

1ST PRINTING-FB

SEGA

MEGA PLAY

(4 SLOTS TYPE)

SERVICE MANUAL

SEGA ENTERPRISES, LTD.

MANUAL NO. 420-6059-01-92



	PAGE
1. HANDLING PRECAUTIONS _____	1
2. SPECIFICATIONS _____	2
①NAME & POSITION OF ON-BD CONNECTORS & SWITCHES	
②CONTROL PANEL	
③PIN ASSIGNMENT	
④When the SELECT button is not to be provided	
3. PLACING & REPLACING GAME CARTRIDGE _____	5
4. TEST MODE _____	6
①MEMORY TEST	
②INPUT TEST	
③SOUND TEST	
④C. R. T. TEST	
⑤COIN SETTING	
⑥GAME SETTING	
⑦BOOKKEEPING	
⑧BACKUP RAM CLEAR	

1. HANDLING PRECAUTIONS

- (1) When installing and removing the IC BD, make sure that the cabinet's main power is OFF.

- (2) Foreign matter, including dust on the IC BD, may cause malfunctioning (short circuit, combustion etc., due to the BD's generation of heat) to occur. Therefore, keep the IC BD surfaces always clean.

- (3) Completely perform the connections of the IC BD's and other item's CONNECTORS. Insufficient connector insertion may cause the IC BD to be damaged. Therefore, pay careful attention to this point. Also, for the IC BD circuit inspection, only the usage of logic testers is permitted. The use of a tester is not allowed, therefore also be careful of this point.

- (4) The contents of the product herein described are subject to change without notice.

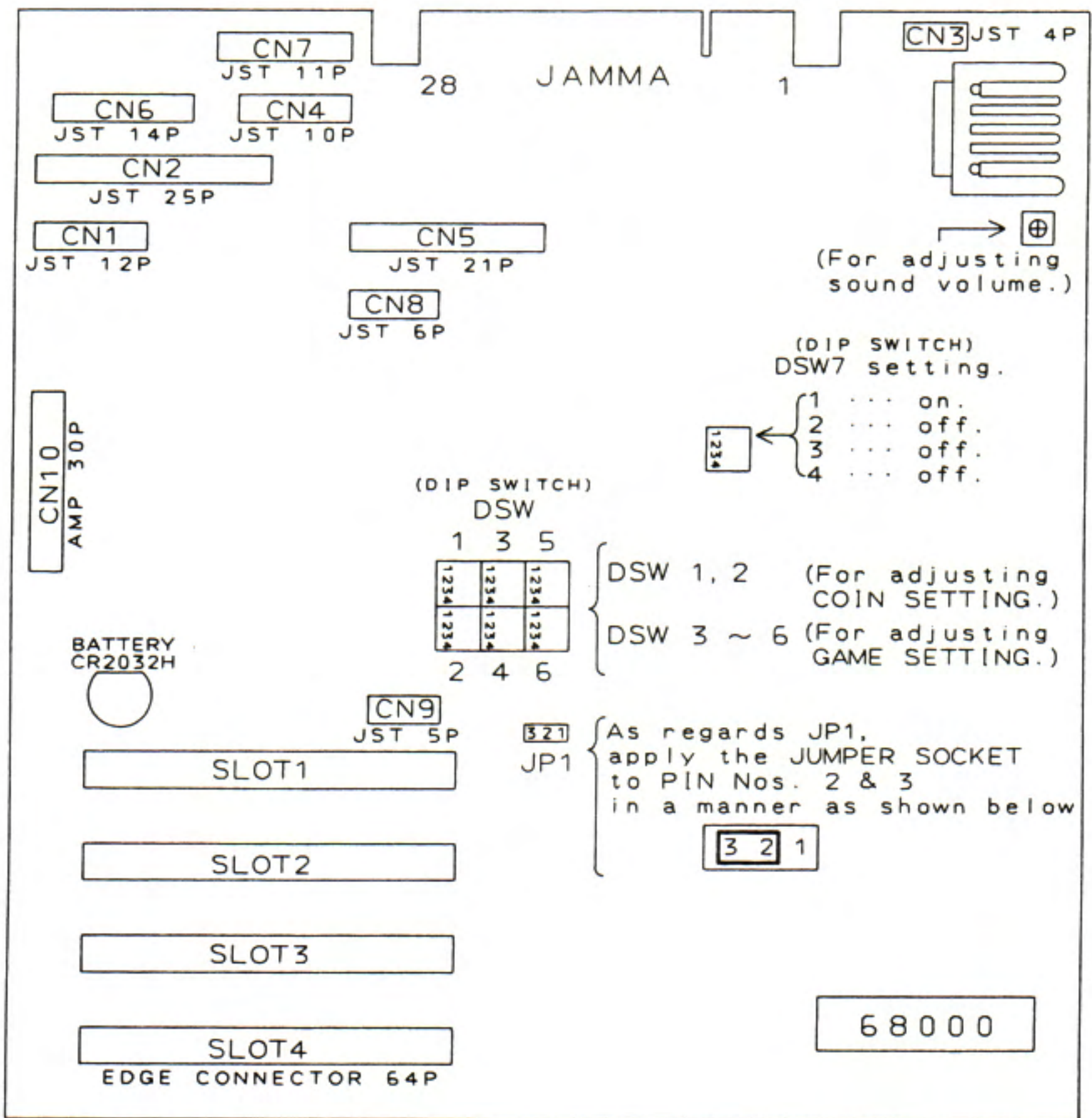
2. SPECIFICATIONS

①NAME&POSITION OF ON-BD CONNECTORS&SWITCHES

NOTE:

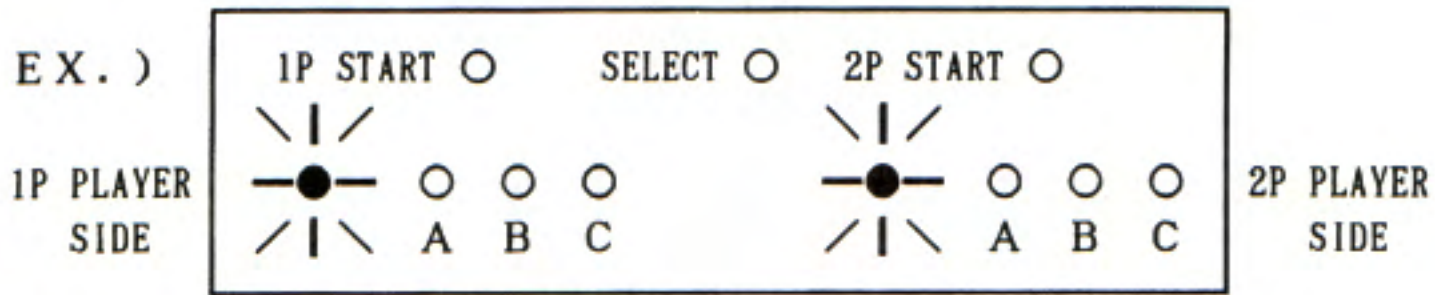
For DSW 1~6, Refer to Item 4 (TEST MODE (⑤COIN SETTING, ⑥GAME SETTING)).

COMMON BOARD No. 837-8991 (-01)
 GAME BOARD No. 834-9278-01



②CONTROL PANEL

JOYSTICK CONTROL DIRECTIONS



③PIN ASSIGNMENT

• JAMMA

Use the 56P EDGE CONNECTOR. The I/O assignment is as per the JAMMA standards.

COMPONENT SIDE

SOLDER SIDE

	GND	1	A	GND
	GND	2	B	GND
	+5V	3	C	+5V
	+5V	4	D	+5V
	_____	5	E	_____
	+12V	6	F	+12V
	_____	7	H	_____
COIN METER 1	_____	8	J	COIN METER 2
	_____	9	K	_____
SPEAKER (+)	_____	10	L	SPEAKER (-)
	_____	11	M	_____
	RED	12	N	GREEN
	BLUE	13	P	SYNC
GND (SYNC)	_____	14	R	SERVICE
TEST	_____	15	S	_____
COIN 1	_____	16	T	COIN 2
1P START	_____	17	U	2P START
1P UP	_____	18	V	2P UP
1P DOWN	_____	19	W	2P DOWN
1P LEFT	_____	20	X	2P LEFT
1P RIGHT	_____	21	Y	2P RIGHT
1P BUTTON A	_____	22	Z	2P BUTTON A
1P BUTTON B	_____	23	a	2P BUTTON B
1P BUTTON C	_____	24	b	2P BUTTON C
	_____	25	c	_____
For the SELECT button. → SELECT	_____	26	d	_____
	GND	27	e	GND
	GND	28	f	GND

56P P=3.96mm

④ When the SELECT button is not to be provided:

The player can choose plural games by using the SELECT button on the CONTROL PANEL. However, if the SELECT button is not to be provided, make modification in a manner so as to allow the player to choose such games by using Button A of Player 1.

- (1) Wire PIN Nos. 22 and 26 of the 56P EDGE CONNECTOR (cabinet side) by using a cable.
- (2) Apply the SELECT sticker to an appropriate position close to Button A (Player 1 side) on the CONTROL PANEL.
Note that the SELECT sticker is an accessory item of the Main Board. Refer to the FIG. below.

Ascertain that in the INPUT TEST of the TEST mode, pressing Button A of Player 1 causes ON to be displayed for "1P BUTTON A" and "SELECT" at the same time.

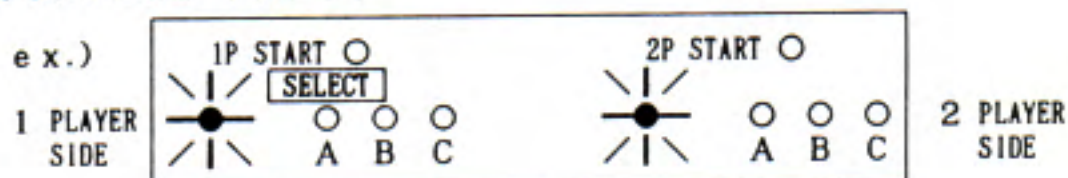
(Refer to Item 4. TEST MODE, ② INPUT TEST.)

• PIN ASSIGNMENT

GND	1	A	GND
GND	2	B	GND
+5V	3	C	+5V
+5V	4	D	+5V
	5	E	
+12V	6	F	+12V
	7	H	
COIN METER 1	8	J	COIN METER 2
	9	K	
SPEAKER (+)	10	L	SPEAKER (-)
	11	M	
RED	12	N	GREEN
BLUE	13	P	SYNC
GND (SYNC)	14	R	SERVICE
TEST	15	S	
COIN 1	16	T	COIN 2
1P START	17	U	2P START
1P UP	18	V	2P UP
1P DOWN	19	W	2P DOWN
1P LEFT	20	X	2P LEFT
1P RIGHT	21	Y	2P RIGHT
1P BUTTON A	22	Z	2P BUTTON A
1P BUTTON B	23	a	2P BUTTON B
1P BUTTON C	24	b	2P BUTTON C
	25	c	
SELECT	26	d	
GND	27	e	GND
GND	28	f	GND

56P P=3.96mm

• CONTROL PANEL



3. PLACING & REPLACING GAME CARTRIDGE

When inserting a cartridge in a SLOT on the board, pay careful attention to the direction of the label shown (refer to the FIG. below).

When replacing the cartridge, make sure that it is pulled out or inserted carefully and accurately at a right angle.

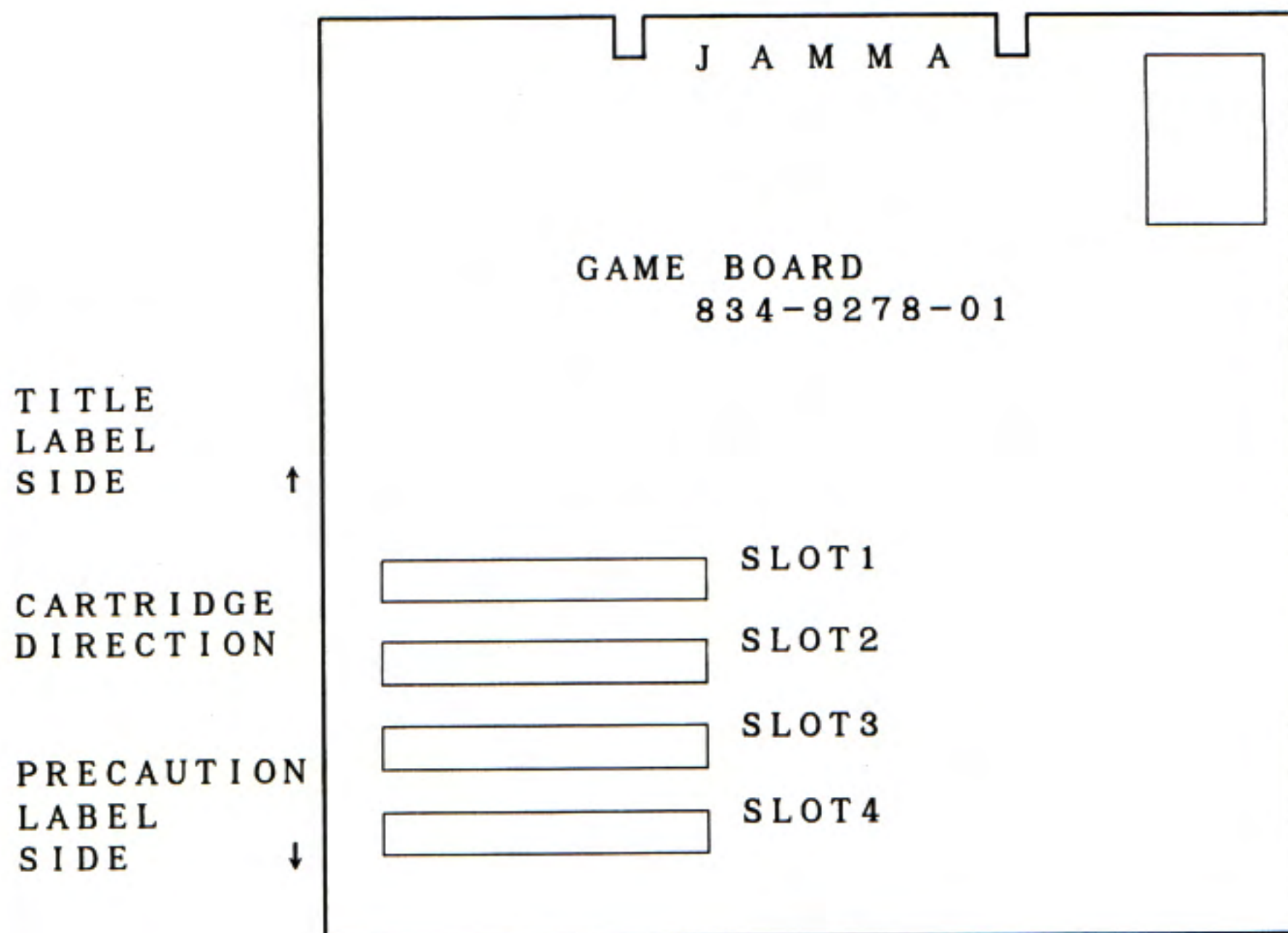
NOTE :

Make sure that the power is turned off when placing or replacing the cartridge.

Also, other cartridges on the market can not be utilized for these games.

Only those exclusively for the MEGA PLAY can be used.

Pay careful attention to this point.



4. TEST MODE

This mainly checks if the operation of the game BD is accurate, makes monitor color adjustments, and allows for COIN SETTING/ GAME SETTING adjustments.

Selection of TEST ITEMS

- 1) Push the TEST button to cause the following TEST ITEM MENU to appear:

```

      TEST MODE

      MEMORY TEST
      INPUT TEST
      SOUND TEST
      C. R. T. TEST
      COIN SETTING
      GAME SETTING
      BOOKKEEPING
      →  BACKUP RAM CLEAR
      EXIT

      SELECT BY SERVICE BUTTON
      AND PUSH TEST BUTTON

```

- 2) By pushing the SERVICE button, bring the arrow mark "→" to the desired item and press the TEST button.
- 3) When the test has been completed, bring "→" to EXIT and push the TEST button.

①MEMORY TEST

Check the PCB's MEMORY ICs.

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

If there exists any malfunctioning of the IC's, "BAD" will be indicated.

When a cartridge is not inserted in the slot, "NOT USED" will be displayed.

EX.)

MEMORY TEST					
ROM TEST			RAM TEST		
		IC-2	GOOD	IC- 3	GOOD
SLOT 1	MAIN	GOOD	IC- 6	GOOD	
	SUB	GOOD	IC-10	GOOD	
SLOT 2	NOT	USED	IC-28	GOOD	
			IC-29	GOOD	
SLOT 3	MAIN	GOOD	IC-37	GOOD	
	SUB	GOOD	IC-36	GOOD	
SLOT 4	MAIN	BAD	IC-41	GOOD	
	SUB	BAD	IC-42	GOOD	
PUSH TEST BUTTON TO EXIT					

Push the TEST button to have the MENU return on to the screen.

② INPUT TEST

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

INPUT TEST								
1P	START	OFF		JOYSTICK	1	P	2	P
2P	START	OFF						
	SERVICE	OFF		UP		OFF		OFF
	COIN 1	OFF		DOWN		OFF		OFF
	COIN 2	OFF		LEFT		OFF		OFF
				RIGHT		OFF		OFF
	TEST	OFF		BUTTON A		OFF		OFF
	SELECT	OFF		BUTTON B		OFF		OFF
				BUTTON C		OFF		OFF
DSW1 DSW2 DSW3 DSW4 DSW5 DSW6								
	OFF 1	OFF	OFF	1	OFF	OFF	1	OFF
	OFF 2	OFF	OFF	2	OFF	OFF	2	OFF
	OFF 3	OFF	OFF	3	OFF	OFF	3	OFF
	OFF 4	OFF	OFF	4	OFF	OFF	4	OFF
PUSH TEST BUTTON TO EXIT								

Push the TEST button to have the MENU return on to the screen.

③SOUND TEST

This allows sound used in the game to be tested.

<p>SOUND TEST</p> <p>→ SOUND OFF</p> <p>GAME SOUND (FM & P. S. G.)</p> <p>CTRL. SOUND (P. S. G.)</p> <p>CREDIT SOUND</p> <p>SELECT BY SERVICE BUTTON PUSH TEST BUTTON TO EXIT</p>
--

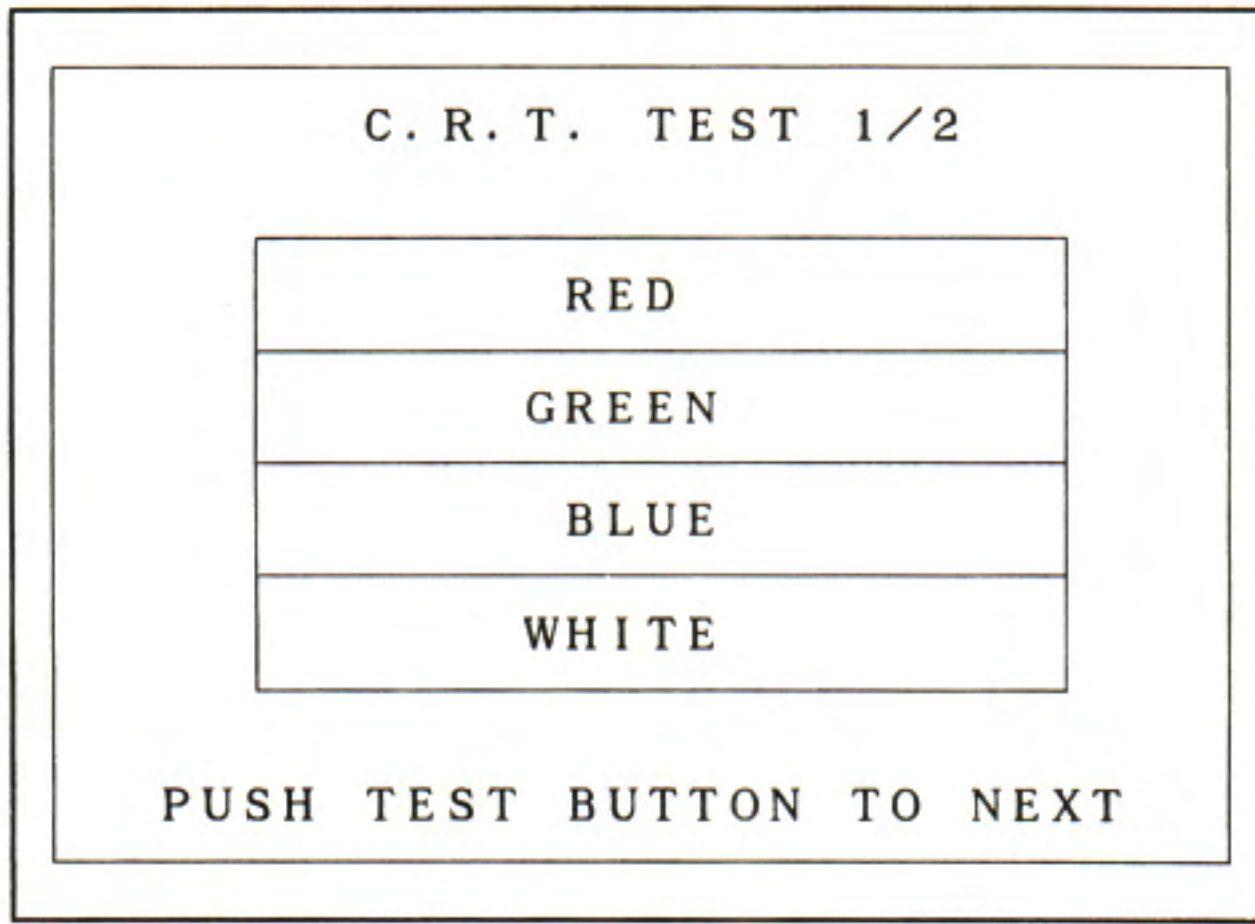
By pushing the SERVICE button, bring the arrow mark "→" to the desired item.

Push the TEST button to have the MENU return on to the screen.

④C. R. T. TEST

I. RGB COLOR ADJUSTMENT SCREEN

This page allows for checking the monitor color check.



Each of the R (red), G (green) and B (blue) colors is most dark at the left-hand end and becomes brighter in 7 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.

Pressing the TEST button causes the screen to proceed to the next page.

⑤ COIN SETTING

In this mode, the COIN/CREDIT setting can be changed.

By varying DSW1, 2 (DIP switches on the main board) setting, the coin credit can be adjusted.

COIN MODE SETTING					
DSW1			MODE		
COIN	1	OFF	1	COIN	1 CREDIT
SW 1	2	OFF			
	3	OFF			
	4	OFF			
DSW2			MODE		
COIN	1	OFF	1	COIN	1 CREDIT
SW 2	2	OFF			
	3	OFF			
	4	OFF			
PUSH TEST BUTTON TO EXIT					

DSW1: COIN SW #1
DSW2: COIN SW #2

Press the TEST button to have the MENU return on to the screen.

• COIN/CREDIT OPTION SWITCH SETTING

OPTION	DSW1:COIN SW #1				DSW2:COIN SW #2			
	1	2	3	4	1	2	3	4
1 COIN 1 CREDIT	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1 COIN 2 CREDITS	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
1 COIN 3 CREDITS	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
1 COIN 4 CREDITS	ON	ON	OFF	OFF	ON	ON	OFF	OFF
1 COIN 5 CREDITS	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
1 COIN 6 CREDITS	ON	OFF	ON	OFF	ON	OFF	ON	OFF
2 COINS 1 CREDIT	OFF	ON	ON	OFF	OFF	ON	ON	OFF
3 COINS 1 CREDIT	ON	ON	ON	OFF	ON	ON	ON	OFF
4 COINS 1 CREDIT	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
2 COINS 3 CREDITS	ON	OFF	OFF	ON	ON	OFF	OFF	ON
2 COINS 1 CREDIT 4 COINS 2 CREDITS 5 COINS 3 CREDITS 6 COINS 4 CREDITS	OFF	ON	OFF	ON	OFF	ON	OFF	ON
2 COINS 1 CREDIT 4 COINS 3 CREDITS	ON	ON	OFF	ON	ON	ON	OFF	ON
1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 4 CREDITS 5 COINS 6 CREDITS	OFF	OFF	ON	ON	OFF	OFF	ON	ON
1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 5 CREDITS	ON	OFF	ON	ON	ON	OFF	ON	ON
1 COIN 1 CREDIT 2 COINS 3 CREDITS	OFF	ON	ON	ON	OFF	ON	ON	ON
FREE PLAY	ON	ON	ON	ON	ON	ON	ON	ON

⑥GAME SETTING

In this mode, the GAME setting can be changed.

NOTE :

The MODE contents vary depending on each game (difficulty, level, remaining players, time limit, etc.).

Refer to the DIP SW TABLE which comes with the CARTRIDGE.

DSW3: SLOT 1
DSW4: SLOT 2
DSW5: SLOT 3
DSW6: SLOT 4

GAME SETTING (SLOT 1)	
GAME For	(Name of the game inserted in SLOT 1.)
DSW3	MODE
1 OFF	
2 OFF	
3 OFF	
4 OFF	

PUSH TEST BUTTON TO CONTINUE

- 1) By varying the DSW3(DIP switch) setting, the game(inserted in SLOT 1) setting can be adjusted.
- 2) Press the TEST button to proceed to the next page.

GAME SETTING (SLOT 2)	
GAME For	(Name of the game inserted in SLOT 2.)
DSW4	MODE
1 OFF	
2 OFF	
3 OFF	
4 OFF	
PUSH TEST BUTTON TO CONTINUE	

3) By varying the DSW4(DIP switch) setting, the game(inserted in SLOT 2) setting can be adjusted.

4) Press the TEST button to proceed to the next page.

GAME SETTING (SLOT 3)	
GAME For	(Name of the game inserted in SLOT 3.)
DSW5	MODE
1 OFF	
2 OFF	
3 OFF	
4 OFF	
PUSH TEST BUTTON TO CONTINUE	

5) By varying the DSW5(DIP switch) setting, the game(inserted in SLOT 3) setting can be adjusted.

6) Press the TEST button to proceed to the next page.

```

                                GAME SETTING (SLOT 4)

GAME For      ( Name of the game inserted in SLOT 4.)

    DSW6                                MODE
1   OFF
2   OFF
3   OFF
4   OFF

                                PUSH TEST BUTTON TO EXIT

```

7) By varying the DSW6(DIP switch) setting, the game(inserted in SLOT 4) setting can be adjusted.

8) Press the TEST button to have the MENU return on to the screen.

ex.) SONIC THE HEDGEHOG (SLOT 1)

```

                                GAME SETTING (SLOT 1)

GAME For      SONIC THE
                                HEDGEHOG

    DSW3                                MODE
1   OFF      INITIAL
                                PLAYERS          1
2   OFF
3   OFF      DIFFICULTY          TIMER OFF
4   OFF

                                PUSH TEST BUTTON TO CONTINUE

```


⑦BOOKKEEPING

This test mode allows each of the CREDIT/
TIME/GAME data to be ascertained.

BOOKKEEPING 1/2		
COIN 1 CHUTE	0	/ (A)
COIN 2 CHUTE	0	
COIN CREDITS	0	— (B)
SERVICE CREDITS	0	— (C)
TOTAL CREDITS	0	— (D)
TOTAL GAMES	0	— (E)
SLOT 1 GAMES	0	/ (F)
SLOT 2 GAMES	0	
SLOT 3 GAMES	0	
SLOT 4 GAMES	0	
PUSH TEST BUTTON TO CONTINUE		

- (A) COIN 1 CHUTE / COIN 2 CHUTE
Number of times each COIN CHUTE is actuated.
- (B) COIN CREDITS
Number of CREDITS registered by COIN insertion only.
- (C) SERVICE CREDITS
The SERVICE SWITCH usage frequency.
- (D) TOTAL CREDITS
Total number of CREDITS.
- (E) TOTAL GAMES
Total number of games.
- (F) SLOT (1~4) GAMES
Number of games each SLOT (1~4).

Press the TEST button to proceed to the next page.

Pressing the TEST button causes the following screen to appear:

BOOKKEEPING 2/2		
POWER ON TIME	0000H00M00S	— (A)
TOTAL TIME	0000H00M00S	— (B)
GAME TIME	0000H00M00S	— (C)
SHORTEST TIME	0000H00M00S	— (D)
LONGEST TIME	0000H00M00S	— (E)
AVERAGE TIME	0000H00M00S	— (F)

PUSH TEST BUTTON TO EXIT

- (A) POWER ON TIME
Total time the machine is energized.
- (B) TOTAL TIME
Total game playtime.
- (C) GAME TIME
Time of the game played last.
- (D) SHORTEST TIME
Shortest game playtime.
- (E) LONGEST TIME
Longest game playtime.
- (F) AVERAGE TIME
Average game playtime.

Pressing the TEST button causes the MENU to return on to the screen.

⑧BACKUP RAM CLEAR

Clears the contents of BOOKKEEPING.

<p>BACKUP RAM CLEAR</p> <p>→ NO (CANCEL)</p> <p>YES (CLEAR)</p> <p>SELECT BY SERVICE BUTTON AND PUSH TEST BUTTON</p>
--

When clearing, bring "→" to "YES" and when not clearing, to "NO", by using the SERVICE button, and then push the TEST button.

When clearing has been finished, "COMPLETED" will be displayed.

Pressing the TEST button will have the MENU return on to the screen.

SEGA ENTERPRISES, LTD.
13-1, Higashikohjiya 2-Chome,
Ohta-ku, Tokyo, Japan 144
○ Tel. : (03) 3743-7438
○ FAX : (03) 3743-5539
○ TLX : J22357 SEGASTAR

© SEGA 1993

Printed in Japan