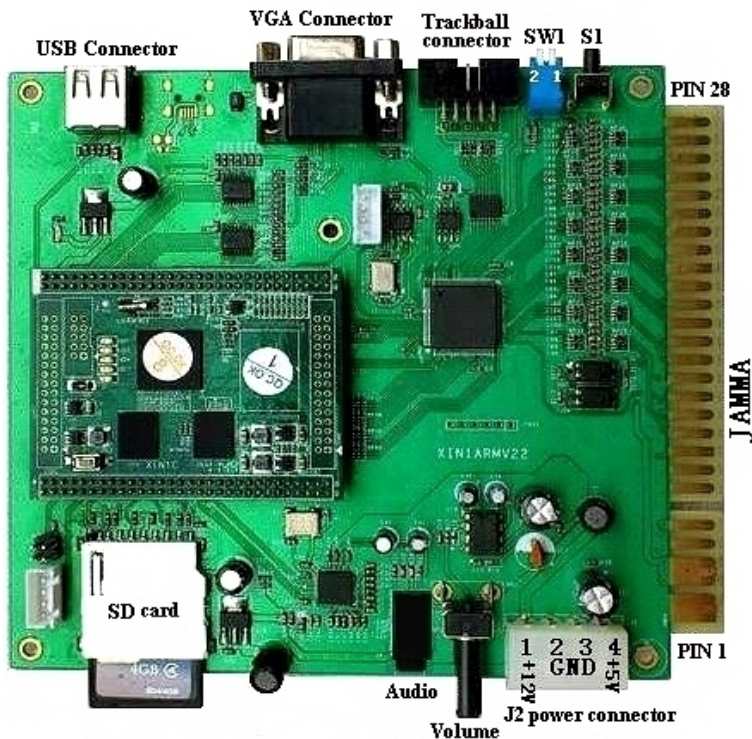


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Thank you for using this product of our company. In order to experience the product swimmingly, detailed instruction is provided which you can find the production's introduction, usage and other information. Before use this product, please read this manual carefully.

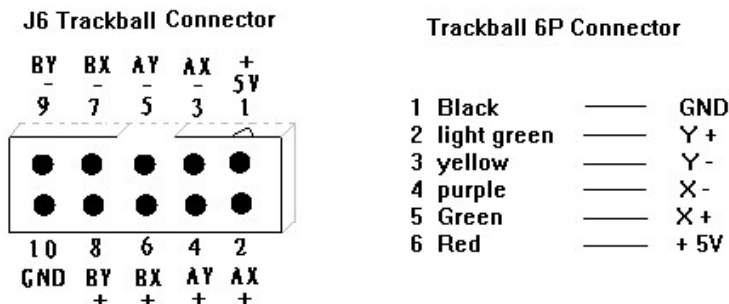
1. Game board instruction:



图表(Figure 1 Game board instruction)

CAUTION: The function of JAMMA connector and J2 power is same, do not use them together that would destroy game board.

Trackball connect instruction



Please connect the trackball connector to the J6 connector.

2. Operation instruction

Connect the game board and switch on the machine power, after the logo of the “game family” disappear, then enter game list menu as the figure 2.



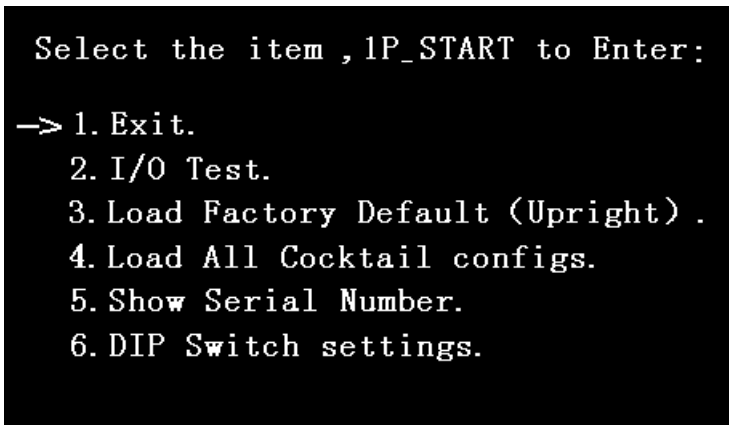
(Figure 2)

● **Caution:** press 1P C button to check the operation instruction.

1. Insert coins first and select game.
2. Select game by moving 1P joystick down or up, and left or right moving is to check game list.
3. Press 1P A button to enter game.
4. Press 1P START button within 5 seconds to quit game, and then return to the game list.

3. System settings configuration

- Switch on the machine power, when the logo of the “game family” disappear, press and hold S1 button to enter the system Settings menu as the below figure 3.

A screenshot of a text-based menu on a black background. The text is white and monospaced. It reads: "Select the item ,1P_START to Enter:". Below this, there is a list of six options, each preceded by a right-pointing arrow. The options are: "1. Exit.", "2. I/O Test.", "3. Load Factory Default (Upright) .", "4. Load All Cocktail configs.", "5. Show Serial Number.", and "6. DIP Switch settings.".

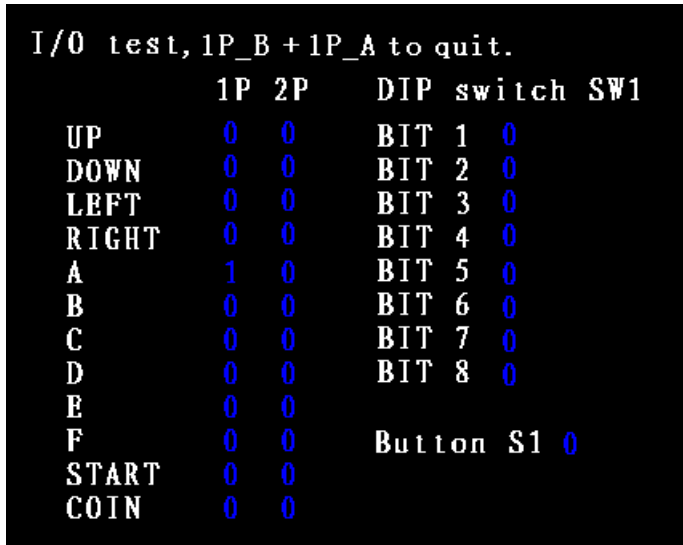
```
Select the item ,1P_START to Enter:
-> 1. Exit.
    2. I/O Test.
    3. Load Factory Default (Upright) .
    4. Load All Cocktail configs.
    5. Show Serial Number.
    6. DIP Switch settings.
```

(Figure 3)

- Select item by moving 1P joystick down or up and press 1P START to enter.
- Select “Exit” to quit and the system will reboot.

1. I/O Test

- 1) On the system Settings menu (see figure 3), select “2. I/O Test” to enter the I/O test menu as below.



I/O test, 1P_B + 1P_A to quit.

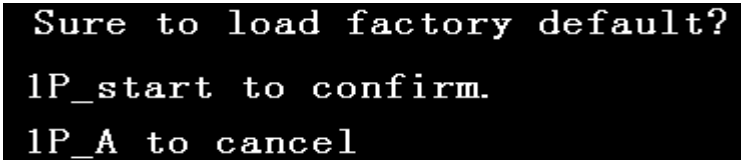
	1P	2P	DIP switch SW1
UP	0	0	BIT 1 0
DOWN	0	0	BIT 2 0
LEFT	0	0	BIT 3 0
RIGHT	0	0	BIT 4 0
A	1	0	BIT 5 0
B	0	0	BIT 6 0
C	0	0	BIT 7 0
D	0	0	BIT 8 0
E	0	0	
F	0	0	Button S1 0
START	0	0	
COIN	0	0	

(Figure 4)

- 2) This test displays the state of each switch & button. Press button one by one, if the display goes 1, when the switch or button is activated, the connection is satisfactory.
- 3) If the test is ok, press 1P[A+B] button to exit and back to the menu as figure 3.

2. Factory default/Upright consistently

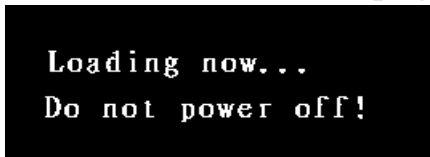
- 1) On the system Settings menu of figure 3, select “3. Load Factory Default (Upright)” to enter the menu as figure 5.



```
Sure to load factory default?  
1P_start to confirm.  
1P_A to cancel
```

(Figure 5)

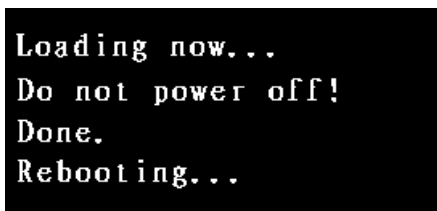
- 2) Press 1P START button to confirm to load factory default, refer to the figure 6. After the loading is finished, the game will restart automatically (see figure 7) and enter the game list (figure 2), then the factory default is done and the “cabinet” is set to Upright mode.



```
Loading now...  
Do not power off!
```

(Figure 6)

▲ CAUTION: Do not power off when in processing of loading factory default.!



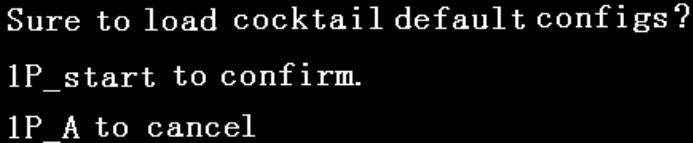
```
Loading now...  
Do not power off!  
Done.  
Rebooting...
```

(Figure 7)

- 3) Press 1P A button in the menu as figure 5, the factory default setting will be cancelled.

3. Cocktail consistently

- 1) On the system Settings menu as figure 3, select “4. Load ALL Cocktail configs” to enter the below menu:



```
Sure to load cocktail default configs?  
1P_start to confirm.  
1P_A to cancel
```

(Figure 8)

- 2) Press 1P START button to confirm to load. After the loading is finished, the game will restart automatically (see figure 7) and enter the game list (figure 2), all game configuration cabinet is set to Cocktail mode.

4. Show Serial Number

- 1) On the system Settings menu as figure 3, select “5. show serial Number” to enter and then check the serial numbers.
- 2) After checking, Press 1P A button to exit and back to system menu. Select “Exit” to exit and system will reboot automatically

CAUTION: this serial number is only marked number. We suggest the player keep this number for convenient customer service in future.

5. DIP Switch settings

- On the system Settings menu (figure 3), select “6. DIP Switch settings” and enter the item as figure 9.

```
DIP Switch settings:

  1. Display Mode:  CGA
->  2. System Mode:  Normal play
    3. Flip Screen:  OFF
    4. Free Play:    OFF
    5. Game Mode:    Multiple
    6. Free Browse:  ON
    7. Stop Timer :  OFF

1P_LEFT, 1P_RIGHT to change.
1P_START to save settings.
1P_A to quit.
```

(Figure 9)

- Select items by moving 1P joystick down or up, and left or right moving is to change the chosen item.
- **Display mode** and **flip screen** are adjusted by the SW1 on the game board. This menu is only to check the current setting state.
- After finished the Setting, press 1P START to save settings (figure 10), press 1P A to back the system menu(see figure 3). Select “EXIT” to quit, the new configuration will be valid after the system atomically reboot.

```
Saving...
Done. 1P_A to continue.
```

(figure 10)

1) Display mode

This game board support both VGA and CGA display modes, see the below setting way.

VGA mode (31.5 KHz): Set BIT1 of SW1 ON and the VGA monitor plug the VGA output connector (JVGA1).

CGA mode (15.75 KHz): Set BIT1 of SW1 OFF to use a regular JAMMA cabinet.

2). System mode

Normal play: game normal operation mode.

Config/ edit: game configuration and edit game list mode.

To improve the system stability, please set the item to “normal play” mode if there is no need to set game configuration or edit the game list.

3) Flip screen

Flip screen (ON): game screen flip 180 degree.

Flip screen (OFF): close the game screen flipped 180 degree .

Setting way as below:

Set BIT2 of SW1 ON, the screen will be flipped 180 degree. Set BIT2 of SW1 OFF, the game screen flipped 180 degree will be closed.

4) Free play:

Free play (ON): play all games for free.

Free play (OFF): disable free play mode .

If set specific game, please set “free play” item to “OFF” and enter the specific game to change the configuration settings, please see the below game configuration settings instruction for details.

5) Game mode

Multiple: set “game mode” to “multiple”

Single : set “game mode” to “multiple” ,The details for single mode please referred to in later.

6) Free browse

Free browse (ON): no need to insert coins, free browse and select game to enter.

Free browse (OFF): insert coins first and then browse or select game to enter.

7) Stop time

Stop time (ON): stop time is banned on the game list menu. Player must press 1P A button to enter the game after selecting.

Stop time (OFF): the player will enter the selected game automatically in 60 seconds.

4. Edit game list

- 1) Enter DIP Switch Setting menu (figure 9), set System mode to Config/Edit mode, the system will be restarted automatically after quitting with saving.
- 2) Press any button on the counting screen with “5...4...3”, will show the menu as below figure 11.

```
1P_A to Enter Submenu  
  
1- Exit .  
2- Edit game list .
```

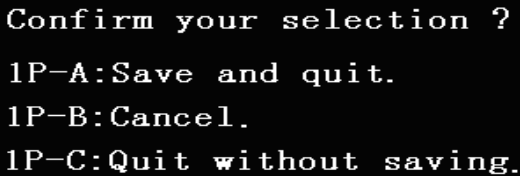
(Figure 11)

- 3) Moving 1P joystick down or up to Select “2-Edit game list” and enter the “edit game list” menu as figure 12.



(Figure 12)

- 4) The item“*” means to show game list, if there is no item “*”, it means to hide game list.
- Select game list by moving 1P joystick and press button A to decide to show or hide the selected game.
 - Press 1P B button to show all games and 1P C button to hide all.
- 5) After the game list edition is finished, press 1P START button to enter the save menu as figure 13.



```
Confirm your selection ?  
1P-A: Save and quit.  
1P-B: Cancel.  
1P-C: Quit without saving.
```

(Figure 13)

- ① Press 1P A button to save and quit the selection, enter game list later (see figure 2).
 - ② Press 1P B button to cancel and back to edit game list menu (see figure 12), and then continue to edit game list.
 - ③ Press 1P C button to quit without saving, then enter game list menu (see figure 2).
- 6) After editing the game list, please enter the DIP Switch settings again (figure 9), set system mode to “Normal play” mode and save. The game will be started in normal after the system reboot.

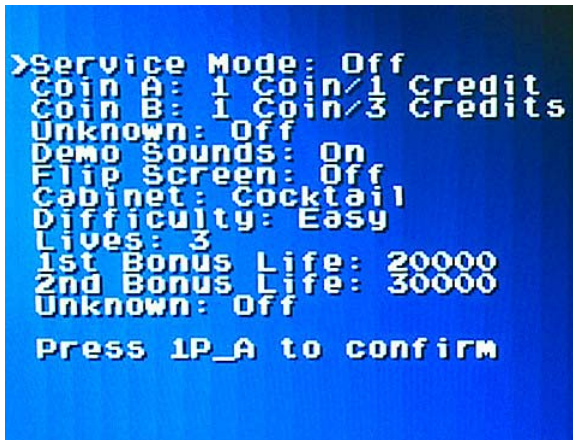
5. Single game setting and operation

- 1) Please refer to “edit game list” as above, and enter the edit game list menu (see figure 12)
- 2) Select game list by moving 1P joystick and press 1P D button to set. If it shows “SET” in front of game title you selected, that means the setting is successful.
- 3) Enter the DIP Switch settings menu as figure 9, set the **Game mode** to Single mode, and **System mode** to “Normal play” mode and save. The single game will be started after the system reboot.

6. Game configuration settings

Way 1 for Game configuration settings:

- 1) Enter the DIP Switch settings menu as figure 9, set **System mode** to “Config/Edit” mode, save and quit the system settings menu, then system reboot and enter the game list menu (figure 2).
- 2) Moving 1P joystick down or up to select the game you want to change, Press 1P A button to start game and enter the game configuration settings as figure 14.



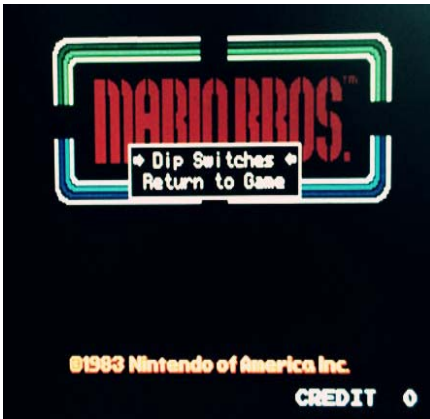
(Figure 14)

- 3) Select game by moving 1P joystick down or up, and left or right moving is to set game.
- 4) Press 1P A button to save after setting and back to the game.
- 5) Quit game and back to game list. Please go on to set other games if there are, and if not, please set **System mode** to Normal play mode. Reboot your system and the game will be started in normal mode.

Way 2 for Game configuration settings:

- 1) Enter the DIP Switch settings menu as figure 9, set **System mode** to “Config/Edit” mode, save and quit the system settings menu, then system reboot and enter the game list menu (figure 2).

- 2) Moving 1P joystick down or up to select the game you want to change, Press 1P A button to start game and enter the game configuration settings as figure 15.



(Figure 15)



(Figure 16)

- 3) Select “Dip Switches” to enter the setting menu(see figure 16).
- 4) Select game by moving 1P joystick down or up, and left or right moving is to set the game.
- 5) Select “return to main menu” to quit the setting menu after setting, and reselect “return to main menu” to back to the game.
- 6) Quit game, back to game list (see figure 2). Please go on to set other games if there are, and if not, please set System mode to Normal play mode. Reboot your system and the game will be started in normal mode.

7) Way 3 for Game configuration settings:

CAUTION: this way is only suitable for the games as tab3, for other games' setting, please see the way 1 or way 2 as above.

Tab3

Item number	Game	Item number	game
1	Defender	5	Robotron
2	Stargate	6	Blaster
3	Bubbles	7	Splat
4	Joust		

- 1) Enter the DIP Switch settings menu as figure 9, set System mode to “Config/Edit” mode, save and quit the system settings menu, then system reboot and enter the game list menu (figure 2).
- 2) Press 1P **A** button to start game, press 2P **ADVANCE** button(F button) to enter game test menu at any time, and continue to press **ADVANCE*** button to the game setting and then it can be set. Please see the below detail setting ways. (Remark *: for Defender game, press 2P **E +F** button to switch setting items.)

On the configuration setting mode, define 2P **D** button, **E** button, **F** button as below.

2P **D** button: High score reset

2P **E** button: AUTO

2P **F** button: Advance

Remark: For the above definitions, there are only valid when System mode is set to Config/Edit mode, and only valid for above games.

- 3) After setting, press ADVANCE button to quit the setting mode menu and game, back to game list. Please go on to set other games if there are, and if not, please set **System mode** to Normal play mode. The reboot your system and the game will be started in normal mode.

7. JAMMA wire map

Tab3. JAMMA wire map

JAMMA Wire Pap			
Part side		Solid side	
Definition	PIN	PIN	Definition
GND	1	1	GND
GND	2	2	GND
+5V	3	3	+5V
+5V	4	4	+5V
/	5	5	/
+12V	6	6	+12V
/	7	7	/
1P COIN METER	8	8	2P COIN METER
JMA9	9	9	JMB9
SPEAKER+	10	10	SPEAKER-
JMA11	11	11	JMB11
VIDEO R	12	12	VIDEO G
VIDEO B	13	13	VIDEO SYNC
GND	14	14	SERVICE
TEST	15	15	JMB15
1P-COIN	16	16	2P-COIN
1P-START	17	17	2P-START
1P-UP	18	18	2P-UP
1P-DOWN	19	19	2P-DOWN
1P-LEFT	20	20	2P-LEFT
1P-RIGHT	21	21	2P-RIGHT
1P-A	22	22	2P-A
1P-B	23	23	2P-B
1P-C	24	24	2P-C
1P-D	25	25	2P-D
1P-E	26	26	2P-E
1P-F	27	27	2P-F
GND	28	28	GND

8. Game List

Classic game list<Horizontal> 1/2			
1	Defender	42	Break Thru
2	Stargate	43	Bullfight
3	Bubbles	44	Calorie Kun vs Moguranian
4	Joust	45	Challenger
5	Robotron	46	Chameleon
6	Blaster	47	Changes
7	Splat	48	Chuka Taisen
8	Rally X	49	City Connection
9	Battle City	50	Cosmic Avenger
10	Mario Bros	51	Counter Run
11	New Rally X	52	Crazy Climber
12	Ghosts'n Goblins	53	Dai Ressya Goutou
13	Solomon's Key	54	Formation Z
14	Sky Kid	55	Moon Patrol
15	The FairyLand Story	56	Tropical Angel
16	Super Mario Bros.	57	Green Beret
17	Do! Run Run	58	Espial
18	Kick Rider	59	Express Raider
19	4-D Warriors	60	Flashgal
20	Acrobatic Dog-Fight	61	Flicky
21	Airwolf	62	Forty-Love
22	Cobra-Command	63	Frenzy
23	Missile Command	64	Wonder Boy
24	Super Missile Attack	65	Wonder Boy Deluxe
25	Shoot Out	66	Gridlee
26	Street Fight	67	Hard Head
27	Swimmer	68	I'm Sorry
28	Time Tunnel	69	Insector X
29	Black Dragon	70	Iron Horse
30	Tricky Doc	71	Jungle Hunt (US)
31	Clash-Road	72	Jungle King (Japan)
32	Cop 01	73	Killer Comet
33	Bank Panic	74	Knuckle Joe
34	10-Yard Fight	75	Kung-Fu Master
35	Act-Fancer Cybernetick Hype	76	Legend
36	Ambush	77	Marine Boy
37	Appoooh	78	Markham
38	Baraduke	79	Megatack
39	River Patrol	80	Wise Guy
40	Bogey Manor	81	Metro-Cross
41	Brain	82	Momoko 120%

Classic game list<Horizontal> 2/2			
83	Mr. Do's Wild Ride	111	Space Zap
84	Mr. Goemon	112	Spatter
85	My Hero	113	Strategy X
86	Nekketsu Kouha Kunio-kun	114	Super Cross 2
87	Nova 2001	115	Super Pierrot
88	Onna Sansirou - Typhoon Gal	116	Vs 10-Yard Fight
89	Pac-Land	117	Yie Ar Kung-Fu
90	Penguin-kun Wars	118	Wheel Of Fortune
91	Perfect Billiard	119	scion
92	Pirate Pete	120	88 Games
93	Pirate Ship Higemaru	121	Double Dragon
94	Pitfall II	122	Double Dragon 2
95	Ponpoko	123	Hyper Olympic
96	Prebillian	124	Hyper Sports Special
97	Surprise Attack	125	Lifeforce (Japan)
98	Raiders5	126	Lifeforce (US)
99	Raimais	127	Silver Land
100	Robby Roto	128	Track & Field
101	Rough Ranger	129	Hyper Sports
102	Rougien	130	Berzerk
103	Rush'n Attack	131	Vanguard
104	Rygar	132	Plump Pop
105	SF-X	133	P-47 - The Phantom Fighter
106	Sauro	134	Blood Bros.
107	Sea Fighter Poseidon	135	Rambo III (Europe)
108	Section Z	136	Rambo III (US)
109	Sega Ninja	137	Gauntlet
110	Snap Jack	138	Tetris (System 16A)

Appendix: no flipped screen's game in Classic game

<Horizontal> as below table:

No flipped screen' s game in Classic game <Horizontal>			
1	Defender	123	Hyper Olympic
2	Stargate	124	Hyper Sports Special
3	Bubbles	125	Lifeforce (Japan)
4	Joust	126	Lifeforce (US)
5	Robotron	128	Track & Field
6	Blaster	129	Hyper Sports
7	Splat	131	Vanguard
9	Battle City	132	Plump Pop
10	Mario Bros	133	P-47 - The Phantom Fighter
14	Sky Kid	134	Blood Bros.
16	Super Mario Bros.	135	Rambo III (Europe)
120	'88 Games	136	Rambo III (US)
121	Double Dragon	137	Gauntlet
122	Double Dragon 2	138	Tetris (System 16A)