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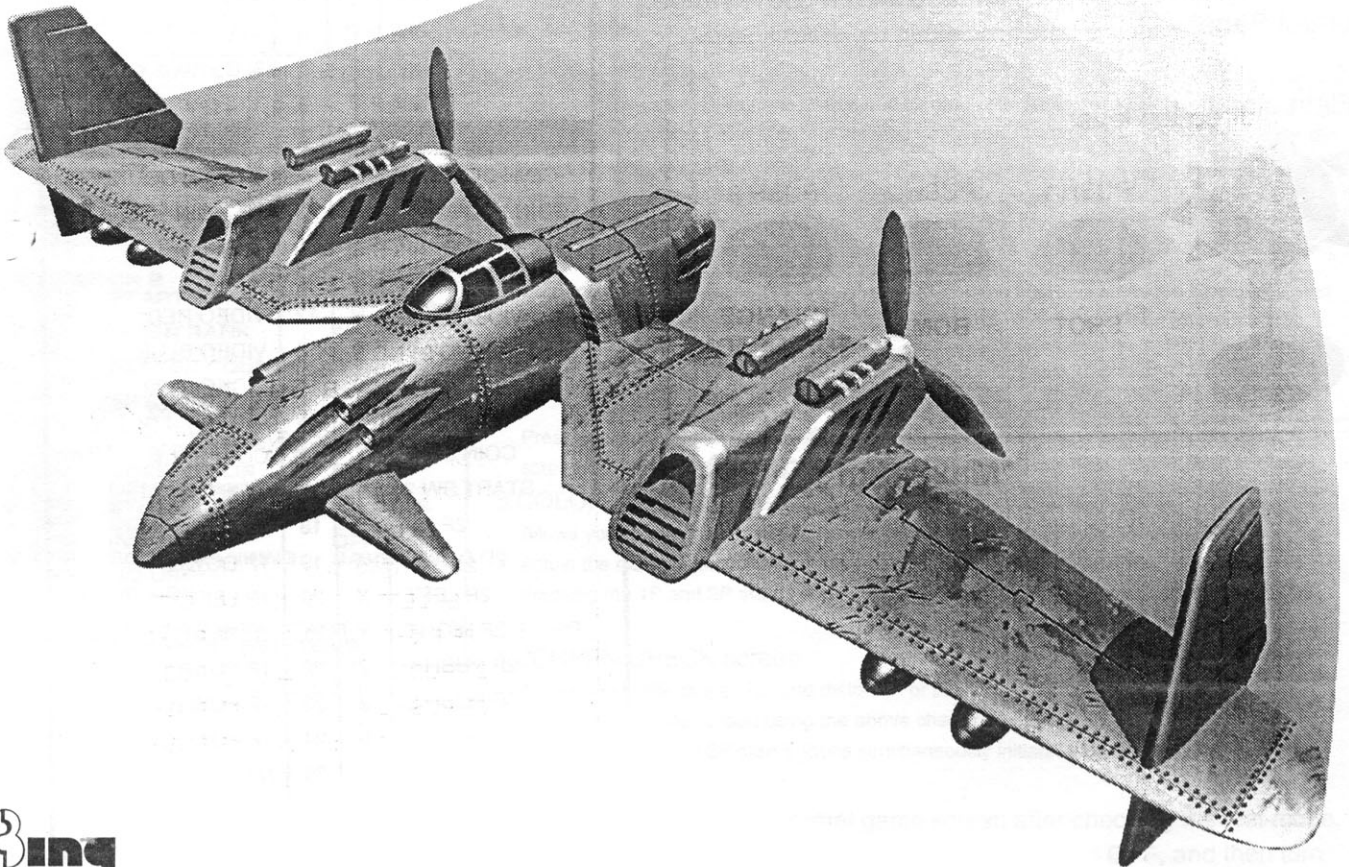
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BATTLE BARRAGE

OPERATOR'S MANUAL



[Important Safety Instructions]

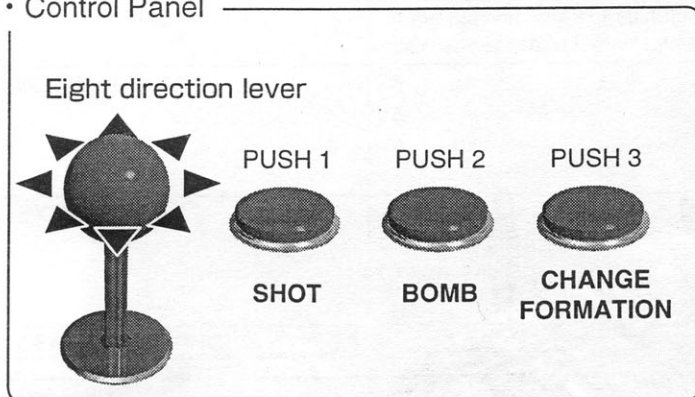
- Turn off power before installation and removal of the circuit board.
- Turn off power before changing the setting of any DIP switch.
- Use board edge connectors that conform to the JAMMA standard.
- Do not touch the heat sink or components when you hold the board since the heat sink and some components are very hot.
- Set the board so that the heat sink is always well ventilated.
- Avoid strong physical shock on the board and do not get it wet.
- Do not disassemble or rebuild the board.

[Contents]

- Manual (BBI-01W) 1 copy
- Instruction card (BBI-02W) 1 copy
- Circuit board 1 board

[Settings]

- Edge connector on circuit board JAMMA Standard
- Monitor Direction VERTICAL SCREEN
- Supply voltages to the board
+5V(2A or greater) +12V(1A or greater)
(Maintain each voltage within $\pm 5\%$ range.)
- Control Panel



*Maximum credits-9.

168

[Pin Assignment]

JAMMA Standard

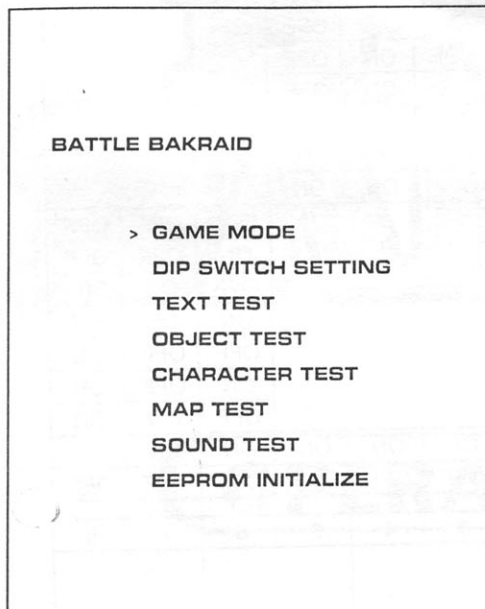
SOLDER SIDE			PARTS SIDE	
GND	A	1	GND	
GND	B	2	GND	
+5V	C	3	+5V	
+5V	D	4	+5V	
N.C.	E	5	N.C.	
+12V	F	6	+12V	
	H	7		
COIN COUNTER 2 (COIN LOCK OUT 2)	J	8	COIN COUNTER 1 (COIN LOCK OUT 1)	
SP(-)	K	9	SP(+)	
N.C.	L	10	N.C.	
N.C.	M	11	N.C.	
VIDEO GREEN	N	12	VIDEO RED	
VIDEO SYNC	P	13	VIDEO BLUE	
SERVICE SW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

[Test Mode]

To enter test mode, set DIP switch 1-1 on the board ON, and then turn on power.

Caution: Turn off power before changing the setting of any DIP switch.

Select a test item by moving the 1P lever to the appropriate vertical position and press the 1P PUSH1. The screen for the selected test item appears.



<Test Menu>

1. GAME MODE
Brings you to the game screen for checking.
2. DIP SWITCH SETTING
Allows you to perform input tests, DIP switch setting tests, and monitoring screen checking.
3. TEXT TEST
Allows you to check text to be used during the game.
4. OBJECT TEST
Allows you to check the objects to be used during the game.
5. CHARACTER TEST
Allows you to check the characters to be used during the game.
6. MAP TEST
Allows you to check the maps to be used during the game.
7. SOUND TEST
Allows you to check the sound to be used during the game.
8. EEPROM INITIALIZE
Clears the contents of the SAVE data.
Caution: Selecting this mode clears the backed-up SAVE data and returns to the initial state.

[DIP Switch Settings]

Allows you to perform input tests, DIP switch setting tests, and monitoring screen checking.

Selecting this mode on the TEST MENU screen initiates the ROM RAM CHECK. On the screen after the ROM RAM CHECK, pressing the 1P and 2P start buttons simultaneously brings you to the IO CHECK screen.

DIP SWITCH SETTING		
DIP SWITCH 1		
1 ON	TEST MODE	TEST 1 CREDIT
2 OFF	STARTING COIN	
3 OFF	COIN 1	1 COIN
4 OFF		1 CREDIT
5 OFF		
6 OFF	COIN 2	1 COIN
7 OFF		1 CREDIT
8 OFF		
DIP SWITCH 2		
1 OFF	START RANK	NORMAL
2 OFF		
3 OFF	TIMER RANK	NORMAL
4 OFF		
5 OFF	PLAYER COUNTS	3
6 OFF		
7 OFF	EXTRA PLAYER	200000
8 OFF		EACH
DIP SWITCH 3		
1 OFF	SCREEN FLIP	OFF
2 OFF	DEMO SOUND	ON
3 OFF	STAGE EDIT	DISABLE
4 OFF	CONTINUE PLAY	ENABLE
5 OFF	INVINCIBLE	OFF
6 OFF	SCORE RANKING	SAVE
7 OFF	NO USE	
8 OFF	NO USE	

**PRESS 1P & 2P START
TO CHANGE TEST ITEMS**

2. DIP SWITCH SETTING screen

1. IO CHECK screen
Lets you test switches, buttons, and the lever of the machine.
If the screen changes from OFF to ON after you press a switch, a button, and the lever, the machine is verified as normal.
Pressing the 1P and 2P start buttons simultaneously brings you to the DIP SWITCH SETTING screen.
2. DIP SWITCH SETTING screen
Lets you check the settings of the DIP switches on the board, such as the type of coin and the degree of difficulty.
(See the table of DIP switch settings for each setting.)
Caution: Turn off power before changing the setting of any DIP switch.
Check the settings only on the DIP SWITCH SETTING screen.
Pressing the 1P and 2P start buttons simultaneously brings you to the COLOR CHECK screen.
3. COLOR CHECK screen
Allows you to check color shades and brightness of the screen using each color bar.
Adjust the machine screen using the above check results as guidelines.
Pressing the 1P and 2P start buttons simultaneously brings you to the SCREEN CHECK screen.
4. SCREEN CHECK screen
Allows you to check the size and distortion of the screen using the cross-hatched screen.
Adjust the machine screen using the above check results as guidelines.
Pressing the 1P and 2P start buttons simultaneously initiates return to the MENU screen.

If you want to return to a normal game screen after checking the test mode, turn off power before turn DIP switch 1-1 on the board OFF, and then turn on power again.

