor directly, make adjustments in a manner so that the casters will be raised approximately 5 mm . from the floor and make sure that the machine position is level.

Move the machine to the installation position. When installing the machine against or close to a wall, be sure to secure a passage space to enable the player to take a ride in the machine.
(2) Attach the joint plate for the 2 internal leg adjusters shown. First, cause the other 6 leg adjusters to come into contact with the floor. Make leg adjuster adjustments with a wrench in a manner to ensure the machine's position is level (Fig. 6.6).
(3) After making adjustments, fasten the leg adjuster nut upward and secure the height of the leg adjuster (Fig. 6.6).

Attach the Tie Bracket to the remaining leg adjusters so that it passes inbetween the 2 remaining half-nuts and the bottom rests on the floor.
(5)

Tighten the nuts around the Tie Bracket (Fig 6.7)

Secure the Tie Bracket by fastening the two remaining half nuts around the slots.


FIG. 6.6 LEG ADJUSTER


After securing the height of the adjusters, tighten all of the hexagon bolts which were faste temporarily as per 1 above.

## 3 INSTALLING THE BILLBOARD

CAUTION!: It is difficult for one person to perform the billboard installation. Make sure that the work is carried out by plural persons.

When the billboard plate is transported as is attached to the billboard case, first take out upper holder to remove the billboard plate from the billboard case. When installing billboard plate, perform the work after making leg adjuster adjustments.
(1) Take out the 3 truss screws, open Billboard Upper and remove the 2 Lamp Lids.

Mount the Billboard over the 2 Cabinets and secure with the 4 Hexagon Bolts. When faster the Bolts, be careful of the lamp position. If it is difficult to carry out the work with the lat in place, perform the work by temporarily removing the lamps.
(3) Connect a total of 3 connectors which are inside the billboard case.
(4) Attach the two billboard holders to the backside of the billboard case by securing with 4 he gon bolts for each.

HEX BOLTS (black) (4)
M8X25 USING FLAT \& SPRING WASHERS


FIG. 6.8 ASSEMBLING THE BILLBOARD

## INSTALLING THE AC COVERS (WIRING CONNECTION)

The AC cover is used for protecting the wiring and optic fiber cables. When performing the work, be very careful so as not to cause damage by catching them. Pay due attention to handling optic fiber cables in particular. Ensure not to cause breakage to the cables due to excessive bending.
(1) Attach AC COVER A to the back of the cabinet (Fig. 6.9) by securing with 5 screws.
(2) Make the wiring connections between both cabinets \& the coin chute tower. Insert the IP cabinet's wire harness plugs into the sockets on the coin tower closest to the 1P cabinet \& vice versa for the 2P cabinet.
(3) Insert the optic fiber cables to the optic fiber connectors in a manner as applicable. There are "TX" and "RX" connectors. Make sure to connect the "TX" connector of one cabinet to the "RX" connector of the other cabinet (Fig. 19).
(4) Secure the wiring and optic fiber cable with cord clamps in AC COVER A.
(5) Insert AC COVER B to AC COVER A from above and secure with 2 screws.
(6) Secure AC COVER C and AC COVER D with 4 screws each.


FIG. 6.9

## 5 POWER SUPPLY, AND EARTH CONNECTION

The AC inlet is located at the back of the IP cockpit. Use the Eurolead supplied to connect the game to the mains socket at the wall (Fig 6.10).


## 6 TURNING THE POWER ON

Turning the AC UNIT's MAIN SW on will cause the machine to start the POWER ON chec and NETWORK check automatically. In the POWER ON check, the steering wheel turns left and right, then returns to the centerir position and stops. In this check, the values of V.R. inside the control panel are corrected. Un the check is finished (the steering wheel stops automatically), do not touch the steering wheel. play the game. If you do, the steering wheel reaction during the game (reaction at the time of a course-out crashing) can not be obtained correctly. In a case of a abnormal reaction during the game, tum the power on again from the beginnii and complete the power-on check.
During network checking. "NETWORK CHECKING" flashes on the screen. Wh NETWORK CHECKING is finished, the DEMO mode will appear on the monitor screen. After 10 seconds, if the network check is not finished, check connections for Communication.


## 7 ASSEMBLY CHECK

In the TEST MODE, ascertain that the assembly has been made correctly and IC BD. is satisfactory (refer to Section 8).
In the test mode, perform the following test:
(1) MEMORY TEST

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

(3) C.R.T TEST


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 $9 \& 10$.

In the TEST mode menu, selecting C.R.T TEST allows the screen (on which the monitor is tested) to be displayed. Although the monitor adjustments have been made at the time of shipment from the factory, make judgment (by watching the test mode screen) as to whether an adjustment is needed. If it is necessary, adjust the monitor by referring to Section 13.
(4) OUTPUT TEST

OUTPUT TEST

START
VR
LEADER

PUSH TEST BUTTON TO EXIT
(5) SOUND TEST
sound test
Voice
Effect
B.G.M
> EXIT

SELECT BY SERVICE BUTTON AND PUSH TEST BUTTON

In the output test mode, carry out lamp test to ascertain each lamp lights up satisfactorily.

In the TEST mode, selecting SOUND TEST causes the scre (on which sound related BD and wiring connections: tested) to be displayed. Voice and BGM (background mus are emitted from the tweeter speakers (a round type), one es on both sides (right/left) of the control panel and also fromt front speakers (a square type), one each on both sides (rig) left). Sound effects are emitted from all of the speakers. sure to check if the sound is satisfactorily emitted from eas speaker and the sound volume is appropriate.

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

## Machine movement

Since this machine is a heavy structure of approximately 480 kg ., its leg adjusters should be retracted when moving the machine over the floor.
Where the floor changes in level, be sure to separate the IP COCKPIT and 2P COCKPIT froo each other. Lifting the cabinet with $1 P$ and $2 P$ cockpits being still connected may caus damage to the cabinet.

## 7. HOW TO PLAY

## 回 "VS." INTERACTIVE PLAY

Take a ride in the machine. The seat position can be adjusted forwards and backward. For adjustments, pull the lever which is positioned under the seat on the right-hand side (facing the screen).(2) The Coin Chute Door is located at the center in the front of the Cabinet. Insert a coin.
(3) At this time, displays which indicate waiting for participant's entry and countdown to start are shown on the other players' monitors and a countdown to start will begin. The person who desires to compete with the other player(s) must insert a coin into the coin entry for his seat within the specified time. If there is no competitor, the player will play as IP player.
(4) The Car Select Screen appears. Starting from the left, the select items are sequentially in order of CELICA GT -FOUR Manual, Automatic, DELTA Manual and Automatic. Turn the Steering Wheel to select the desired item and make the selection by stepping on the Accelerator.
(5) The Course Selection Screen appears. Starting from the left, the select items are DESERT (Easy), FOREST (Middle) and MOUNTAIN (Expert). Tum the Steering Wheel to select the desired course and make the selection by stepping on the Accelerator. The course selection is determined by the majority of the players participating in the "vs." competition race. In case of a tie, an easier course will be selected. In any case, it does not mean that the person who selects a desired course first has preference to the course selection.
(6) After the above selection procedure, the game starts.
(7) The on-screen upper left-hand side, the upper middle downwards, the upper right-hand side and the lower left-hand side respectively indicates Total Time \& Lap Time, the achievement meter / rear mirror / remaining time / Navigation Icon, the player's present position, and Tachometer / Shift / Speed.
(8) After the game is started, the allotted time decreases. Passing a checkpoint within the time limit 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 with remaining time (if any) added, the game will be over.
(9) Finishing 3 laps, 2 laps, and also 2 laps respectively for "DESERT" (Easy). "FOREST" (Middle) and "MOUNTAIN" (Expert) enables you to proceed to the next course. The lap setting can be changed (refer to Section 8).

## 1P PLAY

If the player inserts a coin while on-screen display indicating waiting for participant entry is shown, he automatically participates in the "vs." interactive play. For 1 P play, insert a coin when on-screen display indicating waiting for participant's entry is not shown.
(1) Take a ride in the machine. The seat position can be adjusted forwards and backward. For adjustments, pull the lever which is positioned under the seat on the right-hand side (facing the screen).
(2) Insert a coin(s). Inserting a coin(s) for one play causes the Game Select mode to appear on the screen. Up to 9 credits can be registered at any one time, and the credits are displayed only in this mode and not thereafter.
(3) The left-hand side of the Game Select mode refers to the Championship mode and the right-hand side, the Practice mode. Turn the steering wheel to select the Championship mode or Practice mode and make the selection by stepping on the Accelerator.

## 目 WHEN PLAYING IN THE CHAMPIONSHIP MODE:

(1) The Car Select mode appears on the screen. There are 4 different combinations to choose fr different cars, Celica and Delta and 2 different Shifts, AUTO and MANUAL). Tum the steering to select the desired combination and make the selection by stepping on the Accelerator.
(2) After the above selection procedure, the game starts.
(3) The on-screen upper left-hand side, the upper middle downwards, the upper right-hand side a lower left-hand side respectively indicates Total Time \& Lap Time, the achievement meter / rear : / remaining time / Navigation Icon, the player's present position, and Tachometer / Shift / Speec
After the game is started, the allotted time decreases. Passing a checkpoint within the time limit ; the game to continue with the previous remaining time added to the time limit up to the next check If you fail to pass a checkpoint within the time limit with extra time (if any) added, the game , over.
(5) Finishing one lap each of for "DESERT" (Easy). "FOREST" (Middle) and "MOUNTAIN" (E allows you to proceed to the next course. The player whose results are superior is allowed to proc a hyper course. The lap setting can be changed (refer to Section 8).
(6) The player with the best results can register his name. Turn the steering wheel to choose the alpt cal letters and step on the Accelerator to make the selection. The name will be displayed on the I screen.

## WHEN PLAYING IN THE PRACTICE MODE:

(1) The Car Select screen appears. Turn the steering wheel to choose one from 4 combinations ( 2 di cars and 2 kinds of shifts) and make the selection by stepping on the Accelerator.
(2) The Course Select mode showing "DESERT," "FOREST," and "MOUNTAIN" sequentially it starting from the left appears on the screen. Turn the steering wheel to select the course and mi selection by stepping on the Accelerator.
(3) After the above course selection, the game starts.
(4) The screen display during game is the same as in the Championship mode.
(5) The relationship between the remaining time and clearing a checkpoint after the game start is : same as in the Championship mode. The game will be over if you fail to pass the checkpoint bel remaining time becomes zero.
(6) When you finish 3 laps, 2 laps and 2 laps respectively for "DESERT," "FOREST" and "MOUN" the game will be over. The lap setting can be changed.

During play, "DRIVER'S EYE" and "VIEW FROM BEHIND" perspective can be alternated $b$ the View Change SW.
The steering wheel reacts to surface status and car movements. The seat vibrates depending on status, etc. When one game is finished, if any credit(s) sufficient for playing another game rems Game Select mode appears.

## PLAYING TECHNIQUE

It is recommended that you choose AUTOMATIC if you are not so familiar with the game. Fint best way to pass the comers by referring to navigation icons.
When MANUAL SHIFT is chosen, refer to the Tachometer for shifting. SHIFTING UP u indicator indicates a point before the red zone allows the acceleration to be made in the most ' manner.


TACHOMETER
SHIFT
SPEED
$123 \mathrm{~km} / \mathrm{h}$



FIG. 7

## 8. EXPLANATION OF TEST AND DATA DISPLAY

By operating the switch unit, periodically perform the tests and data check. When insta machine initially or collecting cash, or when the machine does not function correctly. checking in accordance with the explanations given in this section. The following shows tests and modes that should be utilized as applicable.

CAUTIONS TO BE HEEDED WHEN USING THE TEST MODE:
Exiting from the test mode causes the unit to perform the network check autol cally. During this time, all of the linked units will not allow the game to be play normal status. Therefore, be sure not to enter the test mode if any one of the is in play. On the other hand, if even one unit is in the mode, make sure that i machines are not in play.

TABLE 8. 1 EXPLANATION OF TEST MODE

| ITEMS | DESCRIPTION | $\begin{array}{\|l\|} \hline \text { REFER } \\ \hline \text { SECTIC } \\ \hline \end{array}$ |
| :---: | :---: | :---: |
| INSTALLATION OF MACHINE | When the machine is installed, perform the following: <br> 1. Check to see that each setting is as per standard setting made at the time of shipment. <br> 2. In the INPUT TEST mode, check each SW and VR. <br> 3. In the OUTPUT TEST mode, check each of lamps. <br> 4. In the SELF-TEST mode, check ICs on the IC Board. | $\begin{aligned} & 8-7 \\ & 8-4 \\ & 8-9 \\ & 8-3 \end{aligned}$ |
| MEMORY | Choose MEMORY TEST in the MENU mode to allow the MEMORY test to be performed. In this test, PROGRAM RAMs, ROMs, and ICs on the IC Board are checked. | 8-3 |
| PERIODIC SERVICING | Periodically perform the following: <br> 1. MEMORY TEST <br> 2. Ascertain each setting. <br> 3. In the INPUT TEST mode, test the CONTROL device <br> 4. In the OUTPUT TEST mode, check each of lamps. | $\begin{aligned} & 8-3 \\ & 8-7 \\ & 8-4 \\ & 8-9 \end{aligned}$ |
| CONTROL SYSTEM | 1. In the INPUT TEST mode, check each SW and VR. <br> 2. Adjust or replace each SW and VR. <br> 3. If the problem;can not be solved yet, check the CONTROL's moves. | $\begin{aligned} & 8-4 \\ & 9.10 \end{aligned}$ |
| MONITOR | In the MONITOR ADJUSTMENT mode, check to see if the MONITOR adjustment is appropriately made. | $\begin{aligned} & 8-6 \\ & 13 \end{aligned}$ |
| IC BOARD | 1. MEMORY TEST <br> 2. In the SOUND TEST mode, check the sound related ROMs. | $8-3$ $8-5$ |
| DATA CHECK | Check such data as game play time and histogram to adjust the difficulty level, etc.. | 8-1 |



FIG. 8. I SWITCH UNIT
Open the coin chute door, and the switch unit shown will appear. The functioning of each SW is as follows:

TEST BUTTON:
TESTSW
SERVICE BUTTON: SERVICESW

SOUND VOLUME: SOUND VOLUME

For the handling of the test button, refer to the following pages.

Gives credits without registering on the coin meter.

Adjusts the volume of the monitor's right-hand side and left-hand side speakers, the control panel's right/left tweeters and the superwoofer under the seat.

DEMAGNETIZER SWITCH: Eliminates color unevenness from the screen. DEMAGNETIZER SWITCH

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


The Test Menu allows the functioning of each part of the Cabinet to be checked, the r to be adjusted, and the coins and game related various settings to be performed.

- Press the TEST BUTTON to cause the following Test Menu to be displayed on the $\pi$ (FIG. 8.2)
- Press the SERVICE BUTTON or VIEW CHANGE BUTTON (VR) until the pointer moved to the desired item to make a selection.
- Bring the pointer " $>"$ to the desired item and press either the TEST BUTTON or $\leqslant$ BUTTON to cause the selected item's test to start.


## TEST MENU

MEMORY TEST
INPUT TEST
SOUND TEST
C.R.T TEST

COIN ASSIGNMENTS
GAME ASSIGNMENTS
OUTPUT TEST
DRIVE BD TEST
BOOKKEEPING
BACKUP DATA CLEAR
> EXIT
SELECT BY SERVICE BUTTON

FIG. 8.2 TEST MENU

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

## 8-3 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.


FIG. 8. 3 MEMORY TEST

When the test is completed, if the results are as shown above, it is satisfactory.

- It takes approximately thirty seconds to complete the test. If the TEST exceeds thirty seconds, the board may have malfunctioned.
- After finishing the test, pressing the TEST BUTTON or START BUTTON to return to MENU mode.


## 8-4 INPUT TEST

When INPUT TEST is selected, the monitor will show the following, allowing you 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 eac 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 a a coin(s) in the slot.
- To return to the MENU mode, press the TEST BUTTON or simultaneously START BUTTON \& VIEW CHANGE BUTTON (VR).

INPUT TEST


PUSH TEST BUTTON TO EXIT

FIG. 8. 4 INPUT TEST

The appropriate values of each V. R. are as follows:
HANDLE: Under 2DH $\leftarrow 7 \mathrm{D} \sim 83 \mathrm{H} \rightarrow$

Over D3H
left (Centering position)
ACCEL: Under 30 H
BRAKE: Under 30 H (the pedal released)

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 GAME BD, AMP BD and each speaker to be checked.
Press the SERVICE BUTTON or VIEW CHANGE BUTTON to bring the pointer " $>$ " to the desired test item. Pressing the TEST BUTTON or START BUTTON aliows the selected sound test to be performed.


FIG. 8.5 SOUND TEST

- Voice Voice of announcement \& navigation.
- Effect Sound effects during game.
- B.G.M Background music during game.
- EXIT Causes the menu mode to return on to the screen.

Choose C. R. T. TEST to cause the following screen (upper) for monitor adjustmen appear.


FIG. 8.6a C.R.T. TEST
In the above screen as per FIG. 8.6 a , adjust the monitor to make sure that the crosst lines do not go beyond the screen size and crosshatch distortion does not occur.
Press the TEST button or START button to have the following color bar screen ap The C. R. T. TEST as shown in FIG. 8.6 b allows for monitor color checking. Each of ; (red), G (green) and B (blue) and white is darkest at the left-hand end and becomes bri towards the right-hand end.
Press the TEST button or START button to have the MENU return to the screen.

## C.R.T TEST



PUSH TEST BUTTON TO EXIT

FIG. 8. 6b C. R.T. TEST

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 corre-
spond to how many credits."


FIG. 8. 7a COIN ASSIGNMENTS

## - COIN/CREDIT SETTING

"How many coins correspond to how many credits." In this machine, selection as per Table 8.2 is possible.
Allows for finer settings.

## SETTING CHANGE PROCEDURE

(1) Press the SERVICE button or VIEW CHANGE button to move the arrow ( $>$ ) to the desired setting change item.
(2) Press the TEST button or START button to make a setting change selection.
(3) Move the arrow to EXIT and press TEST button or START button to return to the MENU mode.

TABLE 8. 2 COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)


## COIN ASSIGNMENTS

 MANUAL SETTINGCOIN TO CREDIT 3 COINS 1 CREDIT
BONUS ADDER NO BONUS ADDER
COIN CHUTE \# 1 MULTIPLIER 1 COIN COUNTS AS 1 COIN $\begin{array}{llllllllll}\text { COIN } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9\end{array}$ CREDIT $01 / 302 / 31 \quad 11 / 312 / 32 \quad 21 / 322 / 33$ COIN CHUTE \#2 MULTIPLIER 1 COIN COUNTS AS 1 COIN $\begin{array}{llllllllll}\text { COIN } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9\end{array}$ CREDIT $01 / 302 / 3111 / 312 / 32 \quad 21 / 322 / 33$
$>$ EXIT

> SELECT BY SERVICE BUTTON AND PUSH TEST BUTTON

FIG. 8. 7b COIN ASSIGNMENTS

- COIN TO CREDIT
- BONUS ADDER
- COIN CHUTE \#X MULTIPLIER

Determines COIN/CREDIT setting.
This sets how many COINS should be inserted to obtain one SERVICE COIN.

This sets how many tokens one COIN represents.

TABLE 8. 3 MANUAL SETTING

| COIN TO CREDIT | 1 | COIN | 1 | CREDIT |
| :---: | :---: | :---: | :---: | :---: |
|  | 2 | COINS | 1 | CREDIT |
|  | 3 | COINS | 1 | CREDIT |
|  | 4 | COINS | 1 | CREDIT |
|  | 5 | COINS | 1 | CREDIT |
|  | 6 | COINS | 1 | CREDIT |
|  | 7 | COINS | 1 | CREDIT |
|  |  | COINS | 1 | CREDIT |
|  |  | COINS | 1 | CREDIT |


| BONUS ADDER | NO BONUS ADDER$\frac{2 \text { COINS GIVE } 1 \text { EXTRA COIN }}{}$3 COINS GIVE 1 EXTRA COIN <br> 4 COINS GIVE 1 EXTRA COIN <br> 5 COINS GIVE 1 EXTRA COIN <br> 6 COINS GIVE 1 EXTRA COIN <br> 7 COINS GIVE 1 EXTRA COIN <br> 8 COINS GIVE 1 EXTRA COIN <br> 9 COINS GIVE 1 EXTRA COIN |
| :--- | :--- |


| COIN CHUTE MULTIPLIER | 1 | COIN | COUNTS | AS | 1 | COIN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | COIN | COUNTS | AS | 2 | COINS |
|  | 1 | COIN | COUNTS | AS | 3 | COINS |
|  | 1 | COIN | COUNTS | AS | 4 | COINS |
|  | 1 | COIN | COUNTS | AS | 5 | COINS |
|  | 1 | COIN | COUNTS | AS | 6 | COINS |
|  | 1 | COIN | COUNTS | AS | 7 | COINS |
|  | 1 | COIN | COUNTS | AS | 8 | COINS |
|  |  | COIN | COUNTS | AS | 9 | COINS |

### 8.8 GAME ASSIGNMENTS

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 ASSIGNMENTS
ADVERTISE SOUND: ON
COUNTRY : EXPORT
GAME DIFFICULTY : NORMAL
GAME MODE : NORMAL
> EXIT

## SELECT BY SERVICE BUTTON AND PUSH TEST BUTTON

FIG. 8. 8 GAME ASSIGNMENTS

Q Rovertise sound
cegontry

Gerginet TYPE
3tex TYPE

WSDEE OIFFICULTY

Advertising sound during standby. Sound is produced with "ON," and no sound with "OFF."

Message language (select USA for the U. S. A., and EXPORT for other countries.

Setting of cabinet. Set to "TWIN" for this machine.
Communication setting.
Normally, set "CAR 1" for IP Seat, and "CAR 2" for 2P Seat. Set to "NOT LINK" for IP play at each Seat.

The game difficulty is classified into 4 different categories from EASY to HARDEST. Standard setting is "NORMAL."

Selection of laps from among NORMAL. SHORT. LONG, and LONGEST.

## WiWG CHANGE PROCEDURE

Thes the SERVICE button or VIEW CHANGE button to move the arrow ( $>$ ) to the defired setting change item.
hers the TEST button or START button to make a setting change sciection.
Whe the arrow to EXIT and press TEST button or START button to return to the MENU

## 8-9 OUTPUT TEST

Choose OUTPUT TEST to have the following screen appear. Entering this mode allows the status of each lamp to be checked. In this test, periodically check the status of each lamp.


FIG. 8.9 OUTPUT TEST
Press the TEST button or the START button to return to the MENU mode.

Choosing DRIVE BD TEST allows the strength of steering wheel reaction to be adjusted.


FIG. 8. 10a DRIVE BD TEST

The strength of steering wheel reaction can be adjusted in 8 steps by using the SERVICE button or VIEW CHANGE button.
The steering wheel operates as per the designated setting. Press the TEST button or START button to return to the MENU mode.

## CAUTION!

- Make sure that DIP SW Nos. $4 \sim 8$ are set to OFF.
- When changing DIP SW setting, ensure that the power is OFF.

The strength of steering wheel reaction can also be adjusted via on-DRIVE BD DI setting.
The DRIVE BD is mounted on the ASSY PWR SPLY TWIN. Refer to 17-1 when che the settings.

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

| 1 | 2 | 3 | FUNCTION |
| :---: | :---: | :---: | :---: |
| OFF | OFF | OFF | Light |
| ON | OFF | OFF | O |
| OFF | ON | OFF |  |
| ON | ON | OFF |  |
| OFF | OFF | ON |  |
| ON | OFF | ON | $\square$ |
| ON | ON | ON | Heavy |



## DRIVE BD ERROR DISPLAY

When malfunctioning occurs in the DRIVE BD, testing will not be performe DRIVE BD TEST is selected. In this case, the error No. will be displayed by tt display on the DRIVE BD.
Also, when a POWER-ON CHECK ERROR occurs, the 7-SEG. display data r flashes. First check the handle mecha's V. R., the motor, clutch, etc.

### 8.11 BOOKKEEPING

Selecting the BOOKKEEPING in the menu mode displays the bookkeeping data up to the present on the following 2 pages.
Press the TEST button again to proceed to the next page.


FIG. 8. 11a BOOKKEEPING

[^0]

FIG. 8. 11b BOOKKEEPING

The steering wheel operates as per the designated setting. Press the TEST button or ST button to return to the MENU mode.

### 8.12 BACKUP DATA CLEAR

Clears the contents of BOOKKEEPING. When clearing, bring " > " to "YES (CLEAR)" and press the TEST button. When the data has been cleared, "COMPLETED" will be displayed. Bring " > " to "NO (CANCEL)" and press the TEST button or START button to return to the menu mode.
Also, note that the game setting contents are not affected by BACKUP DATA CLEAR operation.

## BACKUP DATA CLEAR

YES (CLEAR)
> NO (CANCEL)

## SELECT BY SERVICE BUTTON AND PUSH TEST BUTTON

FIG. 8. 12 BACKUP DATA 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.
To perform the above work, take off the 9 screws and remove BACK LID A from the back of the cockpit.

## CAUTION! Removing BACK LID A

 causes the monitor's high tension portion to be exposed. When performing the following work. Be very careful in this regard.

FIG. 9.1

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 DRIVE BD.
Check the value of the V. R. for the DRIVE BD. The appropriate value of each V. R. is as follo-
V. R. for the GAME BD.: Under 2 DH $\leftarrow 7 \mathrm{DH} \sim 83 \mathrm{H} \rightarrow \quad$ Over D3H
V. R. for the DRIVE BD.: Under 2 DH

- $7 \mathrm{DH}-83 \mathrm{H}^{-}$-

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 scr which secure the VR BRACKET, and remove the V. R. together with the bracket and gear. After replacement, check the V. R. value variations in the test mode.


M $4 \times 8$. w/flat \& spring washers
FIG. 9.2
(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 tuming the handle.

### 9.2 GREASING

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

### 9.3 REMOVING THE CONTROL PANEL

For ordinary maintenance as mentioned above, it is not necessary to remove the control panel. However, in the cases where passage space cannot be provided behind the cabinets, the entire control panel is to be replaced, or the monitor adjustments are to be made. remove the control panel by using the following procedure:
(1) Take off a total of 4 tamperproof screws from the right-hand side and left-hand side of the control panel's front portion.
(2) Take off 2 Hex Bolts from underneath the control panel (with flat \& spring washers).
(3) Wiring connectors are connected in the control panel. Pull out the control panel by paying careful attention so as not to damage the wiring.
(4) Remove the wiring connectors.
(5) When the control panel is removed, the monitor adjustment board appears.

## 10. ACCELERATOR \& BRAKE

In the test mode, if the ACCEL. \& BRAKEV. $R$. value is not within the allowable range, an adjustment of $V$. R. installation position, or a replacement of V.R. is needed. Also, grease the MECHA's shafts and sliding portions once every 3 months.
To perform the above work, take off the 4 screws and remove BACK LID B from the back of the cockpit.

10-1 ADJUSTMENT AND REPLACEMENT OF VOLUME
 M4×8, v/flat \& spring vashers

The ACCEL. \& BRAKE MECHA can be seen by removing the BACK LID B. The ACCEL.V.R. is on the left-hand side and the BRAKE V.R. is on the right-hand side of the MECHA. Check the V. R. value in the test mode. The appropriate value of each V. R. is as follows:


FIG. 10.1

When stepped on:
ACCEL.: Under 30 H
BRAKE: Under 30 H

## Method of V. R. replacement

To replace the V.R., after taking off the connector from the $V$. R. to be replaced, tak To replace whe secure the VR BRACKET, and remove the V. R. together with the $b$ gear. After the replacement, check the V.R. value variations in the test mode.


FIG. 10.2

## Method of V. R. adjustment

(1) Loosen the 2 screws which secure the V. R. BRACKET and move the V. R. BRACKET to disengage the gears.
(2) Cause the V.R. value to match with the value obtained when the pedal is released.
(3) Cause the gears to be engaged and secure the V. R. BRACKET. At this time, be sure to obtain an appropriate backlash.
(4) Step on the pedal and check the V. R. value variation.

## 10-2 GREASING

Grease the gears and bearings once every 3 months as a standard.

## 11. 4 SPEED SHIFTER

In the test mode, if the shift lever input is found to be irregular, replace the switch. Also, grease the MECHA's shafts or sliding portions once every 3 months as a standard. When performing the work, remove the shift lever unit.
When performing the above work, remove the shift lever unit.

## 11-1 REMOVING THE SHIFTER

(1) Take off the 4 screws and remove SHIFT COVER A.
(2) Take out the 4 SPECIAL BOLTs and pull the SHIFT LEVER UNIT upward by paying careful attention so as not to cause damage to the wiring.
(3) Disconnect the 2 connectors to allow the unit to be removed.


## Method of replacement

(1) Disconnect the wiring connector of the SW to be replaced.
(2) Take off the 2 screws which secure the SW , and replace the SW .


## 11-3 GREASING

Grease the following specified points once every 3 months as a standard.


## 12. COIN SELECTOR

## HANDLING A COIN JAM

If the REJECT button is pressed, and the coin is still not rejected, open the coin chute door and open the selector gate. After removing the jammed coin, put a normal coin in and check to see that the selector correctly functions.

## CLEANING THE COIN SELECTOR

The coin selector should be cleaned once every 3 months. When cleaning, follow the procedure below:
(1) Tum the power for the machine OFF. Open the coin chute door.
(2) Open the gate and dust off by using a soft brush (made of wool, etc.).
(3) Remove stains by wiping with a soft cloth dampened with water or chemical detergent.
(4) Remove the CRADLE. When removing the retaining ring ( E ring), be very careful not to bend the shaft.
(5) Remove stain from the shaft and pillow portions by wiping with a soft cloth, etc.
(6) After wiping as per 5 above, further apply a dry cloth, etc. to dry the coin selector completely.


FIG. 12. 1

Never apply machine oil, etc. to the coin selector.

After cleaning the coin selector, insert a regular coin in the normal working status and ensure that the selector correctly functions.


FIG. 12.2

## 13. MONITOR ADJUSTMENTS

## CAUTION!

- Do not operate the ADJUSTMENT knobs without good reason.
- A certain portion of the monitor is subject to a high voltage and therefore be careful of this point.
- When making adjustment, utilize a resinous Alignment Screwdriver.

Remove Back Lid B to make adjustments to the monitor.
The following applies to models supplied with a NANAO 29 inch monitor only.

(1) R-GAIN
(2) G-GAIN
........... Controls colors.
(3) B-GAIN
(4) BRIGHT $\qquad$
(5) H. SIZE $\qquad$ Controls horizontal screen size.
(6) H. HOLD.......... Provides horizontal synchronization, i.e.. controls right/left blurring o'
(7) H. POSI ............Controls horizontal display position on screen.
(8) V. SIZE $\qquad$ Controls vertical screen size.
(9) V. HOLD.......... Provides vertical synchronization, i.e., controls up-down scrolling of
(10) V. POSI $\qquad$ Controls vertical display position on screen.
$11 \mathrm{SS} . \mathrm{SW}$ $\qquad$ Controls the visual quality. (Only applies to Nanao.)

A: Ordinary
B: Super-sharpness

## 14. REPLACING THE FLUORESCENT LAMP, AND LAMPS

Open the Billboard as shown to replace the Fluorescent Lamp and Lamps.


CAUTION: Immediately after the lamps are lit, they become very hot. Be very careful when replacing them.

## 15. PERIODIC CHECK

The items listed below require periodic check and maintenance to retain the performance of this machine and to ensure safe business operation.

|  | Item | Interval | Reference |
| :--- | :--- | :--- | :--- |
| CONTROL PANEL | Check lamp. | Monthly | 8 |
|  | Check VOLUME VALUE. | Monthly | 6.8 |
|  | Check ADJUST GEAR engagement. | Trimonthly | $9-1$ |
|  | Greasing of GEAR and bearing. | Trimonthly | $9-2$ |
| ACCEL. \& BRAKE | Check VOLUME VALUE. | Monthly | 6.8 |
|  | Check ADJUST GEAR engagement. | Trimonthly | $10-1$ |
|  | Greasing of GEAR and bearing. | Trimonthly | $10-2$ |
|  | Check SW. | Monthly | 6.8 |
|  | Greasing of bearing. | Trimonthly | $11-3$ |
| MONITOR | Check COIN SW. | Monthly | 8 |
|  | Cleaning of COIN SELECTOR. | Trimonthly | 12 |
| SEAT | Check adjustments. | Monthly | 6.8 .13 |
| GAME BD | Antistatic measures | Bimonthly | 5 |
|  | MEMORY TEST. | Monthly | 8 |
|  | Check settings. | Monthly | 8 |

## 16. TROUBLESHOOTING

In case a problem occurs, first check wiring connector connections.


## 17. GAME BOARD

### 17.1 REMOVING THE BOARD

To replace the IC BD (such as Game BD. Drive BD. etc.). or to change DIP SW settings, take out the IC $B D$ by using the following procedure:
(1) Turn the MAIN SW off. Take off the 4 -off M4 TMP PRF CRM
(2) screws holding the lock cover and the 2-off M8 TMP PRF CRM screws holding the rear floor from the game. Unlock the rear floor.
(3) Turn the knob to unlock. The seat can be inclined in the direction shown. When inclining the seat, be careful so as not to damage the seat parts. Carefully cause the backrest portion of the seat to come into contact with the floor.
If the floor has hard surfaces, protect the seat from damage by using a cloth, etc. on the floor surfaces.

(4) Take off the 3 screws to remove the case lid. The GAME BD and I/O BD are incorporated in the shield case.
(5) Take off a total of 4 screws from both sides with the seat being in an inclined state and remove BASE LID F. Removing BASE LID F allows the power supply unit, drive BD and sound BD to be checked.

Fuse is placed in the power supply.
FIG. 17.1


FIG. 17.2

17-2 COMPOSITION OF GAME BOARD
GAME BD RALLY TWIN (833-11649)

SCREF (9)
MS $\times 75$. using flat \&
spring washers

(2)

| No. | PART No. | DESCRIPTION |
| :--- | :--- | :--- |
| 1 | $837-10848-91$ <br> $837-10848.01-91$ | MODEL A-CRX CPU BD COM |
| MODEL A-CRX CPU BD COM |  |  |

17-3 INPUT AND OUTPUT RELATIONS

SEGA RALLY CHAMPIONSHIP TWIN
STEERING WHEEL, MOTOR, CLUTC BRAKE. START BUTTON TEST BUTTON. SERVICE BUTTON. COIN METER

833-11649
GAME BD RALLY TWIN
COMMUNICATION

838-11651
LOWPASS AMP
SUPER WOOFER
18. DESIGN RELATED PARTS


FIG. 18
No. Part No. Description

$$
423-0232
$$

$\begin{array}{ll}1 & 423-0232 \\ 2 & 423-0233\end{array}$
Billboard Plate Upper

3 RAL-1031-B
4 RAL-1041-B
5 RAL-2084-B
6 RAL-2084-C
7 RAL-2084-D
8 RAL-2002-B
9 421-8778
10 421-8794
11
12 421-8543 421-8544
13 421-8766
14
15

## 16

17 421-8767 422-0511-01 421-8768 421-8792 421-8793

Billboard Plate Lower Sticker Side L Sticker Side R. Sticker Seat Back A Sticker Seat Back B Sticker Seat Back C Sticker Base Sticker Car No. Twin Sticker Billboard Twin Sticker Cabinet L Sticker Cabinet R Sticker Car No. 1 Sticker Car No. 2 Play Instr Rally Twin Eng Sticker Meter Panel Sticker Billboard No. 1 Sticker Billboard No. 2

Note $\quad$ \& 10 are used when more than one machine is to be linked. Refer to section 19.

## 19. COMMUNICATION PLAY

For this game, two machines can be connected to allow up to 4 players to play simultaneously.
19-1 INSTALLATION PRECAUTIONS

1) When linking a number of machines, be sure to supply sufficient power for the corresponding number of machines. The per unit standard voltage/amperage is $100 \sim 120 \mathrm{~V} / 15 \mathrm{~A}$ and $200 \sim$ $240 \mathrm{~V} / 10 \mathrm{~A}$.
2) Due to the length of the communications cable, the distance in between the machines will be approximately 2 meters or less.


## 19-2 CONNECTING THE COMMUNICATION CABLES

In order to connect two machines together communication cables arem available.
Depending on the number of machines to be linked, connect the communication cables (optic fibre cables) in the manner shown on Fig's 19.2 \& 19.3.


FIG. 19.1

Take off the 4 screws and remove $A C$ Cover B (Fig.19.1).
The Hole Lid covers the AC Cover hole through which the communication cables must pass By taking off 2 screws, remove the Hole Lid of the side through which the communication cables will pass.
Run the communication cable sthrough the hole.
Connect the communication cables. Redo the connection which is currently made for TWIN (2p Link) to change it to 4P use

CAUTION! The optic fiber cable is used for the communication linkage. The optic fiber cable is used for the communication cable. Be
Excessive bending may damage the communic Excessive bery careful in this regard.


Fig. 19.2


Fig. 19.3
(9) Apply Seat No. Stickers in the manner corresponding to seats and billboards as applicable. The seats are numbered sequentially in order of $1,2,3, \ldots$ starting from the left facing the front of the Monitor (refer to Section 18).


## 19-3 SETTING FOR COMMUNICATION PLAY

Cause all of the machines to enter the test mode and change the game setting for each seat $i$ manner so as to meet the communication play. When changing the setting, refer to explanatii mentioned in Section 8.
(1) Press the TEST button to enter the test mode and choose "GAME ASSIGNMENT."
(2) Press SERVICE button or VIEW CHANGE button to bring the arrow ( $>$ ) mark to "LINK TYPE."
(3) Press the TEST button or START button to set the Seat numbers sequentially in order of "CAR 1," "CAR 2," CAR 3," ... starting from the left facing the front of the monitor. If the s number is set for 2 or more cabinets, or if the sequential order is incorrect, the game display will be confused (different from the actual status). Therefore, be careful of this point.
For communication play, the game difficulty is set by "CAR 1" Seat. The setting mad changed) by "CAR 1" applies to all of the other Seats. Even if the setting is changed by a "CAR 2-CAR 4" Seats, the setting change is ineffective and not reflected for the game.

## 19-4 CAUTIONS TO BE HEEDED WHEN USING THE TEST MODE:

Exiting from the test mode causes the unit to perform the network check automatically. I this time, all of the linked units will not allow the game to be played in normal status. The be sure not to enter the test mode if any one of the units is in play. On the other hand, if evi unit is in the mode, make sure that other machines are not in play.

## 20. PARTS LIST

1. TOP ASSEMBLY RALLY CHAMPIONSHIP (RAL-0000SUK)






| Seq. No. | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | RAL-02XX-2UK/1 | ASSY BILLBOARD UPPER UK | 1 |
| 2 | RAL-0220UK/1 | ASSY BILLBOARD LOWER | 1 |
| 3 | RAL-0201UK | LAMP LID | 2 |
| 4 | RAL-0202UK | STAY BRKT | 2 |
| 201 | $000-$ T00408-OC | M4X8 MSCR POSI TH CRM | 3 |
| 202 | FX0011 | M4 NUT FLG SER BZP | 5 |
| 203 | FX0019 | M4 WSHR S/PRF BZP | 1 |



| Seq. No. | Part Number | D |
| :---: | :--- | :--- |
| 1 | RAL-0211UK | B |
| 2 | RAL-0212UK | C |
| 3 | RAL-0213UK | C |
| 4 | RAL-0214UK | C |
| 5 | RAL-0215UK | C |
| 6 | $423-0232 U K$ | B |
| 7 | RAL-XXXX-7UK 1 | A |
| 201 | 000-T00408-OC | A |
| 202 | FX0163 | N |
| 203 | FX0011 | A |
| 204 | FX0019 | R |
| 301 | - LM9111 | LM |


| Description | No. Off |
| :--- | :---: |
| BILLBOARD CASE UPPER | 1 |
| CORNER EDGE UPPER | 1 |
| CORNER EDGE LOWER | 1 |
| CORNER EDGE LEFT | 1 |
| CORNER EDGE RIGHT | 1 |
| BILLBOARD PLATE UPPER | 1 |
| ASSY FL TRAY TWIN | 1 |
| M4X8 MSCR POSI TH CRM | 12 |
| N8X1/2 S/TAP POSI FLG BZP | 4 |
| M4 NUT FLG SER BZP | 1 |
| M4 WSHR S/PFR BZP | 1 |
| LOOM EARTH 300mm | 1 |



| Seq. No. | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | LT1021 | FL TRAY 30W 240V | 1 |
| 2 | EP1316 | STARTER 4-65W:FLOURESCENT | 1 |
| 3 | OS1202 | CLIP TERRY 25mm FL TUBE | 2 |
| 101 | LT1014 | TUBE FL 30W 36" DIA25mm | 1 |
| 102 | LM1298 | LOOM STD INT FL \#1 | 1 |
| 103 | CB1075 | FL TRAY TWIN | 1 |
| 104 | LB1036 | LABEL 240VAC YELBLK LARGE | 1 |
| 201 | FX0163 | N8X1/2" STTAP POSI FLG BZP | 4 |
| 202 | OS1174 | CABLE TIE, NYLON 100mm | 4 |



| Seq. No. | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | RAL-0221UK | BILLBOARD CASE LOWER | 1 |
| 2 | RAL-0222UK | CORNER EDGE | 1 |
| 3 | $423-0233$ UK | BILLBOARD PLATE LOWER | 1 |
| 4 | RAL-0230UK/1 | LAMP PANEL | 2 |
| 6 | $421-5800-249$ | ORIGINAL SEAL RALLY C.S. | 1 |
| 101 | OS1174 | CABLE TIE, NYLON 100mm | 4 |
| 102 | OS1181 | CABLE TIE BASE 19mmsq | 4 |
| 201 | $000-$ T00408-OC | M4X8 POSI TH CRM | 6 |
| 202 | FX0021 | M4X8 MSCR POSI PAN BZP | 4 |
| 203 | FX0029 | M4 WSHR FORM A FLT BZP | 4 |
| 204 | FX0243 | M4 WSHR SPR BZP | 4 |

## 7. LAMP UNIT (RAL-0230UK/1)



| Seq. No, | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | RAL-0231UK | LAMP PANEL | 1 |
| 2 | $421-7501-16$ UK | STICKER 110V 30W | 3 |
| 3 | RAL-0230UK/B | LAMP UNIT (BULK) | 1 |
| 101 | $214-0110$ | BULB SOCKET | 3 |
| 102 | $390-5167$ | LAMP 110V 30W | 3 |
| 301 | $600-6555-07$ UK | LOOM LAMP UNIT | 1 |

8. ASSEMBLY COINCHUTE TOWER (RAL-XXXX-1) © OC


| Seq. No. | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | AY0258 | BRACKET VTS | 1 |
| 2 | DYN-0301XUK | COIN CHUTE TOWER | 1 |
| 3 | LT1006 | LAMP WEDGE 12V 1.2W | 1 |
| 4 | PP1087 | BOX CASH FOR MINI DOOR | 1 |
| 6 | LB1082 | LABEL "HOT TEL: LINES" | 1 |
| 7 | LB1014 | LABEL COIN PATHS (MECHANICAL) | 1 |
| 8 | OS1181 | CABLE TIE BASE 19mmSq SELFIADH | 1 |
| 9 | OS1198 | P CLIP 11MM | 1 |
| 102 | FX0040 | M4X25 MSCR POSI PAN BZP | 2 |
| 103 | FX0210 | M4 NUT BZP | 6 |
| 104 | FX0009 | M4 WSHR FORM A FLT BZP | 2 |
| 105 | FX0019 | M4 WSHR S/PRF BZP | 5 |
| 106 | FX0011 | M4 NUT FLG SER BZP | 4 |
| 107 | FX0306 | M4X14 MSCR POSI PAN BZP | 3 |
| 109 | OS1174 | CABLE TIE, NYLON 100mm | 5 |
| 110 | LM9012 | LOOM EARTH 200mm | 1 |
| 111 | LM9212 | LOOM EARTH 400mm | 1 |



| Seq. No. | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | MP1029 | BRKT PANEL VTS (WTH C. BD MTG) | 1 |
| 2 | SW1025 | PUSHBUTTON MO'TY ACT - EO611 | 4 |
| 3 | EP1003 | COUNTER IMPUULSE, PANEL WICLIP | 1 |
| 4 | LB1006 | LABEL VTS 1 SIL/BLK VERT LIST | 1 |
| 5 | LB1028 | LABEL 110VAC MINI YELUBLK | 1 |
| 6 | EP1004 | PEC CREDIT BD KLINGON | 1 |
| 7 | EP1011 | POT 4K7 CARBON | 2 |
| 8 | EP1018 | KNOB 15MM DIA FOR 6.3MM SHAFT | 2 |
| 9 | LB1010 | LABEL. DLM ASSEMBLED | 1 |
| 10 | LB1046 | LABEL TESTED FOR ELEC. SAFETY | 1 |
| 11 | SW1099 | SWITCH PB MOMENTARY 30/40AMP | 2 |
| 12 | LM1215 | LOOM VTS DAYTONA | 1 |
| 101 | OS1034 | CABLE SLEEVE H20 BLACK | 3 |
| 102 | OS1181 | CABLE TIE BASE 19mmSq SELFIADH | 4 |
| 103 | OS1174 | CABLE TIE, NYLON 100mm | 4 |
| 104 | OS1098 | CRIMP BELL END SMALL | 2 |
| 105 | OS1055 | TERM 1/4" RECEPT. RED FINSUL | 2 |
| 106 | FX0029 | M3X10 MSCR POSI PAN BZP | 4 |
| 107 | FX0263 | M3 WSHR FORMA FLT BZP | 4 |
| 108 | OS1029 | CABLE SLEEVE H30 BLACK | 4 |

10. ASSEMBLY WIRE COVER (RAL- $X X X X-5$ )


|  |  |  |  |
| :---: | :--- | :--- | :--- |
| Seq. No. | Part Number | Description | No. Off |
| 1 | DYN-0005UK | AC COVERA | 1 |
| 2 | DYN-0006XUK | AC COVER B | 1 |
| 3 | DYN-0009UK | HOLELID | 1 |
| 4 | DYN-0018UK | AC COVERC | 1 |
| 5 | DYN-0019UK | AC COVERD | 2 |
| 101 | LM1216 | LOOM INTERCONNECT DAYTONA | 1 |
| 102 | LM1295 | LOOM AC INTERCONNECT RALLY | 2 |
| 103 | LM9511 | LOOMEARTH 750mm | 6 |
| 201 | OS1181 | CABLE TIE BASE 19mmSq SELFIADH | 7 |
| 202 | OS1174 | CABLE TIE, NYLON 100mm | 7 |



| Seq. No. Part Number |  | Description ASSY MAIN BASE UK 301+ | $\frac{\text { Qty. }}{1}$ |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $\begin{gathered} \text { Seq. } N \\ 1 \end{gathered}$ | RAL-2000XUK/1 | ASSY MAIN BAS MONITOR COVER L (SOJ MON) | 1 |
| R | RAL-1030UK/2 | ASSY MONITOR MONITOR COVER R (SOS MON) | 1 |
| R | RAL-1040UK/2 | ASSYITOR SUPPORT | 1 |
| D | DYN-1014UK | MONITOR SUPPORT | 1 |
| 6 | RAL-XXXXX-2UK1/B | ASSY COCKPIT UK (BULK) 301+ | 1 |
|  |  |  | 1 |
| 8 | DYN-101XUK | MASK HOLDER FOR | 1 |
| 9 | DYN-1016 | PMONITOR MASTR SH RALLY TWIN ENG | 1 |
| 10 | 422-0511-91-01UK | WIRE COVER BOX UK | 1 |
| 11 | DYN-1013XUK | ASSY PEDAL BASE UK 301+ | 1 |
| 12 | RAL-XXXX-17UK/1 | ASSY PEDAL BASE | 1 |
| 13 | RAL-12003UK/1 | ASSY CONT PNL | 1 |
| 14 | RAL-2090UK11 | ASSY SEAT TWIN EXP | 1 |
| 15 | RAL-XXXX-3UK |  | 1 |
| 16 | RAL-XXXX-4UK | ASSY FLOOR REAR UK | 1 |
| 101 | 200-5470-24 | ASSY CLR DSPL | 15 |
| 102 | OS1174 | CABLE TIE, NYLON 100 mm m die BASE 19 mmSq SELFIADH | 12 |
| 103 | OS1181 | CABLE TIE BASE 19 M | 4 |
| 104 | PP1000 | BUSH FOR NANAO MOM MONITOR | 4 |
| 105 | PP1001 | M6 WSH 250D FLAT BZP | 4 |
| 106 | FX0012 | M6 WSH 250 WI BNP | 12 |
| 204 | 030-000830-SB | M8 WSHR FORM A FLT BNP | 12 |
| 205 | FX0400 |  | 4 |
| 206 | FX0403 | M4X8 MSCR POSI PAN BNP | 4 |
| 207 | FX0404 | M4 WSHR SPR BNP | 4 |
| 208 | FS1009 | M4 WSHR FORM A FLT BNP | 3 |
| 212 | FX0011 | M4 NUT FLG SER BZP | 4 |
| 214 | FX0013 |  | 1 |
| 215 | LB1034 | LABEL "HIGH ${ }^{\text {K }}$ M MSCR POSICSK BZP | 4 |
| 216 | FX0402 | M5X8 MSCR POSI CSK BZP | 3 |
| 217 | 000-T00512-OB | M5X12 MSCR | 2 |
| 218 | FX0124 | M5X30 MSCR SK ${ }^{\text {M }}$ WSHR 190D FLT BNP | 5 |
| 219 | FS1027 | M5 WSHR 190D FLT BNP | 12 |
| 220 | RAL-0006UK | BLIND CAP | 4 |
| 221 | 008-B00830-OB | M8 330 MSCR TMP PRF BH BNP | 4 |
| 222 | 008-T00416-OC | M4X16 MSCR TMP PRF TH CRM | 4 |
| 223 | 000-T00512-OB | M5X12 MSCR POS A | 1 |
| 301 | 600-6373-31UK | LOOM MONITOR DAY | 1 |
| 302 | 600-6373-32UK | LOOM EXT SPEAKER DAYTONA | 1 |
| 303 | 600-6373-39UK | LOOM EXI SLEERING DAYTONA | 1 |
| 304 | 600-6373-40UK | LOOM BUTTON \& SHIFT, DAYTONA | 1 |
| 305 | 600-6373-44UK |  | 1 |
| 306 | LM1299 | LOOM CREDIT SW MAIN , DAYTONA | 1 |
| 307 | LM1222 | LOOM CREDE | 1 |
| 308 | LM1307 | LOOM EARTH 300 mm |  |
| 310 | LM9111 | LOOM EARTH 1000 mm |  |
| 311 | LM9611 |  |  |

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12. AC UNIT MAIN (DYN-O400UK/1)

10) 



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(301) 5 (302)


| Seq No. | Part Number | Description | No.Off |
| :---: | :--- | :--- | :---: |
| 5 | EP1302 | EUROSOCKET FUSED | 1 |
| 6 | EP1303 | SWITCH ROCKER | 1 |
| 8 | EP1007 | FUSE 5A | 2 |
| 9 | LB100 | LABEL 5A | 2 |
| 10 | LB1087 | STICKER FIBRE CABLE RX | 2 |
| 11 | LB1088 | STICKER FIBRE CABLE TX | 2 |
| 12 | LB1037 | LABEL 10A FUSE | 1 |
| 13 | EP1332 | FUSE 10A 20mm | 1 |
| 14 | RAL-1031-BUK | STICKER SIDEL | 1 |
| 15 | RAL-1041-BUK | STICKER SIDE R | 1 |
| 16 | DYN-0700UK/1 | AC UNIT SUB | 1 |
| 101 | FX0037 | M4X12 MSCR POSI PAN BZP | 4 |
| 102 | FX0019 | M4 WSHR S/PRF BZP | 6 |
| 103 | FX0210 | M4 NUT BZP | 6 |
| 104 | FX0029 | M3X10 MSCR POSI PAN BZP | 8 |
| 105 | FX0009 | M4 WSHR FORMA FLT BZP | 2 |
| 201 | LM1296 | LOOM AC IN RALLY LEFT | 1 |
| 202 | LM1297 | LOOM AC IN RALLY RIGHT | 1 |



| Seq No. | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | DYN-0401XUK | AC BRKT UK | 1 |
| 2 | $211-5479$ | CONN OPT JOINT | 2 |
| 3 | EP1306 | FILTER MAINS INPUT 10 AMP | 1 |
| 4 | EP1334 | FUSE HOLDER 20mm | 1 |
| 203 | LM9111 | LOOM EARTH 300mm | 1 |



| Seq No. | Part Number | Description | Qty. |
| :---: | :--- | :--- | :---: |
| 1 | RAL-1031-A | COVER PANEL L BLANK | 1 |
| 2 | DYN-1500UK/1 | ASSY SPEAKER L 301+ | 1 |
| 3 | DYN-103XUK | MASK BRKT FOR SOJ MASK | 1 |
| 5 | OS1004 | DRAFT EXCLDR 4 X7MM BLK 1 MTR. | 0.6 |
| 201 | FX0021 | M4X8 MSCR POSI PAN BZP | 5 |
| 202 | FX0009 | M4 WSHR FORM A FLT BZP | 5 |
| 203 | FX0243 | M4 WSHR SPR BZP | 5 |

15. ASSEMBLY MONITOR COVER R (RAL-1040UK/2)


Seq No. Part Number

| 1 | RAL-1041-A | COVER PANEL R BLANK | 1 |
| :---: | :--- | :--- | :---: |
| 2 | DYN-1600UK/1 | ASSY SPEAKER R 301+ | 1 |
| 3 | DYN-103XUK | MASK BRKT FOR SOJ MASK | 0.6 |
| 5 | OS1004 | DRAFT EXCLDR 4 X7MM BLK 1 MTR. | 5 |
| 201 | FX0021 | M4X8 MSCR POSI PAN BZP | 5 |
| 202 | FX0009 | M4 WSHR FORM A FLT BZP | 5. |
| 203 | FX0243 | M4 WSHR SPR BZP |  |

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| Seq. No. | Part Number | Description | Qty |
| :---: | :--- | :--- | :---: |
| 1 | DYN-1501UK | BRKT,SPEAKER FRONT DYN UK | 1 |
| 2 | DYN-1502UK | BRKT SPEAKER R. | 1 |
| 101 | $130-5113$. | SPEAKER BOX DOME | 1 |
| 201 | FX0037 | M4X12 MSCR POSI PAN BZP | 2 |
| 202 | FX0163 | N8X1/2" S/TAP POSI FLG BZP | 2 |
| 203 | FX0009 | M4 WSHR FORM A FLT BZP | 2 |
| 204 | FX0243 | M4 WSHR SPR BZP | 2 |

17. ASSEMBLY SPEAKER R (DYN-1500)


Seq. No. Part Number

| Seq. No. | DYN-1501UK | B |
| :---: | :--- | :--- |
| 1 | DYN-1502UK | B |
| 2 | DY |  |
| 101 | $130-5113$ | S |
| 201 | FX0037 | N |
| 202 | FX0163 | N |
| 203 | FX0009 | N |
| 204 | FX0243 |  |


| Description | Qty. |
| :--- | :---: |
| BRKT, SPEAKER FRONT DYN UK | 1 |
| BRKT SPEAKER R | 1 |
| SPEAKER BOX DOME | 1 |
| M4X12 MSCR POSI PAN BZP | 2 |
| N8X1/2" STAP POSI FLG BZP | 2 |
| M4 WSHR FORM A FLT BZP | 2 |
| M4 WSHR SPR BZP | 2 |

: 18. ASSEMBLY CONTROL PANEL (RAL-12003UK/1)




ITBM NO.

| 1 | RAL-2151 |
| :--- | :--- |
| 2 | RAL-2152 |
| 3 | RAL-2153 |
| 4 | RAL-2154 |
| 5 | RAL-2155 |
| 6 | RAL-2156 |
| 7 | RAL-2157 |
| 8 | RAL-2158 |
| 9 | RAL-2159 |
| 10 | RAL-2160 |
| 11 | RAL-2161 |
| 12 | RAL-2162 |
| 13 | RAL-2163 |
| 14 | RAL-2164 |
| 15 | RAL-2165 |
| 16 | RAL-2166 |
| 17 | RAL-2167 |
| 18 | RAL-2168 |
| 19 | RAL-2169 |
| 20 | RAL-2170 |
| 21 | RAL-2171 |
| 22 | RAL-2172 |
| 23 | RAL-2173 |
| 24 | RAL-2174 |
| 25 | RAL-2175 |
|  |  |
| 101 | $509-5636$ |
| 102 | $100-5188$ |
| 103 | $100-5193$ |
| 104 | $280-5257$ |
| 105 | $280-5251$ |
| 106 | $601-0460$ |
|  | $000-P 00408-W$ |
| 201 | $000-P 00514-\mathbb{W}$ |
| 202 | $000-F 00408$ |
| 203 | $000-P 00212$ |
| 204 | $050-$ 000600 |
| 205 | $060-$ P00200 |
| 206 | $060-S 00200$ |
| 207 | $600-6445-45$ |
| 305 |  |
|  |  |

DESCRIPTION

## SHIFT KNOB

REAR BASE
FRONT BASE
SHAFT CASE A
SHAFT CASE B
SLIDE PLATE BASE
RUBBER CASE
RUBBER CASE LID
ROLLER SUPPORT PLATE
SW CAM
FLT WSHR $8.1-14 \times 1.2$
SIDE SUPPORT PLATE
SLIDE PLATE COVER
JOINT BAR
STOPPER BAR
COLLAR $\phi 10$
COLLAR $\phi 6.2$
COLLAR $\phi 8$
CENTERING BLOCK
SPACER PLATE
STOPPER RUBBER
SLIDE PLATE
RUBBER RING $\phi 29$
RUBBER BLOCK 45
RUBBER BLOCK 65
SW MICRO TYPE SS-5GL2T
DERURIN ROLLER $\phi 26 \mathrm{H} 6.35$
GROMMET $\phi 11$
TAI BASB TAIS8
SELF MOUNT TIE 2.5
PLASTIC TIE BELT 100MM
M SCR PH W/FS M4 $\times 8$
M SCR PH W/FS M $5 \times 14$
M SCR FH M4 $\times 8$
M SCR PH M $2 \times 12$
U NUT M6
FLTT WSHR M2
SPR WSHR M2
WIRE HARN SHIFT MECHA
WIRE HARN EARTH SHIFT MECHA


ITEM NO.

PART NO.
DYN- 1251
DYN-1252
DYN-1253
DYN-1254
DYN-1255
DYN-1256
DYN-1257 DYN-1258 DYN-1259 DYN-1260 DYN-1261 DYN-1262 DYN-1263 DYN-1264 DYN-1265 DYN-1266 DYN-1267 DYN-1268 DYN-1269 DYN-1270 DYN-1272
DYN-1273
BVG-1221
BVG-1340
BVG-1341
SLC-1130
SLC-1141X
SOR-2112
SOR-2113
SOR-2115
DYN-1274
100-5018
100-5112
100-5041
220-5373
220-5484
350-5235
350-5294
601-6172
601-6959
601-7487
601-7488
601-7489
310-5029-F20
601-0460
209-0023
$020-000410-\mathrm{HZ}$
$020-000512-\mathrm{HZ}$
$060-\mathrm{S} 00400$
$060-\mathrm{S} 00500$

DESCRIPTION
handle base
BASE LID
HANDLE SHAFT
DRIVE PULLEY
HANDLE PULLEY
CLUTCH PULLEY A
CLUTCH PULLEY B
MOTOR BRACKET
CLUTCH BRACKET
TENSIONER BRACKET
VR BRACKET
SWING ARM SHAFT
GUIDE HOLDER A
GUIDE HOLDER B
STOPPER RUBBER
STOPPER BOLT
HOUSING
SPRING HOOK
EXT SPRING
STOPPER KEY
SPACER RING
SWING ARM
GEAR HOLDER
FLT WSHR 8. $1-12 \times 2$
FLT WSHR $4.1-12 \times 2$
ADJUST RING
WHITE CAM
BEARING SHAFT
SPACER
KEY $5 \times 10$
GUARD BRKT
BALL BBARING $\phi 8$ (NSK 608ZZ)
BEARING $\phi 17$ (NSK 60032Z)
BEARING (NSK F688ZZ)
VOL CONT B-5K OHM
VOL CONT B-5K OHM
MOTOR AC100V $1250 / 1550 \mathrm{rpm}$ W/H
MOTOR ACIOOV 60W
GBAR 48

## GBAR 64

TIMING BELT ( 1505 M 550 )
TIMING BELT ( 1005 M 750 )
PARTICLB CLUTCH BRAKE SUMITUBE F F2OMM PLASTIC TIE BELT 100 mm CONN CLOSED END
HEX SKT CAP SCR BLK $02 \mathrm{M} 4 \times 10$
HEX SKT CAP SCR BLK 02 M $5 \times 12$
SPR WSHR M4 SPR WSHR M5

ITEM NO.
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
225
301
302
303

PART NO.
000-P00408-W $000-\mathrm{P} 00412-\mathrm{W}$ 000-P00416-S $000-\mathrm{P} 00508-\mathrm{W}$ 060-F00600 060-F00800 065-E00700 068-441616 028-A00308-P 028-A00408-P 050-U00500 050-H00600 050-U00800 000-P00408-S 000-P00310
060-F00300
060-S00300
050-U00600
600-6363-64
600-6363-65
600-6363-85

## DESCRIPTION

M SCR PH W/FS $M 4 \times 8$
M SCR PH W/FS M4×12
M SCR PH W/S M4×16
M SCR PH W/FS M5 $\times 8$
FLT WSHR M6
FLT WSHR M8
E RING 7MM
FLT WSHR 4. $4-16 \times 1.6$
SET SCR HEX SKT CUP P $M 3 \times 8$
SET SCR HEX SKT CUP P $M 4 \times 8$
U NUT M5
HEX NUT M6
U NUT M8
M SCR PH W/S M4×8
M SCR PH M3 $\times 10$
FLT WSHR M3
SPR WSHR M3
U NUT M6
WIRE HARN HANDLE MECHA
WIRE HARN STEERING
WIRE HARN EARTH HANDLE MECHA


| Seq.No. | Part No. | Description | No. off |
| :---: | :---: | :---: | :---: |
| 1 | RAL-XXXX-9UK | MAIN BASE UK | No. Off |
| 2 | RAL-2400UK | ASSY SHIELD CASE TWIN | 1 |
| 3 | RAL-40001UK/1 | ASSY PWR SPLY TWIN 301+ |  |
| 4 | RAL-2002-BUK | STICKER BASE L UK | 1 |
| 5 | MP1208 | BRKT FAN DAYTONA | 2 |
| 6 | RAL-2000XUK/B | ASSY MAIN BASE UK (BULK) | 1 |
| 7 | RAL-10XXUK | MONITOR STAND UK | 1 |
| 101 | MA1007 | CASTOR SWIVEL 63 mm NYLON | 4 |
| 102 | MA1011 | FOOT ADJUST M16X95 TYPE C | 4 |
| 103 | FN1000 | FAN AXIAL 240 V AC $120 \mathrm{~mm} \times 38 \mathrm{~mm}$ | 2 |
| 104 | 600-6275-0300 | CABLE FIBER OPTIC $5 \mathrm{~mm} \times 300 \mathrm{~cm}$ | 2 |
| 107 | FN1012 | MESH GUARD METAL 120 mm FAN | 2 |
| 301 | 600-6373-28UK | LOOM EXT RGB | 1 |
| 302 | 600-6373-41UK | LOOM ACCEL \& BRAKE | 1 |
| 303 | 600-6373-43UK | LOOM EXT BUTTON \& SHIFT | 1 |
| 304 | 600-6559-19UK | WIRE HARN WOOFER | 1 |
| 305 | LM9111 | LOOM EARTH 300 mm | 1 |
| 306 | LM9711 | LOOM EARTH 1500 mm | 1 |
| 307 | LM1050 | LOOM STD INT FAN VENT | 1 |
| 308 | LM1290 | LOOM AC SUPPLY INTERNAL RALLY | 2 |
| 309 | L.M1232 | LOOM COIN TOWER OUT | 1 |
| 310 | LM9512 | LOOM EARTH 750 mm | 1 |
|  |  |  | 1 |

22. ASSEMBL.Y REAR FLOOR (RAL-XXXX-4)


| Seq. No. | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | DYN-2041UK | FLOOR REAR DAYTONA | 1 |
| 2 | RAL-XXXX-8UK | FLOOR EDGE R F | 1 |
| 3 | DYN-2043UK | FLOOR EDGE R R DAYTONA | 1 |
| 4 | DYN-2044UK | FLOOR EDGE R LEFT DAYTONA | 1 |
| 5 | DYN-2045UK | FLOOR EDGE R RIGHT DAYTONA | 1 |
| 6 | RAL-2006UK | HINGE 480 BLUE | 1 |
| 7 | DYN-2049UK | NUT PLATE (SEAT) DYN UK | 2 |
| 8 | RAL-XXXX-13U | LOCK COVER UK | 1 |
| 101 | CH1194 | LOCK RADIAL WITH TONGUE, RALLY | 1 |
| 201 | $031-000530-O C$ | M5X30 CRG BLT CRM | 8 |
| 202 | FX0302 | M5 NUT FLG SER BZP | 8 |
| 203 | $000-T 00420-O C$ | M4X20 MSCR POSI TH CRM | 6 |
| 204 | FX0163 | N8X1/2" S/TAP POSI FLG BZP | 4 |
| 205 | $008-T 00412-0 C$ | M4X12 MSCR TMP PRF CRM | 4 |

23. ASSEMBLY FRONT FLOOR (RAL-XXXX-3)

(6)

24. ASSEMBLY SEAT TWIN (RAL-2090UK/1)


| Seq.No. |  |  |  |  |  | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | DYN-2131UK | UPPER SEAT, DAYTONA | 1 |  |  |  |  |  |
| 2 | DYN-2132UK | LOWER SEAT, DAYTONA | 1 |  |  |  |  |  |
| 3 | RAL-2081UK | SEAT FRAME TWIN | 1 |  |  |  |  |  |
| 4 | RAL-2091UK | SEAT BASE EXP | 1 |  |  |  |  |  |
| 5 | RAL-2084-AUK | SEAT BACK COVER BLANK | 1 |  |  |  |  |  |
| 6 | DYN-2060UK/1 | ASSY WOOFER | $301+$ |  |  |  |  |  |
| 7 | RAL-2090UK/B | ASSY SEAT TWIN EXP (BULK) | 1 |  |  |  |  |  |
| 8 | RAL-2084-BUK | STICKER SEAT BACKA | 1 |  |  |  |  |  |
| 9 | RAL-2084-CUK | STICKER SEAT BACK B | 1 |  |  |  |  |  |
| 10 | RAL-2084-DUK | STICKER SEAT BACKC | 1 |  |  |  |  |  |
| 11 | RAL-209UK | PROTECT RUBBER TWIN EXP | 1 |  |  |  |  |  |
| 12 | RAL-2085UK | COVER BRKT | 2 |  |  |  |  |  |
| 101 | $601-7942$ | SEAT RAILALL | 1 |  |  |  |  |  |
| 102 | $601-7981$ | SEAT RAILALR | 1 |  |  |  |  |  |
| 205 | $008-$ T00412-OC | M4X12 MSCR TMP PRF CRM | 1 |  |  |  |  |  |



| Seq. No. | Part Number | Description | No. Off |
| :---: | :--- | :--- | :---: |
| 1 | RAL-2301UK | WOODEN BASE SHIELD CASE | 1 |
| 2 | NMG-0202UK | SHIELD CASE MAIN A | 1 |
| 3 | NMG-0203UK | SHIELD CASE LID A | 1 |
| 4 | $833-11649$ | PEC GAME BD RALLY TWIN | 1 |
| 5 | $839-0744$ | PEC FILTER BD A-CRX RALLY | 1 |
| 101 | OS1174 | CABLE TIE, NYLON 100mm | 17 |
| 102 | OS1181 | CABLE TIE BASE 19mmSq SELFIADH | 17 |
| 103 | FN1016 | FAN AXIAL 5V DC 80mm | 1 |
| 104 | OS1098 | CRIMP BELL END SMALL | 2 |
| 201 | FX0020 | M3X8 TAPTITE POSI PAN BZP | 30 |
| 202 | FX0263 | M3 WSHR FORM A FLT BZP | 24 |
| 203 | FX0305 | M3X30 MSCR POSI PAN BZP | 4 |
| 204 | FX0239 | M3 WSHR SPR BZP | 4 |
| 205 | FX0021 | M4X8 MSCR POSI PAN BZP | 3 |
| 206 | FX0009 | M4 WSHR FORM A FLT BZP | 3 |
| 207 | FX0243 | M4 WSHR SPR BZP | 3 |
| 208 | FX0163 | N8X1/2" S/TAP POSI FLG BZP | 4 |
| 302 | $600-6559-01 U K$ | WIRE HARN SHIELD CASE DC PWR | 1 |
| 303 | $600-6559-02 U K$ | WIRE HARN SHIELD CASE ROUND | 1 |
| 304 | $600-6559-03 U K$ | WIRE HARN SHIELD CASE RGB | 1 |
| 305 | $600-6559-04 U K$ | WIRE HARN SHIELD CASE ETC | 1 |

26. ASSEMBLY POWER SUPPLY TRAY (RAL-40001UK/1)


|  |  |  | No. Off |
| :---: | :---: | :---: | :---: |
| Seq. No. | Part Number | Description | 1 |
| S 1 | RAL-XXXX-15UK | WOODEN BASEPSU | 1 |
| 2 | DYN-4003UK | CONN BRKT DYN UK | 1 |
| 3 | 838-10801 | PEC CONN B SEGA | 1 |
| 4 | 838-11661 | PEC EQ. PWR AMP RALLY | 1 |
| 5 | 838-11650-01 | PEC EQ. PLOWPASS AMP | 1 |
| 6 | 838-11651 | PEC LOWPASSORMER MOUNTING | 4 |
| 7 | MP1266 | BRK | 1 |
| 101 | TX1067 | TRANS SPLY BOX | 1 |
| 102 | 400-5264 | PWR $1 / 2^{\prime \prime}$ STTAP POSI FLG BZP | 10 |
| 201 | FX0163 | N8X1/2 ${ }^{\text {N4X1 }}$ STTAP POSI PAN BZP | 21 |
| 202 | FX0151 | M4X8 MSCR POSI PAN BZP | 4 |
| 203 | FX0021 | M4 WSHR FORM A FLT BZP | 4 |
| 204 | FX0009 | WIRE HARN SW REGU DC OUT 12P | 1 |
| 307 | 600-6559-09UK | WIRE HARN SOUND OUT | 1 |
| 309 | 600-6559-11UK | WIRE HARN PWR AMP VOL OUT | 1 |
| 310 | $\frac{600-6559-12 \mathrm{UK}}{600-6559-13 \mathrm{KK}}$ | WIRE HARN LOWPASS AMP OUT | 1 |
| 311 | 600-6559-13UK | WIRE HARN PWR AMP IN | 1 |
| 312 | 600-6559-14UK | WIRE HARN RX | 1 |
| 313 | $\frac{600-6559-15 U K}{600-659-16 U K}$ | WIRE HARN TX | 1 |
| 314 | 600-6559-16UK | LOOM CLUTCH OUT | 1 |
| 315 | 600-6559-17UK | WIRE HARN LAMP SSR | 1 |
| 316 | 600-6559-18UK | LOOM TRANSF/SMPSU AC INT M\&L | 1 |
| 317 | LM1303. | LOOM PWR AMP AC IN M\&L | 1 |
| 318 | LM1304 | LOOM DRIVE BD AC19V M\&L | 1 |
| 319 | LM1305 | LOOM DFMR 100V OUT M\&L | 1 |
| 320 | LM1306 | LOOM XFMR REGU DC OUT 18P RALLY | 1 |
| 321 | LM1294 | LOOM SW REGU D |  |

ZATOR \& BRAKE (DYN-1300UK)


|  |  |  | No. Off |
| :---: | :---: | :---: | :---: |
| Seq.No. P | Part Number | Description | 1 |
| 1 D | DYN-1301 | PEDAL BASE, DYN-1300 ASSY | 1 |
| 2 D | DYN-1306 |  | 1 |
| 3 D | DYN-1307 | PEDAL BRAKE, DYN-1300 ASSY,S.S. | 1 |
| 4 B | BVG-1404 P | PEDAL COVER,DYN-1300 ASSY, | 1 |
| 5 B | BVG-1405 S | SWING ARM A,DYN-1300 ASSY. | 1 |
| 6 B | BVG-1406 |  | 1 |
| 7 B | BVG-1407 | PUSH ROD,DYN-1300 ASH | 1 |
| 8 | BVG-1408 | PUSH PLATE,DYN-1300 ASS | 1 |
| 9 | DYN-1302 | RUBBER DAMPER, PED | 1 |
| 10 | BVG-1410 | PUSH ROD PIN,DYN-1300 ASS | 2 |
| 11 | BVG-1411 |  | 1 |
| 12 | DYN-1303 | SPRING,DYN-1300 ACCEL | 1 |
| 13 | BVG-1413 | SPRING,DYN-1300 BRAKE | 1 |
| 14 | BVG-1414 | RUBBER STAFT DYN-1300 ASSY. | 2 |
| 15 | BVG-1415 | PEDAL SHAF ARM STOPPER,DYN-1300ASSY | 1 |
| 16 | BVG-1416 | SWING ARM STICER,DYN-1300 ASSY | 1 |
| 17 | BVG-1417 |  | 2 |
| 18 | GLC-2122 | GEAR PLATE, DYN | 2 |
| 19 | RDM-1210 |  | 2 |
| 101 | 220-5373 |  | 2 |
| 102 | 601-6005 | ADJUST GEAR, DYN-13N-1300 ASSY. | 2 |
| 103 | 601-5943 |  | 6 |
| 104 | OS1034 | SLEEVE H 20 BLACK | 1 |
| 105 | OS1174 | CABLE TIE, NYLON 100 mm | 1 |
| 106 | OS1181 | CABLE TIE BASE 19 mm ( ${ }^{\text {M }}$ ( ${ }^{\text {MSCR POSI PAN WIFS PA }}$ | 6 |
| 201 | 000-P00408-W | M4X8 MSCR POSI PAN WIS | 7 |
| 202 | 000-P00408-S | M4X8 MSCR POSI PAN WIS | 2 |
| 203 | 000-P00416-OB | M4X16 MSCR POSI PAN BNP | 4 |
| 204 | 008-T00408-OB | 3 M4X8 TMP PRF SCR TH BLK | 1 |
| 205 | FX0212 | M6 NUT BZP | 6 |
| 206 | FX0400 | M8 WSHR FORM A FLT BNP | 2 |
| 207 | 060-S01200-OB | B M12 WSHR SPR BNP | 1 |
| 208 | FX0255 | M6 WSHR SPR BZP | 2 |
| 209 | FX0404 | M4 WSHR SPR BNP | 5 |
| 210 | 065-E00600 | E RING 6MM | 4 |
| 211 | 028-A00308-P | M3X8 SET SCR HEX SKI CUPP | 1 |
| 212 | 068-652016 | FLT WSHR 6.5-20X1.6 | 5 |
| 213 | DYN-1304 | WSHR 4.4-12 $\times 1.6$ FLT BNP | 2 |
| 214 | D DYN-1305 | FLT WSHR 12.2-22 0.5 | 1 |
| 301 | 600-6178-54 | WIRE HARN ACCEL a |  |

Seq.No. Part Number

| 1 | DYN-1300UK |
| :---: | :--- |
| 2 | DYN-2016XUK |

101 FX0397
102 FS1019
103 FS1014

Description
ASSY ACCEL \& BRAKE PEDAL BASE UK M8×20 SET BNP M8 WSHR SPR BNP M8 WSHR FORM C FLT BNP


Seq. No. Part Number $\quad$ Description

| 1 | DYN-2061UK | Description | BRKT,WOOFER LEFT DYN UK |
| :---: | :--- | :--- | :---: |
| 2 | DYN-2062UK | BRKT,WOOFER RIGHT DYN UK | 1 |
| 101 | $130-5114$ | SPEAKER SUB WOOFER | 1 |
| 102 | OS1174 | CABLE TIE, NYLON 100mm | 1 |
| 103 | OS1181 | CABLE TIE BASE 19mmSq SELFIADH | 1 |
| 201 | FX0163 | N8X1/2" S/TAP POSI FLG BZP | 1 |

## 21. WIRE COLOR CODE TABLE

THE WIRE COLOR CODE is as follow:
A PINK
B SKY BLUE
C BROWN
D PURPLE
E LIGHT GREEN
Wires other than those of any of the above 5 single colors will be displayed by 2 alphanumeric characters.

| 1 | RED |
| :--- | :--- |
| 2 | BLUE |
| 3 | YELLOW |
| 4 | GREEN |
| 5 | WHITE |
| 7 | ORANGE |
| 8 | BLACK |
| 9 | GRAY |

If the right-hand side numeral of the code is 0 , then the wire will be of a single color shown by the left-hand side numeral (see the above).

Note 1: If the right-hand side alphanumeric is not 0 , that particular wire has a spiral color code. The left-hand side character shows the base color and the right-hand side one, the spiral color.
<Example> 51

```
WHITE/RED
```



Note 2: The character following the wire color code indicates the size of the wire.

| K: | AWG18, UL1015 |
| :--- | :--- |
| L: | AWG20, UL1007 |
| None: | AWG22, UL1007 |







| 120 V | 200 V | 220 V | 24.0 V | 100V $50 \mathrm{~Hz} / 60 \mathrm{~Hz}$ | RALLY TWIN | OD/RAL $3026(2 / 2)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |

## COIN MECH INSTALLATION AND CREDIT BOARD SETUP

Game credits between the Coin Mech and the game board for the $\qquad$ 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 in Fig 8 is mounted on the VTS Bracket within the Coin Chute Tower.

The Klingon board is connected to the coin validator and lamps via a dedicated wiring hamess depending upon the coin validator used:

| Wiring Harness |  | Validator |  |
| :--- | :--- | :--- | :--- |
| LM1006 | - | Coin Controls | (15 way connector) |
| LM1007 | - | Mars | (13 way connector) |
| LM1008 | - | Mechanical | See note 2 |
| - | NRI | See note 1 |  |

## 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 be then be set up for either the UK or Switzerland settings. A minimum connecting lead length of 600 mm 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:

| SWI | SW2 | SW3 | SW4 | OPTIONS | COIN ${ }_{\text {F }}$ | $\begin{gathered} \operatorname{CoIN} 2 \\ E \end{gathered}$ | $\begin{gathered} \text { CON } 3 \\ D \end{gathered}$ | $\begin{gathered} \text { CoIN } \\ \text { C } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OFF | OFF | OFF |  | UK Coin Setting | 51 | 50p | 20p | 10p |
| ON | OFF | OFF |  | Belgium Coin Setting | $\mathrm{n} / \mathrm{u}$ | 50Bf | 20Bf | ${ }^{25 P 5}$ |
| 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 | 2.5 G | IG |
| 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 | 2 Sf | ISf | 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 lea outs pins. After setting the switches return the IC to its socket with the package indent mark adjacent to the board edge.


Fig. 8 THE 'KLINGON' CREDIT BOARD

PRICE OF PLAY SETTINGS FOR THE UK


PRICE OF PLAY SETTINGS FOR SPAIN

|  |  |  |  | DIP | SWITCH |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 | $\Sigma$ |
|  | $50 \mathrm{P}_{\text {st }}=2$ | $100 \mathrm{Pst}=4$ | OFF | OFF | OFF | OFF | OFF |
|  |  | $100 \mathrm{Pst}=5$ | ON | OFF | OFF | OFF | OFF |
|  |  |  | OFF | ON | OFF | OFF | OFF |
|  |  |  | ON | ON | OFF | OFF | OFF |
| 50Pst Play | $100 \mathrm{Pst}=2$ | - | ON | ON |  |  |  |
|  |  | - | OFF | OFF | ON | OFF | OFF |
| 50pst Play | $100 \mathrm{pst}=3$ | - |  |  |  |  |  |
| 50Pst Play | $100 \mathrm{Pst}=3$ | $200 \mathrm{Pst}=7$ | ON | OFF | ON | OFF | OFF |
|  |  |  | OFF | ON | ON | OFF | OFF |
| 75Pst $=$ Play | $100 \mathrm{Pst}=2 / 3$ | - |  |  |  |  |  |
|  | $100 \mathrm{Pst}=2 / 3$ | $200 \mathrm{Pst}=3$ | ON | ON | ON | OFF | OFF |
| HSpst | 200 Pst $=3$ | $400 \mathrm{Pst}=7$ | OFF | OFF | OFF | ON | OFF |
| (00Pst Play |  |  | ON | OFF | OFF | ON | OFF |
| 100Pst Play |  | - |  |  |  |  |  |
| 100 Pst Play | 200Pst $=3$ | - | OFF | ON | OFF | ON | OFF |
|  |  |  | ON | ON | OFF | ON | OFF |
| 200Pst Play |  | - |  |  |  |  |  |
| 200Pst Play | $500 \mathrm{Pst}=3$ | - | OFF | OFF | ON | ON | OFF |
| 200Pst Play | S00 |  |  | OFF | ON | ON | OFF |
| 300Pst Play | - | - | ON |  |  |  |  |
|  |  |  | OFF | ON | ON | ON | OFF |
| 300Pst Play | $500 \mathrm{Pst}=2$ | - | OFP |  |  |  |  |
| \% |  |  | ON | ON | ON | ON | OFF |
| 400Pst Play |  |  |  | OFF | OFF | OFF | ON |
| 400Pst Play | 1000Pst $=$ | - | OFF |  |  |  |  |
|  |  |  | ON | OFF | OFF | OFF | ON |
|  |  |  | 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 |
|  |  |  | ON | ON | ON | OFF | ON |
|  |  |  | ON | ON | ON | ON | ON |

PRICE OF PLAY SETTINGS FOR PORTUGAL


PRICE OF PLAY SETTINGS FOR AUSTRIA

|  |  |  |  | D1 | SWITC |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 | 5 |
| ISch Play | $5 \mathrm{Sch}=5$ | 10 Sch $=10$ | OFF | OFF | OFF | OFF | OFF |
| 1Sch Play | $5 \mathrm{Sch}=5$ | $10 \mathrm{Rch}=11$ | ON | OFF | OFF | OFF | OFF |
| 1Sch Play | $5 \mathrm{Sch}=6$ | $10 \mathrm{Sch}=12$ | OFF | ON | OFF | OFF | OFF |
| 2Sch Play | $5 \mathrm{Sch}=21 / 2$ | $10 \mathrm{Sch}=5$ | ON | ON | OFF | OFF | OFF |
| 2Sch Play | $5 \mathrm{Sch}=3$ | $10 \mathrm{Sch}=6$ | OFF | OFF | ON | OFF | OFF |
| 2Sch Play | $5 \mathrm{Sch}=3$ | $10 \mathrm{Sch}=7$ | ON | OFF | ON | OFF | OFF |
| 3Sch Play | $5 S c h=12 / 3$ | 10 Sch $=21 / 3$ | OFF | ON | ON | OFF | OFF |
| 3Sch Play | $5 \mathrm{Sch}=2$ | 10 Sch $=4$ | ON | ON | ON | OFF | OFF |
| 3Sch Play | $5 \mathrm{Sch}=2$ | 10 Sch $=5$ | OFF | OFF | OFF | ON | OFF |
| 4Sch Play | $5 \mathrm{Sch}=11 / 4$ | $10 \mathrm{Sch}=21 / 2$ | ON | OFF | OFF | ON | OFF |
| 4Sch Play | $5 \mathrm{Sch}=11 / 4$ | $10 \mathrm{Sch}=3$ | OFF | ON | OFF | ON | OFF |
| 5Sch Play | $5 \mathrm{Sch}=1$ | $10 \mathrm{Sch}=2$ | ON | ON | OFF | ON | OFF |
| 5Sch Play | $5 \mathrm{Sch}=1$ | $10 \mathrm{Sch}=3$ | OFF | OFF | ON | ON | OFF |
| 6Sch Play | $5 \mathrm{Sch}=5 / 6$ | $10 \mathrm{Sch}=12 / 5$ | ON | OFF | ON | ON | OFF |
| 6Sch Play | $5 \mathrm{Sch}=516$ | $10 \mathrm{Sch}=2$ | OFF | ON | ON | ON | OFF |
| 8Sch Play | $5 \mathrm{Sch}=5 / 8$ | $10 \mathrm{Sch}=11 / 4$ | ON | ON | ON | ON | OFF |
| 10Sch Play | $5 \mathrm{Sch}=1 / 2$ | $10 \mathrm{Sch}=1$ | OFF | OFF | OFF | OFF | ON |
| 10Sch Play | SSch $=1 / 210$ | ch $=1 \quad 20 \mathrm{Sch}=3$ | ON | OFF | OFF | OFF | ON |
| 20Sch Play | $5 \mathrm{Sch}=1 / 4$ | $10 \mathrm{Sch}=1 / 2$ | OFF | ON | OFF | OFF | ON |
| 20Sch Play | SSch $=1 / 1$ | ch $=1 / 250 S c h=3$ | ON | ON | OFF | OFF | ON |
| 30Sch Play | NO BONUS |  | OFF | OFF | ON | OFF | ON |
| 30Sch Play | 50Sch $=3$ | - | ON | OFF | ON | OFF | ON |
| 50Sch Play | - | - | OFF | ON | ON | OFF | ON |
| 50Sch Play | $100 \mathrm{Sch}=3$ | - | ON | ON | ON | OFF | ON |
| FREE PLA | Y OPTION | - | ON | ON | ON | ON | ON |

Coin $1=20$ Sch, Coin $2=10$ Sch, Coin $3=5 \mathrm{Sch}$, Coin $4=1$ Sch

## PRICE OF PLAY SETTINGS FOR FRANCE / SWITZERLAND



PRICE OF PLAY SETTINGS FOR BELGIUM


Meter Operates on $1 \mathrm{BF}=1$ Pulse
Coin $1=50 \mathrm{~F}, \quad$ Coin $2=20 \mathrm{~F}, \quad$ Coin $3=5 \mathrm{~F}, \quad$ Coin $4=1 \mathrm{~F}$

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| ${ }^{-10}$ | MP1268 | BRKT CLIP (FOR QR-TYPE) | 1.EASIDE OFITEM9 | EA | BOP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\cdots 101$ | 610.0392-03 | ASSY B WAY JOYSTICK RED | Measide ofrien | EA | BOP | 2 |
| $\cdots 102$ | 610.0392 .04 | ASSY B WAY JOYSTICK BLUE |  | EA | BOP | 1 |
| $\because 103$ | 509.5135-01 | SW PUSH BUTTON RED |  | EA | BOP | $\frac{1}{2}$ |
| - 704 | 509.5135-02 | SWPUSH BUTTON BLUE |  | EA | BOP | 2 |
| -105 | 509-5135-09 | SW PUSH BUTTON GREEN |  | EA | BOP | 2 |
| ${ }^{-106}$ | SW1000 | PUSHBUTTON I-PLAYER HAPP |  | EA | BOP | 1 |
| -107 | SWi001 | PUSHBUTTON 2-PLAYER HAPP |  | EA | BOP | 1 |
| *301 | LM1309 | LOOM INT CTRL PANEL |  | EA | BOP | 2 |
| $\cdots$ | LBR-O500UIVE | CON PAN ASSY LBR UR BMSS |  | EA | SASY | 1 |
| $\cdots$ | Fx0038 | M $4 \times 20$ MSCR POSI PAN BZP | 2. TTEM 10 (NEREST FRONT) | EA | BOP | 2 |
| $\cdots$ | FX0289 | M4X16 MSCR POSI PAN EZP | 2-ITEM 10 (NEAREST REAR) | EA | BOP | 2 |
| - $\begin{aligned} & \cdots 203 \\ & \cdots-204\end{aligned}$ | FX0040 | M4X25 MSCR POSI PAN BZP | 4-1TEM 101 4-ITEM 102 | EA | BOP | 8 |
|  | Fx0241 | M4 WSHR FORM C FLT EZP | 4-ITEM10.4-TEM 101.4.ITEM102 | EA | BOP | 12 |
| - | Fxoots | M4 NUT FLG SER B2P | 3.1TEM2 | EA | BOP | 1. |
| $\stackrel{\square}{\square} \cdot \underline{\square}$ | LPR-0650UK | AC BRACKET ASSY LER |  | EA | SASY | 1 |
| $\cdots$ | LRR-0601UK | BRACKEI, MAINS INLBR |  | EA | BOP |  |
| $\because$ | EP1348 | SOCKET IEC TOAMP SNAP-IN |  | EA | BOP |  |
| $\because$ | EP1303 | SWTCH ROCKER DPST 10A 250 VaC |  | EA | BOP | 1 |
| $\stackrel{\square}{*-4}$ | LM1380 | LOOM AC INLER |  | EA | BOP | 1 |
| -500 | LBR-0600UN/E | AC BRACKET ASSY LER BULKISSUE |  | EA | SASY | 1 |
| Dent Leisure <br> Mmbri <br> Palta | Limited | Swan Manu | tacturing |  | 5.Jun | 199608.23 Page 3 |
| \|lamel |  | Indented P | arts List |  |  | -0023 Pape |
| Part No: LBR | -00001UK TOP | ASSY LAST BRONX UR |  |  | Type | Sub.Assembly |
| Revision No. Change Note | 0 BOM De | SC: TOP ASSY LAST BRONX URU | K Issue No. R8D |  | is | suo Date: 29 Apr 96 |
| Change Note Level/Seq No |  |  | Drawing No. DEC-00001U | $K$ | Exp | iry Date |
|  | Component Par | Descripton | Component Reference | UOM | Type | Number off |
| $\cdots$ | EP1007 | FUSE 5A 250Vac 20mm SB | FOR USE WITHITEM SOCKET | EA | BOP |  |
| $\cdots{ }_{2}$ | L81000 | LABEL SA (AC BRKT FUSE) |  | EA | BOP | 1 |
| $\bigcirc 7$ | L8R-1000UK | CABINET ASSY LAST BRONX UR |  | EA | SASY |  |
| $\cdots$ | LBR-0800UK | CABINET AR VENT ASSY LBR |  | EA | SASY |  |
| $\cdots$ | MP10178 | VENT AIR BLACK |  | EA | BOP |  |
| $\cdots 2$ | EN1000 | FAN AXIAL 240V AC $120 \mathrm{~mm} \times 38 \mathrm{~mm}$ |  | EA | BOP | 1 |
| $\cdots 3$ | 600.6745-14 | WRE HARN LM FANINT |  | EA | BOP | 1 |
| $\cdots$ | LER-08COUK/B | CABINET AIR VENT ASST BISS |  | EA | SASY | 1 |
| $\cdots$ | FX0320 | N1OX $1 / 2$ S/TAP HEX BZP |  | EA | BOP | 4 |
| $\cdots$ | Fx0245 | M5 WSHR FORM A FLT EZP | 4-ITEM 1 TO2 | EA | BOP | 4 |
| $\cdots$ | F×0021 | MAXB MSCR POSI PAN BZP | EARTHTOFAN | EA | BOP | 1 |
| $\cdots$ | Fx0019 | M4 WSHR STPRF BZP | EARTH TOFAN | EA | BOP | 1 |
| $\because 2$ | LBR-1001UK | CABINET LAST BRONX U/R |  | EA | BOP | 1 |
| $\because_{4}$ $\cdots 5$ | PP1099 | MONITOR MASK VST |  | EA | BOP | 1 |
| $\because 5$ | GL1061 | GLASS FRONT VF2N (603W $\times 615 \mathrm{H}$ ) |  | EA | BOP | 1 |
| $\because 9$ | L8R-1002UK | STICKER LHS CHEEK LBR U/R |  | EA | BOP | 1 |
| 710 <br> 71 | LER-1003UK | STICKER RHS CHEEK LBR UR |  | EA | BOP | 1 |
| $\cdots 11$ | LBR-1004UK | STICKER PLAY INSTR LER UR |  | EA | BOP | 1 |
| $\cdots 12$ | LER-100TUK | COIN CHUTE TOWER LBR |  | EA | BOP | 1 |
| "104 | MO1000 | MONITOR 26 NANAO MED RES. |  | EA | BOP | 1 |
| -102 | PP1000 | BUSH FOR NANAO MONITOR |  | EA | BOP | 4 |
| $\stackrel{*}{*} \cdot \stackrel{03}{* 301}$ | PP1001 | COLLAR FOR NANAO MONITOR |  | EA | B0P | 4 |
| $\cdots 301$ | LM1015 | LOOM STD FL SUPPLY ${ }^{\text {P12 }}$ |  | EA | BOP | 1 |
| $\cdots 302$ | 600-6745.11 | WRE HARNLM SPEAKER MAIN VF2 |  | EA | BOP | 1 |
| *303 | 600-6745.18 | WRE HARN LM $26^{\circ}$ NANAO INT VST |  | EA | BOP | 1 |
| "304 | LM9022 | LOOM EARTH 200 mm | CNTR PAN HINGE TO HINGE | EA | BOP |  |
| $\because 305$ | LM9433 | LOOM EARTH 600 mm | MONITOR BRKT LEFT TO RIGHT | EA | BOP | 1 |
| "306 | LM9722 | LOOM EARTH 1500 mm | CNTRL PAN HINGE TO AC BRKT | EA | BOP | 1 |
| $\cdots 307$ | LM9723 | LOOM EARTH 1500 mm | MONITOR BRKT RIGHT TO AC BRKT | EA | BOP | 1 |
| *500 | LPR-1000UKK | CABINET ASSY LBR U/R BMSS |  | EA | SASY | 1 |
| $\cdots$ | FX0009 | M4 WSHR FORM A FLT BZP | 4-ITEM 1 | EA | BOP | 4 |
| $\cdots$ | ifx0041 | M $4 \times 30$ MSCR POSI PAN BZP | 4.1TEM 1 | EA | BOP | 4 |
| $\cdots 203$ | Fx0012 | M6 WSH 2500 FLAT BZP | 4. ITEM 101 | EA | BOP | 4 |
| $\cdots$ | Fx0013 | M6 NUT FLG SER BZP | 4-ITEM 101 | EA | BOP | 4 |
| $\cdots 205$ | Fx0414 | ROUTER 102D 7 ,98LH4.8SO |  | EA | BOP | 12 |
| $\cdots$ | Fx0302 | M5 NUT FLG SER BZP | EARTH POINTS (MINGE TOHINGE) | EA | BOP | 2 |
| $\cdots 207$ | Fx0284 | M $8 \times 35$ BLT EZP | 6-ITEM 12 TOITEM 2 | EA | BOP | 6 |
| $\cdots$ | FX0257 | MO WSHR FORM C FLT BZP | 6.1TEM 12 TOITEM 2 | EA | BOP | 6 |
| $\cdots 209$ | Fx0261 | MB WSHR SPR BZP | 6. TEEM 12 TOITEM 2 | EA | BOP | 6 |
| 8 | LPR-0002UK | BILLBOARD ARTWORK LBR U/R |  | EA | BOP |  |
| 9 | MP1269 | BRKT BILLBOARD TOP VF2N |  | EA | BOP | 1 |
| - 101 | PP1087 | BOX CASHFOR MINI DOOR |  | EA | BOP | 1 |
| 102 | Pro028 | PALLET VIRTUA FIGHTER 2 NEW |  | EA | BOP | 1 |
| 103 | PK0075 | CARTONLAST BRONX U/R |  | EA | BOP | 1 |
| -104 | 421-7988-91 | STICKER SERIAL NUMBER |  | EA | BOP | 1 |
| 105 | 421.7987 | STICKER ELEC SPEC |  | EA | BOP | 1 |
| 301 | LM9012 | LOOM EARTH 200 mm | C DOOR TOC FRAME.CNIRL + HiNGE | EA | BOP | 2 |
| -500 | LBR-00001UK/E | TOPASSY LBR UR BULKISS |  | EA | SASY | , |
| Deith Leisurs | Limited | Swan Manu | faching |  | 5.Jun 1 | 19960023 Page 4 |
| MMERI |  | Indentod P | arts Lis! |  |  |  |
| PartNo LER | -00001UK TOP | ASSY LAST BRONX UR |  |  | Type | Sub.Assembly |
| Revison No. | 0 BOM De | 5C: TOP ASSY LAST BRONX URU | K Issue Na : R8D |  | is is | Uue Date: 29 Apr 96 |
| Change Note |  |  | Drawing No. : DEC-00001U | K | Exp in | y Date: |
| Leveliseg No. | Component Part | Descripton | Component Reforence | UOM | Type N | Number off |
|  |  |  | - |  | $\cdots$ | $\cdots$ |
| "201 | Fx0386 Fx0045 | NEX1* S/TAP POSI CSK BZP | 2.ITEM 3 | EA | BOP | 2 |
| "202 | Fx0045 | M5×12 MSCR POSI PAN BZP | 4. ITEM4.3.1TEM8 | EA | BOP | 7 |
| $\because$ | FX0245 | MS WSMR FORM A FLT BZP | 4-ITEM 4,3-JTEM 8 | EA | B0P | 4 |
| $\cdots$ | Fx0011 | M4 NUT FLG SER BZP | EARTH POINT ON AC BRKT | EA | B0P | 1 |
| -206 | Fx0438 | M5 $\times 30$ CRG BLT BNP | 4. ITEM 6 TO CABINET | EA | BOP | 4 |
| ${ }^{\prime 207}$ | FX0302 | MS NUT FLG SER BZP | 4. ITEM6 TO CABINET | EA | BOP | 4 |




[^0]:    - COIN CHUTE\#\%: Number of coins put in. As seen from the front of the cabinet, the righthand side is \#1 and the left- hand side is \#2.
    - TOTAL COINS:
    - COIN CREDITS:
    - SERVICE CREDITS:
    - TOTAL CREDITS:
    - TOTAL TIME:
    - TIME HISTOGRAM:

    Total number of activations of coin chutes
    Number of credits registered by inserting coins
    Credits registered by the SERVICE button
    Total number of credits (COIN CREDITS + SERVICE CREDITS) The total energized time.
    By - playtime play frequency.

