

## INSTRUCTION MANUAL

P-47™ is a horizontal conversion kit

P-47™ is a trademark of Jaleco USA Inc.  
©1988 Jaleco Ltd.

**P-47™** is a one or two player horizontal video game. A list of components and instructions are provided with this kit for your ease of installation. Using your existing cabinet and monitor, your finished product should look and play like a new game.

**Jaleco, USA**

### KIT CONTENTS

Qty.	Description	Part #
1	PCB, P-47™	1521
2	8-Way Rotary Joystick	1522
3	Red Pushbutton Assemblies	1523
3	Yellow Pushbutton Assemblies	1524
1	Wiring Harness	1525
1	PCB Cage (FCC required)	1526
1	P-47™ Marquee	1527
2	Side Panel Graphics (Left & Right)	1528
1	Control Panel Overlay	1529
1	Underlay Card (CRT)	1530
1	Control Panel Instruction Card	1531
1	Instruction Manual	1533

### SPECIFIC REQUIREMENTS

Monitor — Horizontal, Negative Composite  
Sync Input

Power Supply — +5 VAC @ 7 Amp  
+12 VAC @ 1 Amp  
-5 VAC @ 5 Amp (Min)

## WARNING

- 1) Make sure power is OFF
- 2) Monitor and coin acceptors are functional
- 3) Never expose PC board to direct sunlight
- 4) Make sure game is properly grounded
- 5) Do not use tester to check PC board

## INSTALLATION INSTRUCTIONS

### Cabinet

- Remove all graphics from pre-existing game. Inspect cabinet for any gouges or chips. Fill in as required with wood putty. Wipe cabinet clean and repaint if necessary.
- Apply the side graphics, using a straight edge as a guide line. Apply the decals to each side of cabinet.
- Using the old marquee from the previous game, place it on top of the new one. Mark to proper size, making sure that the title "P-47™" is not excluded. Proceed to cut the plexi. Before installing the marquee replace all burned-out bulbs.

### Control Panel

- Remove control panel and remove old buttons, joysticks, and wiring. Strip off the old lexan overlay and any vinyl stickers.
- Prepare control panel surface by using sandpaper, making sure that the surface remains from the previous game are completely gone.
- Figure 1 is a suggested panel layout—use it if possible (if not, use your own discretion). Any remaining holes that are not being used, fill with wood blocks, putty, cardboard or epoxy.
- Apply the overlay to the control panel, making sure no air bubbles are present. Next, install the buttons stickers on the control panel in their proper locations. Replace joysticks and buttons and return control panel to the game.

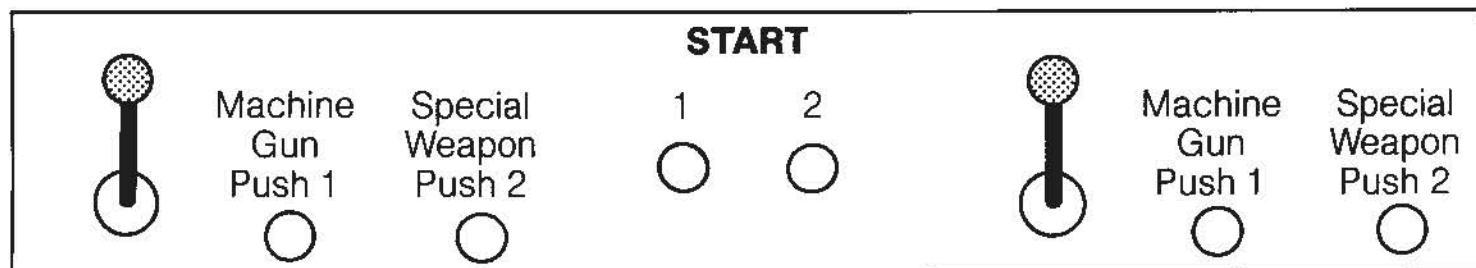


Figure 1

**Control Panel Layout**

### Two 8-Way Joysticks

Left-hand button to fire the machine gun

Right-hand button to utilize other weapons

## **WIRING PROCEDURES**

---

- Disconnect the old wiring harness from the CPU board. Remove the board. Carefully note the function of each wire. Use the schematic from the previous game. Label all wires to avoid confusion.

To wire the P-47™ kit into the cabinet, the following steps are provided:

- Leaving several inches of wire from the old wiring harness at each connector, cut the wires near the game's coin door, monitor, player panel, speaker and power supply. Do **NOT** cut the other side of these wires at the CPU board end.
- An edge-connector schematic drawing is provided in this manual for your ease of rewiring.
- Using the new wiring harness, solder wires to the coin door, monitor, control panel, speaker and power supply, making sure all connections are taped to avoid them shorting out.

## **WIRING TO POWER SUPPLY**

---

- Locate the +5V leads color-coded RED and install them to the proper position on the power supply.
- Next, locate the +12V leads color-coded BLUE and install them to the proper position on the power supply as well.
- Last, position a BLACK ground wire from the harness and connect it. A continuous ground wire should be installed to every electronic component.

## **SETTING DIP SWITCHES**

---

- Before installing the PCB refer to the dip switch setting, and adjust the game to the specifications
- Sound may also be adjusted by turning the volume control either clockwise or counterclockwise.

## **INSTALLING THE FCC CAGE ASSEMBLY**

---

- Mount the FCC cage to the inside wall of the cabinet, making sure that there is no direct heat source and good ventilation, if not, damage to the board will result and void the warranty.
- Next mount the PCB making sure the edge-connector has enough room for connection.
- Plug the wiring harness onto the CPU board. Use plastic wire guides to support the harness.
- Position the FCC cage over the PCB and secure it with screws to the cabinet, making sure no wires are pinched.
- Before you apply power to the game, remove the main harness edge connector from the PCB.
- Apply power to the game and measure the +5 volts at the edge connector and adjust to +5.15 VAC using a digital multi-meter. Measure the +12 and -5 VAC wires to be certain they are connected properly.
- Turn power off to game and re-connect the edge connector.
- Turn on power to the game and coin it up. Test all the controls and sound for proper operation.

## **SERVICE INFORMATION**

---

To obtain replacement parts, please contact your distributor.

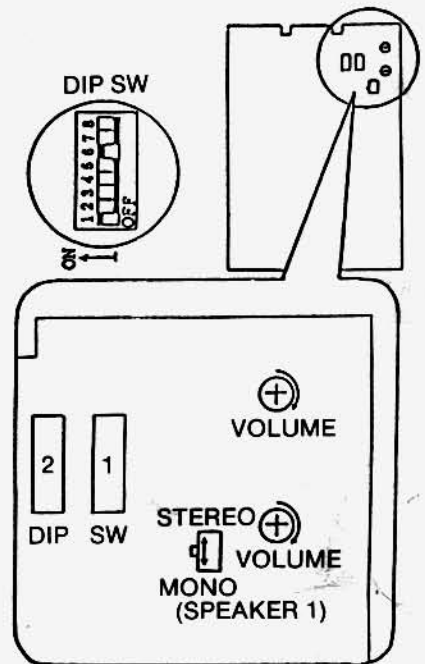
For technical service contact Jaleco's customer service department during the hours of 9 AM - 5 PM Central Time at (312) 647-7077.

Thank you for your purchase of a Jaleco USA Inc. P-47™.

**Edge Connector Diagram**  
(Edge Connector of Jamma Specs.)

**The Phantom Fighter P-47™**

Component Side		Solder Side	
GND	1	A	GND
GND	2	B	GND
Headphone L&R (-)			
+5V	3	C	+5V
+5V	4	D	+5V
	5	E	
+12V	6	F	+12V
Key To Prevent	7	H	Key To Prevent
Erroneous Insertion			Erroneous Insertion
Coin Meter #1	8	J	Coin Meter #2
	9	K	
Speaker 1 (+)	10	L	Speaker 1 (-)
Headphone L (+)			
	11	M	
Video Red	12	N	Video Green
Video Blue	13	P	Video Sync
Video GND	14	R	Service Switch
	15	S	
Coin SW #1	16	T	Coin SW #2
1P Start	17	U	2P Start
1P Up	18	V	2P Up
1P Down	19	W	2P Down
1P Left	20	X	2P Left
1P Right	21	Y	2P Right
1P Push 1	22	Z	2P Push 1
1P Push 2	23	a	2P Push 2
	24	b	
	25	c	
	26	d	
GND	27	e	GND
GND	28	f	GND



Speaker 2 (+)	1	2	Speaker 2 (-)
Headphone R (+)			



USER INFORMATION  
**WARNING**  
F.C.C. REGULATION COMPLIANCE

THIS KIT IS INTENDED FOR USE ONLY ON COIN-OPERATED VIDEO GAMES MANUFACTURED AFTER OCTOBER 1, 1983 WHICH HAVE BEEN VERIFIED FOR COMPLIANCE WITH REQUIREMENTS IN PART 15 OF F.C.C. RULES FOR A CLASS A COMPUTING DEVICE.

IMPROPER CONNECTION OF THIS KIT OR CONNECTION TO ANY OTHER GAME NOT SO MANUFACTURED OR VERIFIED FOR COMPLIANCE MAY CAUSE UNACCEPTABLE INTERFERENCE TO RADIO AND T.V. RECEPTION, REQUIRING THE OPERATOR TO TAKE WHATEVER STEPS ARE NECESSARY TO CORRECT THE INTERFERENCE.

THE P.C. BOARD CAGE SUPPLIED WITH THIS CONVERSION KIT MUST BE UTILIZED AND TERMINATED TO GROUND AT THE TIME OF INSTALLATION.

**JALECO**



5617 W. Howard St.  
Niles, IL 60648  
TEL: (312) 647-7077 FAX (312) 647-7087