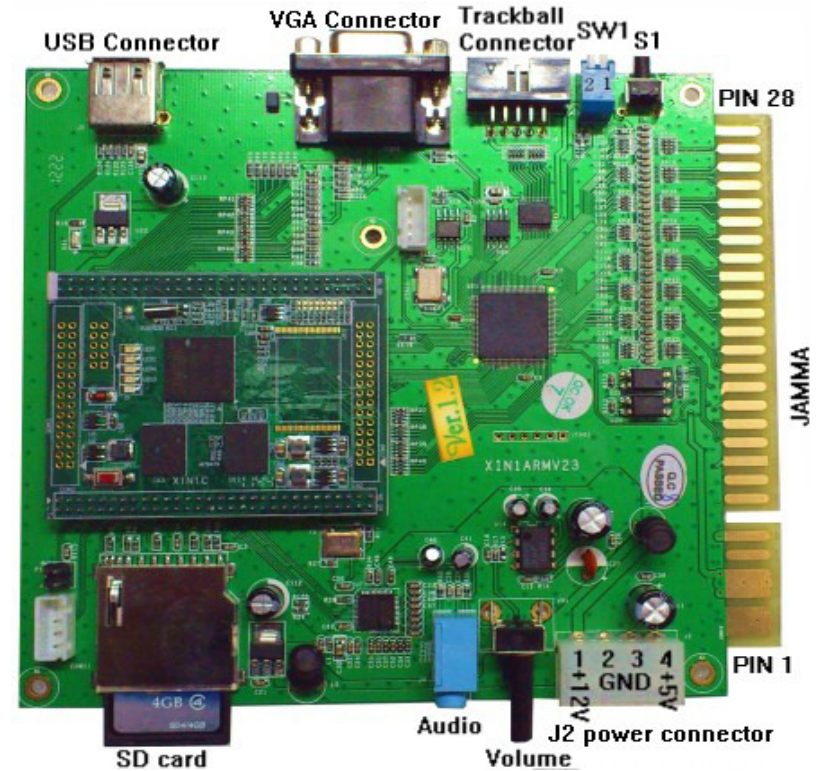


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Thank you for using this product of our company. In order to experience the product swimmingly, detailed instruction is provided which you can find the production's introduction, usage and other information. Before use this product, please read this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

1. Connector Instruction:



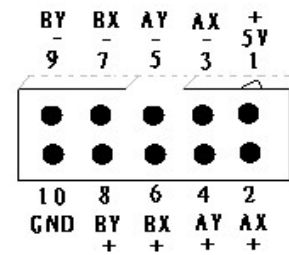
(Figure 1 ,Game board instruction)

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

Remark: The picture of user menu only for reference, any difference, please refers to the products or real figure. 1

Trackball connect instruction

J6 Trackball Connector



Trackball 6P Connector

1	Black	——	GND
2	light green	——	Y+
3	yellow	——	Y-
4	purple	——	X-
5	Green	——	X+
6	Red	——	+5V

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.



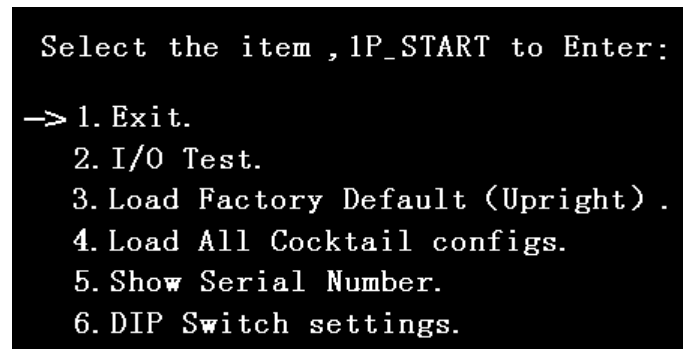
(figure 2)

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

1. Insert coins first and select game. (Free play or free browse mode needn't insert.)
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 for 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” appear, press and hold S1 button to enter the system Settings menu as the below figure 3.



```
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 then enter to the game list (figure 2) .

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

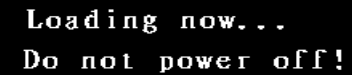
- 1) On the system Settings menu of figure 3, select “3. Load Factory Default (Upright)” to enter the menu as figure 5.

```
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

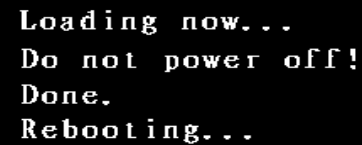
the figure 6. After the loading is finished, the system will restart automatically (see figure 7) and enter the game list (figure 2), then the factory default is done and the “cabinet” is set to Upright mode.



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

(Figure 6)

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



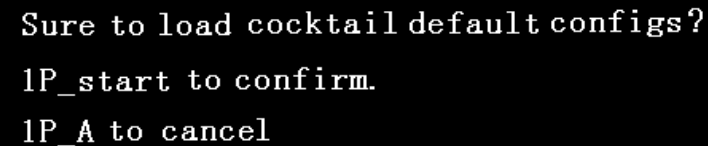
```
Loading now...  
Do not power off!  
Done.  
Rebooting...
```

(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 system 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 the system menu and then enter the game list (figure 2)

CAUTION: this serial number is only marked number, We suggest our customers keep this number for convenient 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
  8. Music : OFF
  9. Language : English
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 timer

Stop timer (ON): On the game list menu, the **timer** stop Count down. Player must press 1P A button to enter the game after selecting.

Stop timer (OFF): On the game list menu, the **timer** start Countdown. The player will enter the selected game automatically in 60 seconds.

8) Music

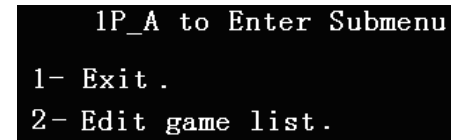
Music (ON):With music on the game list menu.

Music (OFF):Without music on the game list menu.

9) Language: Change the language between English and Chinese.

4. Edit game list

- 1) Enter DIP Switch Setting menu (figure 9), set System mode to Config/Edit mode, save and quit the system settings menu ,then enter the game list (figure 2).
- 2) Before enter the game list (figure2),press any button on the counting screen with “5...4...3”, will show the menu as below figure 11.



(Figure 11)

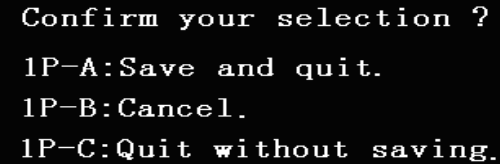
- 3) Moving 1P joystick down or up to Select “2-Edit game list” and enter the “edit game list” menu as figure 12.



(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.

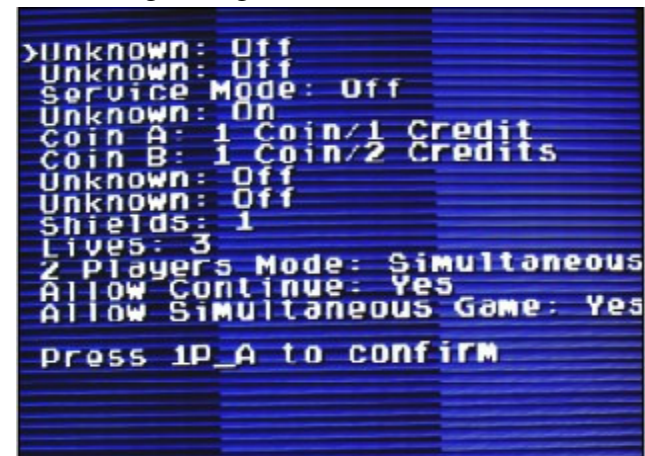
5. Single game setting and operation

- 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 entering the game list.

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 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)

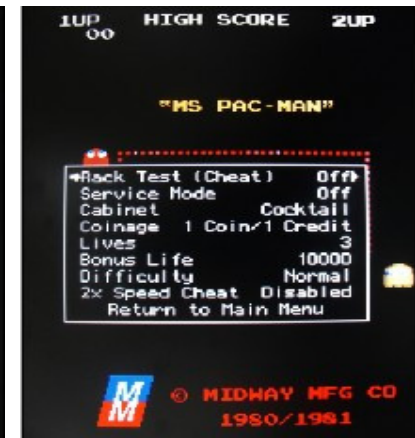
- 3) Select game by moving 1P joystick down or up, and left or right moving is to set game.
- 4) Press 1P A button to save after setting and back to the game.
- 5) Quit game and back to game list(Figure 2),Restart the game, then new settings is valid.Please go on to set other games if there are, and if not, please set **System mode** to Normal play mode. Enter the game list(figure 2),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 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 (figure 2). Restart the game, then new settings is valid.Please go on to set other games if there are, and if not, please set System mode to Normal play mode. Enter the game list and the game will be started in normal mode.

7. JAMMA wire map

Tab3. JAMMA wire map

JAMMA WIRE PAP			
Part side		Part 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

Classical game list<Vertical>		1/4
001. Ms. Pac-Man	042. Space Panic (harder)	
002. Ms. Pac-Man (speedup)	043. Super Breakout	
003. Ms. Pac-Man Plus	044. Arkanoid	
004. Galaga	045. Super Qix	
005. Frogger	046. Juno First	
006. Frog	047. Xevious	
007. Donkey Kong	048. Mr. Do's Castle	
008. Crazy Kong	049. Moon Cresta	
009. Donkey Kong Junior	050. Pinball Action	
010. Donkey Kong 3	051. Scramble	
011. Galaxian	052. Super Pac-Man	
012. Galaxian Part X	053. Bomb Jack	
013. Galaxian Turbo	054. Shao-Lin's Road	
014. Dig Dug	055. King & Balloon	
015. Crush Roller	056. 1943	
016. Mr. Do!	057. Van-Van Car	
017. Space Invaders Part II	058. Pac-Man Plus	
018. Super Invaders (EMAG)	059. Pac & Pal	
019. Return of the Invaders	060. Dig Dug II	
020. Super Space Invaders '91	061. Amidar	
021. Pac-Man	062. Zaxxon	
022. PuckMan	063. Super Zaxxon	
023. PuckMan (speedup)	064. Pooyan	
024. New Puck-X	065. Pleiads	
025. Newpuc2	066. Gun.Smoke	
026. Galaga 3	067. The End	
027. Gyruus	068. 1943 Kai	
028. Tank Battalion	069. Congo Bongo	
029. 1942	070. Jumping Jack	
030. Lady Bug	071. Big Kong	
031. Burger Time	072. Bongo	
032. Mappy	073. Gaplus	
033. Centipede	074. Ms. Pac Attack	
034. Millipede	075. Abscam	
035. Jr. Pac-Man	076. Ajax	
036. Pengo	077. Ali Baba and 40 Thieves	
037. Son of Phoenix	078. Finalizer - Super Transformation	
038. Time Pilot	079. Arabian	
039. Super Cobra	080. Armored Car	
040. Video Hustler	081. Astro Blaster	
041. Space Panic	082. Astro Fighter	

Classical game list<Vertical>		2/4
083. Astro Invader	125. Funky Fish	
084. Battle Lane!	126. Funny Mouse	
085. Battle-Road, The	127. Future Spy	
086. Beastie Feastie	128. Galaxy Wars	
087. Bio Attack	129. Gardia	
088. Black Hole	130. Ghostmuncher Galaxian	
089. Block Gal	131. Go Go Mr. Yamaguchi	
090. Blue Print	132. Gorkans	
091. Bump 'n' Jump	133. Grobda	
092. Cavelon	134. Gun Dealer	
093. Cheeky Mouse	135. Guzzler	
094. Circus Charlie	136. Gyrodine	
095. Commando	137. Hangly-Man	
096. Darwin 4078	138. Hero in the Castle of Doom	
097. Defend the Terra Attack - UFO	139. High Way Race	
098. Devil Fish	140. Hoccer	
099. Devil Zone	141. Hopper Robo	
100. Dingo	142. Intrepid	
101. Disco No.1	143. Jack the Giantkiller	
102. Dock Man	144. Joinem	
103. Dog Fight (Thunderbolt)	145. Jolly Jogger	
104. Dommy	146. Jovman	
105. Dorodon	147. Jump Coaster	
106. Dr. Micro	148. Jungler	
107. Dr. Toppel's Adventure	149. Crazy Rally	
108. Dream Shopper	150. Kangaroo	
109. Eagle	151. Kaos	
110. Eggor	152. Kicker	
111. Eight Ball Action	153. Korosuke Roller	
112. Enigma 2	154. Lasso	
113. Exciting Soccer	155. Lock'n'Chase	
114. Exerion	156. Loco-Motion	
115. Eyes	157. Looping	
116. Fantasy	158. Lunar Rescue	
117. Fantazia	159. Mad Alien	
118. Labyrinth Runner	160. VS Gong Fight	
119. Fighting Roller	161. 800 Fathoms	
120. Fire Battle	162. Mighty Guy	
121. Fire Trap	163. Mighty Monkey	
122. Fly-Boy	164. Mikie	
123. Free Kick	165. Minky Monkey	
124. Funky Bee	166. Mission 660	

Classical game list<Vertical>		3/4
167. Mister Viking	209. Pro Baseball Skill Tryout	
168. Money Money	210. Radar Scope	
169. Monkey Donkey	211. Rafflesia	
170. Monster Bash	212. Regulus	
171. Moon Alien	213. Road Fighter	
172. Moon Alien Part 2	214. Roc'n Rope	
173. Moonwar	215. Round-Up	
174. Motos	216. Rug Rats	
175. Mouser	217. S.R.D. Mission	
176. Mr. Jong	218. SWAT	
177. Mr. Kougar	219. Samurai Nihon-ichi	
178. Mr. TNT	220. Satan of Saturn	
179. Mysterious Stones	221. Saturn	
180. Naughty Boy	222. Scorpion	
181. Naughty Mouse	223. Scrambled Egg	
182. Navarone	224. Senjyo	
183. Net Wars	225. Shot Rider	
184. New Sinbad 7	226. Sindbad Mystery	
185. New York New York	227. Sky Base	
186. Nibbler	228. Seicross	
187. Ninja Emaki	229. Space King 2	
188. Jackal	230. Space Firebird	
189. Gomoku Narabe Renju	231. Space Force	
190. Nunchackun	232. Space Pilot	
191. Oli-Boo-Chu	233. Space Raider	
192. Ozma Wars	234. Space Thunderbird	
193. Pandora's Palace	235. Speak & Rescue	
194. Strata Bowling	236. Speed Ball	
195. Percussor, The	237. Springer	
196. Perestroika Girls	238. Star Force	
197. Performan	239. Star Jacker	
198. Phozon	240. Stinger	
199. Pickin'	241. Streaking	
200. Pinbo	242. Super Bagman	
201. Pioneer Balloon	243. Super Basketball	
202. Piranha	244. Super Doubles Tennis	
203. Pisces	245. Super Galaxians	
204. Pit, The	246. Super Mouse	
205. Polaris	247. Gigas	
206. Pop Flamer	248. Swarm	
207. Popper	249. Svusse Oozumou	
208. Power Surge	250. Tactician	

Classical game list<Vertical>		4/4
251. Toki no Senshi	264. Water Ski	
252. Top Roller	265. Wiping	
253. Tower of Druaga	266. Wiz	
254. Traverse USA	267. Woodpecker	
255. Triple Punch	268. Yamato	
256. Turpin	269. Omega Fighter Special	
257. Tutankham	270. Zig Zag	
258. UniWar S	271. Cutie Q	
259. Vanguard	272. Zodiack	
260. Vastar	273. Zvzvzvx	
261. Vulgus	274. Anteater	
262. Wanted	275. Blades of Steel	
263. Warp & Warp	276. Bomb Bee	

Appendix: no flipped screen's game in Classic game < Vertical >
as below table:

No flipped screen' s game in Classical game <Vertical>	
020. Super Space Invaders '91	160. VS Gong Fight
034. Millipede	188. Jackal
043. Super Breakout	189. Gomoku Narabe Renju
044. Arkanoid	228. Seicross
056. 1943	229. Space King 2
068. 1943 Kai	247. Gigas
078. Finalizer - Super Transformation	269. Omega Fighter Special
118. Labyrinth Runner	274. Anteater
149. Crazy Rally	275. Blades of Steel