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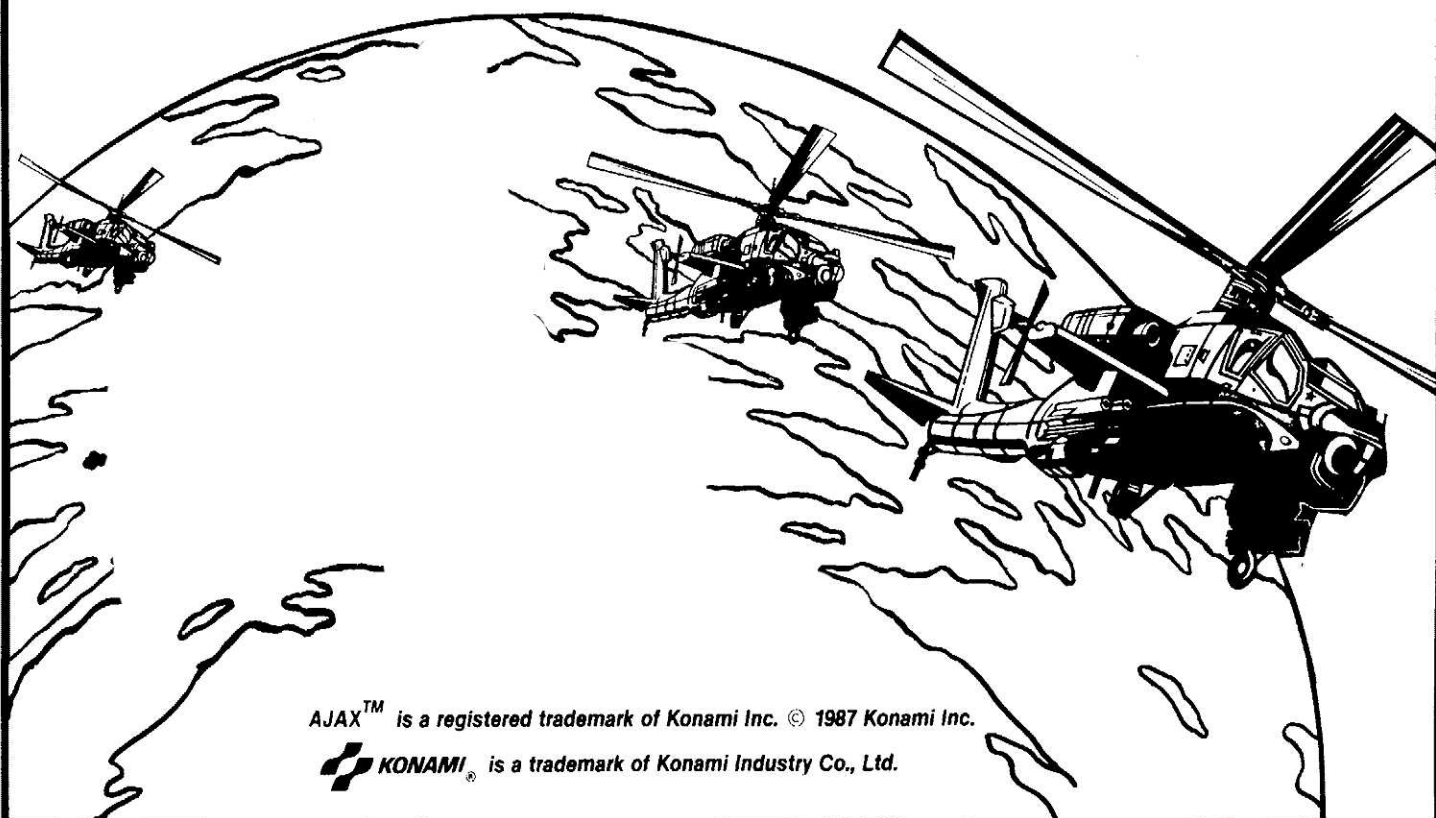
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SEE CENTER PAGE FOR
CONTROL PANEL TEMPLATE



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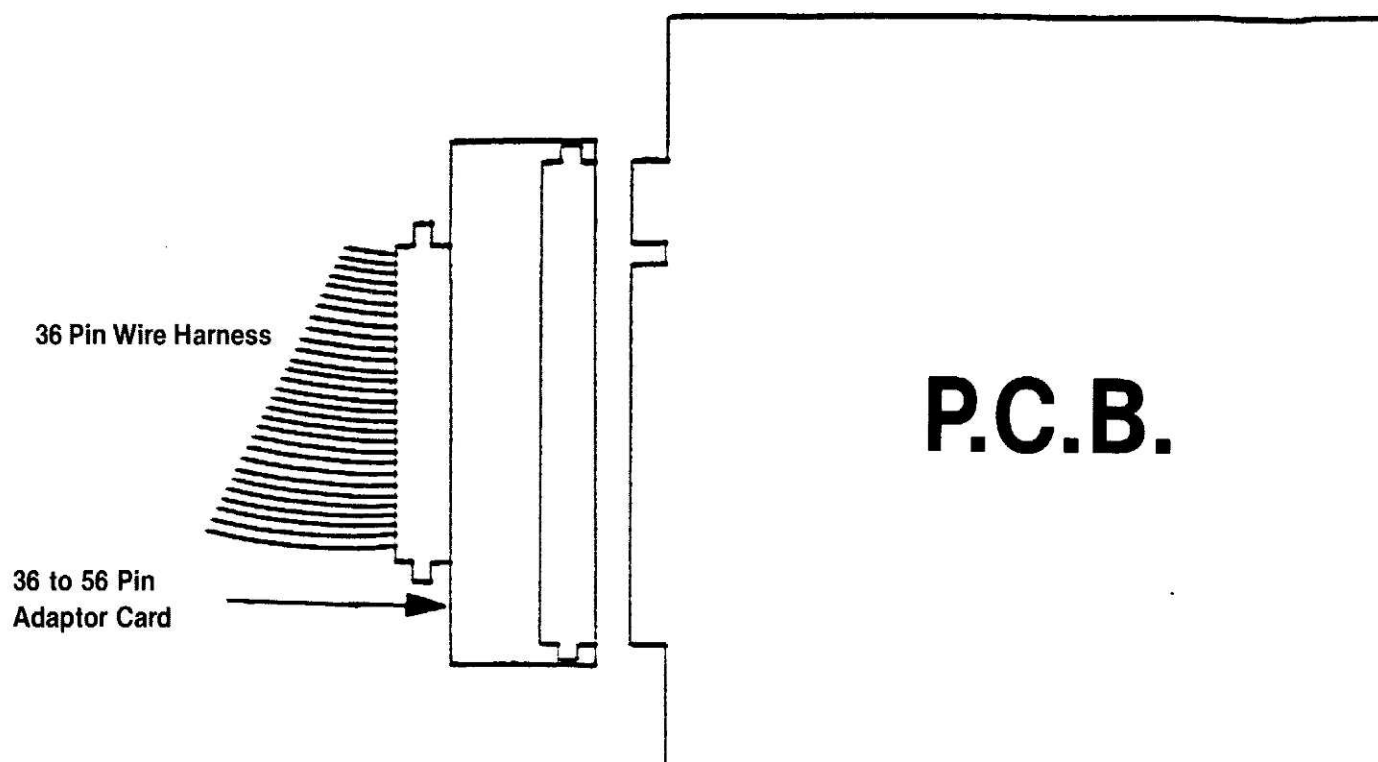
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NEW PRODUCT FROM



All new Konami P.C.B.'s utilize a 56 pin edge connector. This connector complies with the standard set by JAMMA (Japanese Amusement Machine Manufacturers Association). However, all Konami P.C.B.'s manufactured prior to Top Gunner utilize a 36 pin edge connector. These games include Super Cobra, Scramble, Pooyan, Locomotion, Circus Charlie, L'il Hustler, Juno First, Time Pilot, Gyruss, Tutankham, Turtles, Super Basketball, Mega Zone, Pandora's Palace, Time Pilot '84, Track 'N' Field, Hypersports, Road Fighter, Yie-Ar Kung Fu, Kicker, Rush 'N' Attack, Mikie, Frogger, Amidar, Roc 'N' Rope, The End, Jail Break, and Nemesis.

Because of the large amount of video game cabinets that are wired for Konami's old standard edge connector, Konami now offers 36 to 56 pin adaptor P.C.B.'s. This adaptor P.C.B. enables you to simply plug in a new 56 pin JAMMA P.C.B. (not only Konami's) **rather than rewiring.**



Please contact your distributor for price and delivery!

WIRING HARNESS

Solder Side ←				→ Parts Side	
WIRE COLOR KEY:					
BLACK	GND	A	1	GND	BLACK
BLACK	GND	B	2	GND	BLACK
RED	+ 5V DC	C	3	+ 5V DC	RED
RED	+ 5V DC	D	4	+ 5V DC	RED
GREEN	NOT USED	E	5	NOT USED	GREEN
ORANGE	+ 12V DC	F	6	+ 12V DC	ORANGE
	*KEY	H	7	*KEY	
BROWN/YELLOW	COIN COUNTER 2	J	8	COIN COUNTER 1	GREEN/GRAY
	(EMPTY)	K	9	(EMPTY)	
WHITE/BROWN	SPEAKER	L	10	SPEAKER	YELLOW/GRAY
	(EMPTY)	M	11	(EMPTY)	
WHITE/GREEN	VIDEO GREEN	N	12	VIDEO RED	RED/WHITE
WHITE	VIDEO SYNC	P	13	VIDEO BLUE	BLUE/WHITE
RED/YELLOW	SERVICE SW	R	14	VIDEO GROUND	BLACK
	(EMPTY)	S	15	(EMPTY)	
VIOLET/WHITE	COIN 2	T	16	COIN 1	BLUE/BROWN
RED/GREEN	2P START	U	17	1P START	PINK/YELLOW
BLUE/YELLOW	NOT USED	V	18	1P UP	ORANGE/WHITE
VIOLET/YELLOW	NOT USED	W	19	1P DOWN	BLACK/WHITE
ORANGE/GREEN	NOT USED	X	20	1P LEFT	RED/GRAY
ORANGE/YELLOW	NOT USED	Y	21	1P RIGHT	GRAY/WHITE
BLACK/YELLOW	NOT USED	Z	22	1P MACHINE GUN	PINK/WHITE
ORANGE/GRAY	NOT USED	a	23	1P MISSILE	GREEN/BROWN
BROWN/WHITE	NOT USED	b	24	1P SUPER WEAPON	RED/BROWN
GRAY/YELLOW	NOT USED	c	25	NOT USED	WHITE/BLACK
BLUE/GRAY	NOT USED	d	26	NOT USED	WHITE/VIOLET
BLACK	GND	e	27	GND	BLACK
BLACK	GND	f	28	GND	BLACK

(BASE COLOR/LINE COLOR)

TECHNICAL INFORMATION

HOW TO CHANGE MONAURAL/STEREO

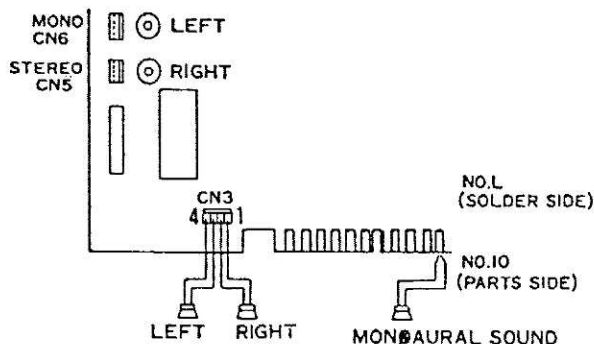
Note: Mono and stereo sound cannot operate simultaneously.

FOR MONO OUTPUT: Connect the stereo-mono switching 4P connector to the mono side (CN6). Connect pin 10 and pin L at the 56 pin edge connector to the loud speaker. Use the R-volume control to adjust the sound level.

FOR STEREO OUTPUT: Connect the stereo-mono switching 4P connector to the stereo side (CN5). Connect the 4 pin socket (CN3) enclosed to CN3. Use pins 1 and 2 of the 4 pin socket (CN3) for the right hand channel. Use pins 3 and 4 of the same socket for left hand channel. Turn R-volume control clockwise and the right hand channel becomes louder. Turn L-volume control clockwise and the left hand channel becomes louder.

Note: See diagram below.

Do not use pins 10 and L on the 56 pin edge connector.



TECHNICAL INFORMATION

- (1) Required Power Capacity
GND—Vcc 5V 4A or more
GND—(+ 12V) See the WIRING DIAGRAM
- (2) Output
R(red) analog, positive
G(green) analog, positive
B(blue) analog, positive
Sync. H-V complexed, negative
- (3) Handle with care.

SELF TEST

Normal: "OK" will be displayed. Then game program will be started.

Abnormal: "BAD" will be displayed and self test will repeat itself.

MANUAL TEST

- a. How to start
Turn on the power while the SW3 of the Dip Switch No. 3 is on.
 - b. Test items
 1. I/O check
 2. Coin counter check
 3. Dip switch set
 4. Distortion check
 5. Color conditioning
 6. Sound check
- * Push 1P start button to change test items.

PLAY INSTRUCTION

Control your helicopter/jet fighter by using the 8-way joystick.

Destroy the enemies in the air and on the ground with two fire buttons.

Use SUPER WEAPON button to destroy all the enemies in one go. Do not waste the shells, however, as the number of shells available is limited.

Capture the symbol for an extra shell.

• POWER UP

Destroy the red enemy and capture power up capsule indicating a letter, which changes each turn. Power up feature will be decided according to the letter indicated when captured;

- V VULCAN:** Rapid bullets can be fired in the directions controlled.
- B BOMB:** Air-to-ground missiles will have extra power.
- 3 3-WAY:** Fire bullets straight forward, straight right and left.
- T TRIPLE:** Bullets spread three ways in front.
- L LASER:** Radiate double laser.

Destroy the enemy formation in red and a capsule indicating a letter "O" appears, which does not change into other letters. Capture it to have extra firing power. Extra firing power can be obtained up to double normal power.

DIP SWITCH SETTINGS

DIP SWITCH NO. 1 SETTINGS

1. COIN 1

SW	1	2	3	4	COIN	PLAY
•	OFF	OFF	OFF	OFF	1	1
	ON	OFF	OFF	OFF	1	2
	OFF	ON	OFF	OFF	1	3
	ON	ON	OFF	OFF	1	4
	OFF	OFF	ON	OFF	1	5
	ON	OFF	ON	OFF	1	6
	OFF	ON	ON	OFF	1	7
	ON	ON	ON	OFF	2	1
	OFF	OFF	OFF	ON	2	3
	ON	OFF	OFF	ON	2	5
	OFF	ON	OFF	ON	3	1
	ON	ON	OFF	ON	3	2
	OFF	OFF	ON	ON	3	4
	ON	OFF	ON	ON	4	1
	OFF	ON	ON	ON	4	3
	ON	ON	ON	ON	FREEPLAY	

FREEPLAY: You can play game without coins.

DIP SWITCH NO. 2 SETTINGS

1. THE NUMBER OF PLAYER'S LIFE

SW	1	2	NUMBER
•	OFF	OFF	2
	ON	OFF	3
	OFF	ON	5
	ON	ON	7

2. CHANGE OF TABLE/UPRIGHT

SW	3	TYPE
•	OFF	TABLE
	ON	UPRIGHT

3. BONUS LIFE

SW	4	5	1ST	2ND
•	OFF	OFF	At 30,000 pts.	At 150,000 pts.
	ON	OFF	At 50,000 pts.	At 200,000 pts.
	OFF	ON	At 30,000 pts.	
	ON	ON	At 50,000 pts.	

4. DIFFICULTY OF THE GAME

SW	6	7	DIFFICULTY
•	OFF	OFF	EASY
	ON	OFF	NORMAL
	OFF	ON	DIFFICULT
	ON	ON	VERY DIFFICULT

2. COIN 2

SW	5	6	7	8	COIN	PLAY
•	OFF	OFF	OFF	OFF	1	1
	ON	OFF	OFF	OFF	1	2
	OFF	ON	OFF	OFF	1	3
	ON	ON	OFF	OFF	1	4
	OFF	OFF	ON	OFF	1	5
	ON	OFF	ON	OFF	1	6
	OFF	ON	ON	OFF	1	7
	ON	ON	ON	OFF	2	1
	OFF	OFF	OFF	ON	2	3
	ON	OFF	OFF	ON	2	5
	OFF	ON	OFF	ON	3	1
	ON	ON	OFF	ON	3	2
	OFF	OFF	ON	ON	3	4
	ON	OFF	ON	ON	4	1
	OFF	ON	ON	ON	4	3
	ON	ON	ON	ON	VOID	

5. SOUND IN ATTRACTIVE MODE

SW	8	SOUND
•	OFF	OFF
	ON	ON

SW3 should be set at ON.

DIP SWITCH NO.3 SETTINGS

1. VIDEO SCREEN FLIP

SW	1	
•	OFF	NORMAL
	ON	UPSIDE DOWN

2.

SW	2	
•	OFF	
	ON	

3. CHANGE OF MODE

SW	3	MODE
•	OFF	GAME MODE
	ON	TEST MODE

4. PLAYER'S MOVEMENT CONTROLLED BY JOYSTICK

SW	4	
•	OFF	Player goes upward by pushing joystick
	ON	Player goes downward by pushing joystick

• Shows recommended settings
SW2 is not used and should be set at OFF.

Diagram illustrating the wiring connections for a video game machine, showing components and their connections.

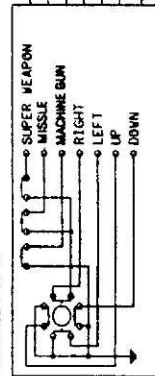
Components and Connections:

- Power Supply:** +5V, +12V, GND.
- Speakers:** 8Ω 6V, 4Ω 12V.
- Monitors:** COLOR MONITOR, MONO.
- Coin Counter:** COIN COUNTER 1, COIN COUNTER 2.
- Controls:** 1P START, 2P START, 1P UP, 1P DOWN, 1P LEFT, 1P RIGHT, 1P MACHINE GUN, 1P MISSILE, 1P SUPER WEAPON.
- Wiring:** Connections for COIN1, COIN2, SERVICE, and various game controls.

Notes:

- YOU CANNOT USE BOTH STEREO AND MONOURAL OUTPUT AT THE SAME TIME
- NOTES: 1. 1P NO. 3 PLAYER

CONTROL FOR 1P



1 IP NO. 1 PLAYER

2P NO. 2 PLAYER

2 SURGE KILLER DIODES FOR COIN

COUNTER INSTALLED ON THE P.C.B.

JAMMA 56PIN EDGE CONNECTOR
5/32 INCH PITCH