SEGA™

Cool Riders

OWNER'S MANUAL

SEGA ENTERPRISES, INC.

Contents

Contents (cont.)

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION OF THE OWNER'S MANUAL

SEGA ENTERPRISES, LTD., supported by its high technology semiconductors, 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 servicing control, spare parts, etc. related to the Cool Riders game, a new SEGA product.

This manual contains the information necessary to install, run, and service the Cool Riders game. The manual contains sections describing the contents of the shipping crate, installation, each Test Mode and Service menu, identification of the major components by location and part number, and a copy of the wiring diagram.

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, nontechnical personnel should under no circumstances touch the interior system. Should the need arise, contact our Main Office or the closest branch office listed:

SEGA ENTERPRISES, INC. (U.S.A.)
Customer Service
41533 Industrial Drive
Fremont, CA 94538 USA
Phone (415) 802-1750
FAX: (415) 802-1754

PRODUCT SEALS AND SAFETY CERTIFICATION

PRODUCT LABELING

To prevent counterfeits and conversions, the following labels are put on all 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 merchandise or by converting, selling or using products or printed circuit boards.

ORIGINAL SEAL   LICENSE SEAL

The following seal is put on all machines   The following seal is put on all SEGA kits,

manufactured by SEGA.   such as printed circuit boards.

SAFETY CERTIFICATION

UL® Listed Amusement Machine: Model SUR-014-001
FCC Part 15 Subpart J, class A

This equipment has been tested and found to comply with the limits for a Class A digital device in accordance with the specifications in Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
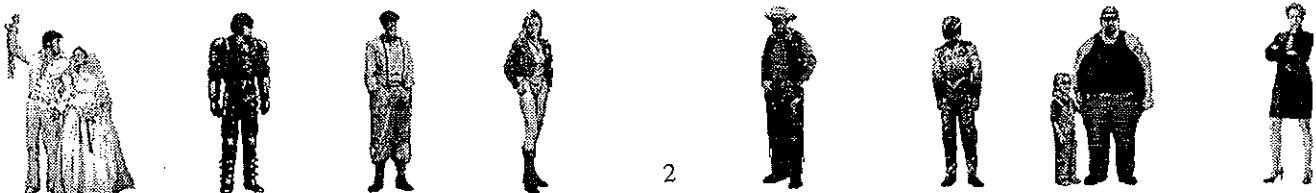
HANDLING PRECAUTIONS

When installing or inspecting the machine, be aware of the following items. Pay attention to be sure that the players can enjoy the game safely.

- Turn the power off before working on the machine.
- Do not insert or pull out the plug quickly.
- Make sure that the power cord and grounding wire are not exposed during transportation. Make sure that all grounding connections are made safely at the installation position where specified.
- Do not use any fuse that does not meet the specified rating.
- Make complete connections for the IC board and other connections. Insufficient connections are very dangerous.
- When cleaning the monitor glass, use a soft cloth. Do not apply chemicals such as benzine or thinner.
- Sega Enterprises, Inc. (U.S.A.) is not liable for any damages or injury resulting from use of this equipment in a manner for which it was not designed or intended.

INSTALLATION LOCATION PRECAUTIONS

The Cool Riders is an indoor game machine. Absolutely do not install it outside. Even indoors, to ensure proper usage, avoid installing in any of the following places. Follow all of the installation instructions and precautions when installing the machine.

LOCATION PRECAUTIONS:

- 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 or hot air.
- In the vicinity of highly inflammable/volatile chemicals or hazardous matter
- On sloped surfaces.
- In the 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 120V/10A.
- Use of extension cords should be avoided. If you must use ensure the extension cords are rated at 15A or higher.
- For transporting the machine crates into the location's building, the minimum necessary dimensions of the opening (doors, etc.) are 35 in. W x 70 in. H.
- For operation of the machine, the minimum installation dimensions are 62 in. W x 66 in.D.
- Due to its size and weight, use at least four (4) people to uncrate this game.

SPECIFICATIONS
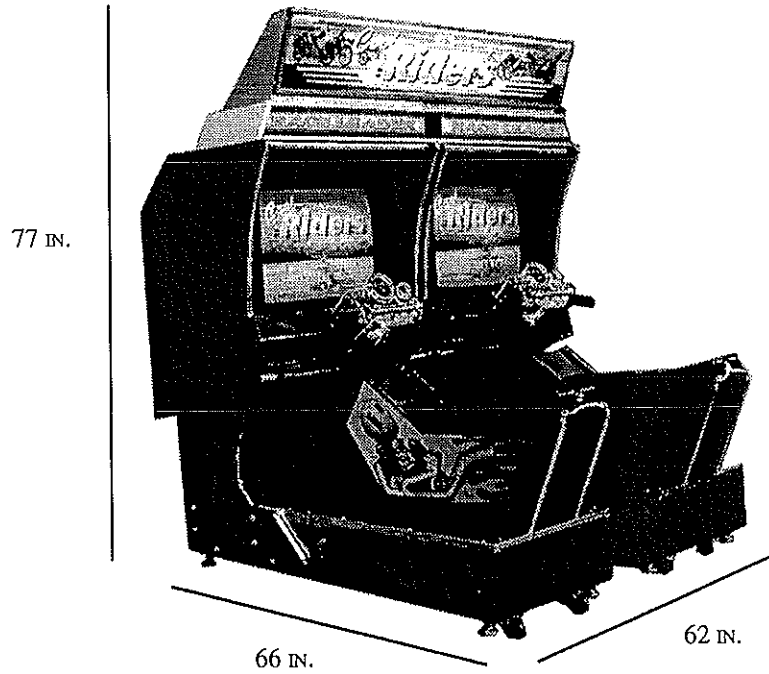
FIGURE 1: COOL RIDERS INSTALLATION DIMENSIONS

Table 1: Cool Riders Specifications

PARAMETER	SPECIFICATION
Dimensions:	
Crate 1	33 in. (W) x 67 in. (D) x 62 in. (H)
Crate 2	33 in. (W) x 67 in. (D) x 62 in. (H)
Crate 3	29 in. (W) x 62 in. (D) x 20 in. (H)
Installed	62 in. (W) x 66 in. (D) x 77 in. (H)
Weight	1200 lbs.
Power & Current	900 W, 7.5A (120 VAC, 60 Hz)

INSTALLATION ITEMS

The items listed in Table 2 are supplied with the Cool Riders and should be included with the machine whenever the machine is moved. Be sure to unpack all of these items when installing the machine. The wrenches are supplied mainly for maintenance purposes, and should be stored in the cash box until needed.

TABLE 2: INSTALLATION ITEMS

PART NAME	QTY.	LOCATION
Owner's Manual - Cool Riders	1	In Cash Box
Quickstart Card - Cool Riders	1	In Cash Box
Left-side Cabinet	1	Crate 1
Right-side Cabinet	1	Crate 2
Cash Box Tower	1	Crate 3 (Crate 3 is strapped to Crate 2)
Joint Plate	1	Crate 3
Billboard	1	Crate 3
Billboard L-Brackets	2	In corners of Crate 3
Linking Fiber Optic Cable	1	Coiled in Cash Box Tower
Mounting Bolts and Washers:		In Installation Holes:
Left- and Right-side	4	Outside of Inner Panels
Billboard:		
Top of Right-side Cabinet	4	2 front edge, 2 back edge
Top of Left-side Cabinet	4	2 front edge, 2 back edge
Back of Billboard	4	Back panel of Billboard
Tools:		In Cash Box
Allen Wrench	1	
Torx Anti-Tamper Wrenches:		
M10	1	
M15	1	
M20	1	
M21	1	
M25	1	
M27	1	
Keys:		
Coin Mech Door	2	Strapped to Controls
Cash Box	2	Behind Coin Mech Door
Underseat Compartments	4	Behind Coin Mech Door

ASSEMBLING THE MACHINE

WARNING!

When moving or lifting the COOL RIDERS game cabinet

over surfaces of differing levels (steps and stairs),

separate the left- and right-hand sides before moving the cabinet.

Moving or lifting the cabinet while the left and right sides are

connected may cause damage to the cabinet.

UNCRATE LEFT-SIDE CABINET (CRATE #1)

1. Move shipping crate #1 containing the Left-side Cabinet into location near the final installation location while still on the pallet.
2. Carefully remove the shipping bands, and top and sides of the crate.
3. Lift the Left-side Cabinet out and set on its casters.
4. Roll the Left-side Cabinet into its approximate installation location. Note: the Left-side Cabinet has the power cord and the On/Off switch.

UNCRATE RIGHT-SIDE CABINET (CRATE #2)

1. Move shipping crate #2 containing the Right-side Cabinet into location near the final installation location while still on the pallet.
2. Carefully remove the shipping bands, set aside crate #3, and remove and top and sides of crate #2.
3. Lift the Right-side Cabinet out and set on its casters.
4. Roll the Right-side Cabinet into its approximate installation location.

UNCRATE CASH BOX TOWER AND BILLBOARD (CRATE #3)

1. Move shipping crate #3 containing the Cash Box Tower and the Billboard into location near the final installation location while still on the pallet.
2. Carefully remove the shipping bands, and top and sides of the crate.
3. Lift out the Billboard, two L-brackets, and Joint Plate and set aside in a protected location.

4. Lift the Cash Box Tower out and set near its approximate installation location between the left- and right-side cabinets (see Figure 2).

CASH BOX TOWER REAR COVER
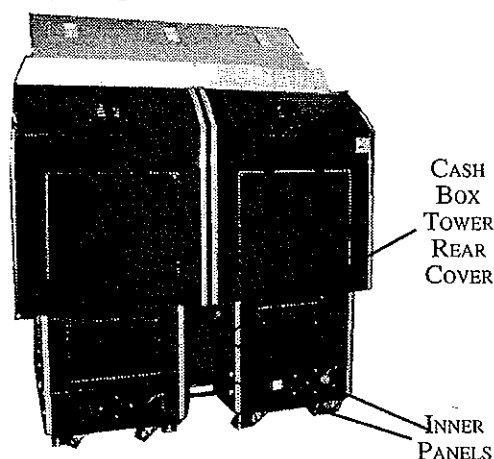
INNER PANELS

FIGURE 2: REAR VIEW, ASSEMBLED COOL RIDERS CABINET

PREPARE CABINETS AND TOWER FOR ASSEMBLY

1. Uscrew and remove the rear cover of the Cash Box Tower and set the cover aside.
2. Untape the wire harnesses from the outside of the inner panels of the Left- and Right-side Cabinets and the outside of the Cash Box Tower (see Figure 2).
3. Peel the blue protective covering off all silver trim strips on both left- and right-side cabinets.
4. Remove the upper two bolts and split washers from the outside of the inner panel of the Left- and Right-side Cabinets. Keep these bolts and washers available.
5. Loosen approximately 1/4 inch the lower two bolts on the outside of the inner panel of the Left- and Right-side Cabinets. Do not remove the lower two bolts.

INSTALL RIGHT-SIDE CABINET

1. Connect the two Right-side cable connectors to the Cash Box cable right-side connectors. Feed excess cable into the cabinet or Cash Box Tower.

2. Attach the Cash Box Tower to the inner panel of the Right-side Cabinet (see Figure 3) by lifting up the Cash Box tower and slipping the lower two slotted holes in the tower side over the lower two bolts and split washers on the Right-side Cabinet. Watch out for the sloping lower edge of the Right-side Cabinet monitor when lifting and installing the Cash Box Tower. The fender (large) washer stays between the Right-side Cabinet and the Cash Box Tower. Be sure that the cables retract into either the cabinet or Cash Box Tower without kinking. Do not tighten the bolts yet.

3. Install the two upper bolts and washers from the inside of the Cash Box Tower (through the non-slotted holes) into the Right-side Cabinet. After making sure that the cables are not caught between the cabinet and Cash Box Tower, and that the Tower is resting snugly against the cabinet, tighten all four bolts from the inside of the Cash Box Tower.

INSTALL LEFT-SIDE CABINET

1. Connect the two Left-side cable connectors to the Cash Box cable left-side connectors. Feed excess cable into the cabinet or Cash Box Tower.

2. Attach the Cash Box Tower to the inner panel of the Left-side Cabinet (see Figure 4) by sliding the lower two slotted holes in the Cash Box tower over the lower two bolts and split washers on the Left-side Cabinet. Watch out for the sloping lower edge of the Left-side Cabinet monitor.. The fender (large) washer stays between the Left-side Cabinet and the Cash Box Tower. Be sure that the cables retract into either the cabinet or Cash Box Tower without kinking. Do not tighten the bolts yet.

3. Install the two upper bolts and washers from the inside of the Cash Box Tower (through the non-slotted holes) into the Left-side Cabinet. After making sure that the cables are not caught between the cabinet and Cash Box Tower, and that the Tower is resting snugly against the cabinet, tighten all four bolts from the inside of the Cash Box Tower.

Right Side   Cash Box Tower

FIGURE 3: RIGHT-SIDE CABINET INSTALLATION

Right Side   Cash Box Tower   Left Side
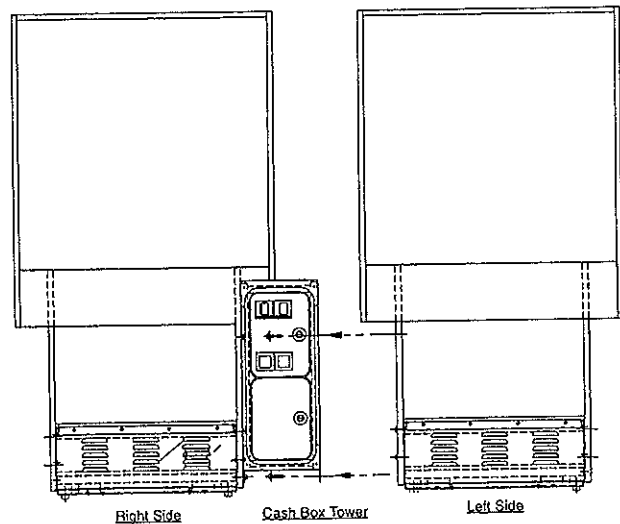
FIGURE 4: LEFT-SIDE CABINET INSTALLATION

INSTALL BILLBOARD

1. Remove four 5/16 hex Billboard installation bolts from the top of both the Left- and Right-side Cabinets (8 total). Remove four 5/16 hex Billboard installation bolts from the back edge of the Billboard.

2. Carefully lift the Billboard to the top of the cabients (see Figure 5).

3. Remove the three access screws from the front edge of the Billboard between the Billboard and Race Leader Marquee.

4. Open the Billboard top section carefully.

5. Attach the Billboard to the top of the game cabinet using four 5/16 hex bolts installed inside the front edge of the Billboard (see Figures 5 and 6). Do not tighten the bolts yet.

6. Attach the Billboard to the top of the game cabinet using 4 5/16 hex bolts installed through the L-bracket along the back outside edge the Billboard (see Figures 5 and 6). Do not tighten the bolts yet.

7. Align the Billboard and tighten all the bolts.

8. From inside the Billboard, connect the three- and four-pin Molex connectors (one each) to provide power to the lamps.

9. Reinstall the three access screws along the front edge of the Billboard to close the Billboard case.
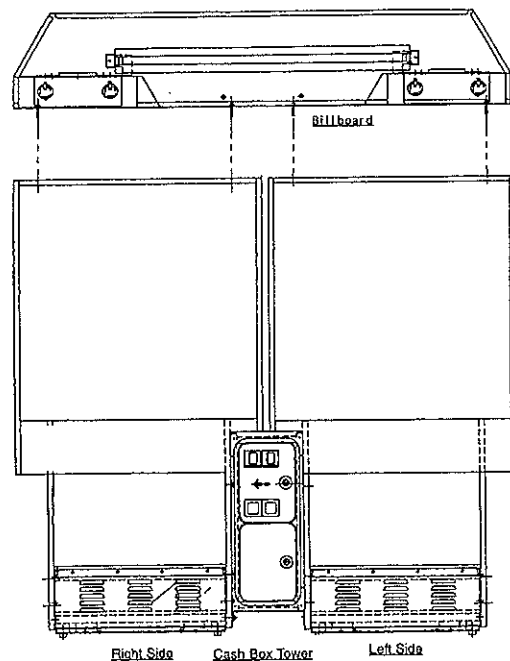
FIGURE 5: BILLBOARD INSTALLATION LOCATION
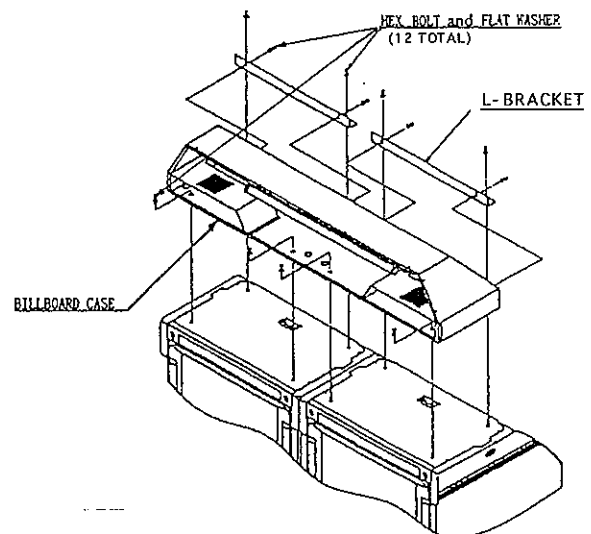
FIGURE 6: BILLBOARD INSTALLATION DETAILS

WARNING!

Make sure that all eight of the leg levelers are in contact with the floor
(see Figure 9). If they are not, the cabinet may move and cause an accident.

ADJUST LEG LEVELERS

1. Move the game cabinet to its final installation position. Be sure to allow room for the players to climb on the motorcycles.

2. Adjust the six outboard leg levelers (see Figure 7) on the cabinet by hand so they all make contact with the floor. Continue to adjust levelers until the machine is level and the casters are approximately 5 mm off of the floor (see Figure 8). If the casters are less than 5 mm off of the floor, the game may move during operation and become dangerous.

3. After the adjustments are complete, tighten each leg leveler nut upward to secure the height of the leg leveler. (See Figure 9.)

4. Attach the red joint plate (shipped in Crate 3) to the cabinet's two inner leg levelers (see Figures 7 and 10). Slide the notches in the joint plate over the levelers.

5. Adjust the two inner leg levelers (see Figure 7) on the cabinet by hand so they both make contact with the floor. Continue to adjust levelers until the machine is level and the casters are approximately 5 mm off of the floor (see Figure 8). If the casters are less than 5 mm off of the floor, the game may move during operation and become dangerous.

6. After the adjustments are complete, tighten both leg leveler nuts upward to secure the height of the leg leveler. (See Figure 9.)

7. Since the cabinet is heavy, retract its leg levelers and roll on its casters (see Figure 7) when moving the machine over the floor. Do not move the assembled cabinet over uneven floors, or up or down steps and stairs. Detach the Left- and Right-side Cabinets from the Cash Box Tower before moving the cabinets over uneven areas.
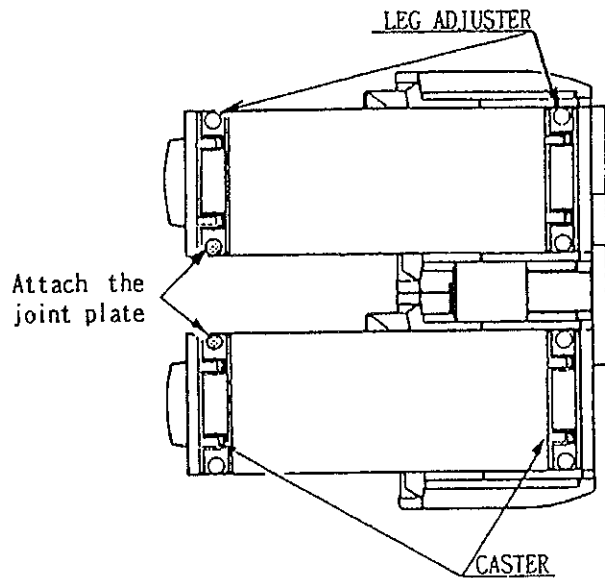
FIGURE 7: CABINET, BOTTOM VIEW
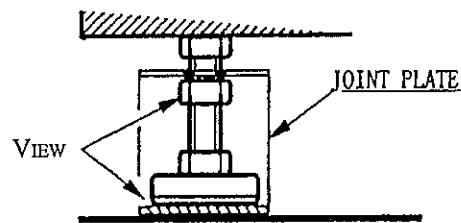
FIGURE 8: LEG LEVELERS, BOTTOM VIEW
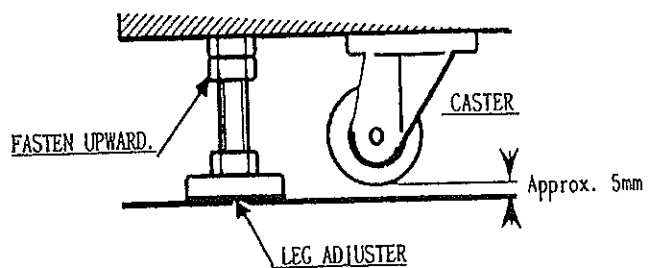
FIGURE 9: LEG LEVELER AND CASTER, SIDE VIEW
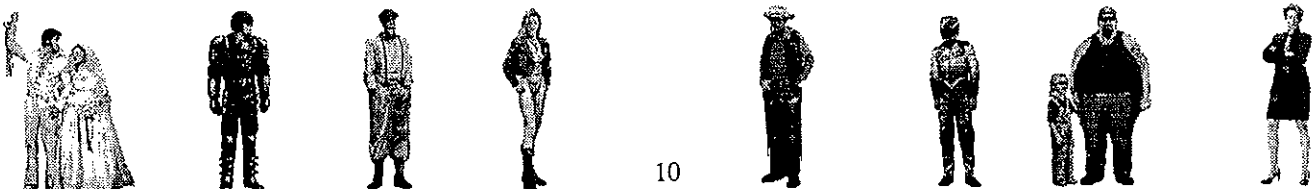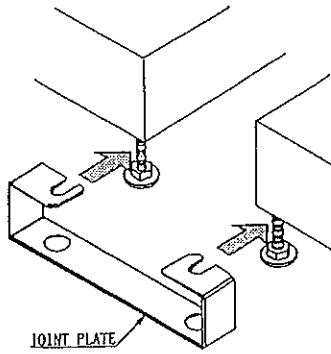
FIGURE 10: JOINT PLATE INSTALLATION

POWER ON

1. Plug the AC cord going from the rear of the Left-side Cabinet into a dedicated outlet.

2. Toggle the Main AC Switch, located at the lower center rear of the game cabinet. This will cause the machine to power up and run a POWER ON check.

SET DEFAULTS

After the power-on check is complete, press the Test Switch on the Service Panel and run the following checks. For specific information on each check, and on using the Service Panel controls, see the Test Mode section. While running this test, the game cannot be played.

```
           MEMORY  TEST

              <ROM>

      IC11 GOOD    IC12 GOOD
      IC13 GOOD    IC14 GOOD
      IC15 GOOD    IC16 GOOD
      IC17 GOOD    IC18 GOOD
      IC29 GOOD    IC30 GOOD
      IC31 GOOD    IC32 GOOD

              <RAM>

      IC21 GOOD    IC22 GOOD

     PUSH TEST BUTTON TO EXIT
```

Select Memory Test from the Test Mode menu. This automatically tests the on-board memory. The game board is working properly if each I.C. is reported as "GOOD."

```
              INPUT TEST

   PLAYER          LEFT      RIGHT

   HANDLEBAR       128       128
   THROTTLE          0         0
   BRAKE             0         0

   SHIFT  UP       OFF       OFF
   SHIFT  DOWN     OFF       OFF
   MUSIC  > >      OFF       OFF
   MUSIC  < <      OFF       OFF
   START          OFF       OFF
   COIN           OFF       OFF
   SERVICE        OFF       OFF

              TEST-OFF

     PUSH TEST BUTTON TO EXIT
```

Select the Input Test from the Test Mode Menu. This allows each of the controls and switches to be tested. Verify that all switches show "OFF" and the control values are at a minimum. Press each switch and operate each control. Verify that the appropriate indicator shows "ON" while the switch is pressed, and that the control values change appropriately while the controls are operated.

C.R.T. TEST

PUSH TEST BUTTON TO EXIT

Select the C.R.T. Test from the Test Mode Menu. This allows the alignment of the monitor to be verified. The monitor was adjusted before shipping and should not need further adjusting. Observe the size and clarity of the grid, and make adjustments if necessary.

```
        OUTPUT TEST

   LEFT   START LAMP    OFF
   LEFT   RACE LEADER   OFF
   LEFT   MUSIC SELECT  OFF
   RIGHT  START LAMP    OFF
   RIGHT  RACE LEADER   OFF
   RIGHT  MUSIC SELECT  OFF
 → EXIT

   SELECT BY SERVICE BUTTON
   AND PUSH TEST BUTTON
```

Select the Output Test from the Test Mode Menu. This allows all of the cabinet's lamps to be checked. Verify that the appropriate lamp goes on and the indicator shows "ON" when the lamp is selected and the Test Button is pressed.

```
         SOUND TEST


      LEFT  No. 0 [MAX. 181]

      RIGHT No. 0 [MAX. 181]

    → EXIT


    SELECT BY SERVICE BUTTON
    AND PUSH TEST BUTTON
```

Select the Sound Test from the Test Mode Menu. This allows the sound board, wiring and speakers to be verified, and the volume to be adjusted. Check both channels and adjust the volume, using the volume knobs on the Service Panel, if necessary.

After the Test Mode checks are completed, the Cool Riders game is ready to play.

HOW TO PLAY

1. The coin slot is located in the center of the front of the cabinet. Insert coin(s) into either coin entry slot and press the Player button (1 or 2) on the control panel (see Figure 11). At this time, a countdown to start begins. The display indicates that the game is waiting for the player's MOTORCYCLE SELECT entry, and a countdown to start is shown on the other players' monitors.

2. Additional players who wish to participate in the game should insert a coin during countdown and press the appropriate START button. A new player cannot participate in the game without pressing the START button.

3. When the player's START button is pressed, the MOTORCYCLE SELECT screen appears. Choose the desired motorcycle from the 8 different types (see Table 3). Competitors may choose identical motorcycles. Turn the HANDLE BAR (see Figure 11) to choose the desired type of bike, and twist the ACCELERATOR (THROTTLE) grip to make the selection effective.
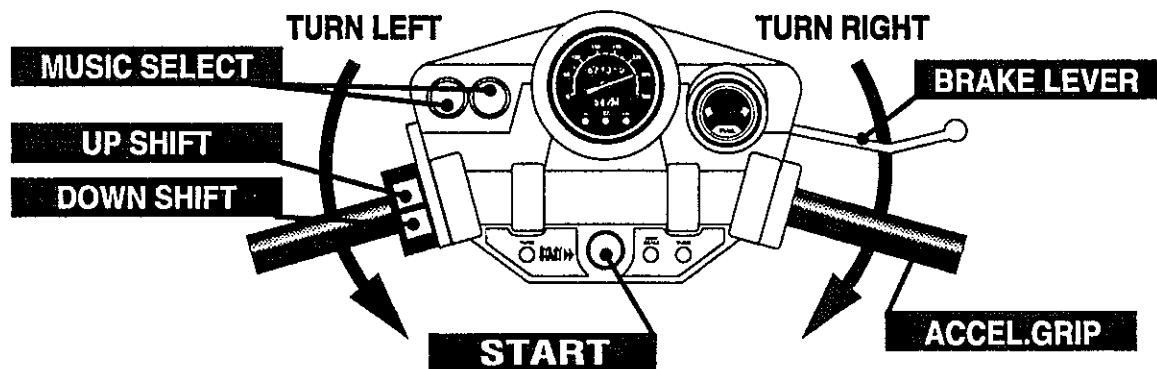
FIGURE 11: CONTROL LOCATIONS

4. Choose the desired shift type, either automatic (AT) or manual (MT) and twist the THROTTLE to make the selection effective (as above). Although bike operation with manual transmission is more difficult than with automatic transmission, manual shifting provides better acceleration and a higher maximum speed than automatic shifting.

5. Now, you are ready to start the game. The screen in front of you shows your road position, and has various displays and indicators. (see Figure 12)

14

CURRENT STAGE

COUNTDOWN TIMER

TOTAL ELASPED TIME

TOTAL LAP TIME

OTHER RACES INDICATOR

CURRENT POSTION

TRANSMISSION MODE

CURRENT GEAR

NUMBER OF OTHER RACERS
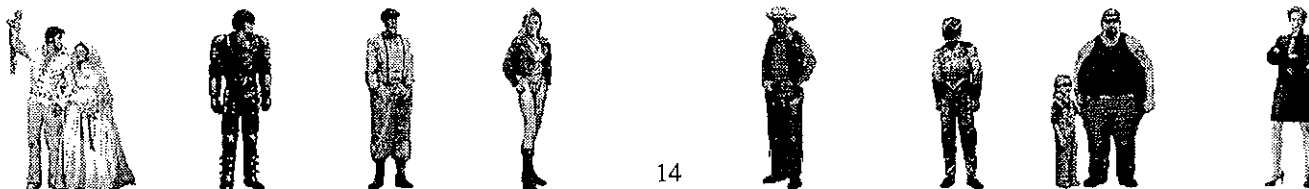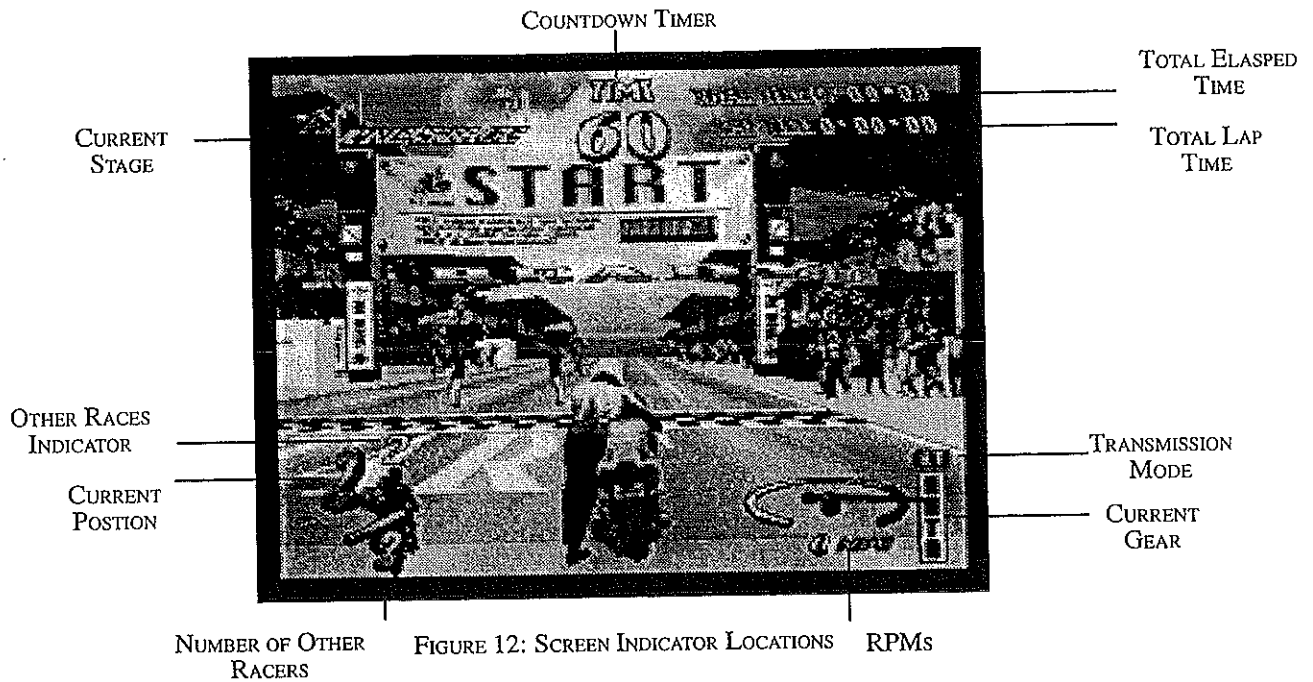
FIGURE 12: SCREEN INDICATOR LOCATIONS

RPMs

6. During the race, CHECK POINT gates appear between stages. Passing a CHECK POINT within the time limit shown on the countdown timer extends the game time, allowing you to move to the next stage and continue playing.

7. After each CHECK POINT, as you enter a new stage, you can choose the next course from among 3 directions. Select the desired course by passing under the corresponding arrow (right, straight, left). During play by 2 or more players, only the leading rider can determine the next course; all other players will take the course selected by the leading rider.

8. During the race, the RACE LEADER marquee will light above the leading rider.

9. When the countdown timer reaches zero, the game is over. If you cross the finish line within the time limit, you are successful and can enjoy an ending scene which suits your bike selection.

10. The player with the best time on each motorcycle is allowed to enter his or her name as Cool Rider of Cool Riders. The names of the two best players per motorcycle are displayed. The Cool Rider of Cool Riders is the SUPER STAR and the best time player from today's power-on time to the present is Today's STAR.

11. The map display (see Figure 13) enables the player to recognize the final destination and current course.

12. Pressing the Music Select buttons on the control panel (see Figure 11) during the game will change the background music.

15
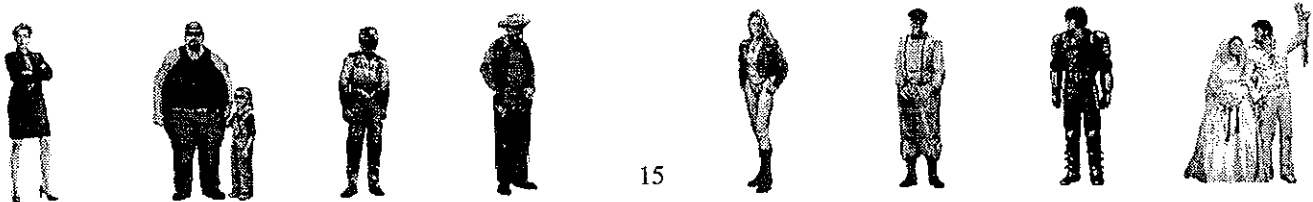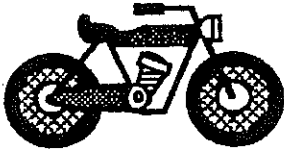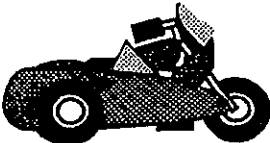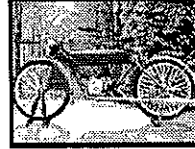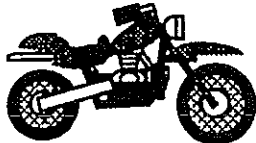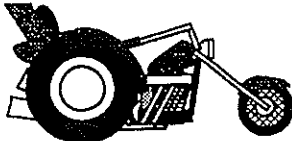
Table 3: Motorcycle Type Descriptions

		ADVANTAGES	**LIMITATIONS**
Normal (black) REVOLUTION 		Well balanced. Its maximum speed is top of the class.	Slightly slippery on curves.
Racer (yellow) LIGHTNING 		Well balanced. Excellent handle bar operation.	Its maximum speed is less superior.
Drag Racer (blue) I.C.B.M. 		Superior acceleration. A powerful parachute brake.	Making a turn is not easy.
Motor Scooter (pink) WILDCAT 		A quickly operable handle bar. Quick acceleration.	Susceptible to damage. Its maximum speed is rather low.
Sidecar (red) LOVEMACHINE 		Stable run. Its maximum speed is top of the class.	Skidding on curves is rather hard.
Classic (brown) DISCOVERY 		Light movements Its maximum speed is quite fast.	Its body is quite fragile.
Off Road (green) GRASSHOPPER 		Negotiable on any kind of surface. Accelerates even further on road shoulders.	Relatively slow on road.
Trike (purple) DAI-OH 		Overwhelmingly powerful. Invincible strength.	Very slow reactions.

16
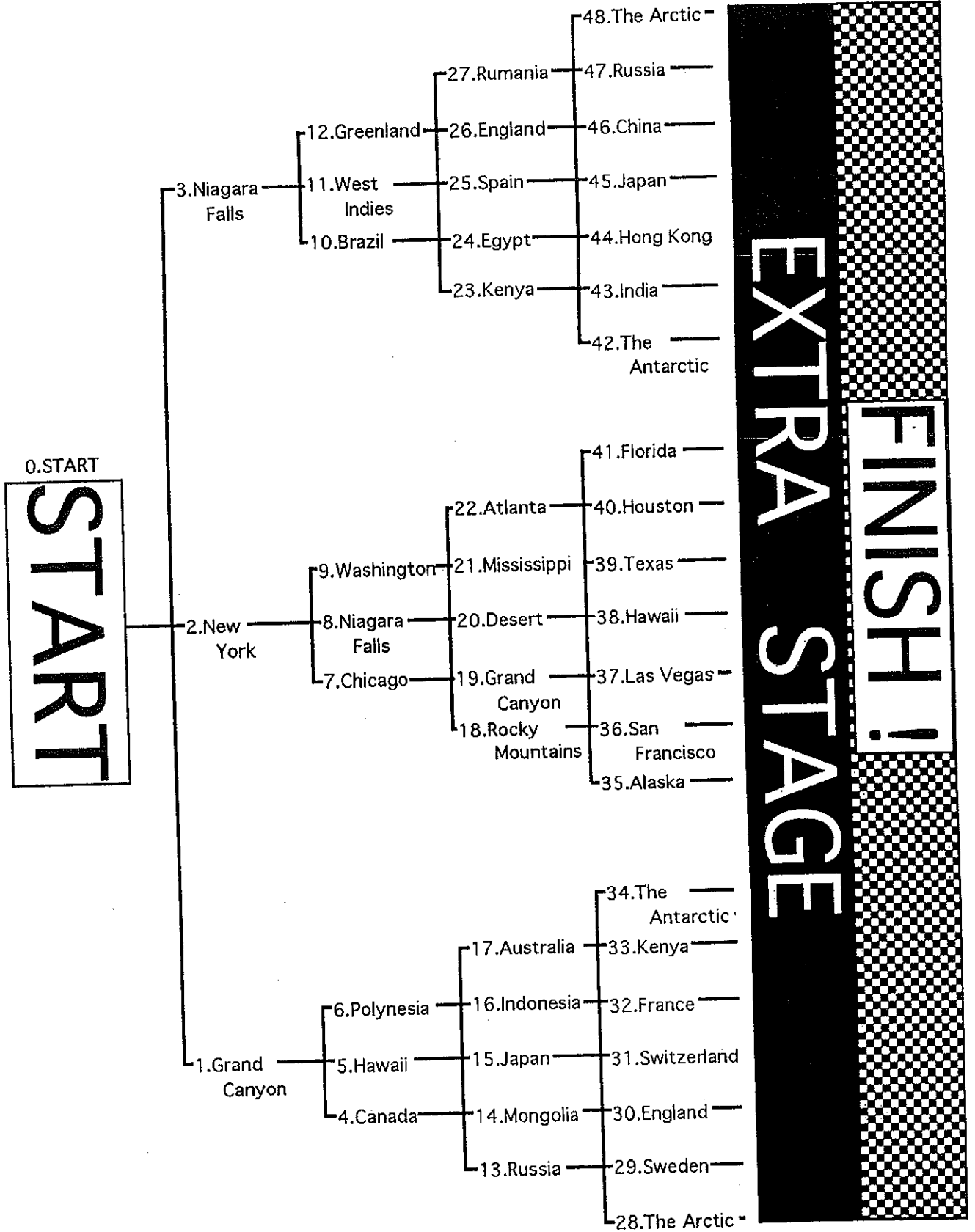
FIGURE 13: COURSE MAP
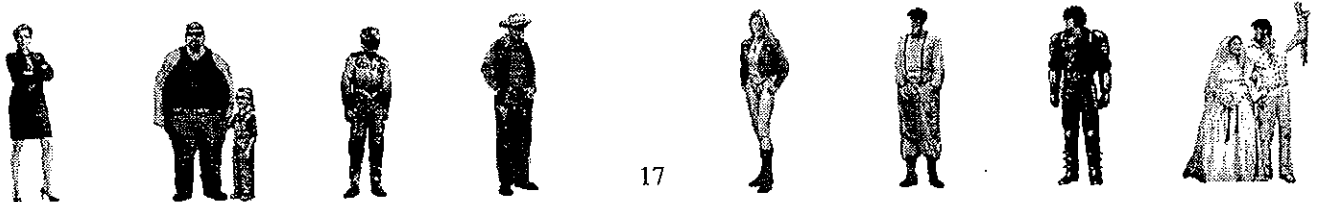
EXPLANATION OF TEST AND DATA DISPLAYS

TEST MODE SCHEDULING

The machine should be tested whenever it is installed, when cash is collected, monthly, or whenever the machine is not operating correctly. This is done by pressing the Test Button on the Service Panel. The tests and modes listed in Table 4 should be used as applicable.

CAUTION

Do not enter the Test Menu while any linked units are in play. Exiting from the

Test Menu causes all linked units to perform the network check automatically,

and any game in progress is lost.

TABLE 4: Test Modes and Schedules

ITEMS	DESCRIPTION
INSTALLATION OF MACHINE	When the machine is installed, perform the following: 1. Check to see that each setting is per default setting made at the time of shipment. 2. In the Input Test, check each switch. 3. In the Output Test, check each of the lamps. 4. In the Memory Test, check ICs on the Boards.
MEMORY	Choose Memeory Test in the Test Menu. In this test, game board RAMs, ROMs, and ICs are checked.
PERIODIC SERVICING	Periodically perform the following: 1. Memory Test 2. Check each default setting. 3. In the Input Test, test the control devices. 4. In the Output Test check each of lamps.
CONTROL SYSTEM	1. In the Input Test, check each switch and control device. 2. Adjust or replace each switch. 3. If the problem can not be solved yet, check the control's moves.
IC BOARD	1. Memory Test 2. In the Sound Test, check the sound related ROMs.
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc.
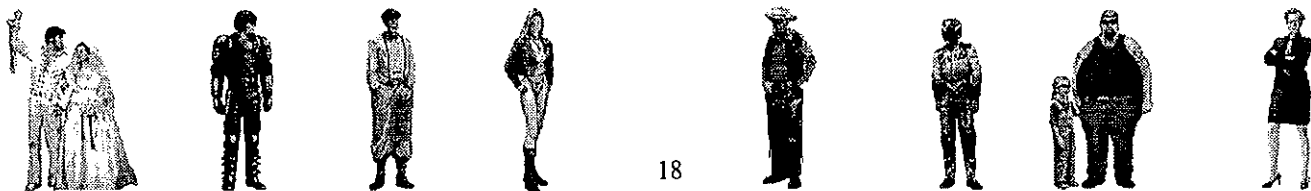
SERVICE PANEL

The Service Panel (Figure 14) is located behind the Coin Mech Door (see Figure 20). The functions of each control on the Service Unit are as shown in Table 5. The left- and right-side Service Panels function independently, except as noted in Table 4.
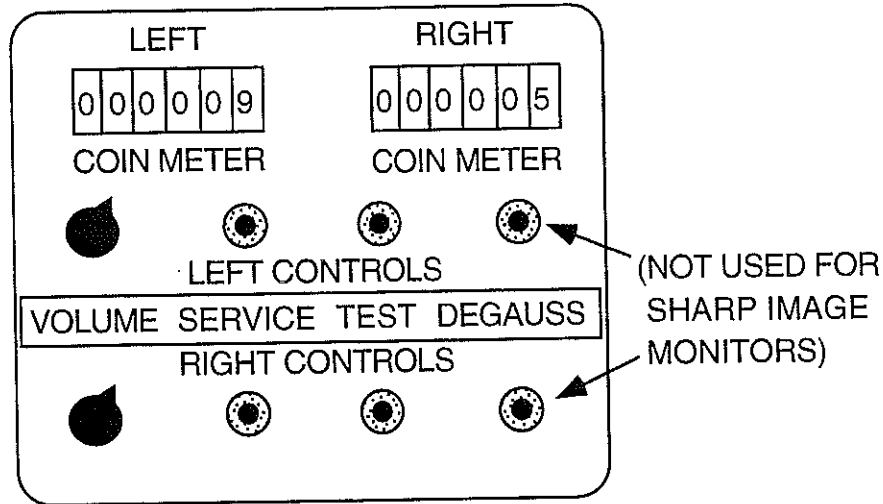
FIGURE 14: SERVICE PANEL CONTROLS AND INDICATORS

TABLE 5: SERVICE PANEL FUNCTIONS

NO.	CONTROL	FUNCTION
1	Service Button	Gives credits without registering on the appropriate coin meter. Also used to select test items (see next sections).
2	Test Button	Enters and runs tests in the Test Menu. For details on the use of the Test Button, see next sections.
3	Volume Knob	Adjusts the volume of the left- and right-side speakers. Volume increases when knob is turned clockwise.
4	Coin Meter	Registers coins accepted for play in left- and right-side coin slots.
5	Degauss Button	Corrects color impurity in the left- and right-side CRTs. Not used for Sharp Image monitors.

TEST MENU

The Test Menu allows the operation of each part of the cabinet to be verified, the monitor to be adjusted, and the coin and game related settings to be modified. Each of the Test Items is explained in the appropriate section.

```
                      TEST MENU

                      INDIVIDUAL

              MEMORY TEST
              VOLUME ADJUSTMENT
              INPUT TEST
              OUTPUT TEST
              SOUND TEST
              C.R.T. TEST
              GAME ASSIGNMENTS
              COIN ASSIGNMENTS
              NETWORK ASSIGNMENTS
              BOOKKEEPING
              BACKUP DATA CLEAR
        ⇨     EXIT

            SELECT BY SERVICE BUTTON
            AND PUSH TEST BUTTON
```
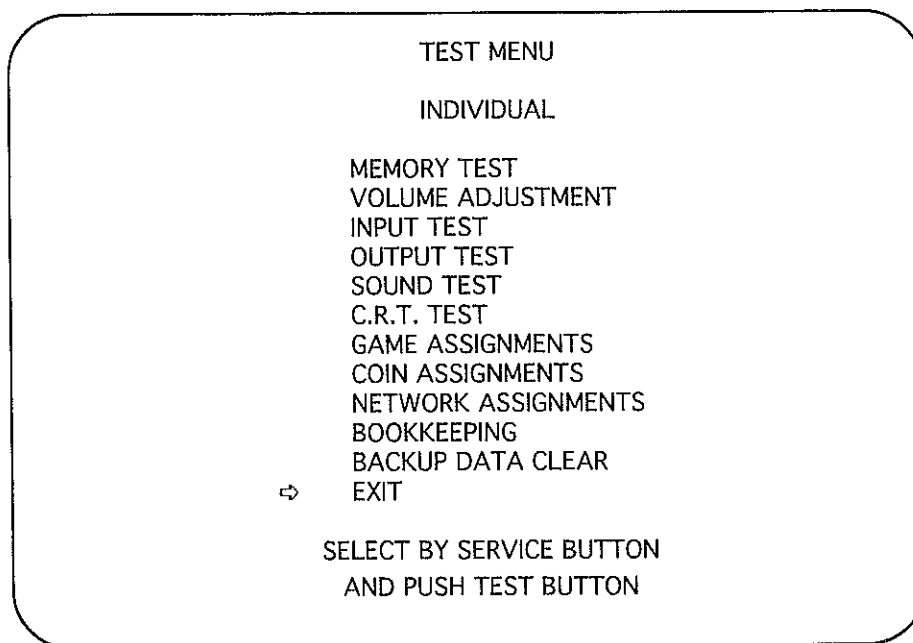
Selection of Test Items:

1. Push the Test Button on the Service Panel to display the Test Menu.
2. Push the Service Button to bring the cursor ⇨ to the desired item and press the Test Button or Player Start Button.
3. If the cursor is positioned at INDIVIDUAL, and the Test Button is pressed, the game will step through each of the Test Items as the Test Button is pushed. The Test Menu will indicate CONTINUE.
4. After the test is completed, bring the cursor ⇨ to EXIT and push the Test Button.

MEMORY TEST

Check the PCB's memory ICs.

```
                    MEMORY TEST
                      <ROM>

        IC.  11  GOOD          IC.  12  GOOD
        IC.  13  GOOD          IC.  14  GOOD
        IC.  15  GOOD          IC.  16  GOOD
        IC.  17  GOOD          IC.  18  GOOD
        IC.  29  GOOD          IC.  30  GOOD
        IC.  31  GOOD          IC.  32  GOOD

                      <RAM>

        IC.  21  GOOD          IC.  22  GOOD

              PUSH TEST BUTTON TO EXIT
```
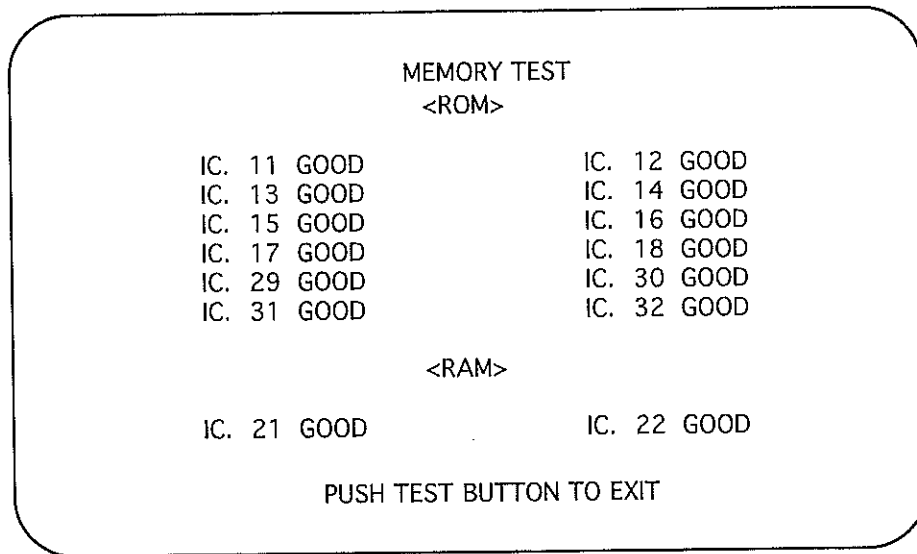
1. This test takes approximately 60 seconds to complete. Do not press buttons or operate the game while the test is running. If the test does not complete in 60 seconds, the board may be malfunctioning.

2. When the IC is in good operating condition, "GOOD" will be indicated

3. If any of the ICs are malfunctioning, "BAD" will be indicated.

4. Push the Test Button to return to the Test Menu.

CONTROL RANGE ("VOLUME") ADJUSTMENT

Use this menu only if the Handlebar Controls [Handlebar (turning), Throttle, and Brake Lever] are not operating satisfactorily, and the Input Mode Test values for the Handle bar controls are not within the acceptable ranges, as indicated in the Input Test menu. (Note: "Volume" in this menu refers to adjusting the control range values, not sound levels.)

```
                    VOLUME ADJUSTMENT
                          ADJUST
                    ⇨  CANCEL

        PLAYER          LEFT            RIGHT

        HANDLEBAR    153 ■□         125 ■□
        [MINIMUM]     84 □          53 □
        [MAXIMUM]    238 ■□         196 ■□
        [NORMAL]     155 ■□         125 ■□

        THROTTLE      47 □          63 ■□
        [MINIMUM]     47 □          62 ■□
        [MAXIMUM]    189 ■□         206 ■□

        BRAKE         18 □          24 □
        [MINIMUM]     15 □          21 □
        [MAXIMUM]    156 ■□         163 ■□

           SELECT BY SERVICE BUTTON
           AND PUSH TEST BUTTON
```

1. Bring the cursor to CANCEL and press the Test Button to return to the Test Menu.
2. While in the Control Range ("Volume") Adjustment Menu, move the Handlebar, Throttle, and Brake Lever fully within the mobile control range to check the following values. If the read-out values (or the blue bar gauges) are within the ranges below, the control is operating satisfactorily. (The values shown above are for example only)

Handlebar fully left:	[MINIMUM] ± 10
Handlebar fully right:	[MAXIMUM] ± 10
Handlebar released:	[NORMAL] ± 10
Throttle twisted fully:	[MINIMUM] ± 10
Throttle released:	[MAXIMUM] ± 10
Brake Lever fully pulled:	[MINIMUM] ± 10
Brake Lever released:	[MAXIMUM] ± 10

3. If the displayed control value is not within the satisfactory range, bring the cursor to ADJUST and press the Test Button to switch to the Adjusting Menu (next page) and modify the Handelbar Control range values.

```
┌─────────────────────────────────────────────────┐
│                VOLUME ADJUSTMENT                  │
│                                                   │
│                   ADJUSTING                       │
│                                                   │
│       PLAYER        LEFT          RIGHT           │
│                                                   │
│       HANDLEBAR     153 ■□        125 ■□          │
│       [MINIMUM]     151 □         123 □           │
│       [MAXIMUM]     154 ■■        126 ■■□         │
│       [NORMAL]      153 ■□        125 ■□          │
│                                                   │
│       THROTTLE      47  □         63  ■□          │
│       [MINIMUM]     47  □         62  □           │
│       [MAXIMUM]     5   ■■□       65  ■■■         │
│                                                   │
│       BRAKE         18  □         24  □           │
│       [MINIMUM]     17  □         24  □           │
│       [MAXIMUM]     20  ■□        26  ■□          │
│                                                   │
│            PUSH TEST BUTTON TO EXIT               │
│                                                   │
└─────────────────────────────────────────────────┘
```

1. After entering this menu, all control range values are reset. If this menu is exited without moving all controls through their complete range of motion, the game will not play correctly.

2. Move both player's Throttle, Handlebar, and Brake Lever through their complete range of motion. The menu will display the values being recorded for each control as it is moved.

3. When all control ranges have been set, release all controls and allow them to settle in their neutral (not turned, twisted, or pulled) mode.

4. Press the Test Button to return to the Test Menu.

INPUT TEST

This test displays the state of each switch. If the switch goes ON when activated it is satisfactory.

```
                        INPUT TEST

        PLAYER          LEFT            RIGHT

        HANDLEBAR       128 ■□          128 ■□
        THROTTLE          0 □             0 □
        BRAKE             0 □             0 □

        SHIFT UP        OFF             OFF
        SHIFT DOWN      OFF             OFF
        MUSIC >>        OFF             OFF
        MUSIC <<        OFF             OFF
        START           OFF             OFF
        COIN            OFF             OFF
        SERVICE         OFF             OFF

                      TEST - OFF

              PUSH TEST BUTTON TO EXIT
```

1. If the Handlebar values are within the following ranges, the handlebar is working satisfactorily. The ranges can be verified numerically, or visually using the blue bar.

Handlebar fully left	0 - 7	Blue Bar almost invisible.
Handlebar released to Neutral position	121 - 135	Blue Bar approximately half full.
Handlebar full right	248 - 255	Blue bar almost full.

2. If the Throttle values are within the following ranges, the throttle is working satisfactorily. The ranges can be verified numerically, or visually using the blue bar.

Throttle released	0 - 8	Blue Bar almost invisible.
Throttle twisted fully forward	248 - 255	Blue bar almost full.

3. If the Brake Lever values are within the following ranges, the brake is working satisfactorily. The ranges can be verified numerically, or visually using the blue bar.

Brake Lever released	0 - 8	Blue Bar almost invisible.
Brake Lever fully gripped	248 - 255	Blue bar almost full.

4. The Default Vaues shown here are with no force applied to the Handlebar, Throttle, and Brake Lever.

5. In the Input Test Menu, the Player Start Buttons cannot be used in lieu of the Test Button.
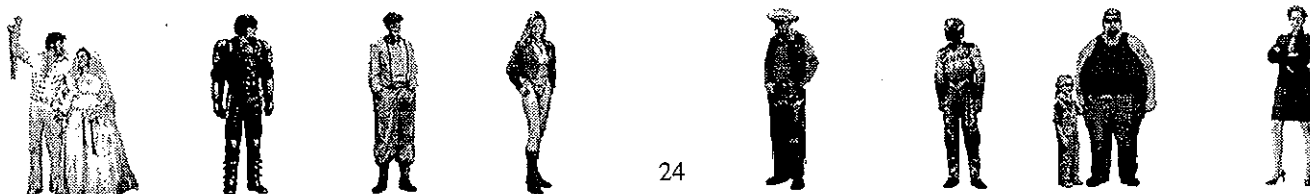
OUTPUT TEST

The Output Test menu allows the status of each lamp the be checked.

```
                    OUTPUT TEST

    LEFT        START LAMP        OFF

    LEFT        RACE LEADER       OFF

    LEFT        MUSIC SELECT      OFF

    RIGHT       START LAMP        OFF

    RIGHT       RACE LEADER       OFF

    RIGHT       MUSIC SELECT      OFF


              ⇨    EXIT

          SELECT BY SERVICE BUTTON
          AND PUSH TEST BUTTON
```

1. Press the Service Button to move the cursor ⇨ to the desired test item, and press the Test Button to test.

2. To return to the Test Menu, move the cursor ⇨ to EXIT using the Service Button, and press the Test Button.

SOUND TEST

This allows sound and background music used in the game to be tested.

```
                        SOUND TEST

        LEFT          No.          0 [MAX. 181]

        RIGHT         No.          0 [MAX. 181]

                      ⇨ EXIT

              SELECT BY SERVICE BUTTON
                AND PUSH TEST BUTTON
```

1. Press the Test Button to have the Sound Test appear on the screen.

2. Press the Service Button t o play the desired sound set (1 - 181).

3. Press the Test Button to return to the Test Menu.

C.R.T. Test

CRT Color Screen

This screen allows for on-screen color check and adjusting.

```
                          C.R.T. TEST 1/2

                               RED

                              GREEN

                              BLUE

                              WHITE


                          TEST : TO EXIT
```

1. Each of the R (red), G (green) and B (blue) colors is darkest at the left-hand end and becomes brighter in 16 gradations towards the right-hand end. The monitor brightness is satisfactory if the white color bar is black at the left-hand end and white at the right-hand end.
2. Normally, there is no need to make adjustments.
3. Pressing the Test Button causes the screen to proceed to the Monitor Size Adjustment screen.

This screen allows the monitor size and distortion to be checked.

```
C.R.T. TEST 2/2




        PUSH TEST BUTTON TO EXIT
```
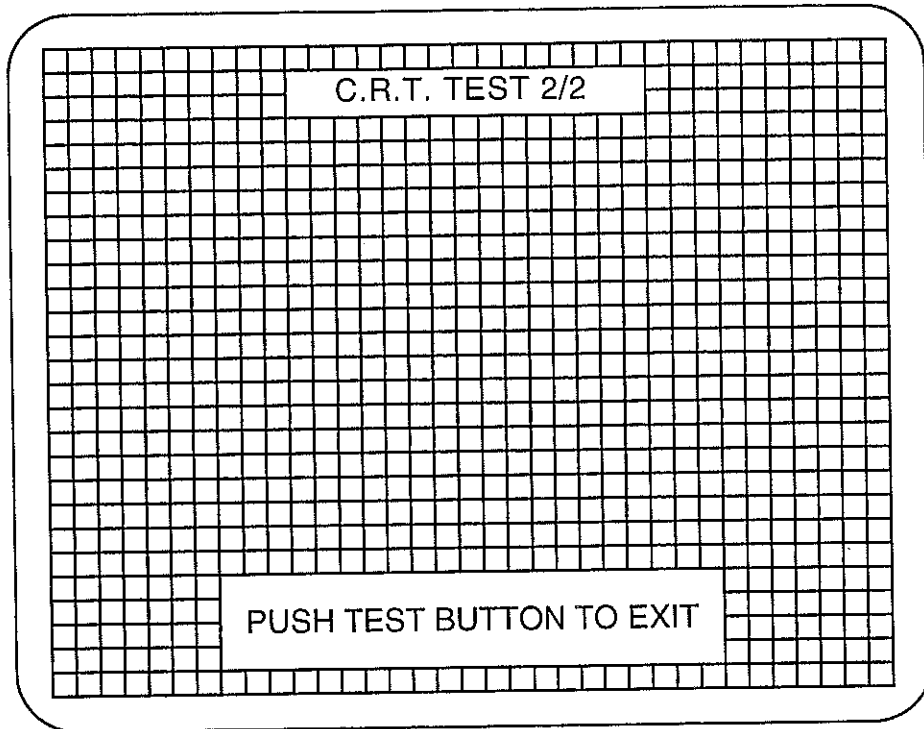
1. Adjust the monitor so that the checkered portions do not go beyond the screen borders, and there is no crosshatch distortion.
2. Press the Start or Test Button to return to the Test Menu.

GAME ASSIGNMENTS

Allows system settings to be changed. Ranges are shown in parentheses (). Default values are shown by * =.

```
                    GAME ASSIGNMENTS

  GAME DIFFICULTY
    EASY ██████████        HARD      4              A

                                                    B
  TIME DIFFICULTY
    PRE-STAGE                        0 SEC
    STAGE 1                          0 SEC
    STAGE 2                          0 SEC
    STAGE 3                          0 SEC
    STAGE 4                          0 SEC
    EXTRA STAGE                      0 SEC

  ADVERTISE SOUND          ON                        C

  COUNTRY                  USA                        D

     ⇨ EXIT
            SELECT BY SERVICE BUTTON
            AND PUSH TEST BUTTON
```

1. Press the Service Button to move the cursor ⇨ and bring it to the desired item.

2. Press the Test Button to change the setting.

3. After the desired setting is finished, bring the cursor ⇨ to EXIT and press the Test Button.

(A) GAME DIFFICULTY   * = 4

The number of motorcycles which obstruct the player can be increased or descreased from 1 (minimum) to 8 (maximum).

(B) TIME DIFFICULTY   * = 30 sec

The time allowed for completion of each stage of the race. Pre-stage refers to the time allowed for selection of a race course and motorcycle.

(C) ADVERTISE SOUND   * = NO

Determines whether ADVERTISE SOUND is to be emitted or not (YES, NO).

(D) COUNTRY   * = USA

Select message language (JPN, USA, EXP).
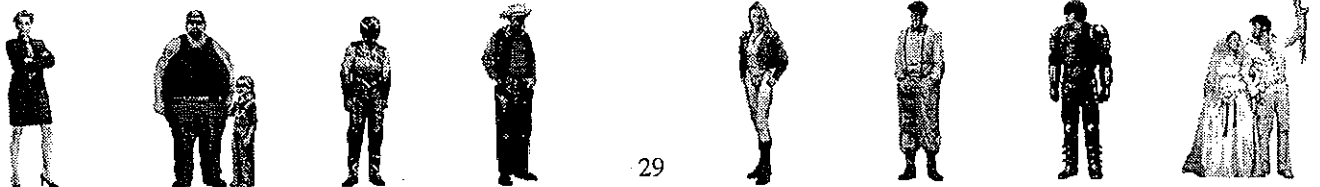
COIN ASSIGNMENTS

The COIN ASSIGNMENT menu allows changes to be made to the COIN/CREDIT settings and displays the corresponding relationships between number of coins and number of credits. The manufacturer's recommended default COIN/CREDIT SETTING is #12.

COIN/CREDIT SETTINGS
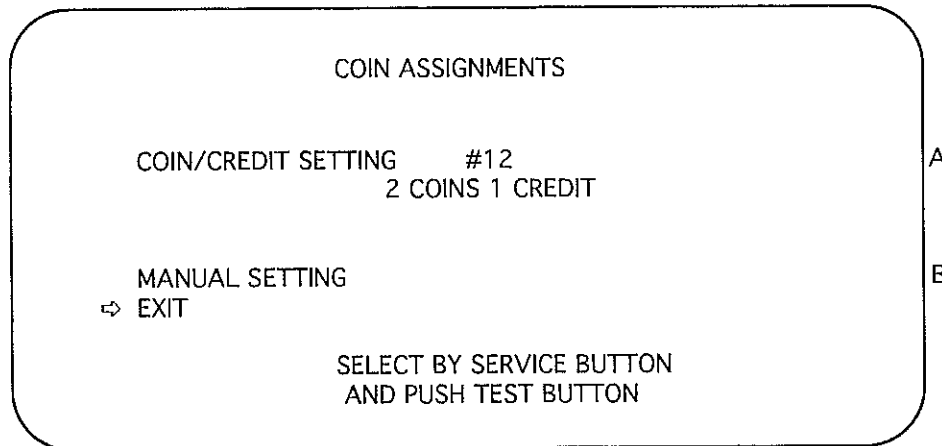
```
╭─────────────────────────────────────────────────────╮
│                  COIN ASSIGNMENTS                     │
│                                                       │
│                                                       │
│     COIN/CREDIT SETTING      #12                 │A   │
│                        2 COINS 1 CREDIT          │    │
│                                                       │
│                                                       │
│     MANUAL SETTING                               │B   │
│  ⇨ EXIT                                               │
│                                                       │
│              SELECT BY SERVICE BUTTON                 │
│              AND PUSH TEST BUTTON                     │
│                                                       │
╰─────────────────────────────────────────────────────╯
```
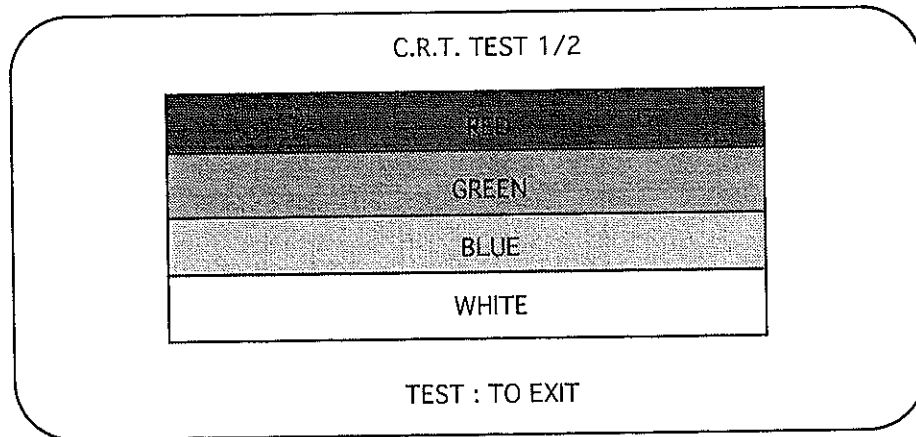
1. Press the Service Button to choose the setting item.
2. Press the Test Button to cause the setting to change.
3. To activate a change, move the cursor ⇨ to EXIT by using the Service Button, and press the Test Button.

(A) COIN/CREDIT SETTING

Sets the CREDIT increase increment per coin insertion. The settings from #1 to #26 are expressed as 00 CREDIT against 00 COINS inserted. #26 refers to FREE PLAY. For details, refer to Table 6.

(B) MANUAL SETTING

Selecting this moves to the Manual Setting menu which allows for additional flexibility in the Coin/Credit Settings.
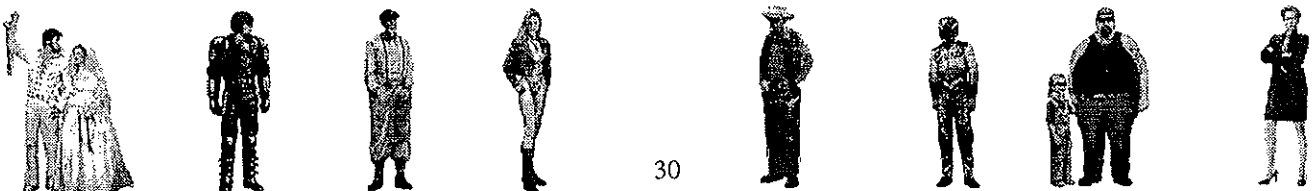
Table 6: Coin Credit Settings

NAME OF SETTING	COIN CHUTE 1	
SETTING #1	1 COIN	1 CREDIT
SETTING #6	1 COIN	2 CREDITS
SETTING #8	1 COIN	3 CREDITS
SETTING #9	1 COIN	4 CREDITS
SETTING #10	1 COIN	5 CREDITS
SETTING #11	1 COIN	6 CREDITS
SETTING #12	2 COINS	1 CREDIT
SETTING #15	1 COIN	1 CREDIT
	2 COINS	3 CREDITS
SETTING #17	3 COINS	1 CREDIT
SETTING #18	4 COINS	1 CREDIT
SETTING #19	1 COIN	1 CREDIT
	2 COINS	2 CREDITS
	3 COINS	3 CREDITS
	4 COINS	5 CREDITS
SETTING #21	3 COINS	1 CREDIT
	5 COINS	2 CREDITS
SETTING #22	2 COINS	1 CREDIT
	4 COINS	2 CREDITS
	5 COINS	3 CREDITS
SETTING #24	1 COIN	1 CREDIT
	2 COINS	2 CREDITS
	3 COINS	3 CREDITS
	4 COINS	4 CREDITS
	5 COINS	6 CREDITS
SETTING #26	FREE PLAY	

The Manual Setting menu allows for additional flexibility in adjusting the Coin/Credit Settings.

```
                    COIN ASSIGNMENTS

                    MANUAL SETTING

    COIN TO CREDIT                                    A
                            1 COIN 1 CREDIT

    BONUS ADDER                                       B
                            NO BONUS ADDER

    MULTIPLIER                                        C
                            1 COIN COUNTS AS 1 COIN
    COIN
      1    2    3    4    5    6    7    8    9
      1    2    3    4    5    6    7    8    9
    CREDIT
  ⇨ EXIT

                    SELECT BY SERVICE BUTTON
                    AND PUSH TEST BUTTON
```

1. Press the Service Button to choose the setting item.

2. Press the Test Button to cause the setting to change.

3. To activate a change, move the cursor ⇨ to EXIT by using the Service Button, and press the Test Button.

(A) COIN TO CREDIT

Sets the Coin/Credit Setting, per Table 7.

(B) BONUS ADDER

Sets the how many coins should be inserted to obtain one extra service coin, per Table 8.

(C) MULTIPLIER

Sets how many tokens one coin represents, per Table 9.

TABLE 7: MANUAL SETTINGS: COIN TO CREDIT

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
	8 COINS	1 CREDIT
	9 COINS	1 CREDIT

TABLE 8: MANUAL SETTINGS: BONUS ADDER

BONUS ADDER	NO BONUS ADDER
	2 COINS GIVE 1 EXTRA COIN
	3 COINS GIVE 1 EXTRA COIN
	4 COINS GIVE 1 EXTRA COIN
	5 COINS GIVE 1 EXTRA COIN
	6 COINS GIVE 1 EXTRA COIN
	7 COINS GIVE 1 EXTRA COIN
	8 COINS GIVE 1 EXTRA COIN
	9 COINS GIVE 1 EXTRA COIN

TABLE 9: MANUAL SETTINGS: COIN CHUTE MULTIPLIER

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
	1 COIN COUNTS AS 9 COINS

EXAMPLES FOR THE CALCULATION OF CREDITS SET IN THE MANUAL SETTING

Example 1:

COIN TO CREDIT .... 4 COINS 1 CREDIT
BONUS ADDER .... 2 COINS GIVE 1 EXTRA COIN
COIN CHUTE MULTIPLIER .... 1 COIN COUNTS AS 2 COINS

In Example 1, when 7 coins are inserted in the COIN CHUTE, the number of credits is as follows:

1. According to the COIN CHUTE MULTIPLIER setting, since 1 coin inserted counts as 2 coins, 7 coins inserted is equivalent to 14 coins.

2. According to the BONUS ADDER setting, every 2 coins earn one service coin, therefore, the equivalent of 14 coins will add 7 service coins, resulting in the equivalent of 21 coins.

3. According to the COIN TO CREDIT setting, 4 coins make 1 credit, therefore, the equivalent of 21 coins makes 5 and one quarter credits.

Example 2:

COIN TO CREDIT .... 6 COINS 1 CREDIT
BONUS ADDER .... 3 COINS GIVE 1 EXTRA COIN
COIN CHUTE #1 MULTIPLIER .... 1 COIN COUNTS AS 4 COINS

In Example 2, when 3 coins are inserted into the COIN CHUTE, the number of CREDITS is as follows:

1. According to COIN CHUTE MULTIPLIER setting, one coin inserted counts as four coins, therefore, 3 coins are equivalent to 12 coins.

2. According to BONUS ADDER setting, every 3 coins earns one service coin, therefore, the equivalent of 12 coins with 4 service coins is equivalent to 16 coins.

3. According to COIN TO CREDIT setting, 6 coins make 1 CREDIT, therefore, the equivalent of 16 coins equals 2 and two thirds CREDITS.
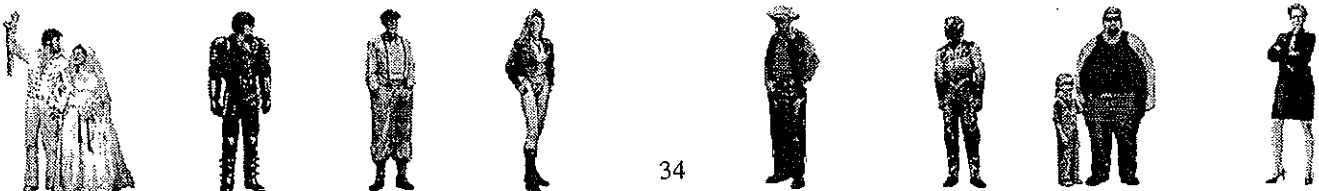
NETWORK ASSIGNMENTS

This allows the network parameters of the game to be set.

STAND-ALONE

```
                    NETWORK ASSIGNMENTS

        COMMUNICATION              STAND-ALONE


                      ⇨ EXIT

              SELECT BY SERVICE BUTTON
              AND PUSH TEST BUTTON
```
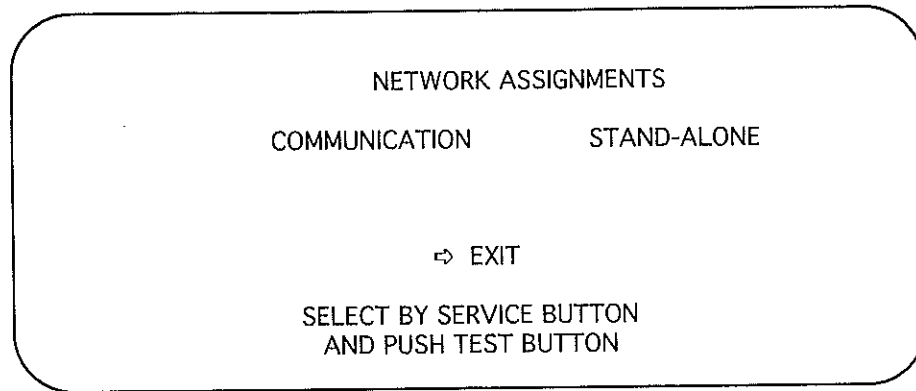
1. Press the Test Button to have the Network Assignments menu appear on the screen.
2. Bring the cursor to COMMUNICATION. Pressing the Test Button will allow a selection between the two communication modes:

   STAND-ALONE - When a two-seat cabinet not linked to other two-seat cabinets.

   NETWORK - When two or more two-seat cabinets are linked together. When NETWORK is selected, the next menu is displayed. See LINKING INSTRUCTIONS section also.
3. Push the Test Button to return to the Test Menu.
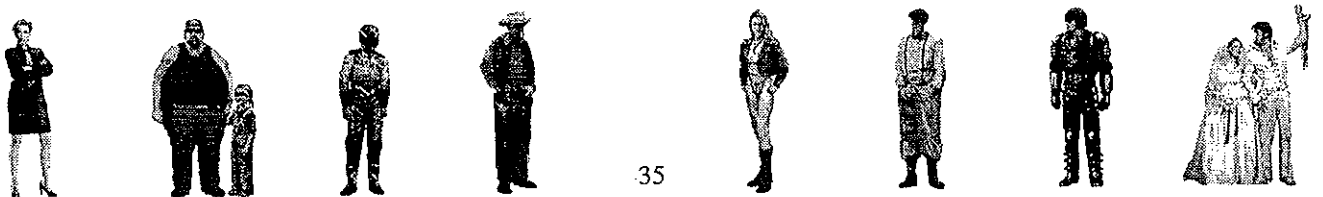
This allows the network parameters of linked cabinets to be set.

```
              NETWORK ASSIGNMENTS

   COMMUNICATION                    NETWORK

   PRIVILEGE MODE                    MASTER        A

   CABINET ID NUMBER                    1          B

 ⇨ EXIT

              SELECT BY SERVICE BUTTON
              AND PUSH TEST BUTTON
```

1. See the Machine Options: Linking Cabinets section.

(A) PRIVILEGE MODE

Select between MASTER and SLAVE. When multiple two-seat cabinets are linked, only one cabinet is the MASTER. All other cabinets are set to SLAVE. All settings are made to the MASTER unit, and apply to the MASTER and all SLAVE units. It is suggested that the MASTER unit be the unit on the extreme left when facing the games.

(B) CABINET ID NUMBER

When multiple two-seat cabinets are linked, only one cabinet is number 1. This should be the MASTER unit. Set the seat numbers in order counter-clockwise starting with No. 1 at the MASTER unit. Setting two cabinets to the same number, or setting the seat numbers randomly, rather than sequentially, may cause confusion on the displays during play.

BOOKKEEPING

This test mode allows all of the CREDIT/TIME/GAME data to be determined.

COIN DATA

```
                    BOOKKEEPING 1/3

        COIN CHUTE  L        0                      A
        COIN CHUTE  R        0                      B
        TOTAL COIN           0                      C

        COIN CREDITS         0                      D
        SERVICE CREDITS      0                      E
        TOTAL CREDITS        0                      F

        NUMBER OF GAME L     0
        NUMBER OF GAME R     0
        TOTAL GAME           0                      G

        TOTAL TIME           0D 0H 0M 0S            H
        GAME PLAY TIME       0D 0H 0M 0S            I
        AVERAGE GAME TIME    0M 0S                  J
        LONGEST GAME TIME    0M 0S                  K
        SHORTEST GAME TIME   0M 0S                  L

        PUSH TEST BUTTON TO CONTINUE
```

1. Press the Service Button to proceed to the next page.

2. Press the Test Button to return to the TEST MENU.

(A) COIN CHUTE #1

Displays the number of coins inserted in COIN CHUTE #1

(B) COIN CHUTE #2

Displays the number of coins inserted in COIN CHUTE #2

(C) TOTAL COIN

Total number of times both the COIN CHUTES are actuated

(D) COIN CREDITS

Number of CREDITS registered by COIN insertion only.

(E) SERVICE CREDIT

The SERVICE SWITCH usage frequency.

(F) TOTAL CREDIT

Total number of CREDITS.

(G) NUMBER OF GAMES

Total game play frequency.

(H) TOTAL TIME

Machine's total actuated time (excluding the test performance time).

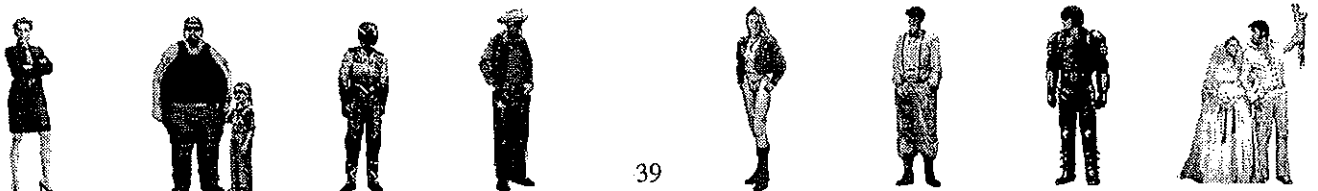(I) GAME PLAY TIME

Displays game play time.

(J) AVERAGE GAME TIME

Average game play time (I/G).

This displays the number of players whose game became "GAME OVER" at each stage of the game. "COMPLETE" refers to the number of players who finished the game. The gauges display the approximate distribution of stage completions.

```
                        BOOKKEEPING 2/3

        PRE-STAGE               0[          ]
        STAGE 1                 0[         ]
        STAGE 2                 0[         ]
        STAGE 3                 0[         ]
        STAGE 4                 0[         ]
        EXTRA STAGE             0[         ]
        COMPLETE                0[         ]

        PUSH TEST BUTTON TO CONTINUE
```
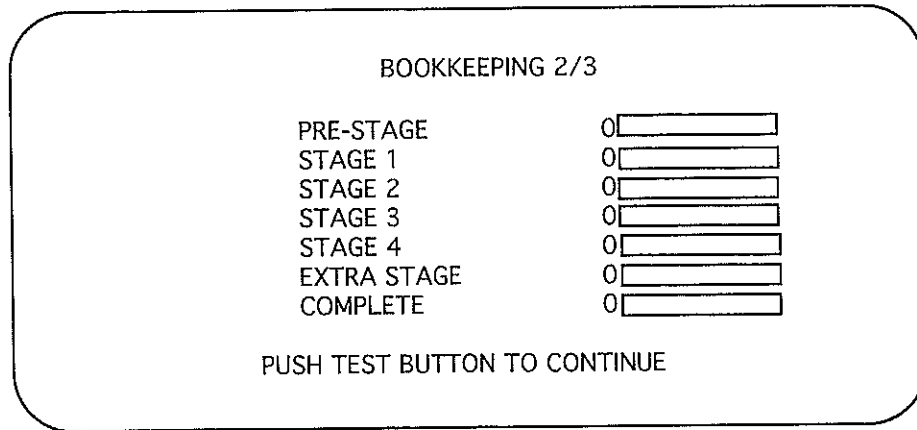
This displays the finishing times (hours, minutes, seconds) of the all-time fastest player on each motorcycle. While the game is in play mode, it displays two "COOL RIDER of COOL RIDERS" times for each motocycle – SUPERSTAR: all-time best, not cleared by a power cycle, and TODAY'S STAR: best since power was last turned on (cleared by a power cycle or Test Mode).In this menu, only the SUPERSTAR time is displayed (TODAY'S STAR's time is cleared by Test Mode).

```
           BOOKKEEPING 3/3

            COOL RIDER OF COOL RIDERS
    REVOLUTION      9' 59" 99
     LIGHTNING      9' 59" 99
      I. C. B. M.   9' 59" 99
       WILDCAT      9' 59" 99
   LOVEMACHINE      9' 59" 99
     DISCOVERY      9' 59" 99
   GRASSHOPPER      9' 59" 99
        DAI-OH      9' 59" 99

   PUSH TEST BUTTON TO EXIT
```

Backup RAM Clear

Clear the contents of BOOKKEEPING.

```
┌─────────────────────────────────────────────┐
│                                             │
│              BACKUP RAM CLEAR               │
│                                             │
│              YES                            │
│                                             │
│          ⇨  NO                              │
│                                             │
│         SELECT BY SERVICE BUTTON            │
│          AND PUSH TEST BUTTON               │
│                                             │
└─────────────────────────────────────────────┘
```

1. When clearing, bring the cursor ⇨ to YES (CLEAR) by using the Service Button, and push the Test Button.

2. When not clearing, bring the cursor ⇨ to NO (CANCEL) by using the Service Button, and push the Test Button.

3. When clearing is finished, "COMPLETED" will be displayed.

4. Press the Test Button to return to the Test Menu.

PERIODIC CHECK

The periodic check and maintenance of the items listed in Table 10 is suggested to retain the performance of this machine and to ensure safe operation.

TABLE 10: PERIODIC CHECK AND MAINTENANCE ITEMS

ASSEMBLY	ACTION ITEM	INTERVAL
CONTROL	Check Button lamps	Monthly
	Check VOLUME VALUE	Monthly
HANDLEBAR	Check THROTTLE	Monthly
	Check BRAKE LEVER	Monthly
	Check ACCELERATOR	Monthly
OVER/UNDER COIN DOOR ASSEMBLY	Check COIN SWITCH	Monthly
	Clean COIN SELECTOR	Tri-Monthly
MONITOR	Check ADJUSTMENTS	Monthly
GAME BOARD	Run MEMORY TEST	Monthly

TROUBLESHOOTING

The items listed in Table 11 will assist in troubleshooting when a problem occurs. As a first step, check all wiring connector connections and verify AC power to the machine.

TABLE 11: TROUBLESHOOTING GUIDE

PROBLEMS	CAUSE	COUNTERMEASURES
When the main SW is turned ON, the machine is not activated.	The cord is not plugged in. Power switch is off. Incorrect power source/voltage. Primary or secondary fuse blown.	Firmly insert the plug into the outlet. Turn on the cabinet. Make sure that the power supply voltages are correct. First, remove the cause of overcurrent and replace the fuse. Fuses: 10A & 6A 250V Fast Blo.
MONITOR screen is blackened and the fluorescent lamp does not light up.	Primary fuse blown. Defective connections between boards.	First remove the cause of overcurrent, then replace the fuse. Fuses: 10A & 6A 250V Fast Blo.
The color of image on MONITOR screen is incorrect.	Incorrect monitor adjustment.	Make sure of correct connections between boards.
The on-screen image of the monitor sways and/or shrinks.	The power source and voltage are not correct.	Make appropriate adjustments Make sure that the power supply and voltage are correct.
Control panel controls are not operating satisfactorily.	Handlebar controls or Button microswitches malfunctioning	Adjust or replace microswitches. Replace the fluorescent lamp.
Fluorescent lamp doesn't light up.	Fluorescent lamp needs replacement. The connector is disconnected.	Check connector connections in the marquee.
Sound is not emitted.	Primary fuse is blown. Sound volume adjustment is not correct.	Replace fuse. Adjust the Service Panel's volume control knob.
Game makes sounds, but has no picture.	Malfunctioning of sound board and/ or memory.	Perform the SOUND TEST.

MACHINE OPTIONS

LINKING CABINETS

This machine can be linked to similar machines to allow up to eight (8) people (four Cool Riders cabinet sets) to race on the same course. Setting up LINKING requires modifications to the Assembly, Game Assignment and Network Assignments Settings, and Playing Instructions, as described in the following three sections.

ASSEMBLY

1. Due to the length of the fiber optic communications cables, connected machines must be located within 12 feet of each other.
2. Link the machines as shown in Figure 16, using the fiber optic cable found coiled inside each machine's Cash Box Tower.
3. Remove the protective plug from the TX and RX connectors on the game board case (located in the left-side underseat cabinet, on the edge of the game board case, see Figure 15).
4. Route the fiber optic cables through the hole in the rear of the Cash Box Tower and the matching holes in the side of the Cash Box Tower and the left-side underseat cabinet.
5. Connect one end of the MASTER cabinet's fiber optic cable to the MASTER cabinet's game board case TX connector (see Figure 16, four players) and the other end to the SLAVE cabinet's game board case RX connector.
6. Connect one end of the SLAVE cabinet's fiber optic cable to the SLAVE cabinet's game board case TX connector (see Figure 16, four players) and the other end to the MASTER cabinet's game board case RX connector.
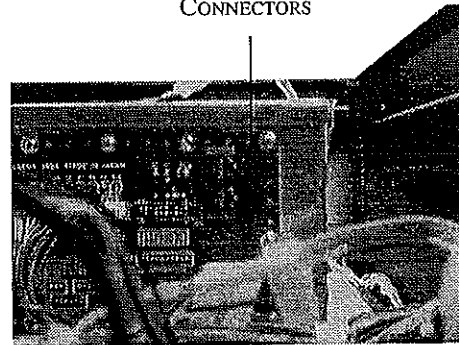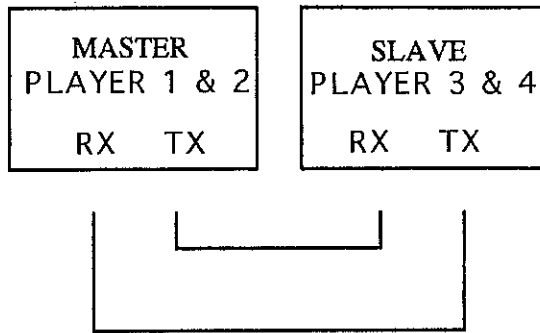

FIGURE 15: LINKING CONNECTOR LOCATION

7. To link additional machines, add additional SLAVE machines, connecting TX outputs to RX inputs, as shown in Figure 16, six and eight players. Do not simply insert a fourth unit into the middle of a three cabinet system.
8. Apply Seat Number stickers to the metal plate at the right of each handlebar, starting from the left-side cabinet of the MASTER cabinet and proceeding to the right (see Figure 16).
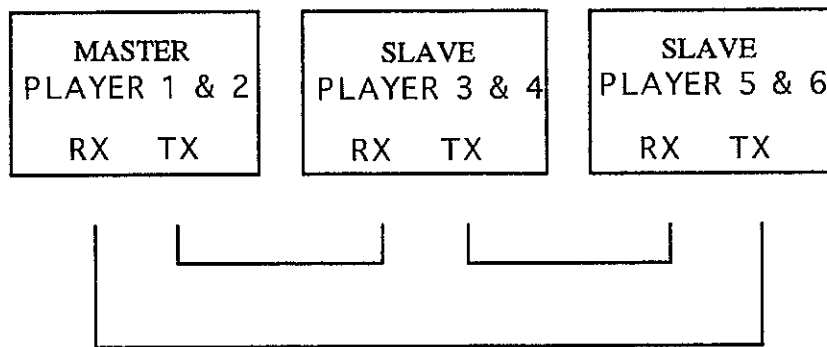

CAUTION
Do not bend or kink the fiber optic communication cables.

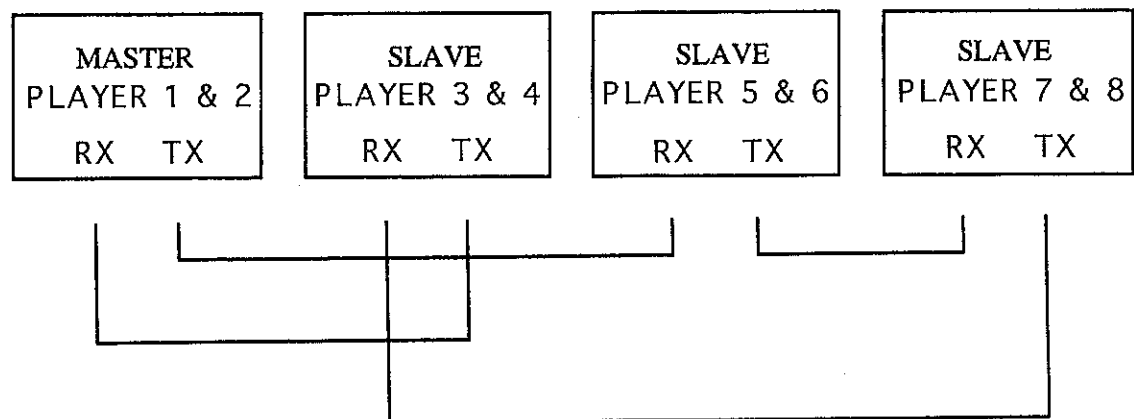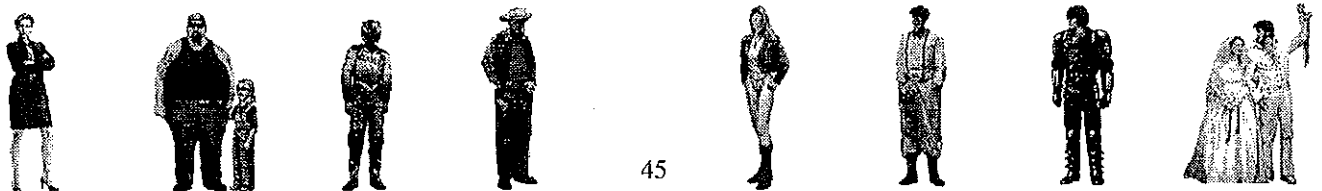
44

4 PLAYER LINKING

MASTER PLAYER 1 & 2 RX TX	SLAVE PLAYER 3 & 4 RX TX

6 PLAYER LINKING

MASTER PLAYER 1 & 2 RX TX	SLAVE PLAYER 3 & 4 RX TX	SLAVE PLAYER 5 & 6 RX TX

8 PLAYER LINKING

MASTER PLAYER 1 & 2 RX TX	SLAVE PLAYER 3 & 4 RX TX	SLAVE PLAYER 5 & 6 RX TX	SLAVE PLAYER 7 & 8 RX TX

FIGURE 16: LINKING DIAGRAMS

For each linked cabinet, press the Test Button on the Service Panel and modify the Network Assignments menu as shown below. When changing settings, refer to the Test Mode section.

1. Press the Test Button to enter the Test menu and choose NETWORK ASSIGNMENTS (see Figure 17).
2. Bring the cursor ⇨ to COMMUNICATION and press the Test Button to select NETWORK (see Figure 18).
3. Move the cursor ⇨ to PRIVILEGE MODE and press the Test Button to allow one of the cabinets to be set to MASTER. Set all other cabinets to SLAVE.
4. Bring the cursor ⇨ to CABINET ID NUMBER, press the Test Button, and set the machine numbers sequentially (1, 2, 3, ... 8) as applicable, starting from the extreme left cabinet, facing the front of the monitors (matching the seat numbers). If the same number is set for two or more cabinets, or if the sequential order is incorrect, the game display will be confused.
5. In the case of linked play, the Game Assignments settings are made on the MASTER cabinet. Even if the settings are changed on the SLAVE machines, the settings will not be effective. Changing the settings on the MASTER cabinet causes all of the SLAVE machines to change the to MASTER unit's settings.
6. All linked machines perform a NETWORK CHECK (see Figure 19) when the power is turned on, and when exiting the Test Menu. Linked play is not possible unless all of the linked machines simultaneously perform a NETWORK CHECK. Should testing become necessary for one machine, all of the remaining machines will be tested. When testing is finished for the machine which required testing, all of the machines will exit from the Test Menu at the same time.
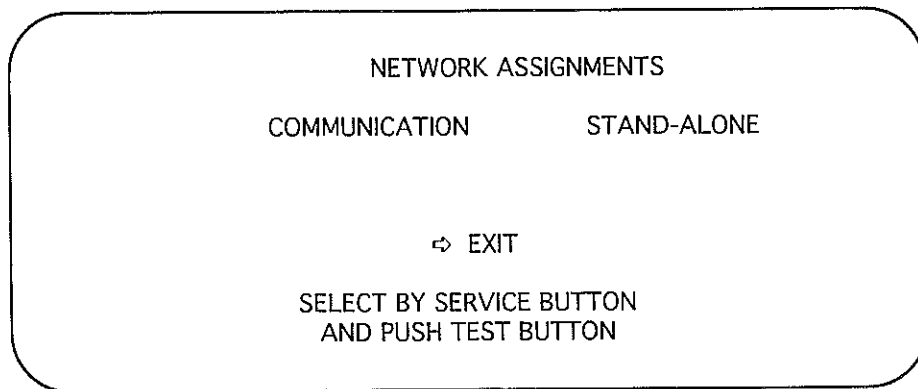
```
                    NETWORK ASSIGNMENTS

       COMMUNICATION            STAND-ALONE



                    ⇨  EXIT

            SELECT BY SERVICE BUTTON
            AND PUSH TEST BUTTON
```
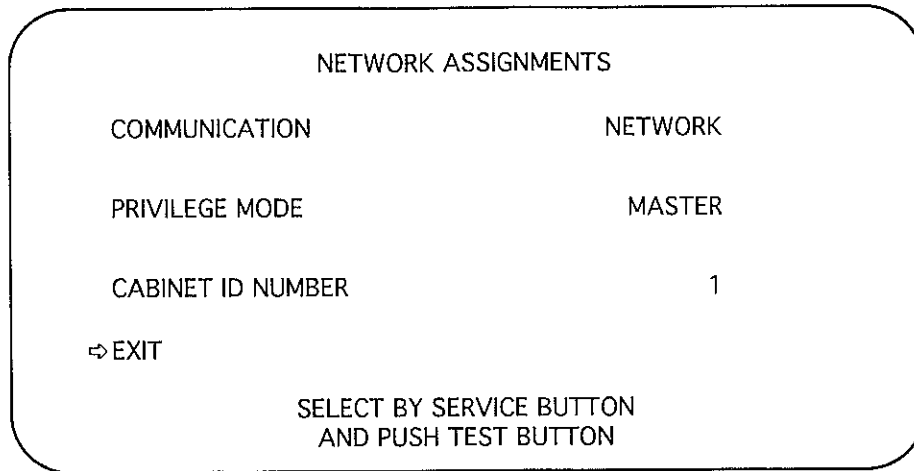
FIGURE 17: NETWORK ASSIGNMENTS SCREEN – STAND-ALONE MODE

```
┌─────────────────────────────────────────────────┐
│              NETWORK ASSIGNMENTS                │
│                                                 │
│     COMMUNICATION              NETWORK          │
│                                                 │
│     PRIVILEGE MODE             MASTER           │
│                                                 │
│     CABINET ID NUMBER             1             │
│   ⇨ EXIT                                        │
│                                                 │
│            SELECT BY SERVICE BUTTON             │
│            AND PUSH TEST BUTTON                 │
└─────────────────────────────────────────────────┘
```

FIGURE 18: NETWORK ASSIGNMENTS SCREEN – LINKED MASTER CABINET

```
┌──────────────────────────┐      ┌──────────────────────────┐
│                          │      │                          │
│  CHECKING  NETWORK. (XXXXX) ⇨    │   NETWORK TIME OUT.      │
│                          │      │                          │
└──────────────────────────┘      └──────────────────────────┘
```
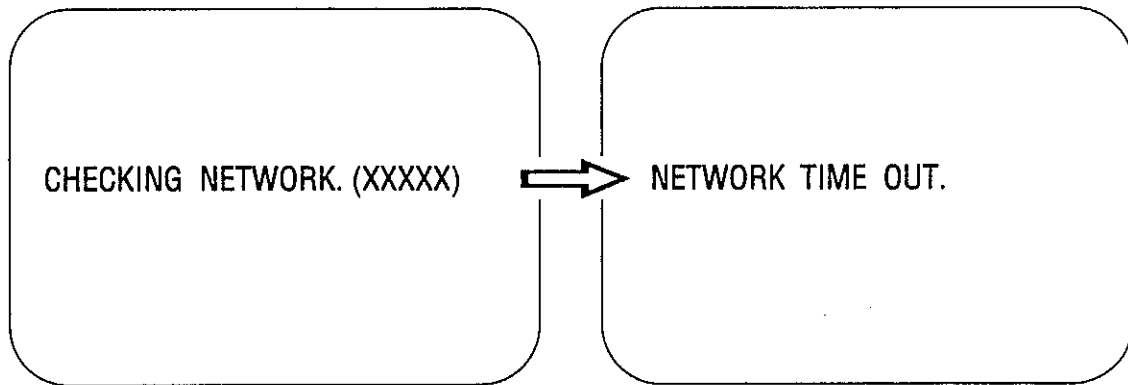
FIGURE 19: NETWORK CHECKING SCREENS

PLAYING INSTRUCTIONS

Most of the instructions in the HOW TO PLAY section apply to linked or unlinked machines, with the following exceptions.

1. The player at the MASTER machine should insert a coin first, and press the start button. A message "WAITING FOR YOUR ENTRY" will appear on the remaining linked machine's monitors.
2. Within 14 seconds, each linked machine player who desires to compete must insert a coin in their coin slot.
3. The player at the MASTER machine will make the course selection for all linked players.
4. Each player should select the motorcycle that they wish to ride on.
5. Shift selection is made independently on each machine.
6. After AUTO or MANUAL shift has been selected, the race begins.
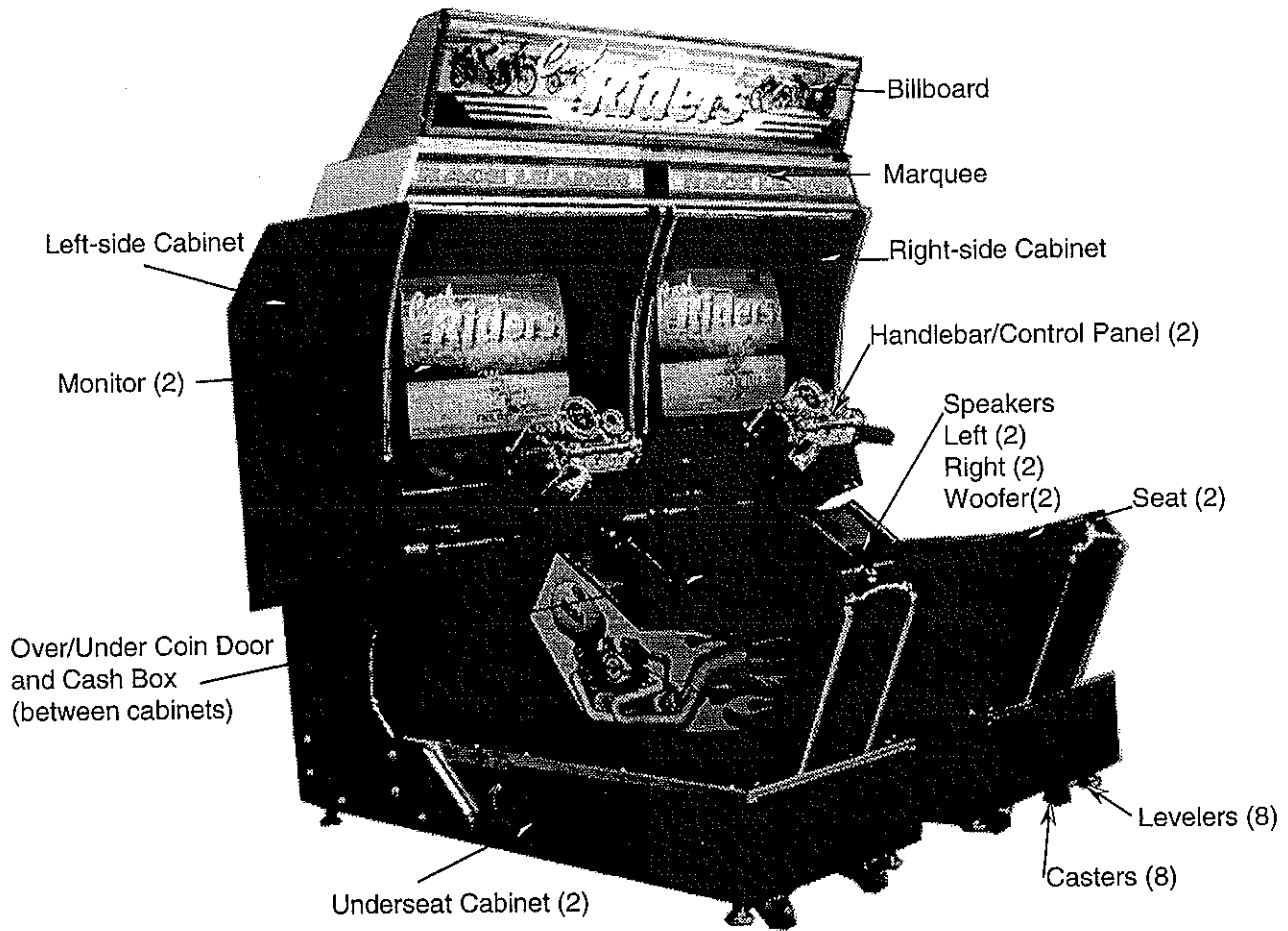
PARTS IDENTIFICATION

Billboard

Marquee

Left-side Cabinet

Right-side Cabinet

Handlebar/Control Panel (2)

Monitor (2)

Speakers
Left (2)
Right (2)
Woofer(2)

Seat (2)

Over/Under Coin Door
and Cash Box
(between cabinets)

Levelers (8)

Casters (8)

Underseat Cabinet (2)
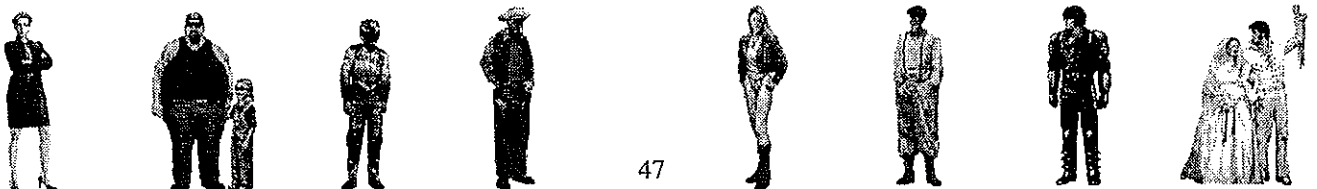
FIGURE 20: COOL RIDERS CABINET PARTS IDENTIFICATION

Side Panel Decals
Left (2) ⑮
Right (2) ⑯

Billboard Plate Upper㉖

Marquee ㉗

Motorcycles
Left ㉔
Right ㉕

Handlebar Graphics
(see Figure 22)

Seat Side Decals
Left (2) ⑰
Right (2) ⑱
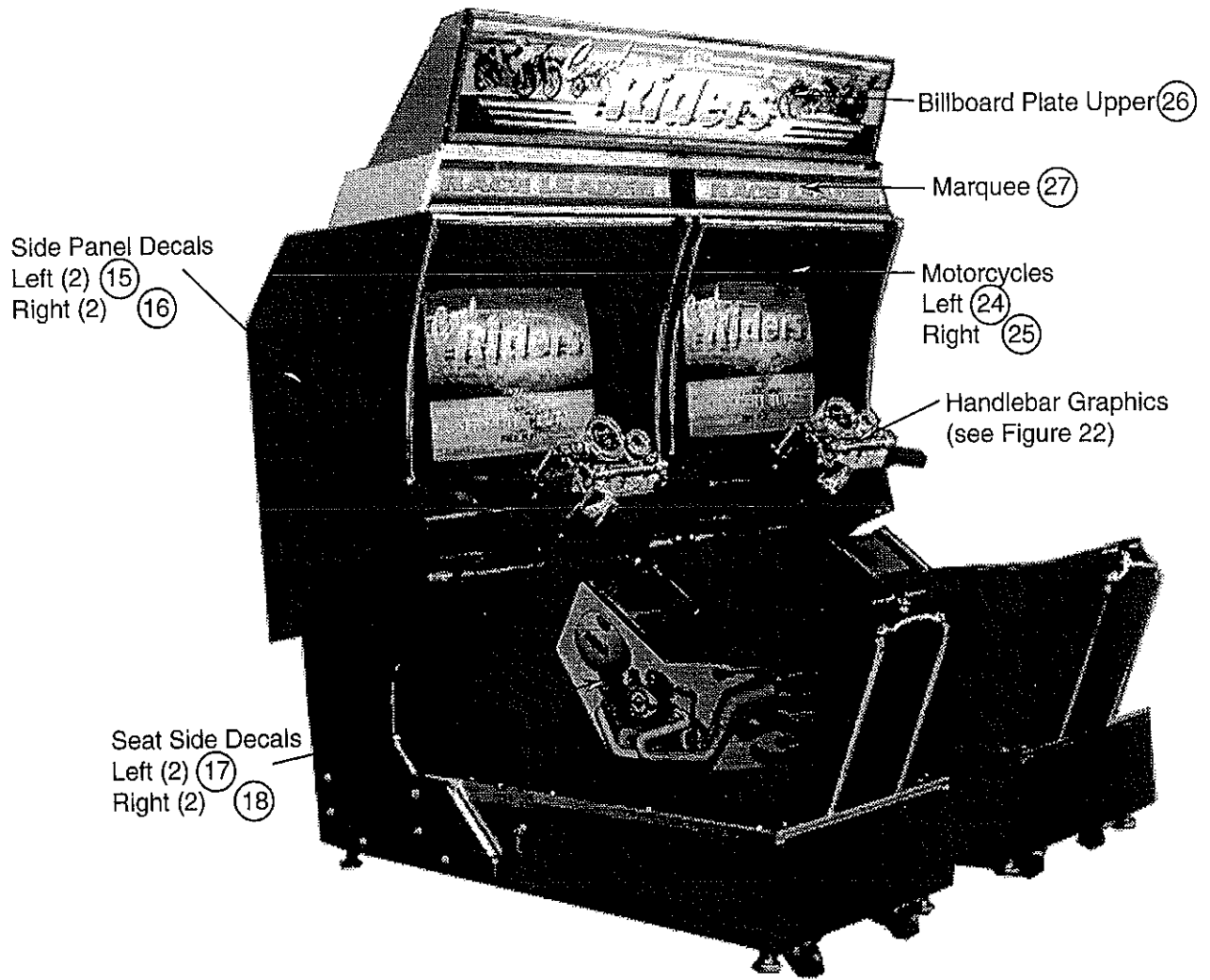
FIGURE 21: COOL RIDERS GRAPHICS
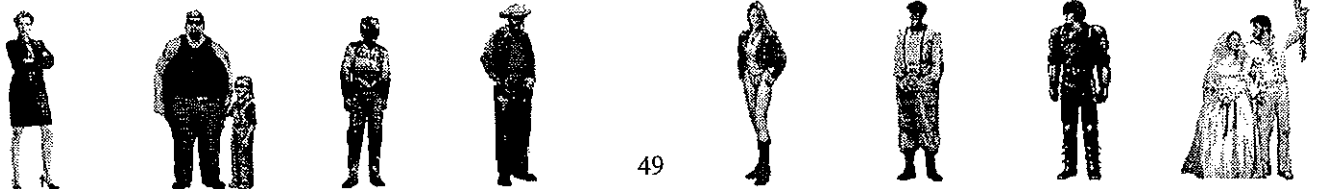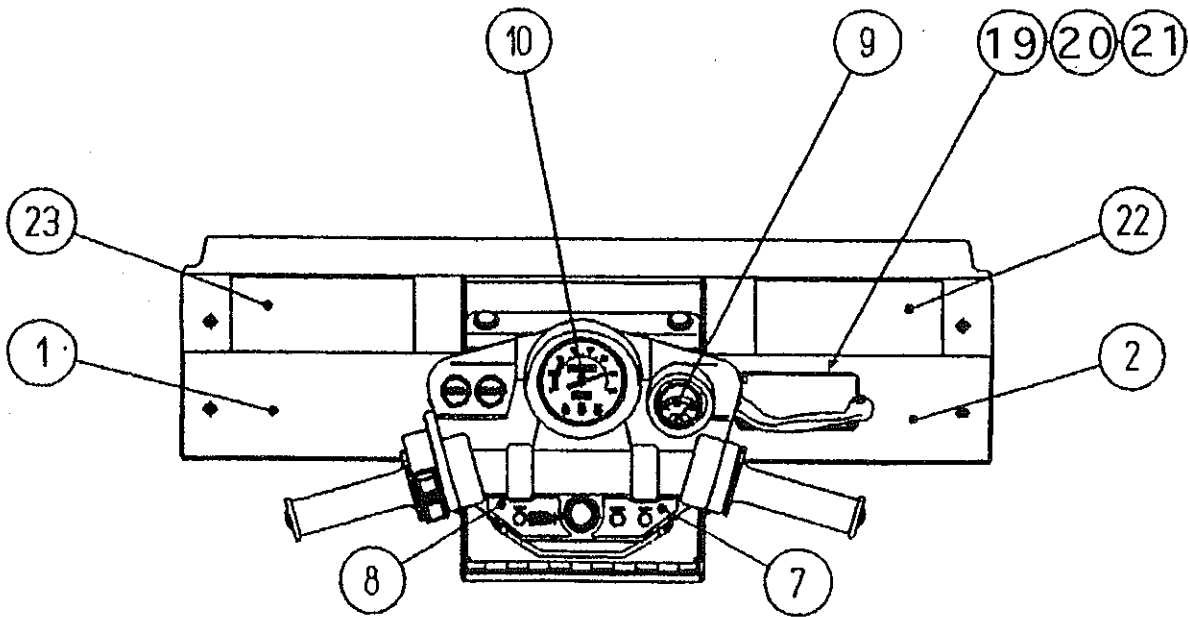
FIGURE 22: COOL RIDERS CONTROL PANEL GRAPHICS

Table 12: Cool Riders Control Panel Graphics Parts List

No.	PART No.	DESCRIPTION
1	COL-1202-B	STICKER CONT PNL LEFT
2	COL-1202-C	STICKER CONT PNL RIGHT
7	COL-2002-B	STICKER START RIGHT
8	COL-2002-C	STICKER START LEFT
9	COL-2002-D	STICKER FUEL MTR
10	COL-2002-E	STICKER SPEED MTR
15	4211-8786	STICKER RIGHT COL
16	4211-8787	STICKER LEFT COL
17	421-8788	STICKER BASE RIGHT
18	421-8789	STICKER BASE LEFT
19	421-8795	STICKER BIKE No.1
20	421-8796	STICKER BIKE No.2
21	421-8797	STICKER BIKE No.3~8
22	422-0516-01	PLAY INSTR SH COL ENG
23	422-0517-01	PLAY INSTR MAP SH COL ENG
24	422-0518-01	SUB INSTR SH COL A ENG
25	422-0519-01	SUB INSTR SH COL B ENG
26	423-0239	BILLBOARD PLATE UPPER
27	423-0240	BILLBOARD PLATE LOWER
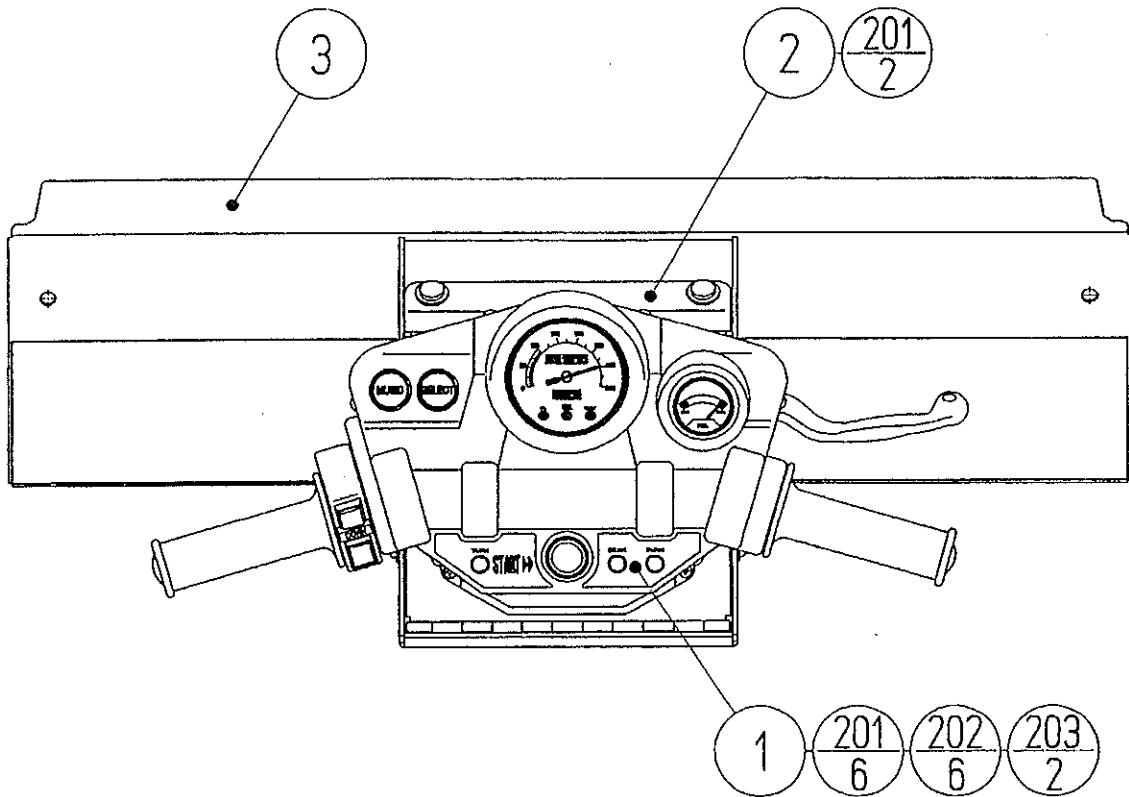
FIGURE 23: CONTROL PANEL ASSEMBLY

Table 13: Control Panel Parts List

ITEM NO.	PART NO.	DESCRIPTION
1	COL-2000	ASSY HANDLE
2	COL-1201	HANDLE MOUNT BRKT
3	COL-1202	CONTROL PANEL BASE
101	280-5009	CORD CLAMP ϕ21 -01 also acceptable.
201	008-B00820-0C	TMP PRF SCR BH CRM M8×20
202	068-852216-0C	FLT WSHR CRM 8.5-22×1.6
203	050-F00500	FLG NUT M5

REAR VIEW

FRONT VIEW
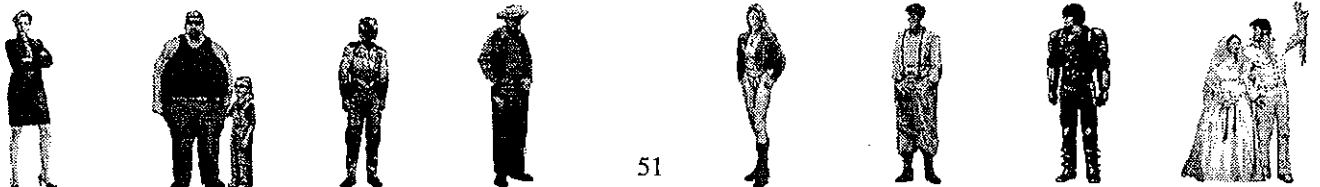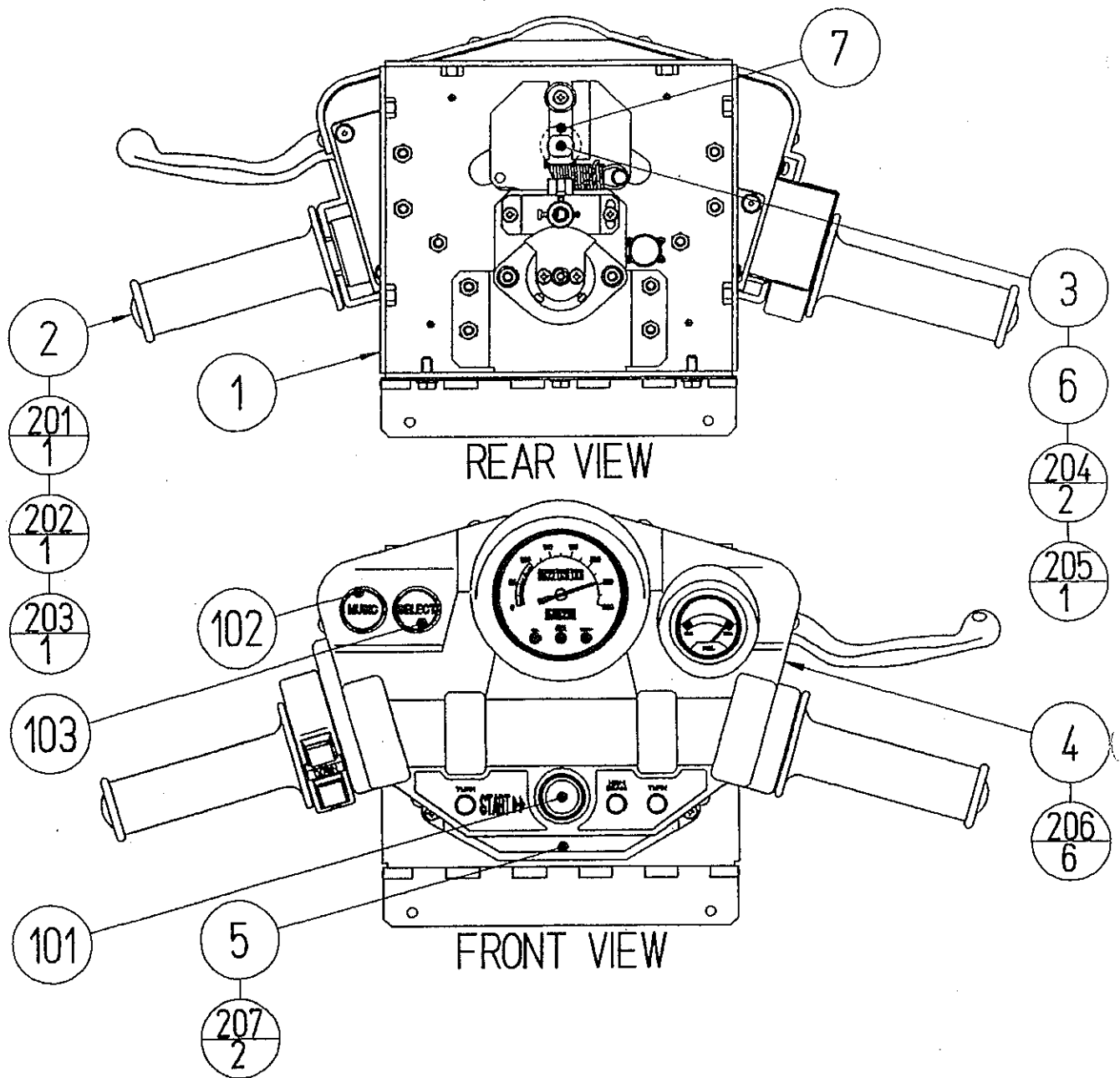
FIGURE 24: HANDLEBAR UNIT ASSEMBLY

Table 14: Handlebar Unit Assembly Parts List

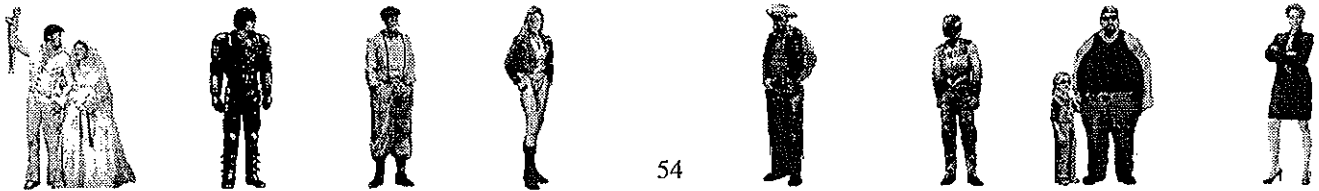| ITEM NO.	PART NO.	DESCRIPTION
1	COL-2100	ASSY CENTERING
2	COL-2200	ASSY HANDLE BASE
3	COL-2001	GUIDE PIN
4	COL-2002	HANDLE COVER
5	COL-2003	LOWER GUIDE BLOCK
6	COL-2105	CENTERING GUIDE RUBBER
7	SLC-0006	FLT WASHER 8.4-25×2
101	509-0161	PUSH BUTTON SWITCH 1T YELLOW W/LAMP
102	509-5640-01	PUSH BUTTON MUSIC
103	509-5640-02	PUSH BUTTON SELECT
104	280-5009	CORD CLAMP ϕ21 −01 also acceptable.
105	280-0425	CORD CLAMP ϕ10
106	601-0460	PLASTIC TIE BELT 100MM
201	050-H01000	HEX NUT M10
202	060-F01000	FLT WSHR M10
203	060-S01000	SPR WSHR M10
204	050-H00800	HEX NUT M8
205	060-S00800	SPR WSHR M8
206	000-T00408-0C	M SCR TH CRM M4×8
207	000-P00412-WB	M SCR PH W/FS BLK M4×12
301	600-6563-03	WIRE HARN PUSH BUTTON
302	600-6563-06	WIRE HARN HANDLE FLEX 15P
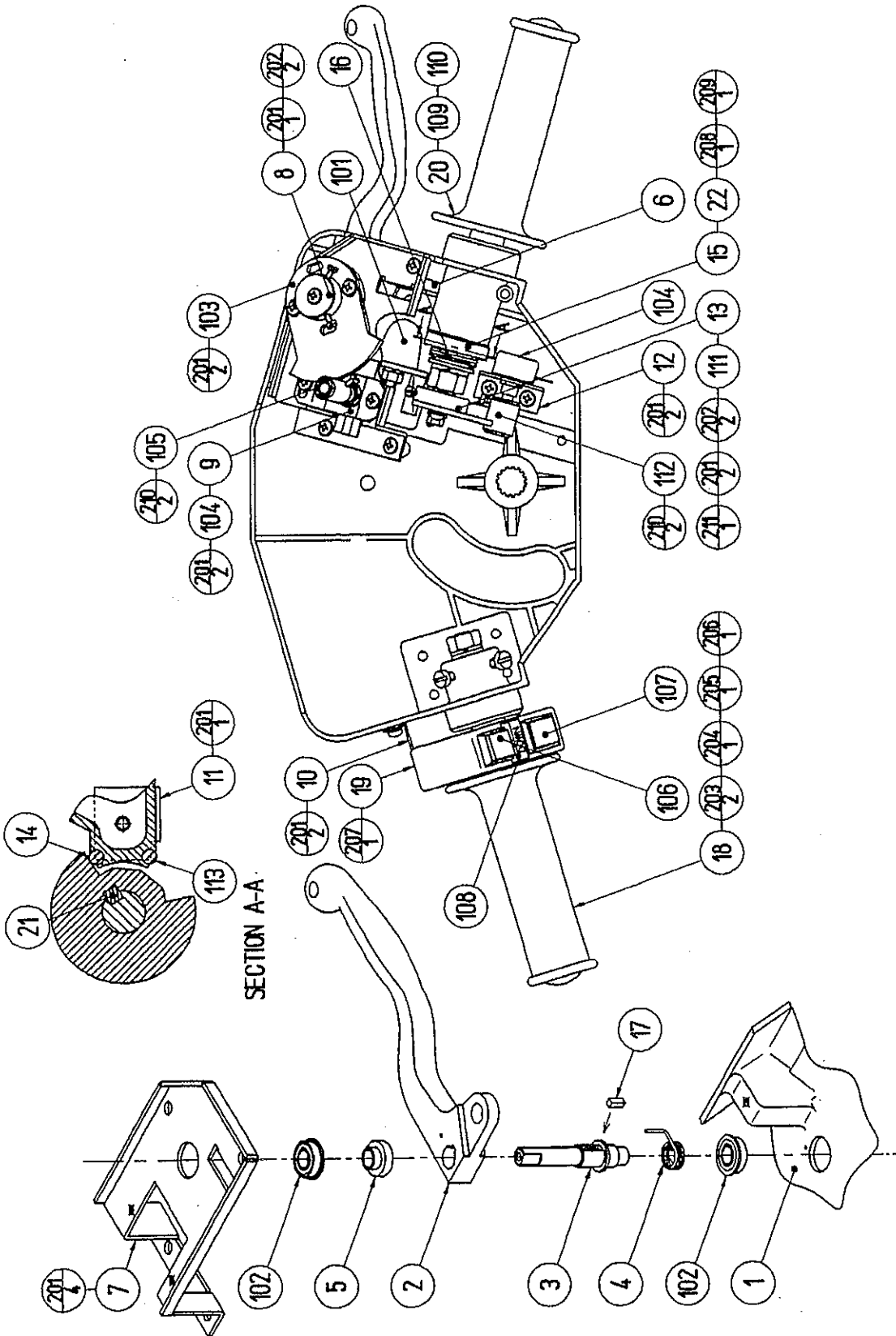
FIGURE 25: HANDLEBAR INTERNAL PARTS ASSEMBLY

54

Table 15: Handlebar Internal Assembly Parts List

ITEM NO.	PART NO.	DESCRIPTION
1	COL-2201	HANDLE BASE
2	COL-2202	BRAKE LEVER
3	COL-2203	LEVER SHAFT
4	COL-2204	TORSION SPRING 1.2
5	COL-2205	LEVER COLLAR
6	COL-2206	BRAKE RUBBER
7	COL-2207	BEARING HOLDER
8	COL-2208	GEAR HOLDER 110
9	COL-2209	BRAKE VOL BRKT
10	COL-2210	WIRE COVER
11	COL-2211	STOPPER LID
12	COL-2212	ACCEL VOL BRKT
13	COL-2213	GEAR HOLDER 80
14	COL-2214	ACCEL RUBBER
15	COL-2215	STOPPER DISK
16	COL-2216	TORSION SPRING 1.5
17	GLC-2218	KEY $3 \times 3 \times 7$
18	GPD-2003	HANDLE GRIP LEFT
19	GPD-2007	SWITCH CASE
20	HSD-2002	ACCEL GRIP
21	HSD-2019	KEY $4 \times 4 \times 12$
22	HSD-2017	SPRING HOLDER
101	601-5564	STOPPER
102	100-5041	BEARING (NSK F688ZZ)
103	601-6450	GEAR 110
104	220-5484	VOL CONT B-5K OHM
105	601-7944	GEAR 15
106	509-5003	PUSH BUTTON SW 1T 14.2□ GREEN
107	509-5003-03	PUSH BUTTON SW 1T 14.2□ RED
108	421-7752	STICKER UP DOWN
109	100-5111	BEARING ϕ12 (NSK 6001ZZ)
110	100-5112	BEARING ϕ17 (NSK 6003ZZ)
111	601-6005	ADJUST GEAR
112	601-7945	GEAR 20
113	100-5194	BEARING PIN 4×17.8
114	280-5009	CORD CLAMP ϕ21 -01 also acceptable.
115	310-5029-D20	SUMITUBE F D20MM
201	000-P00412-WB	M SCR PH W/FS BLK $M4 \times 12$
202	028-C00416-P	SET SCR CH CUP P $M4 \times 16$
203	028-C00512-P	SET SCR CH CUP P $M5 \times 12$
204	050-H01000	HEX NUT M10
205	060-F01000	FLT WSHR M10
206	060-S01000	SPR WSHR M10
207	000-P00525-W	M SCR PH W/FS $M5 \times 25$
208	050-H01200	HEX NUT M12
209	060-S01200	SPR WSHR M12
210	028-C00308-P	SET SCR CH CUP P $M3 \times 8$
211	060-F00500	FLG NUT M5
301	600-6563-01	WIRE HARN SHIFT UP
302	600-6563-02	WIRE HARN SHIFT DOWN
303	600-6563-04	WIRE HARN ACCEL&BRAKE

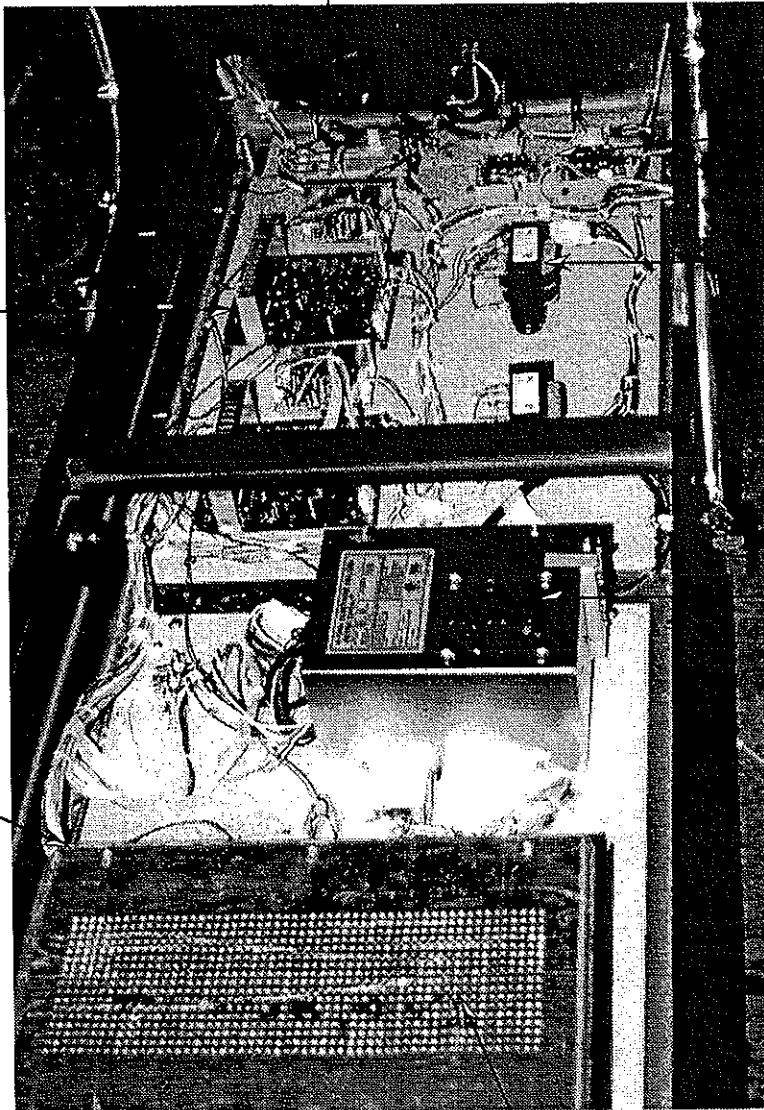Fuses
Back: 10 A Fast-Blo
Middle and Front: 6A Fast-Blo

Solid State Relay (2)
080-0080-014-000

Transformer (2)
12.5V 6A

Audio Amps (2)
838-11650-02
Back: Left-side
Front: Right-side
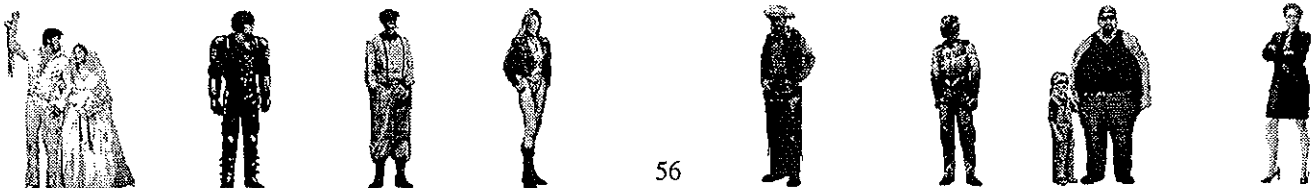
Power Supply
+5V / 16 A
-5V / 0.5A
+12V / 6A

TX/RX Linking
Connectors

Game Board Case

Game Board Fan
5VDC, 4 inch

FIGURE 26: GAME BOARD, AND FUSES

SERVICE INFORMATION

BILLBOARD LAMPS REPLACEMENT

1. Turn off the game at the power switch and unplug the Cool Riders game.

2. Remove the three screws along the front edge of the Billboard between the Billboard and the Race Leader Marquee.

3. Tilt the Billboard top section open toward the rear, as shown in Figure 27.

4. The lamps are located as shown in Figure 27.

5. Replace the Billboard's fluorescent lamp with a 48 inch, 40 Watt fluorescent lamp.

6. Replace the Race Leader spot light(s) by lifting the Lamp Lid(s) and replacing the burned out bulb(s) with 110V, 30 Watt incandescent spot lamps.

7. Replace the Lamp Lid(s), if necessary

8. Tilt the Billboard top section back into place.

9. Replace the three screws back into the front edge.

CAUTION!

Use caution when removing lamps, they may be very hot.
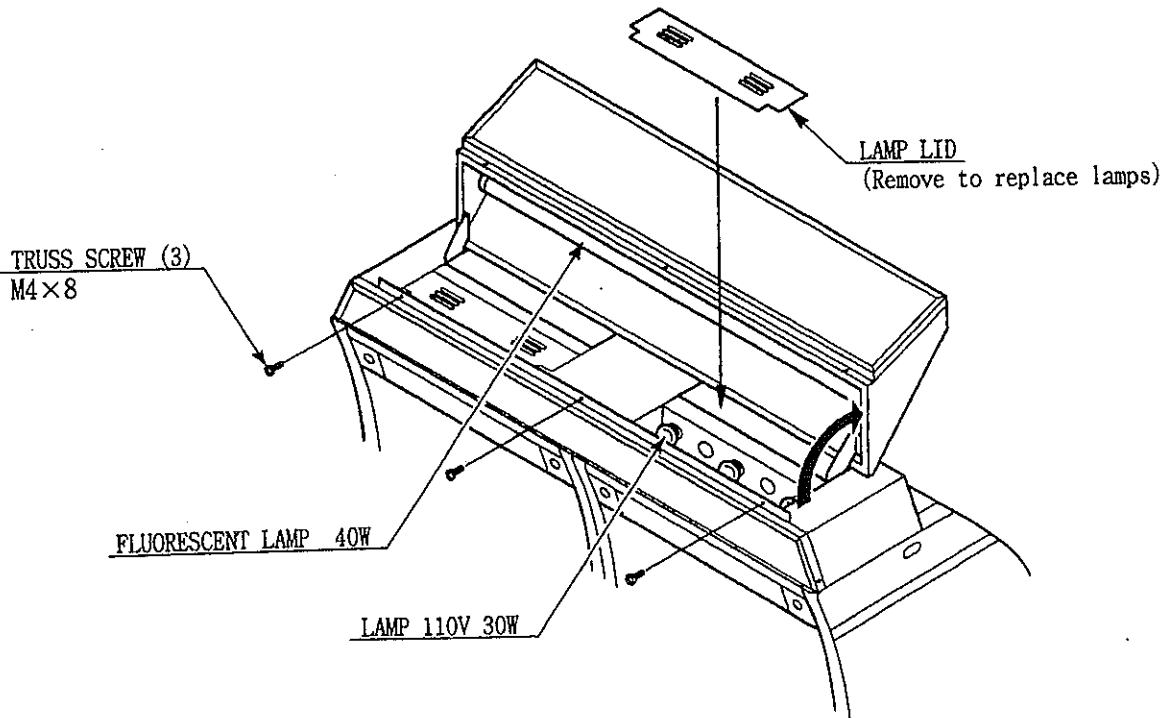
FIGURE 27: BILLBOARD LAMPS REPLACEMENT
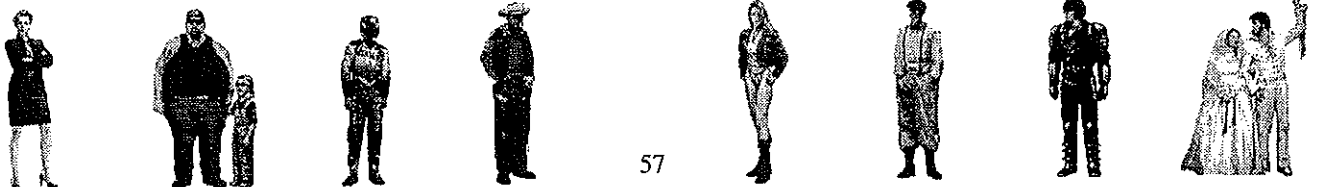
GAME BOARD, POWER SUPPLY AND FUSE ACCESS

    The Cool Riders' Game Board and Power Supply are located in the locked underseat cabinet under the Cool Riders' left-side Motorcycle Seat. There is no reason to open the right-side underseat cabinet since it only contains the wire harnesses for the right-side speaker and monitor.

OPENING THE UNDERSEAT CABINET

1. Turn off the game at the power switch and unplug the Cool Riders game.
2. Place a sheet of cardboard or a cloth on the ground along the front edge of the game (behind the left-side seat) to protect the seat from damage.
3. Remove the two #15 anti-tamper Torx screws (and washers) that secure the left-side motorcycle seat to the underseat cabinet. They are located just above the two locks on the opposing sides of the underseat cabinet (see Figure 28).
4. Unlock the two locks on opposing sides of the left-side underseat cabinet (see Figure 28). The same key is used for both the locks on both the left- and right-side underseat cabinets.
5. Grasp the motorcycle seat from the side, near the front of the base, not along the top of the seat area. Incline the motorcycle seat (the hinge is at the back of the seat) away from the monitor.
6. Tip the seat slowly up and back until the seat's back edge is resting on the protected ground (see Figures 28 and 30). Be sure not to catch or pinch your fingers between the seat and the monitor cabinet.
7. Remove the four anti-tamper Torx screws that secure the left-side front floorboard over the game board and power supply.
8. Remove the four anti-tamper Torx screws that secure the game board cover to the game board case.
9. Perform any necessary servicing - see Figure 29 for component locations.
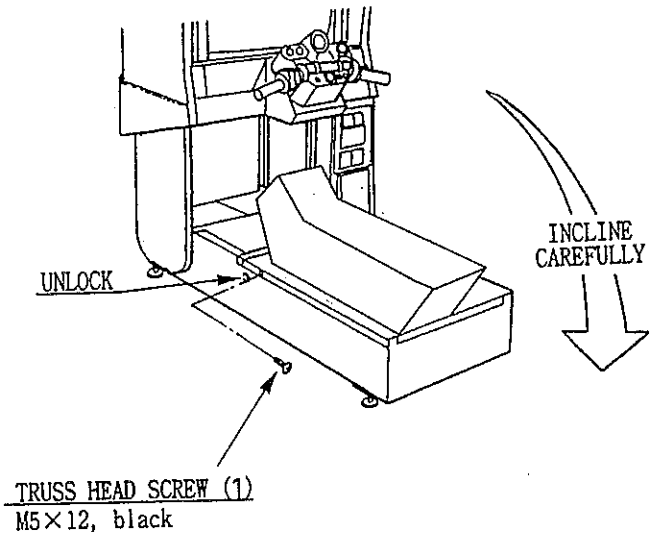10. Fuses are 10A and 6A, 250V, Fast Blo.

UNLOCK

INCLINE CAREFULLY

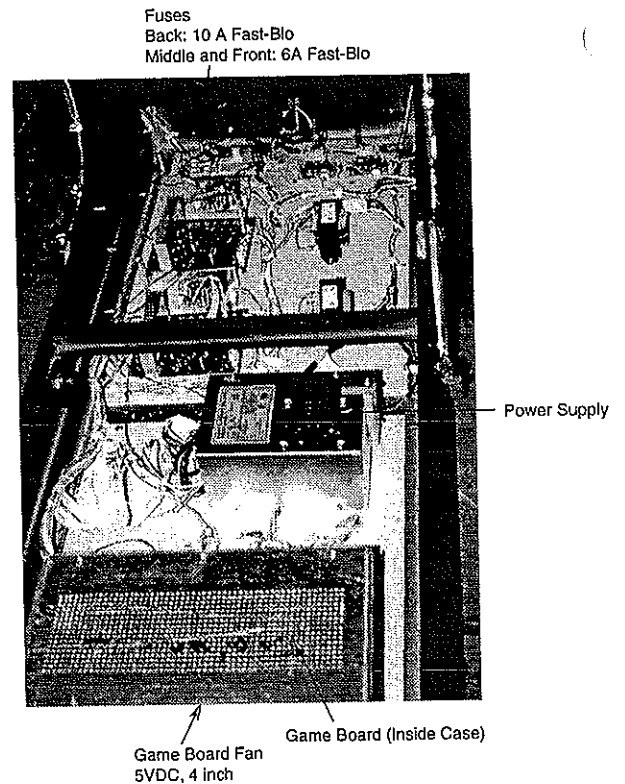TRUSS HEAD SCREW (1)
M5×12, black

FIGURE 28: UNDERSEAT CABINET ACCESS

Fuses
Back: 10 A Fast-Blo
Middle and Front: 6A Fast-Blo

Power Supply

Game Board (Inside Case)

Game Board Fan
5VDC, 4 inch

FIGURE 29: GAME BOARD, POWER SUPPLY, AND FUSE REPLACEMENT

SCREW (3)
M4×8,w/flat & spring washers

CASE LID

BASE LID

TRUSS HEAD SCREW (4)
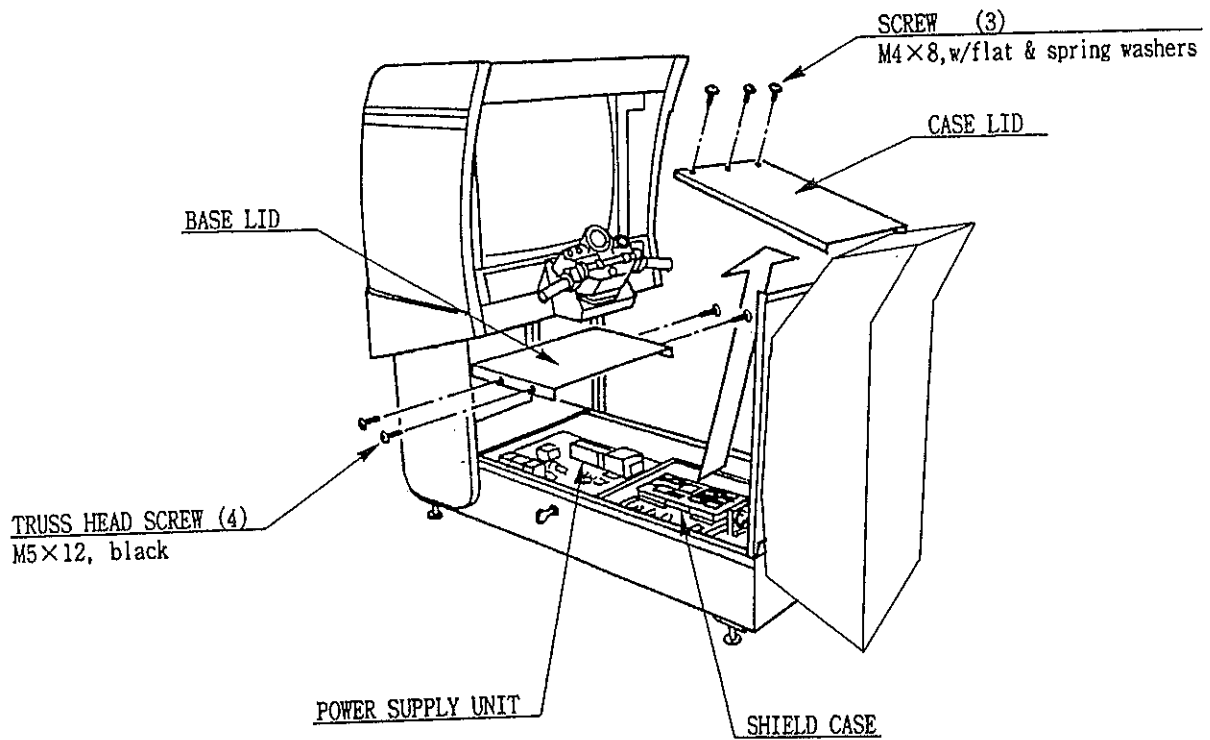M5×12, black

POWER SUPPLY UNIT

SHIELD CASE

FIGURE 30: UNDERSEAT CABINET LID REMOVAL

CLOSING THE UNDERSEAT CABINET

1. Install the four anti-tamper Torx screws that secure the game board cover to the game board case.
2. Install the four anti-tamper Torx screws that secure the left-side front floorboard over the game board and power supply.
3. Grasp the motorcycle seat from the side, near the front of the base, not along the top of the seat area. Incline the motorcycle seat (the hinge is at the back of the seat) toward the monitor.
4. Tip the seat slowly up and forward until the bottom of the seat rests on the underseat cabinet top edge (see Figures 28 and 30). Be sure not to catch or pinch your fingers between the seat and the monitor cabinet.
5. Lock the two locks on opposing sides of the left-side underseat cabinet (see Figure 28). The same key is used for both the locks on both the left- and right-side underseat cabinets.
6. Install the two #15 anti-tamper Torx screws (and washers) that secure the left-side motorcycle seat to the underseat cabinet. They are located just above the two locks on the opposing sides of the underseat cabinet (see Figure 28).
7. Plug the Cool Riders game and turn on the power.

59
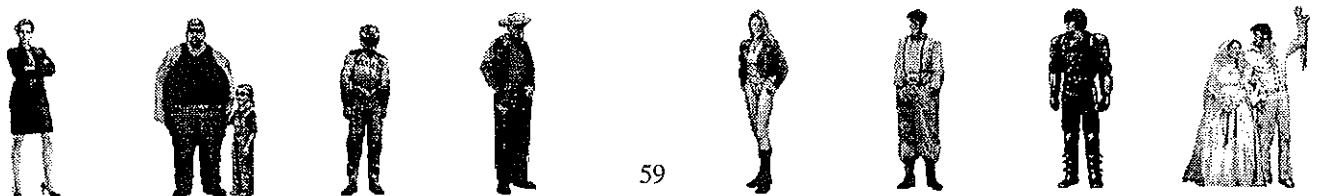
HANDLE GEAR RANGE AND CENTERING ADJUSTMENT

If the Handle Gear Range in the Control Range ("Volume") Adjustment menu cannot be set within the appropriate range of values, an adjustment of the gear's installation position is needed. If the gear cannot be adjusted appropriately, it needs to be replaced.

1. The Cool Riders game must be left plugged in and turned on. Exercise caution in using tools around plugged in game.
2. Open the Handle Unit by removing the 6 tamperproof Torx screws with the supplied tamperproof wrench (stored in the Cash Box) (see Figuer 31).
3. Flip the Handle Unit over to expose the back side gears (see Figure 32).
3. Release the two screws which hold the gear bracket so that it can be moved freely to the left and right.
4. Move the gear bracket to the right to disengage the pinion gear and the adjustment gear (see Figure 32).
5. With the Control Range ("Volume") Adjustment menu on-screen, make adjustments by turning the gear control shaft so that the variable value is between 128±10.
6. To replace the handle gear entirely, disconnect the connector, remove the two bracket screws, replace the gear, and adjust the control values as shown in step 5.
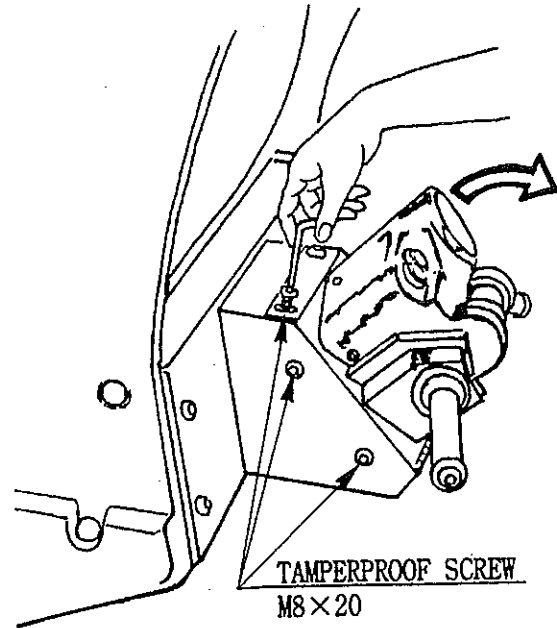

TAMPERPROOF SCREW
M8 × 20

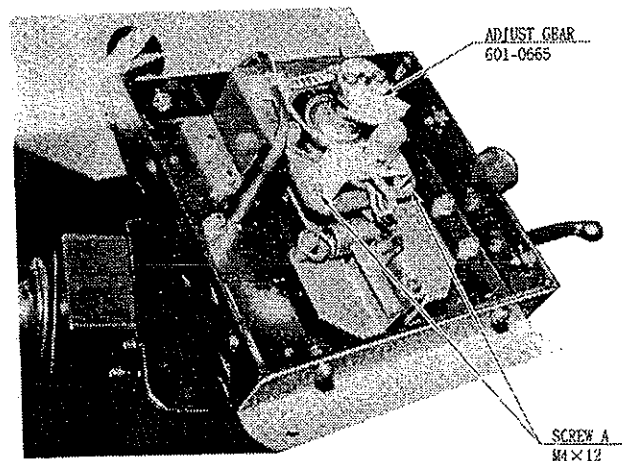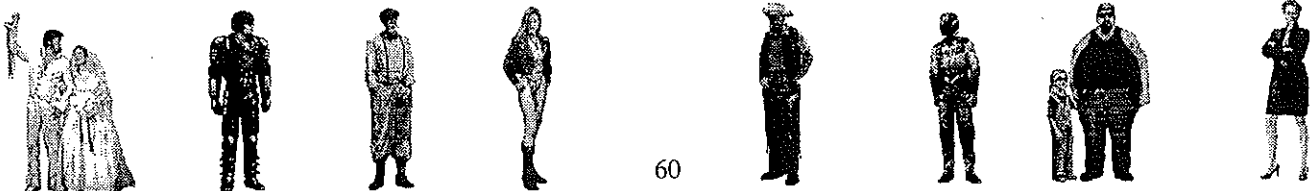FIGURE 31: HANDLE UNIT ACCESS

ADJUST GEAR
601-0665

SCREW A
M4 × 12

FIGURE 32: HANDLE GEAR LOCATION, BOTTOM VIEW

60

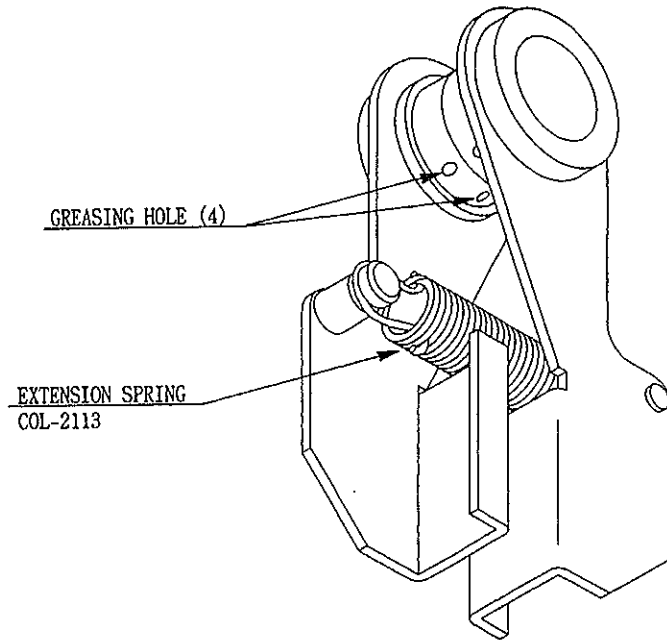GREASING HOLE (4)

EXTENSION SPRING
COL-2113

Figure 33: Handle Spring Parts

1. Turn off the game at the power switch and unplug the Cool Riders game.
2. Open the Handle Unit and apply grease every six months to the spring, the four swing arm's greasing holes, and the gear engagement portions.
3. Remove and replace the spring by using pliers to pull and insert the pin.

If the Throttle or Brake Ranges in the Control Range ("Volume") Adjustment menu cannot be set within the appropriate range of values, an adjustment of the throttle or brake's installation position is needed. If the throttle or brake cannot be adjusted appropriately, they need to be replaced. See Figures 34 and 35 for the location and fit of all parts.

1. The Cool Riders game must be left plugged in and turned on. Exercise caution in using tools around plugged in game.

2. Open the Handle Cover by removing the 6 phillips head screws that secure the Handle Cover to the Handle Base (see Figure 34).

3. Squeeze the brake lever and lift the Handle Cover off of the Handle Base.

4. Unplug the Molex connector that connects the Handle Cover wiring to the rest of the machine (see Figure 34) and set the Handle Cover aside.

5. Release the two screws which hold the Throttle or Brake Gear Brackets so that it can be moved freely to the left and right (Throttle: Screws A; Brake: Screws B) (see Figure 35).

6. With the Control Range ("Volume") Adjustment menu on-screen, make adjustments by turning the throttle control shaft so that the variable value is between 35±10.

7. When the desired value has been obtained, retighten the A screws.

8. With the Control Range ("Volume") Adjustment menu on-screen, make adjustments by turning the brake control shaft so that the variable value is between 40±10.

9. When the desired value has been obtained, retighten the B screws.

10. To replace the Throttle or Brake Gear entirely, disconnect the connector, remove the two bracket screws, release the pinion gear set screws, remove the shaft nut, replace the gear (5k ohm Type B) and other parts, and adjust the control values as shown above.

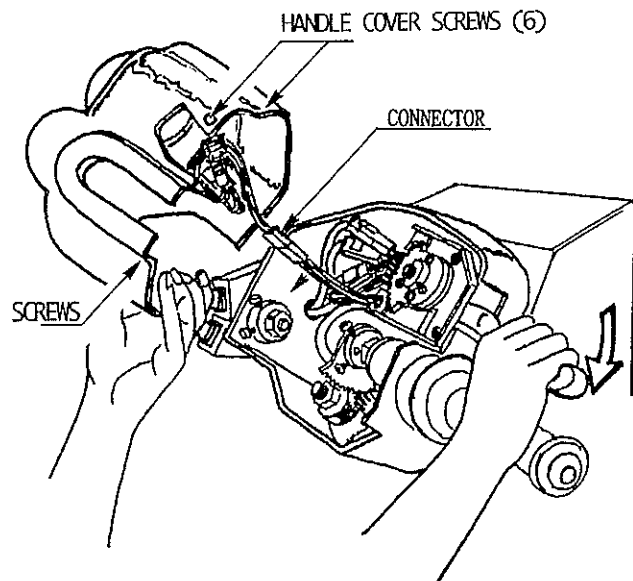11. Plug in the connector, and replace the Handle Cover.
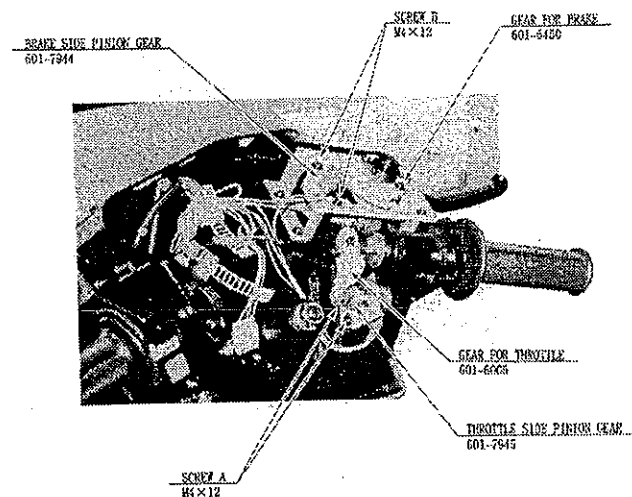

FIGURE 34: HANDLE COVER ACCESS

FIGURE 35: THROTTLE AND BRAKE GEAR ACCESS

THROTTLE AND BRAKE GEAR SPRING GREASING

Apply grease once every six months by spraying the spring and two portions of the gear engagement as shown in Figure 36.
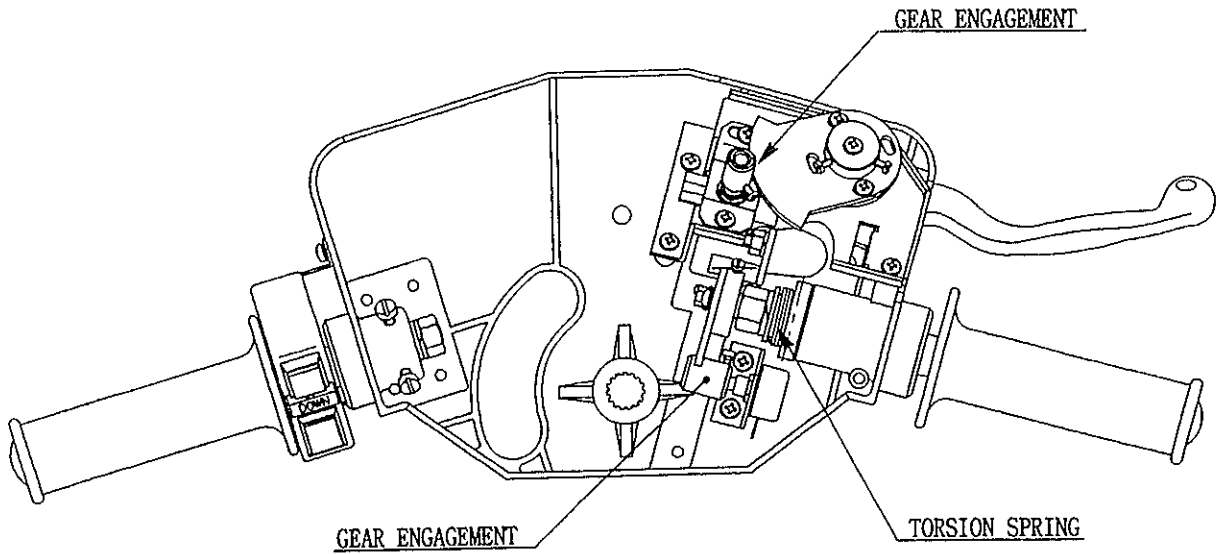
GEAR ENGAGEMENT

GEAR ENGAGEMENT

TORSION SPRING

FIGURE 36: GEAR ENGAGEMENT

THROTTLE AND BRAKE TORSION SPRING REPLACEMENT

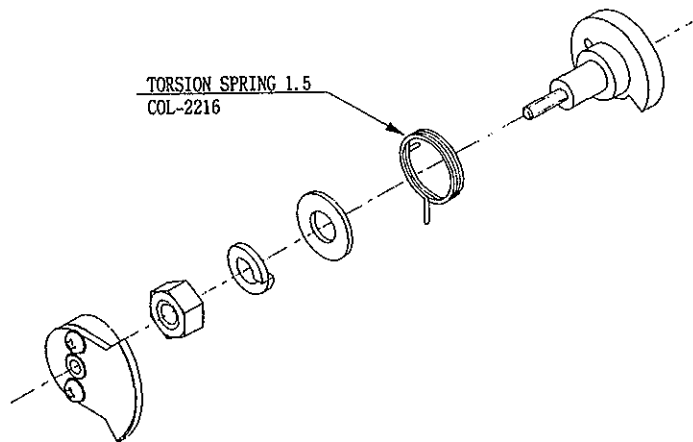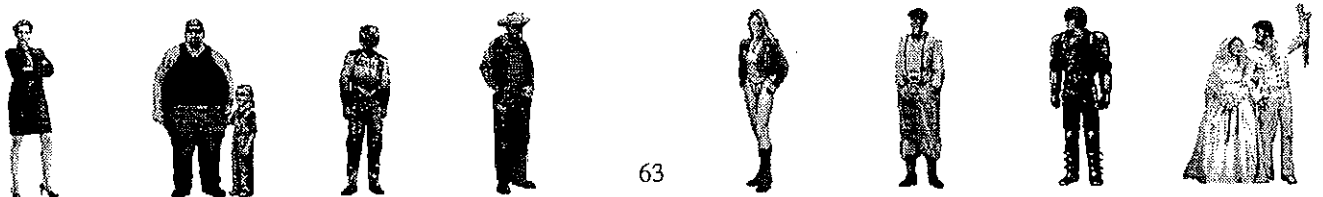Remove and replace the parts as shown in Figure 37 to replace the torsion spring.

TORSION SPRING 1.5
COL-2216

FIGURE 37: TORSION SPRING REPLACEMENT

63

The lamp which illuminates the Start Button is an integral part of the button. When the Start lamp fails to light, the Start Button should be replaced as described in steps 1 - 7 and 10. The lamps which illuminate the Music and Select Buttons are replaceable as described in steps 1 - 5 and 8 - 10.

1. Turn off the game at the power switch and unplug the Cool Riders game.
2. Open the Handle Cover by removing the 6 phillips head screws that secure the Handle Cover to the Handle Base (see Figure 38).
3. Squeeze the brake lever and lift the Handle Cover off of the Handle Base.
4. Unplug the Molex connector that connects the Handle Cover wiring to the rest of the machine (see Figure 38).
5. Make a wiring diagram of the connections (location and color code) for the lamp or button that needs to be replaced.
6. The Start Button is removed by pressing in on the four metal tabs at the corners of the button, and rocking and pushing the button from the inside of the Handle Cover to the outside.
7. Replace the Start Button with a 3A, square, illuminated button
8. The Music and Select Buttons are removed by rotating the metal tab that projects out of the button at approximately 2 o'clock counterclockwise to 1 o'clock and lifting the button out to the rear of the Handle Cover.
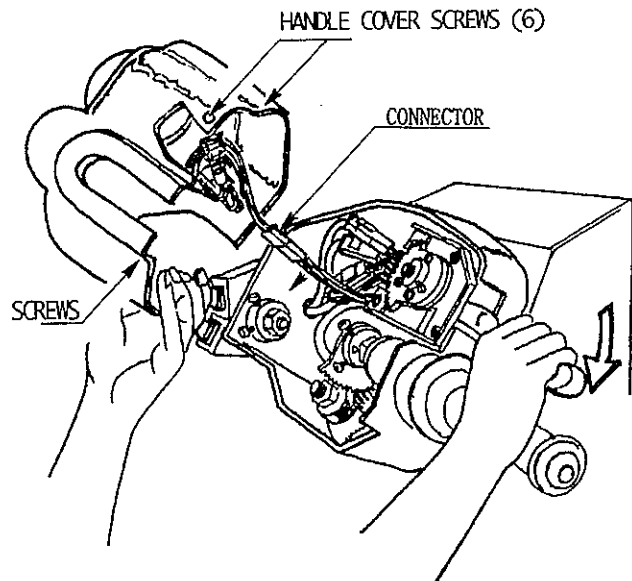9. Replace the lamp with a 6.3V, 1W lamp.
10. Reinstall the button, wiring, and Handle Cover.

FIGURE 38: HANDLE COVER ACCESS