
BATTLETOADS
TM
BATTLETOADS © & TM RARE LTD., 1994

CONTROLS

EAT FLIES FOR EXTRA ENERGY!

DOUBLE-CLICK LEFT OR RIGHT ON JOYSTICK TO RUN REAL FAST!

THE ACTION BUTTON IS FOR ATTACKING ENEMIES & PICKING UP CERTAIN OBJECTS!

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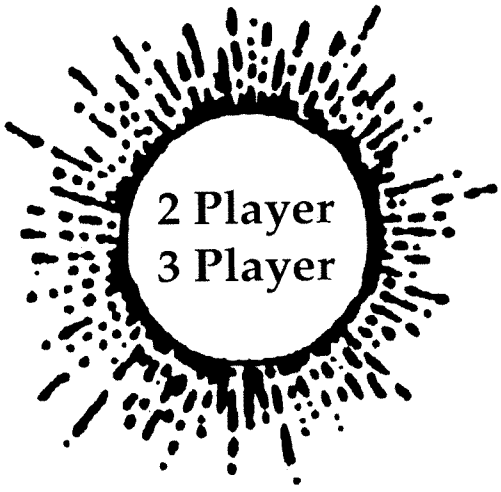

BATTLETOADS™



ELECTRONIC ARTS®

1584 BARCLAY BLVD. • BUFFALO GROVE, IL 60089 • TEL:708-537-0600 FAX 708-537-0665

PARTS LIST

Item	Part #
PCB	951100
Marquee	951200
CPO	951201
Side Decal-2	951202
Inst Decal	951203
Manual	951300
Harness	951400
Joysticks-Green (3)	101000
Buttons-Yellow (9)	101200
Palnut (8)	101300
Micro Switch (9)	101400

BATTLETOADS™ Technical Data

TECHNICAL REQUIREMENTS

1. Supports two or three player universal cabinets. Horizontal monitor.

2. **POWER SUPPLY:** +5Vdc, 5A Minimum, +12 Vdc 2A

3. **VIDEO OUTPUT:** R (RED) analog, positive
   G (GREEN) analog, positive
   B (BLUE) analog, positive
   SYNC. H-V complexed, negative

4. **AUDIO OUTPUT:** Stereo or Mono, dip switch adjustable.

5. Read the section on "Battletoads On-Screen Instructions" before operation

6. Before power-up, please refer to Wiring Harness section of this manual to confirm all connections.

7. Refer PCB servicing to qualified personnel only.

PCB DIP SWITCH SETTINGS (SW1)

Dip Switch settings are changed by SW1, located on the PCB. For reference only, dip switch settings are displayed on screen in the "Game Setup menu".

	FUNCTION	ON	OFF
S1	ATTRACT MODE SOUND	*ATTRACT SOUND	NO ATTRACT SOUND
S2	SOUND MODE	*STEREO	MONO
S3	COIN MECH MODE	COMMON INPUT	*INDEPENDENT INPUT
S4	NUMBER OF PLAYERS	*3 PLAYERS	2 PLAYERS
S5	FREE PLAY	FREE PLAY	*NO FREE PLAY
S6	BLOOD FREE MODE	NO BLOOD	*BLOOD
S7	CREDIT RETENTION	*MEMORY	NO MEMORY
S8	NOT USED	N/A	*N/A

*** FACTORY SETTINGS**

BATTLETOADS Wiring Harness

JAMMA STANDARD

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

PLAYER 3

BLACK	1	GND
	2	N/C
	3	N/C
	4	N/C
BLACK/BLUE	5	COIN 3
RED/ORANGE	6	START 3
GREEN/ORANGE	7	UP 3
BLUE/ORANGE	8	DOWN 3
BLACK/ORANGE	9	LEFT 3
VIOLET/ORANGE	10	RIGHT 3
BROWN/ORANGE	11	ACTION 3
YELLOW/ORANGE	12	JUMP 3
	13	N/C
	14	N/C
	15	N/C

MOLEX 15 PIN 0.100" HEADER
MOLEX #22−23−2151 or equivalent

BATTLETOADS™ On-screen Menu

MAIN MENU

GAME SETUP
GAME DIAGNOSTICS
GAME STATISTICS

RESTART GAME

The above inset lists the options available in the BATTLETOADS™ MAIN MENU. Each option contains sub-menus, listed below. Depress the JAMMA test switch to enter the BATTLETOADS™ On-screen Main Menu. Use the Joystick (up & down) to move the cursor, and depress Action to select. **All changes to the On-screen Menu must be saved, otherwise previous settings will remain.** You will be prompted on-screen to save changes.

GAME SETUP

DIP SWITCH SETTINGS
ON-SCREEN OPTIONS

RETURN TO MAIN MENU

The above inset lists the two(2) sub-menus available within GAME SETUP. **All Dip Switch Settings must be changed manually by using the Dip Switch bank (SW1) on the main PCB.** However, Dip Switch settings can be reviewed on-screen.

1. DESCRIPTION OF DIP SWITCH SETTINGS (SW1)

S1 ATTRACT MODE SOUND
Switch **OFF** for no sound during the attract mode; Switch **ON** for sound during attract mode.

S2 STEREO SOUND MODE
Switch **ON** for STEREO sound when using two speakers. (Please see the wiring harness diagram). If only one speaker is available, Switch **OFF** will select MONO sound mode.

S3 COIN MECH MODE
Switch **OFF** to select Independent coin input (each player dedicated to a coin slot). Switch **ON** to select Common setting of all coin inputs. When using the Common coin input mode, all credits are stored in one credit bank. **Common Coin input Mode must be used in three player universal cabinets that are equiped with a two slot coin door.**

S4 THREE PLAYER MODE
Battletoads™ can be setup in either a three player or two player configuration. Switch **ON** for three(3) player cabinets. Switch **OFF** for two(2) player cabinets. In the two player mode, players will have the capability to select which character to play.

S5 FREE PLAY
Switch **OFF** for coin play; Switch **ON** for free play.

S6 BLOOD FREE MODE
Switch **OFF** for blood effect when enemies are destroyed; Switch **ON** to remove this blood effect.

S7 POWER OFF MEMORY (UNUSED CREDIT RETENTION)
Switch **ON** to retain credits when power is off. Switch **OFF** to reset remaining credits when power is off. This switch setting has no effect on bookkeeping data retention.

2. ON-SCREEN OPTIONS

DIFFICULTY LEVEL (1-6)
There are six(6) difficulty levels: Level one(1) is the easiest; Level six(6) is the most difficult. Factory setting is Level four(4).

COINS PER DOLLAR (1-10)
Factory setting is four(4) per dollar (i.e. 25¢ x $\frac{4}{}$ = $1). This setting can be changed to meet your particular requirements.

COINS TO START (1-10)
Factory setting is two(2). This setting can be changed to meet your location requirements.

COINS TO CONTINUE (1-10)
Factory setting is one(1). This setting can be changed to meet your location requirements.

LIVES ON CONTINUE (2-3)
Factory setting is two(2). Should you choose to have equal pricing for Start and Continue (i.e. 25¢ Start, 25¢ Continue), we recommend the number of lives to Continue be increased to three(3).

RESET TO FACTORY SETTINGS
By selecting this option you will automatically reset to the factory defaults for the On-screen options only.

SAVE NEW SETTINGS
Any changes to the On-screen options must be saved before exiting the On-screen options sub-menu; otherwise, previous settings will remain.

GAME DIAGNOSTICS

SOUND CHECK
RAM / ROM CHECK
JOYSTICK & BUTTON CHECK
VIDEO ALIGNMENT CHECK

RETURN TO MAIN MENU

The above inset lists the four(4) sub-menus available in GAME DIAGNOSTICS . These options are designed for initial game check and troubleshooting.

1. SOUND CHECK

PLAY TUNE (1-9)
This options allows you to check and play continually each of the Nine(9) Battletoads™ tunes. The Action button will jump the program to the next tune. The selected tune will continue to play while you are in the Sound Check sub-menu.

PLAY SFX (1-185)
This option allows you to check and play once each of the 185 BATTLETOADS™ sound effects. The Action button will jump the program to the next sound effect.

REPLAY SFX
This option allows you to repeat the selected sound effect (PLAY SFX).

2. RAM/ROM CHECK

This option will perform tests on the Program ROM, System RAM, Battery Backed RAM and Video Display RAM. A **PASS** result indicates the system is OK, a **FAIL** result will be followed by a list of components to be checked. **REFER PCB SERVICING TO QUALIFIED PERSONNEL.**

3. JOYSTICK & BUTTON CHECK

This sub-menu allows the user to test all control functions and coin switches. Functioning circuits are highlighted on-screen when tested.

4. VIDEO ALIGNMENT CHECK

This option allows the use of a Crosshatch Pattern or Color Bars to adjust and align the monitor display.

GAME STATISTICS

BOOKKEEPING REPORT
CREDIT USAGE REPORT
DURATIONS REPORT

ERASE PERIODICAL STATISTICS

RETURN TO MAIN MENU

The above inset lists the sub-menus available in GAME STATISTICS.

1. BOOKKEEPING REPORT

LIFETIME COINS
Lifetime Coins shows number of coins input to-date. This data cannot be reset.

PERIOD COINS
Period Coins shows number of credits since periodical statistics were last erased from memory (See GAME STATISTICS: ERASE PERIODICAL STATISTICS).

PERIOD DOLLARS
Period Dollars is the result of Period Coins divided by Coins Per Dollar. Like Period Coins, this reading shows bookkeeping data since the periodical statistics were last erased from memory.

COINS PER DOLLAR
This number is selected in GAME SET UP, ON-SCREEN OPTIONS sub-menu.

Note: Certain components of the Bookkeeping Report are influenced by settings in the GAME SETUP menu. (i.e. if dipswitch S3 is **ON** all credits will be accumulated in SLOT-1). Any coins input while in the BATTLETOADS™ On-screen Menu will not accumulate on-screen or the coin meters.

2. CREDIT USAGE REPORT

The Credit Usage Report shows which BATTLETOADS™ characters (i.e. Rash, Pimple or Zitz) players select during Start and Continue.

3. DURATIONS REPORT

PLAY CREDIT LIFESPAN

This statistic reflects the per credit lifespan of players in intervals (minutes). The numerical figure is the number of occurrences at each interval (i.e. 150 credits had a lifespan of 2:00-2:59 minutes). A horizontal bar will allow you a quick glance at the frequency of occurrences for each interval.

The remaining Durations Reports, AVG. TIME / GAME, AVG. TIME PER CREDIT, TOTAL TIME IN PLAY, AND OPERATIONAL TIME are given for the Period (since statistics were last reset). Lifetime statistics cannot be reset.

4. ERASE PERIODICAL STATISTICS

This option will allow you to reset all Period data from the Bookkeeping menu. If you select ERASE PERIODICAL STATISTICS, the BATTLETOADS™ program will prompt you on-screen with a Warning! and a YES/NO option to confirm your selection.

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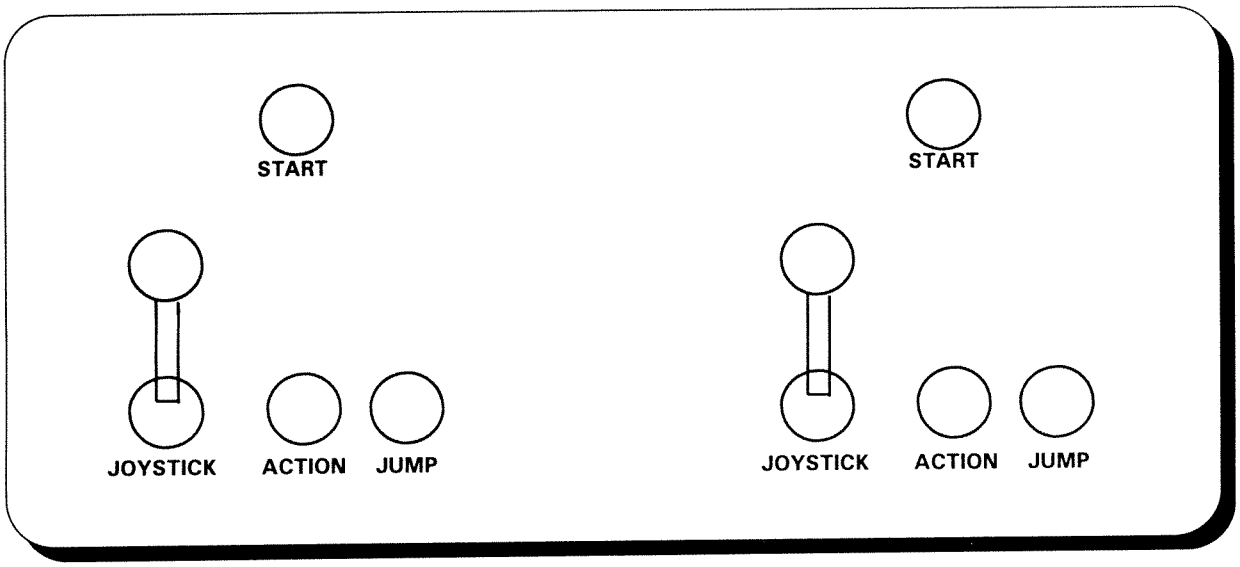
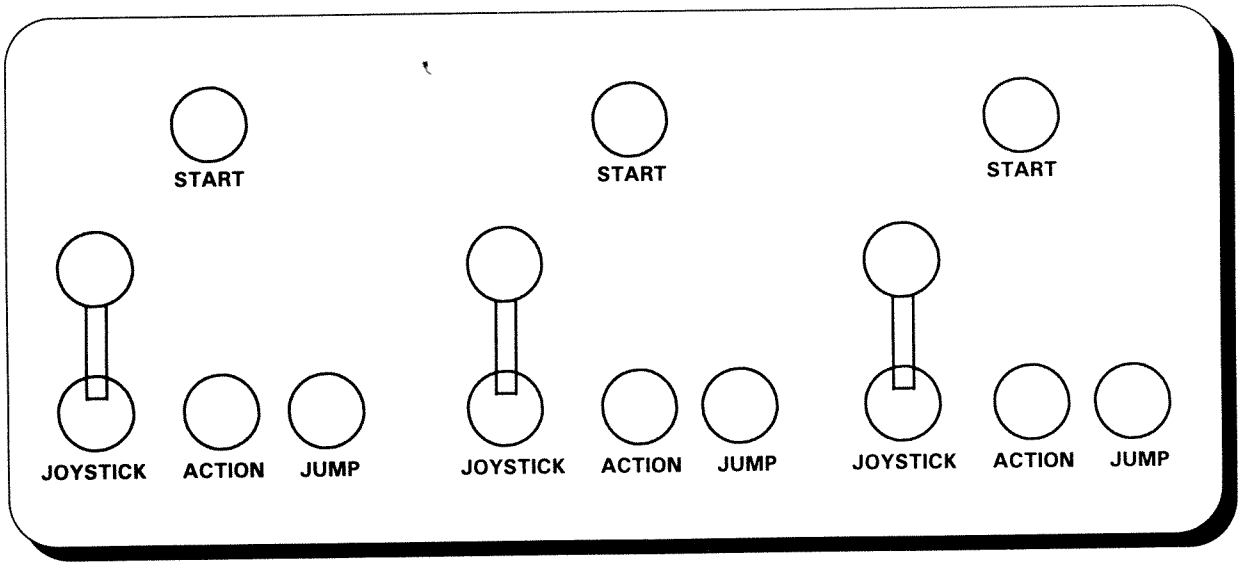
BATTLETOADS™ Control Panel Options

2-PLAYER PANEL LAYOUT



3-PLAYER PANEL LAYOUT





NOTES:



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