

**GANG WARS<sup>tm</sup>**

**SNK GAME CONVERSION KIT MANUAL**

**Copyright 1989 SNK CORPORATION OF AMERICA**

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# SNK WARRANTY POLICY

SNK Corporation of America (Seller) warrants to the original purchaser (Buyer) that the components listed below are free from defects in manufacturing and materials. The warranty period is 90 days, effective the date of original shipment from Seller's factory.

GAME CPU PCB(S).....	90 days
POWER SUPPLY SWITCHING REGULATOR .....	90 days
MONITOR ASSEMBLY .....	90 days

No other parts of Seller's product are covered by this warranty.

The Seller's sole responsibility shall be, at its option, to repair or replace any warranted item found to be defective during the warranty period. The Buyer's responsibility shall be to notify the Seller of the defective material, and return it, freight pre-paid, to the place specified by the Seller.

Seller is not responsible for the cost of unauthorized repairs, loss of income, or any charges or losses incurred as a result of the use of this product. Seller does not warrant the suitability of its product for a particular application.

This warranty is not applicable for normal wear and tear. This warranty shall be void if inspection of the returned product indicates defect was caused by misuse, or if unauthorized repairs were attempted, or if the item was damaged due to improper handling, shipping, or customer negligence.

# SNK GAME CONVERSION KIT INSTALLATION MANUAL

Gang Wars™

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### 1. GENERAL INFORMATION

#### a. Introduction.

Thank you for purchasing this SNK Game Conversion Kit. It contains all of the materials required to update an existing game cabinet to a fresh new game, thus extending the profitable life of your equipment. Before going any further, please check the contents of this kit against the List of Materials found in this manual to ensure all of the required materials are present. Also, check the Game Requirements section to make certain the cabinet you intend to convert is acceptable.

**WARNING:** This manual assumes that you have an electronics background and experience installing video game conversion kits. If you do not, you should consider having your dealer install the kit for you. There is a risk of electrocution to the installer and the player if the kit is not installed properly. In addition, the Game PCB consists of sensitive (expensive!) electronic circuits. All it takes is one mistake to *TOTALLY DESTROY THE PCB SET!* By the way, totally destroying the PCB set will totally void your warranty...

b. List of Materials.

<u>QTY</u>	<u>DESCRIPTION</u>	<u>OK</u>
1	PCB set , Gang Wars	O
1	Control Panel Overlay, Gang Wars	O
1	Logo Plex, Gang Wars	O
1	Monitor Tube Card, Gang Wars	O
2	Side Decals, Gang Wars	O
1	Jamma standard harness	O
2	Joystick, 8-way	O
2	Pushbutton, Red	O
2	Pushbutton, Yellow	O
2	Pushbutton, Blue	O
1	Pushbutton, 1p start	O
1	Pushbutton, 2p start	O
2	Pushbutton ID Tags, Punch	O
2	Pushbutton ID Tags, Kick	O
2	Pushbutton ID Tags, Jump	O
1	Manual, Gang Wars	O
1	FCC sticker	O

c. Game Requirements.

- **MONITOR:** Horizontal mount, RGB, negative composite sync.
- **CONTROL PANEL:** Space available for two joysticks, six control pushbuttons, and two player start pushbuttons.
- **COIN MECHANISMS:** The game must have two separate coin slots and mechanisms, the Left side player uses Coin 1, and the Right side player uses Coin 2.
- **POWER SUPPLY:** +5 vdc @ 11 Ampere and +12 vdc @ 1 ampere.

Check the cabinet carefully for properly operating monitor, power supply, and coin mechanisms. If the cabinet is beat up or damaged, you should repair the damage and refinish the exterior to enhance the appearance of your conversion.

This kit includes a new Logo Plex, Monitor Tube Card, Control Panel Overlay, and Side Decals. Use the old Logo Plex and Tube Card as a template for trimming the new parts to the proper size.

If the original game used a silkscreened glass in front of the monitor, you may want to replace it with a clear piece of glass or plex. If you cannot use the monitor Tube Card, cut the game play instructions from it and place them under the monitor glass.

Examine the main DC and control harness wiring diagram from the original game. If it used the JAMMA Standard edge connector pin-out, you may not have to re-wire the cabinet. If the edge connector pin-out is different from the JAMMA standard, use the new main harness supplied in the conversion kit. Refer to the harness edge connector pin-out in the technical section of this manual.

#### d. Control Panel Layout.

Please refer to Figure 1 for the suggested control panel layout. Each control wire must be connected to the N.O. (Normally Open) terminal of each switch. Use a Black Ground wire from the edge connector for all of the switch Common terminals. Refer to the Edge Connector Pin-Out in section 2c for specific wire color information.

Included in your kit is a set of Pushbutton ID Tags. Install these under each button on the control panel.

**NOTE:** This game requires separate coin mechanisms for Coin 1 (Left player) and Coin 2 (Right player).

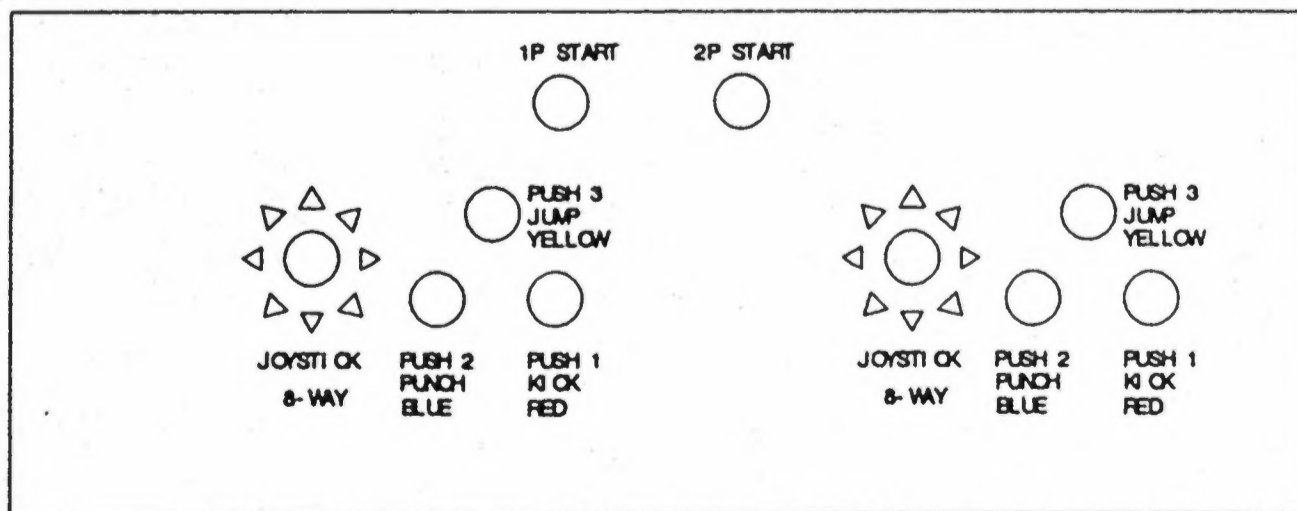


Figure 1

## 2. TECHNICAL INFORMATION

### a. PCB Information.

The illustration below shows the layout of the PCB, indicating the location of the Dip-Switches, Volume control, and Edge Connector. Use a Digital Volt-Meter to measure the actual voltage levels from the power supply before installing the PCB.

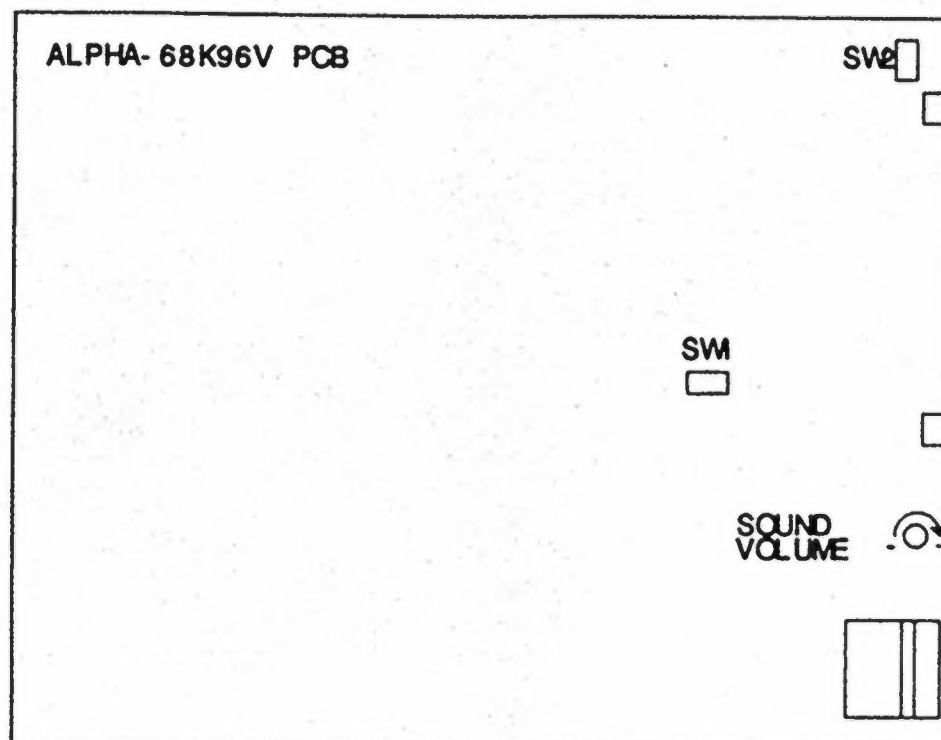


Figure 2

***WARNING:*** FCC Regulations require that a FCC Warning sticker be permanently affixed to the outside of the cabinet. A suitable sticker has been provided in the kit for this purpose. It is the responsibility of the installer of this conversion kit to apply this sticker before operating this equipment.

b. Dipswitch Options.

The Gang Wars game can be configured for maximum play appeal via two 6 position Dip-Switches found on the Game PCB (see Figure 2). NOTE: For safety's sake, remove power to the game when changing the dipswitch settings. Refer to the tables below for specific options.

DIPSW1		1	2	3	4	5	6
SCREEN DISPLAY	NORMAL	OFF					
	FREEZE	ON					
SCREEN DISPLAY	NORMAL		OFF				
	REVERSE		ON				
COIN / CREDIT COIN1 & COIN2	1 = 1			OFF	OFF		
	2 = 1			ON	OFF		
	1 = 2			OFF	ON		
	FREE PLAY			ON	ON		
CONTINUE MODE	YES					OFF	
	NO					ON	
CONTINUE FRING	1 COIN						OFF
	2 COIN						ON

DIPSW2		1	2	3	4	5	6
NUMBER OF LIVES	3	OFF	OFF				
	2	ON	OFF				
	4	OFF	ON				
	5	ON	ON				
TIME COUNTER	NORMAL			OFF			
	SLOW			ON			
DIFFICULTY LEVELS	NORMAL				OFF	OFF	
	EASY				ON	OFF	
	HARD				OFF	ON	
	HARDEST				ON	ON	
ATTRACT MODE SOUND	YES						OFF
	NO						ON

c. Main Harness Pin-Out.

SOLDER SIDE			COMPONENT SIDE		
WIRE COLOR	FUNCTION	PIN NO.	FUNCTION	WIRE COLOR	
BLACK	GROUND	A 1	GROUND	BLACK	
BLACK	GROUND	B 2	GROUND	BLACK	
RED	+5VDC	C 3	+5VDC	RED	
RED	+5VDC	D 4	+5VDC	RED	
GREEN	-5VDC	E 5	-5VDC	GREEN	
YELLOW	+12VDC	F 6	+12VDC	YELLOW	
	PROTECT	H 7	PROTECT		
		J 8	COUNTER1	BROWN	
		K 9			
WHITE	SPEAKER-	L 10	SPEAKER+	WHITE	
		M 11			
GREEN	CRT GREEN	N 12	CRT RED	PINK	
GREY/WHITE	CRT SYNC	P 13	CRT BLUE	LT BLUE	
VIOLET	SERVICE	R 14	CRT GND	BLACK	
GREY	TILT RST	S 15	TEST SW	ORANGE	
VIO/BLK	COIN 2	T 16	COIN 1	VIO/WHT	
WHT/BLK	START 2 9	U 17	START 1	BLK/WHT	
BRN/BLK	2P UP 10	V 18	2P UP	BRN/WHT	
RED/BLK	2P DOWN 11	W 19	3P DOWN	RED/WHT	
ORG/BLK	2P LEFT 12	X 20	4P LEFT	ORG/WHT	
YEL/BLK	2P RIGHT 13	Y 21	5P RIGHT	YEL/WHT	
GRN/BLK	2P PUSH1 12	Z 22	6P PUSH1	WHT/GRN	
BLU/BLK	2P PUSH2 13	a 23	7P PUSH2	WHT/BLU	
YELLOW	2P PUSH3 14	b 24	8P PUSH3	RED	
		c 25			
		d 26			
BLACK	GROUND 5	e 27	GROUND	BLACK	
BLACK	GROUND	f 28	GROUND	BLACK	

# Gang Wars<sup>tm</sup>

## CUSTOMER RESPONSE CARD

Thank you for purchasing this fine SNK game. As part of our efforts to provide timely and pertinent information to you, please complete the information card below and return it to SNK Corporation of America. We will place your firm on a mailing list so that you will receive all published technical information regarding this product.

Please include all comments, good or bad, so that we may better tailor our services and products to suit your needs.

### CUSTOMER INFORMATION

COMPANY NAME: .....  
ADDRESS: .....  
CITY, ..... STATE: ..... ZIP: .....  
TELEPHONE: ( ..... ) .....  
NAME OF CONTACT: .....

### GAME INFORMATION

SERIAL NUMBER: .....  
DATE RECEIVED: .....

COMMENTS.....  
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**SNK CORPORATION OF AMERICA**  
**246 SOBRANTE WAY**  
**SUNNYVALE, CA. 94086**  
**ATTN: COIN-OP CUSTOMER SERVICE**

## **FCC INFORMATION**

This product has been tested and found to comply with the requirements in Part 15 of FCC Rules for a Class A computing device, which provide for reasonable protection from radio frequency interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area may cause unacceptable interference of radio and television reception requiring the operator to take whatever steps are necessary to correct the interference.