namco®

TEKKEN 4
Game PCB Kit

Connections
and
Adjustments

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Contents

KIT CONTENTS

Description		Part No	Quantity
Tekken 4 PCB Rack Assy		XTEK4-PCB	1
DVD Rom CD Disc		XTEK4-CDROM	1
Jamma (B) PCB		XTEK4-JAMMA	1
Rack Assy to Jamma (B) PCB connecting cables	Power Supply Loom		1
	RGB Video Loom		1
	RCA (Phono) Audio Loom		1
	Data Loom		1
Amp EI connectors to 48way Edge Adaptor Loom		69200067	1
Amp EI connectors with Flying Leads Loom		69200066	1
Button Decals			1 set
Instruction Card			1
Move List Card			1
Title Board			1
Tekken 4 Promotional Poster			1
Top Flash		40000703	1
Universal Cabinet Side Decal - LHS / RHS		40000704	2
Header Decal		40000705	1
Connection and Adjustment Manual		90500133	1

1. SPECIFICATIONS

COMPATIBILITY: JAMMA STANDARD (with JAMMA (B) PCB)

                                          JAMMA VIDEO STANDARD (JVS)

PCB INPUT POWER: +5v (±5%) @ 7A (Min), +12v (±5%) @ 2A (Min)

OPERATING ENVIRONMENT:	Temperature	+5ºC to +45ºC
	Humidity	10% to 85% (no condensation)

MONITOR ORIENTATION AND SIGNAL:

Horizontal Orientation

Horizontal Frequency   15kHz / 31kHz (selectable)

RGB output level   0.7V p-p / 3.0V p-p (selectable)
when set to 15kHz
0.7V p-p when set to 31kHz

Composite Sync / Separate Sync (selectable)

2. CABINET CONNECTIONS (Standard Jamma)

Option Switches

ON

4 3 2 1

ON
OFF

PCB Rack Assy

CD-ROM Drive

Video Cable

Power Cable

Audio Cable

Data Cable

Jamma (B) PCB

Volume Control
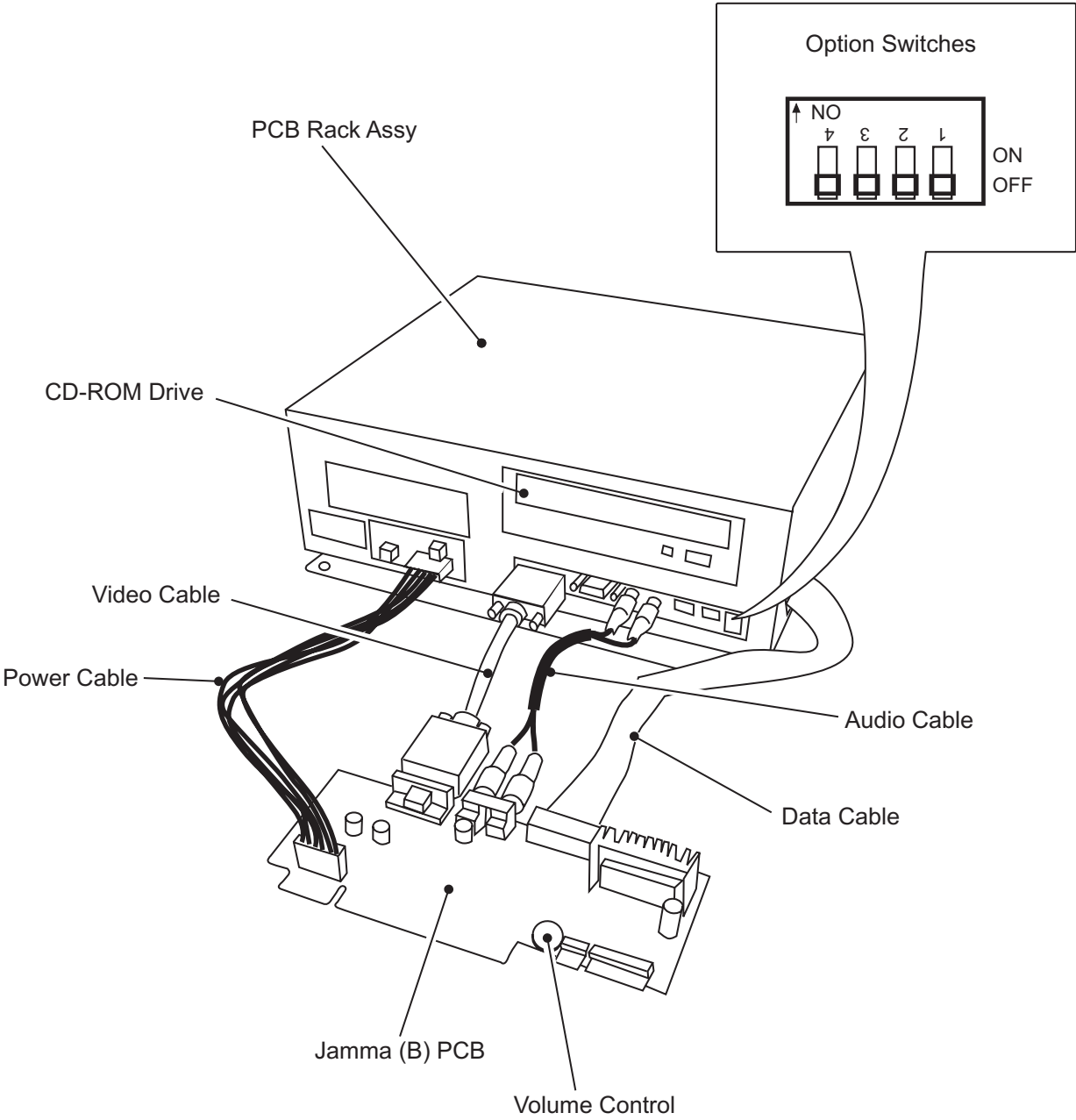
The JAMMA (B) PCB is connected to the game cabinet with a 56way Edge Connector (standard JAMMA) and 4 and 10way AMP EI Connectors.
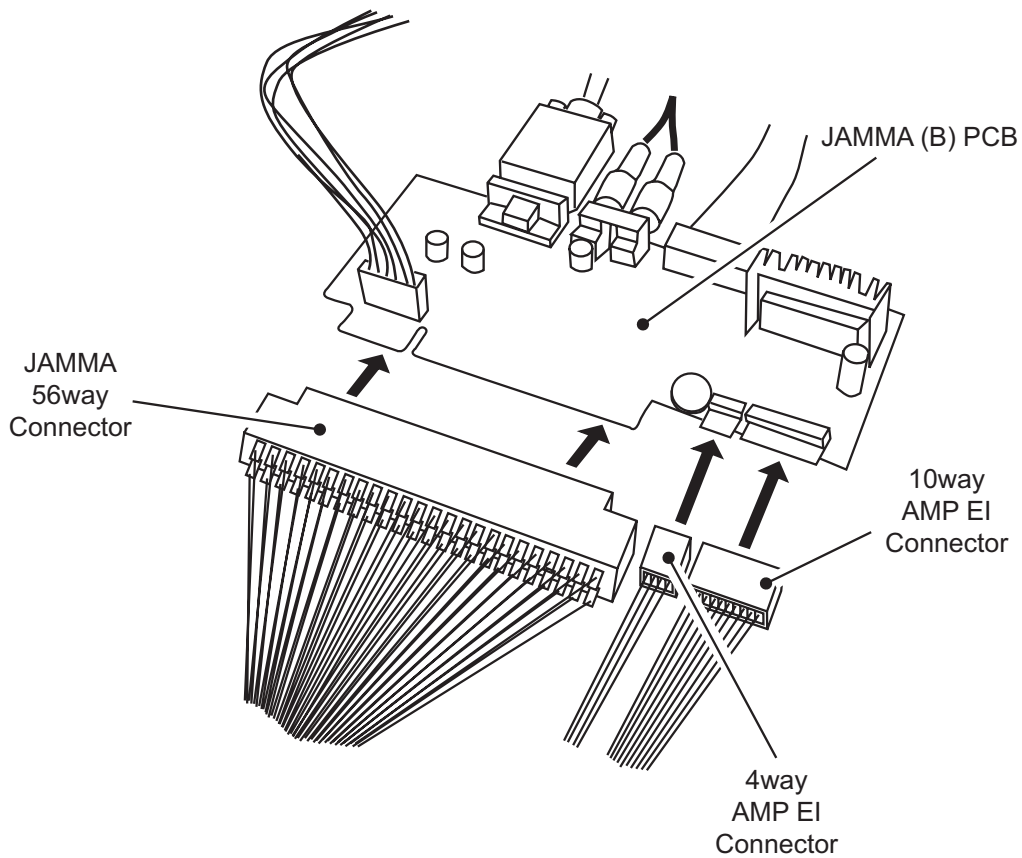
Note: *Supplied in the Kit is an Amp EI connectors to 48way extender card adaptor loom, for cabinets with an existing 48way connector, and an AMP EI connectors with flying leads loom for cabinets without a 48way connection.*

4 and 10way AMP EI Connector with 48way Extender Card
Part No. 69200067

4 and 10way AMP EI Connector with flying leads
Part No.69200066

Connections for Standard JAMMA Cabinet

TEKKEN 4

JAMMA 56way Edge Connector

Solder Side	Terminal No		Component Side
GND	A	1	GND
GND	B	2	GND
+5volt	C	3	+5volt
+5volt	D	4	+5volt
	E	5	
+12volt	F	6	+12volt
Polarizing Key	G	7	Polarizing Key
Coin Counter 2	H	8	Coin Counter 1
	J	9	
L Speaker (-)	K	10	L Speaker (+)
Audio (-) (mono)	L	11	Audio (+) (mono)
Video GREEN	M	12	Video RED
Video SYNC	N	13	Video BLUE
SERVICE	P	14	Video GND
	R	15	TEST
Coin Switch 2	S	16	Coin Switch 1
P2 START	T	17	P1 START
P2 Lever UP	U	18	P1 Lever UP
P2 Lever DOWN	V	19	P1 Lever DOWN
P2 Lever LEFT	W	20	P1 Lever LEFT
P2 Lever RIGHT	Y	21	P1 Lever RIGHT
P2 PUNCH (Left) Sw1	Z	22	P1 PUNCH (Left) Sw1
P2 PUNCH (Right) Sw2	a	23	P1 PUNCH (Right) Sw2
P2 Sw3 Not used	b	24	P1 Sw3 Not Used
	c	25	
	d	26	
GND	e	27	GND
GND	f	28	GND

TEKKEN 4

10way AMP EI Connector

Pin No	Description
1	GND
2	
3	P2 KICK (Right) Sw5
4	P2 KICK (Left) Sw4
5	
6	
7	P1 KICK (Right) Sw5
8	P1 KICK (Left) Sw4
9	
10	GND

TEKKEN 4

4way AMP EI Connector

Pin No	Description
1	
2	
3	R Speaker (+)
4	R Speaker (-)

Connector Loom
(Part no 69200066)

Adaptor for Earlier Tekken Series Cabinets
with 48way Edge Connector
(Part No 69200067)

	PREVIOUS TEKKEN GAMES				
	48way Extension Connector				
	Solder Side	Terminal No		Component Side	
4w AMP EI pin 4	R Speaker (-)	A24	B24	R Speaker (+)	4w AMP EI pin 3
		A23	B23		
		A22	B22		
		A21	B21		
	Polarizing Key	A20	B20	Polarizing Key	
		A19	B19		
		A18	B18		
10w AMP EI pin 4	P2 KICK (Left) Sw4	A17	B17	P2 KICK (Right) Sw5	10w AMP EI pin 3
		A16	B16		
		A15	B15	GND	10w AMP EI pin 10
		A14	B14	GND	10w AMP EI pin 10
		A13	B13		
		A12	B12		
		A11	B11		
		A10	B10		
		A9	B9		
		A8	B8	GND	10w AMP EI pin 1
		A7	B7	GND	10w AMP EI pin 1
		A6	B6	P1 KICK (Right) Sw5	10w AMP EI pin 7
10w AMP EI pin 8	P1 KICK (Left) Sw4	A5	B5		
		A4	B4		
		A3	B3		
		A2	B2		
		A1	B1		

3.   CABINET CONNECTIONS (JVS Standard)

JVS Power Supply Adaptor

Video Connector

Audio Connectors

Data I/O Connector
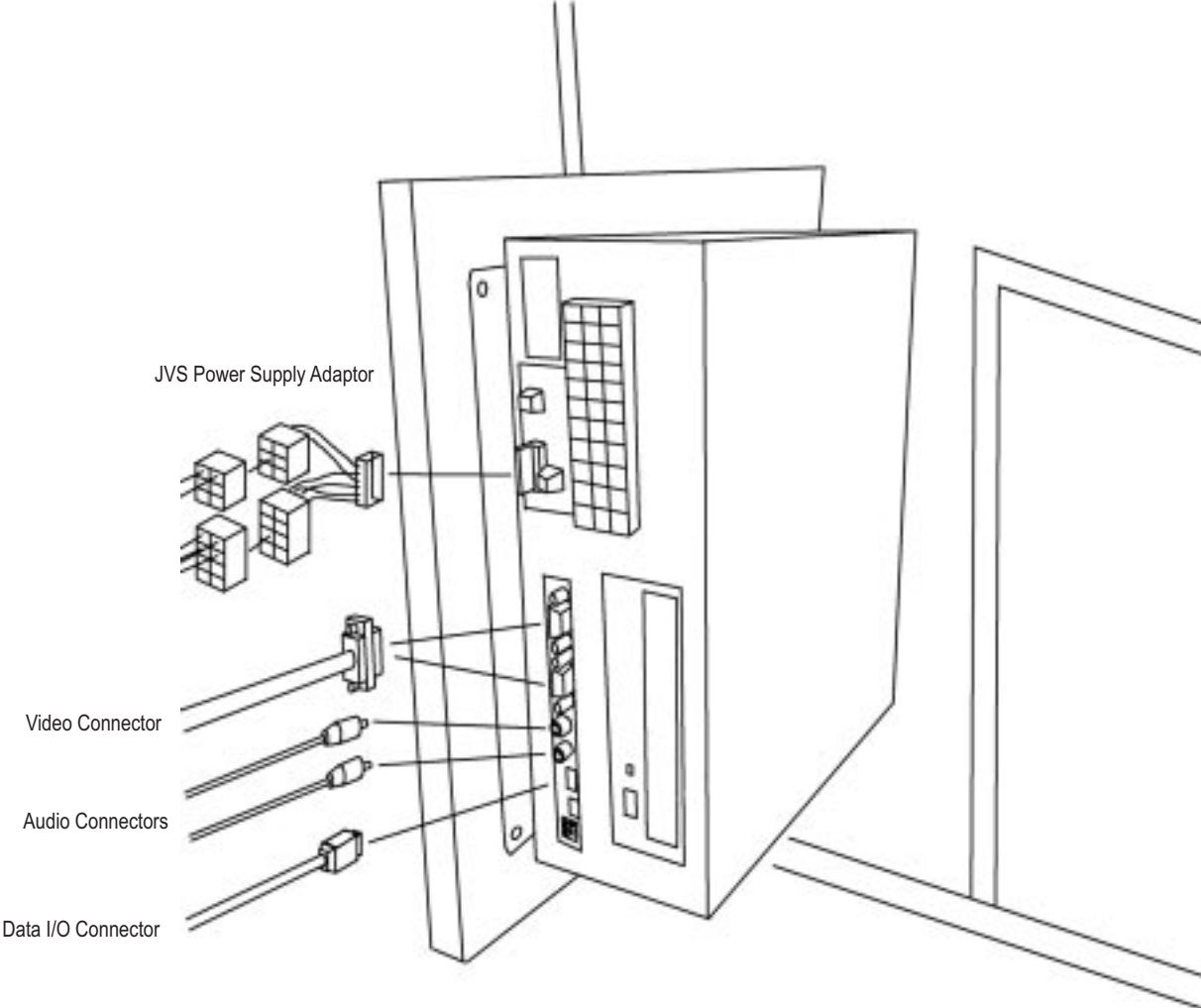
4. FITTING THE DONGLE

The dongle included in this kit is limited to this game only. DO NOT insert this Dongle in other games. Inserting the Dongle in other games may cause damage.

Ensure that the power is switched OFF before inserting the Dongle.

1. Remove 1off pozi head screw (M3x10) and remove the Dongle Cover.

Dongle cover

Pozi head screw
(M3x10)
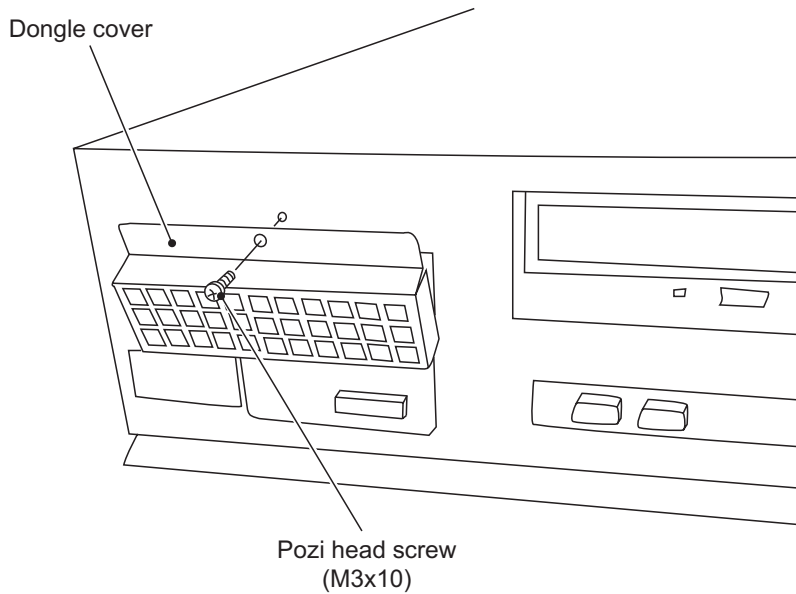
2. Fit the Dongle to the left hand connector.

Left connector
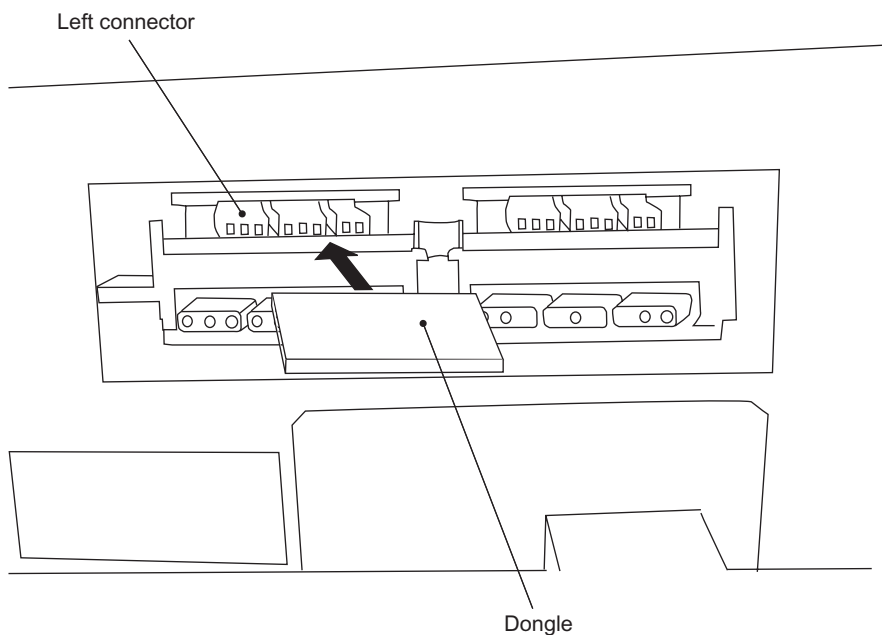
Dongle

3. Refit the Dongle cover and pozi head screw (M3x10)

5.   FITTING THE CD-ROM DISC

■   **The CD-ROM Disc must be inserted with the power switched on. To prevent an electric shock, accident or injury, do not touch any parts other than those specified below.**

■   **The supplied CD-ROM Disc is designed exclusively for this product. Never use the CD-ROM Disc in any other product. Do not insert other CD-ROM Discs in the CD-ROM drive of this game.**
■   **The CD-ROM tray retracts automatically after 10 seconds.**

1.   Press the eject button of the CD-ROM drive to open the tray.
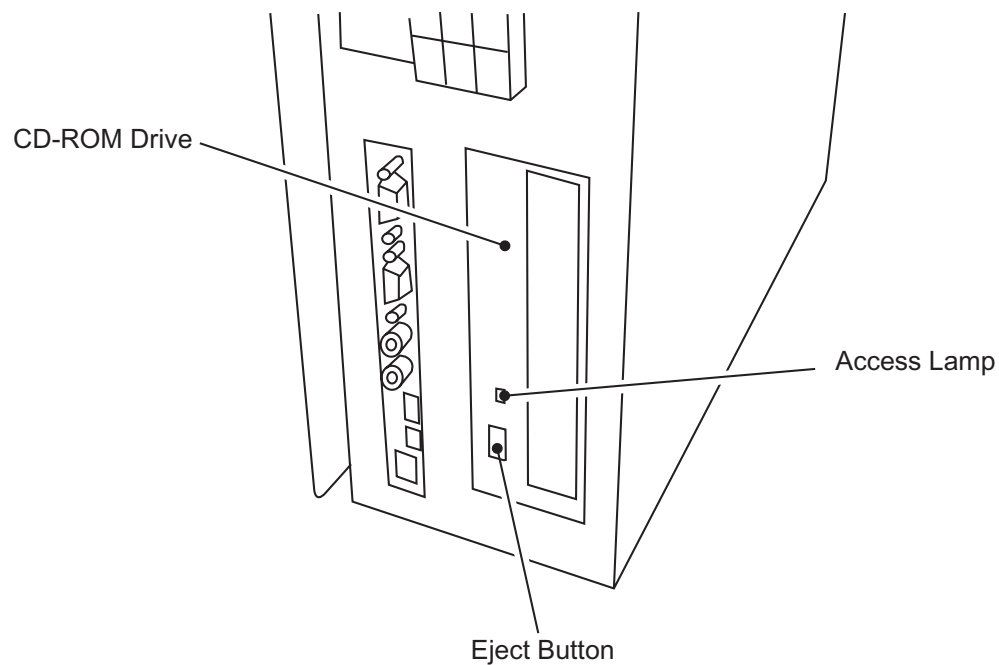
2.   Place the CD-ROM Disc on to the tray, ensuring that the label side (printed surface) is facing away from the Tray.

CD-ROM DISC
Ensure that the CD-ROM Disc is securely placed on the tray, with the label side facing away from the tray
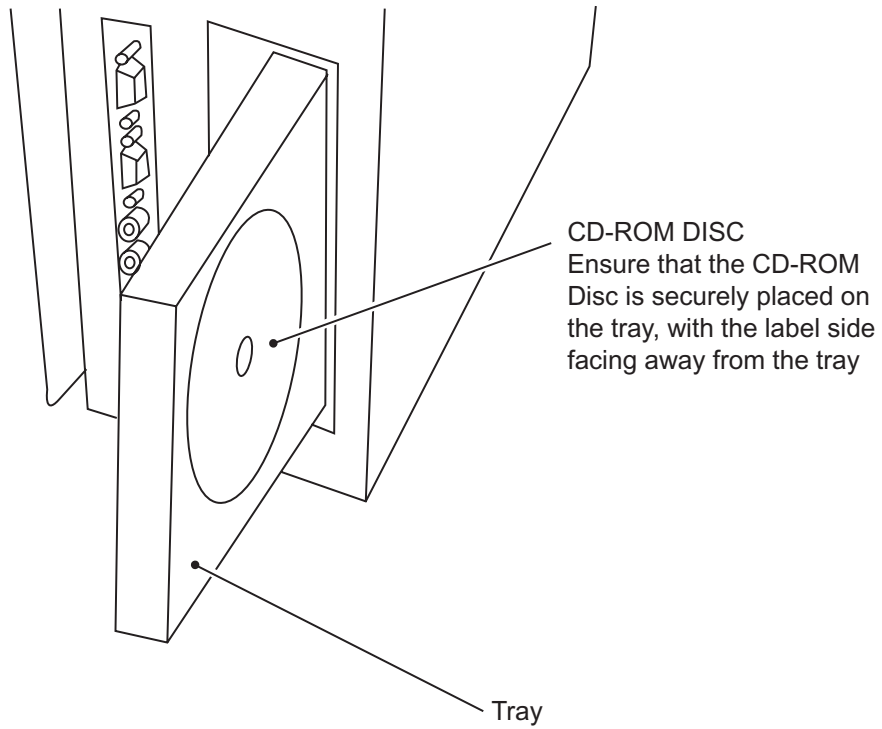
Tray

3.   Press the Eject button to retract the Tray in to the unit.

4.   Switch the power OFF, wait approx 10 seconds then switch the game back ON.

6. ADJUSTMENTS AND SETTINGS

The Game PC Board Assy is fitted with 4 Option Switches.
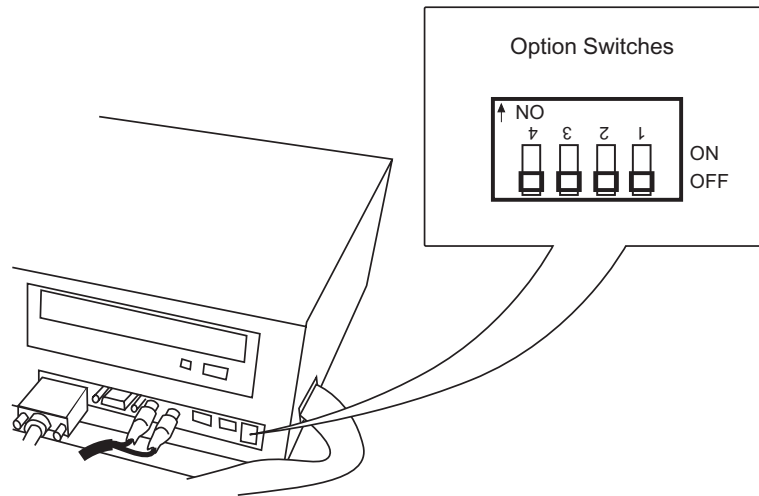
The JAMMA (B) PCB has the Volume Control fitted.
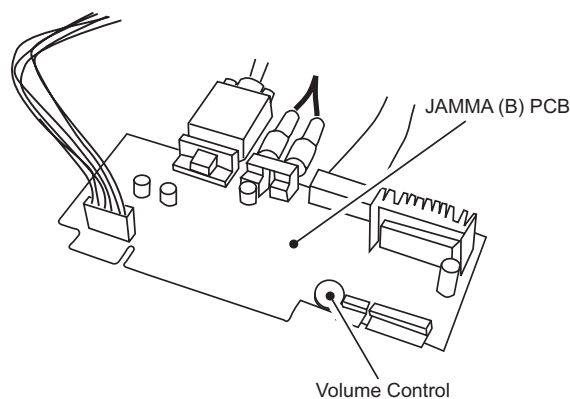
6-1   Option Switches

Switch 1 is used to change between Test Mode and Game Mode.
ON: Test Mode   OFF: Game Mode

Switch 2 is used to set the output level of the video signal.
31kHz   ON: 0.7V p-p   OFF: 0.7V p-p
15kHz   ON: 3.0V p-p   OFF: 0.7v P-P

Switch 3 is used to change the monitor Sync Frequency
ON: 31kHz   OFF: 15kHz

Note: When using a 31kHz monitor, set the RGB input of the monitor to 0.7v. If the monitor does not have a setting adjustment, refer to page 17 section 6-2-1 "Display Test", and change the Contrast and RGB Brightness levels to adjust the brightness.

Switch 4 is used to set the Video Sync Signal
ON: Composite Sync   OFF: Seperate Sync

6-2   Test Mode

To enter Test Mode set the Test switch in the cabinet (if fitted) to ON, or if no Test switch is fitted to the cabinet, set Option switch 1 ON

Note: The test mode is activated only when the cabinet Test switch or Option switch 1 is moved from OFF to ON. If the game is switched on with either switch in the ON position the Test Mode will not be activated. The switch must be switched OFF and then ON to enter the test mode.
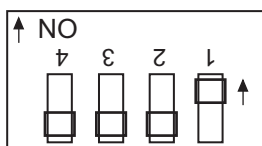
When the Test Mode is entered, the following screen is displayed.

DISPLAY TEST	Monitor Adjustments
INPUT TEST	Tests all switches
GAME OPTIONS	Set Game options
COIN OPTIONS	Set Price of Play
SOUND TEST	Sound test
JVS STATUS	Not used
A.D.S.	Bookkeeping
DATA CLEAR	Data clear
EXIT & SAVE	Exit from test mode
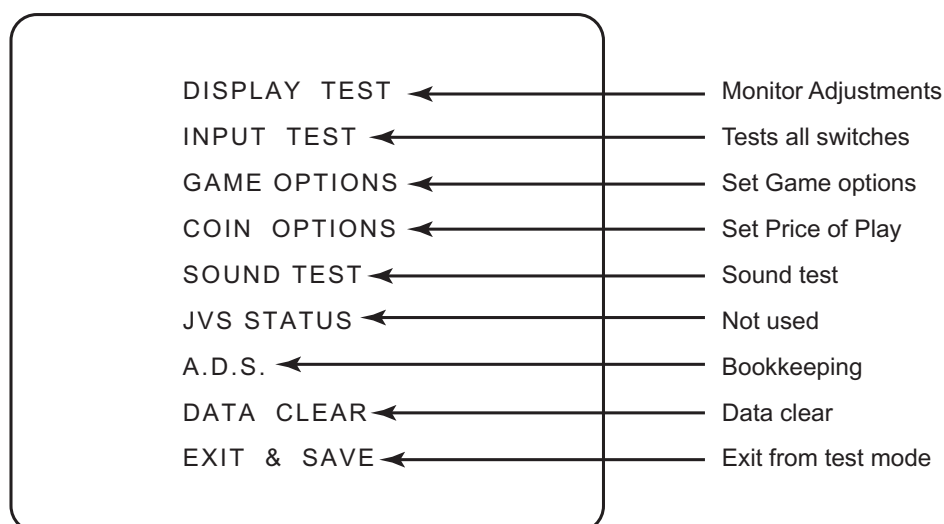
Use the Joystick Up or Down to step through the tests. (The selected test will be displayed in red)

Press the 1 Player Button 1 to enter the selected test.

After making adjustments select EXIT and press the 1 Player Button 1 to return to the above screen. Select another test or select 'EXIT & SAVE' and press the 1 Player Button 1 to save the changes and return to the Game Mode.

Note: If 'EXIT &SAVE' is not selected and activated, any changes made may not be stored properly. Switching the cabinet Test switch or Option 1 switch OFF does not exit the Test Mode.

Switch the cabinet Test switch or Option 1 switch OFF.

6-2-1　Display Test

This test allows the following checks and adjustments to be made.
- Colour Edit
  Adjust contrast and brightness of each colour to match video output from the PCB to the Monitor.
  Note: This adjustment should only be made if the correct picture quality cannot be achieved by using the normal monitor adjustments.
- Convergence
  Check and adjust the size, position and distortion of the screen image.
- Interlace Check
  Switches between interlaced and non-interlaced display. (Only with 15kHz video signal).

Contrast : OO	Overall contrast
Bright R : OO	Brightness (red)
Bright G : OO	Brightness (green)
Bright B : OO	Brightness (blue)

DISPLAY TEST
Color bar

Color bar (white)

Color bar (red)

Color bar (green)

Color bar (blue)

Previous Color	: P1-Button4	Reset Colour Edit values to factory defaults
EXIT color edit	: P1-Button3	Colour Edit ON /OFF
NEXT	: P1-Button1	Select next test pattern
EXIT	: P1-Start	Return to test menu screen

1.　Select display Test from the Test Menu Screen, the following screen is displayed.

DISPLAY TEST
Color bar

Color bar (white)

Color bar (red)

Color bar (green)

Color bar (blue)

ENTER color edit	: P1-Button3	Colour Edit ON /OFF
NEXT	: P1-Button1	Select to next test pattern
EXIT	: P1-Start	Return test menu screen
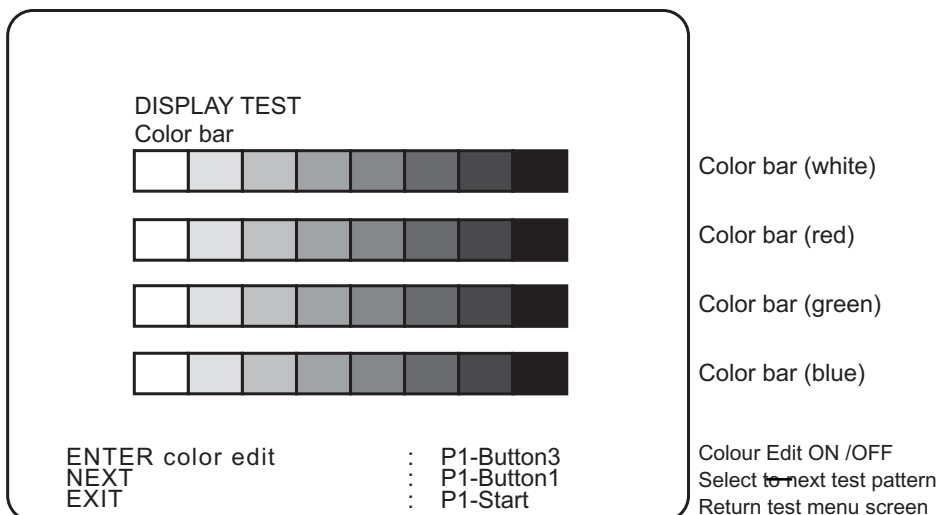
2.　Each time the 1P Button 3 is pressed the Colour Edit adjustment box is turned ON or OFF.
3.　Press the 1P Button 1 to step to the next test function
　　COLOUR BAR → CONVERGENCE → INTERLACE ↵

6-2-2 Colour Edit

1   Ensure that the Colour Edit Adjustment Box is showing. (Press P1 Button 3 if the Adjustment box is not displayed.

2.   Use the Joystick UP/DOWN to step to the required adjustment. (Contrast, Brightness (red), Brightness (green), Brightness (blue)).

3.   Use the Joystick LEFT/RIGHT to adjust the value.

3.   When all adjustments have been made, press P1 Button 1 to step to the Convergence Test or P1 Start Button to return to the Main Test Menu screen

6-2-3 Convergence

Use this screen to adjust the geometry (height, width , etc.) of the Monitor.


```
DISPLAY TEST
Convergence                        Interlace
                                   Contrast  : 150
                                   Bright R  : 100
                                   Bright G  : 100
                                   Bright B  : 100




            Previous Color       :  P1-Button4
            EXIT color edit      :  P1-Button3
            NEXT                 :  P1-Button1
            EXIT                 :  P1-Start
```

When all adjustments have been made, press P1 Button 1 to step to the Interlace Test or P1 Start Button to return to the Main Test Menu screen.

6-2-4   Interlace

Interlace Mode: This mode provides a more detailed and smoother graphics
                                   than the non-interlaced mode. This is achieved by shifting
                                   the picture display a half line in the vertical direction every
                                   other frame scan, so doubling the vertical resolution without
                                   changing the horizontal/vertical frequency.

Non-Interlaced Mode: Use this display if the interlace mode results in flicker over
                                   the entire screen display. In the non-interlaced mode, there is
                                   no shift of the display position, and the display remains
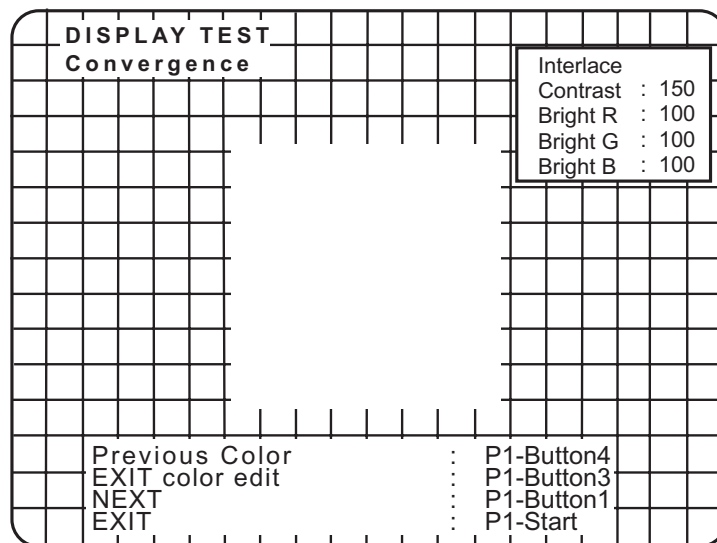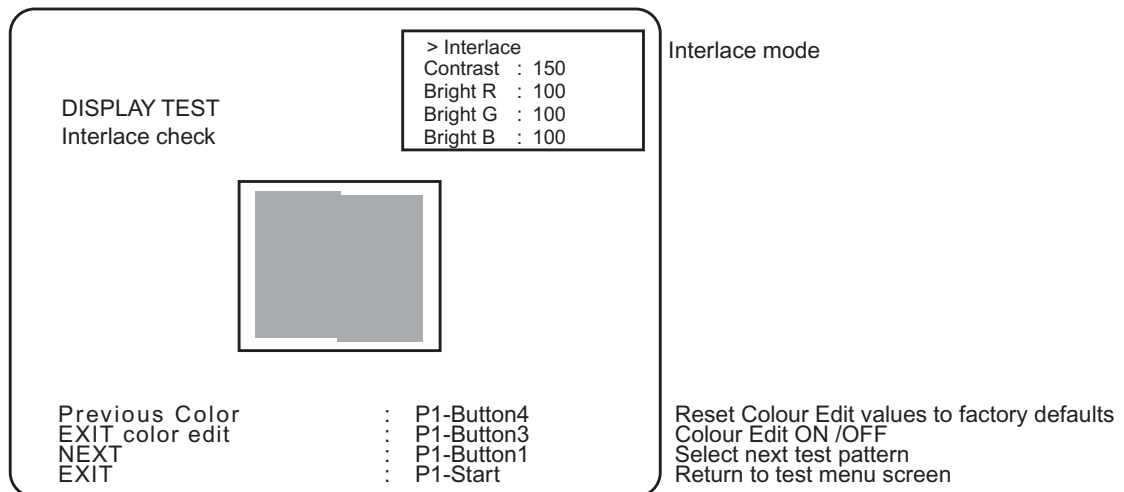   constant every time.

    1   Ensure that the Colour Edit Adjustment Box is showing. (Press P1 Button 3
if the Adjustment box is not displayed.)

    2.   Use the Joystick LEFT/RIGHT to change Interlace/Non Interlace.

```
┌─────────────────────────────────────────────┐
│                           ┌─────────────┐     │  Interlace mode
│                           │ > Interlace │     │
│                           │ Contrast : 150 │  │
│  DISPLAY TEST             │ Bright R : 100 │  │
│  Interlace check          │ Bright G : 100 │  │
│                           │ Bright B : 100 │  │
│                           └─────────────┘     │
│                                               │
│                    ┌───────────┐              │
│                    │           │              │
│                    │           │              │
│                    │           │              │
│                    └───────────┘              │
│                                               │
│  Previous Color      :  P1-Button4   │  Reset Colour Edit values to factory defaults
│  EXIT color edit     :  P1-Button3   │  Colour Edit ON /OFF
│  NEXT                :  P1-Button1   │  Select next test pattern
│  EXIT                :  P1-Start     │  Return to test menu screen
└─────────────────────────────────────────────┘
```

    3.   When the adjustment has been made, press P1 Button 1 to step back to the
Colour Edit Test or P1 Start Button to return to the Main Test Menu screen.

6-2-5   Input Test

Select Input Test from the Main Test Menu. The following screen is displayed.

```
                                              P2 Start switch

              ┌──────────────────────────────┐
P1 Start switch          INPUT TEST
                    1P            2P
                    Start         Start
Service switch on   Service       Service
the cabinet         Up            Up
                    Down          Down
                    Left          Left         P2 8-direction lever
P1 8-direction lever Right         Right

                    Shot 1  Shot 2   Shot 1  Shot 2
                    Shot 3  Shot 4   Shot 3  Shot 4
                    Shot 5  Shot 6   Shot 5  Shot 6
P1 Button switches                            P2 Button switches

                    DIPsw  1 : OFF  2 : OFF  3 : OFF  4 : OFF
                    COIN1:0 0 0          COIN2:0 0 0
DIP switches        EXIT :              P1-Button1&2
                                              Coin signal count
              └──────────────────────────────┘   (Default: 0)
                    To return to test menu screen
```

Each time a switch is operated, the corresponding item on the display will change colour to red.

Note: When player button 1 is pressed Shot 1 is indicated.
When player button 2 is pressed Shot 2 is indicated
When player button 3 is pressed Shot 4 is indicated
When player button 4 is pressed Shot 5 is indicated

When testing is completed, press P1 Buttons 1 and 2 together to return to the Main Test Menu screen.

6-2-6 Game Options

1. Select Game Options from the Main Test Menu. The following screen is displayed.

```
                    GAME OPTIONS
                  < Defaults in Green >
(a) │  Subtitles language: ENGLISH
(b) │  Difficulty level: MEDIUM
(c) │  Fight count <1P game> : 2
(d) │  Fight count <VS game> : 2
(e) │  Life bar <1P game> : +1
(f) │  Life bar <VS game> : +1
(g) │  Guard damage: OFF
(h) │  Neutral guard: ON
(i) │  Round time: 60
(j) │  Character change at continue: YES
(k) │  Character change at VS game: YES
(l) │  Sound in attract mode: YES
(m) │  Event mode: OFF
(n) │  Hit color: GREEN
    │  Modify :              P1-Left/Right
    │  EXIT :                P1-Start
```

2. Use the Joystick UP/DOWN to step to the required adjustment.

3. Use the Joystick LEFT/RIGHT to adjust the value.

4. When all adjustments have been made, press P1 Start Button to return to the Main Test Menu screen

(a) Subtitles Language

ENGLISH	FRENCH	SPANISH	GERMAN	ITALIAN

(b) Difficulty level (degree of game difficulty)

EASY	MEDIUM	HARD	VERY HARD	ULTRA HARD	ULTRA HARD 1	ULTRA HARD 2	SUPER HARD	EXTRA SUPER HARD

(c) Fight Count <1P game > (number of rounds required to win the game in 1 player mode)

1	2	3	4	5

(d)) Fight Count <VS game > (number of rounds required to win the game in 2 player mode)

1	2	3	4	5

(e) Life bar <1P game > (energy guage in 1 player mode)

-2	-1	NORMAL	+1	+2

(f) Life bar < VZ game > (energy guage in 2 player mode)

-2	-1	NORMAL	+1	+2

(g) Guard damage (damage received on guard)

ON (slight damage)	OFF (no damage)

(h) Neutral guard (guard activated with lever in neutral)

ON	OFF

(i) Round time (time [seconds] per round)

30	40	60	80	99

(j) Character change at continue (change of character for continued game)

YES (possible)	NO (not possible)

(k) Character change at VS game (change of character

YES (possible)	NO (not possible)

(l) Sound in attract mode

YES (with sound)	NO (without sound)

(m) Event mode (action after 2 player game has finished)

ON (game over for both players)	OFF (1P game play continues for winner)

(n) Hit colour (colour of graphic effects when attacks are successful

RED	GREEN

6-2-7   Coin Options

1.   Select Coin Options from the Main Test Menu. The following screen is displayed.

```
                    COIN OPTIONS
                   Defaults in Green
(a)      >  Start Cost 1Credit to START
(b)         Continue Cost 1Credit to CONTINUE
(c)         Coin chute 1 mechanical value
                1Coin count as 1coin
(d)         Coin chute 2 mechanical value
                1Coin count as 1coin
(e)         Credit mode COMMON
(f)         Coin counter 1counter
(g)         Free play no




            Modify :              P1-Left/Right
            EXIT :                P1-Start
```

2.   Use the Joystick UP/DOWN to step to the required adjustment.

3.   Use the Joystick LEFT/RIGHT to adjust the value.

4.   When all adjustments have been made, press P1 Start Button to return to the Main Test Menu screen

Note: When using a CashFlow acceptor ensure that Cost and Coin Chute values are set to 1

(a) Start cost (number of credits to start a game)

1	2	3	4	5	6	7	8	9

(b) Continue cost (number of credits to continue a game - must be equal to or smaller than start cost)

1	2	3	4	5	6	7	8	9

(c) Coin chute 1 mechanical value (number of credits for each coin)

1	2	3	4	5	6	7	8	9

(d) Coin chute 2 mechanical value (number of credits for each coin)

1	2	3	4	5	6	7	8	9

(e) Credit Mode (credit storage and use)

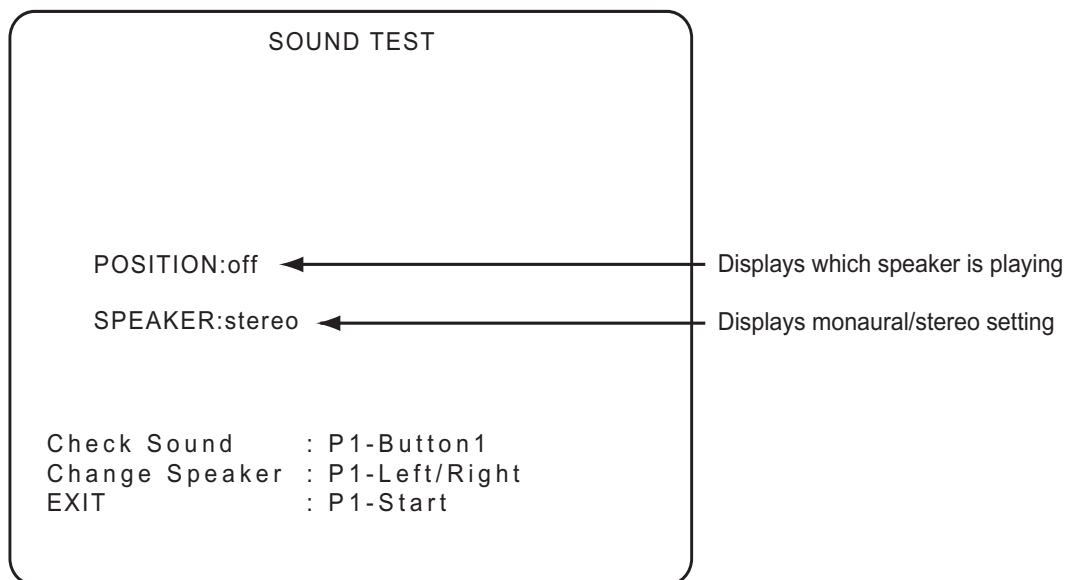| COMMON	EACH ONE
Credits are stored as a single account regardles of which coin switch or start switch is operated.	Different credit accounts are established. Credits from coin 1 are used by player 1 and credits from coin 2 are used by player 2

(f) Coin counter (assignment of coin meters)

1 COUNTER	2 COUNTERS
Both coin switches share one coin counter	Each coin switch has its own coin counter

(g) Free play

YES (no coins required)	NO (coins required)

6-2-8   Sound Test

1.   Select Sound Test from the Main Test Menu. The following screen is displayed.

```
                    SOUND TEST




        POSITION:off   ◄──────────────────  Displays which speaker is playing

        SPEAKER:stereo ◄──────────────────  Displays monaural/stereo setting



    Check Sound     : P1-Button1
    Change Speaker  : P1-Left/Right
    EXIT            : P1-Start
```

2.   Press 1P Button 1 to conduct a stereo check. Sound will be produced from the left speaker only, then the right speaker only, then both speakers together. The display will show which speaker is active.

3.   Use the Joystick LEFT/RIGHT to change between STEREO/MONO sound.

4.   When testing has been completed, press P1 Start Button to return to the Main Test Menu screen

6-2-9   JVS Status

This test is inactive and not used on JAMMA system cabinets, it is only operational on JVS system cabinets.

6-2-10 A. D. S - (Book Keeping)

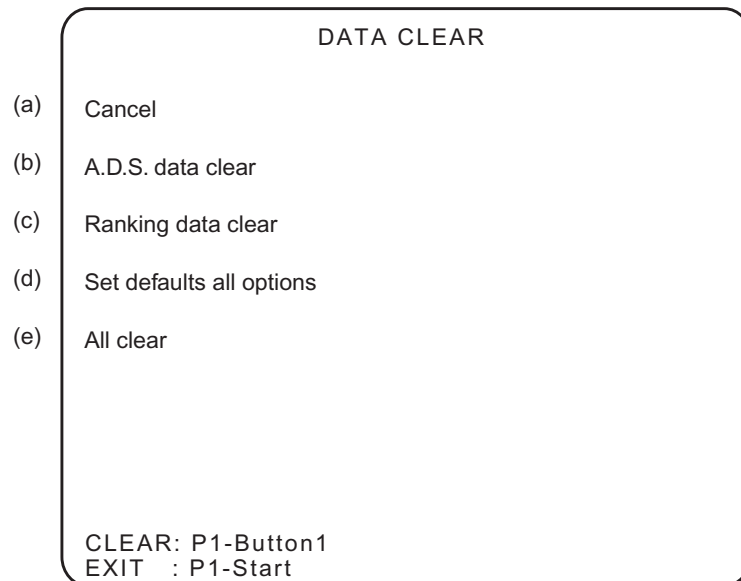1. Select ADS from the Main Test Menu. The following screen is displayed.

```
              ADS                    ON TIME  x:xx:xx      (e)

(a)      Coin 1 Total   xx          Play Ratio    100%     (f)
(b)      Coin 2 Total   xx       1P Play Ratio   xx.x%     (g)
(c)     Service Total   xx       VS Play Ratio   xx.x%     (h)
(d)    Freeplay Total   xx


                  Total Time    Count      Average
(i)    1P Play      x:xx:xx      xxx       x:xx:xx
(j)    1P Cont.     x:xx:xx      xxx       x:xx:xx
(k)    VS Play      x:xx:xx      xxx       x:xx:xx
(l)    All Play     x:xx:xx      xxx       x:xx:xx



       EXIT :                  P1-Start
```

(a) Total games on 1 player side.

(b) Total games on 2 player side.

(c) Total number of games using the Service switch.

(d) Total number of games during Free Play.

(e) Total time game has been switched on.

(f) Total time the game has been played as a 1P game, Total number of 1P games played and the Average time of a 1P game.

(g) Total time the game has been played as a 1P Continue game, Total number of 1P Continue games played and the Average time of a 1P Continue game.

(h) Total time the game has been played as a 2P game, Total number of 2P games played and the Average time of a 2P game

(g) Total time the game has been played, Total number of games played and the Average time of all games.

6-2-11 Data Clear

1. Select Data Clear from the Main Test Menu. The following screen is displayed.

```
                    DATA CLEAR

(a)   Cancel

(b)   A.D.S. data clear

(c)   Ranking data clear

(d)   Set defaults all options

(e)   All clear




      CLEAR: P1-Button1
      EXIT  : P1-Start
```

2. Use the Joystick UP/DOWN to step to the required adjustment.

3. When all adjustments have been made, press P1 Start Button to return to the Main Test Menu screen

(a) Returns to the Main Test Menu.
(b) Resets all Book Keeping data to zero
(c) Resets all ranking data such as record of consecutive wins to factory default
(d) Resets all Game and Coin Options to factory default.
(e) Executes (a), (b) and (c) all at once.

Copies of Namco Game Manuals can be downloaded from our **website:**

www.namco.co.uk

They are located under Components Distribution

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