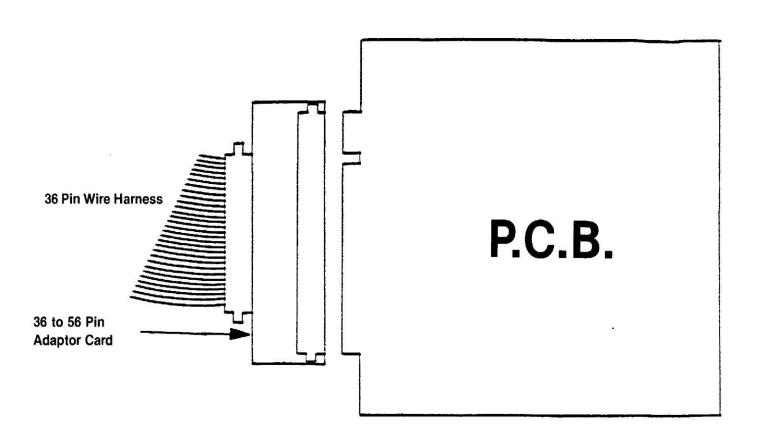


NEW PRODUCT FROM



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 JAM-MA P.C.B. (not only Konami's) rather than rewiring.



Please contact your distributor for price and delivery!

WIRING HARNESS

| WIRE COLOR KEY: | Solder Side ← | | | → Parts Side | |
|-----------------|----------------|-----|----|-----------------|--------------|
| BLACK | GND | Α | 1 | GND | BLACK |
| BLACK | GND | В | 2 | GND | BLACK |
| RED | + 5V DC | С | 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 | Н | 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) | М | 11 | (EMPTY) | |
| WHITE/GREEN | VIDEO GREEN | N | 12 | VIDEO RED | RED/WHITE |
| WHITE | VIDEO SYNC | Р | 13 | VIDEO BLUE | BLUE/WHITE |
| RED/YELLOW | SERVICE SW | R | 14 | VIDEO GROUND | BLACK |
| | (EMPTY) | S | 15 | (EMPTY) | |
| VIOLET/WHITE | COIN 2 | Т | 16 | COIN 1 | BLUE/BROWN |
| RED/GREEN | 2P START | U | 17 | 1P START | PINK/YELLOW |
| BLUE/YELLOW | NOT USED | ٧ | 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 | а | 23 | 1P MISSILE | GREEN/BROWN |
| BROWN/WHITE | NOT USED | b · | 24 | 1P SUPER WEAPON | RED/BROWN |
| GRAY/YELLOW | NOT USED | С | 25 | NOT USED | WHITE/BLACK |
| BLUE/GRAY | NOT USED | d | 26 | NOT USED | WHITE/VIOLET |
| BLACK | GND | е | 27 | GND | BLACK |
| BLACK | GND | f | 28 | GND | BLACK |

(BASE COLOR/LINE COLOR)

TECHNICAL INFORMATION

HOW TO CHANGE MONAURAL/STEREO

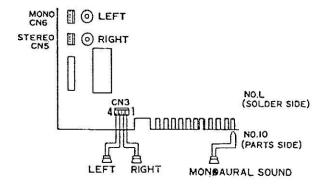
Note: Mono and stereo sound cannot operate simultaneously.

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. 1/0 check
 - 2. Coin counter check
 - 3. Dip switch set
 - 4. Distortion check
 - 5. Color conditionina
 - 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 | | | | 1 | 2 |
| | OFF | ON | | | 1 | 3 |
| | ON | | | | 1 | 4 |
| | OFF | OFF | ON | OFF | 1 | 5 |
| | ON | | | | 1 | 6 |
| | OFF | ON | | | 1 | 7 |
| | ON | | | | 2 | 1 |
| | OFF | OFF | OFF | ON | 2 | 3 |
| | ON | | | | 2 | 5 |
| | OFF | ON | | | 3 | 1 |
| | ON | | | | 3 | 2 |
| | OFF | OFF | ON | ON | 3 | 4 |
| | ON | | | | 4 | 1 |
| | OFF | ON | | | 4 | 3 |
| | ON | | | | FREE | PLAY |

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 | - 1 maritim | 3 |
| | OFF | ON | 5 |
| | ON | | 7 |

2. CHANGE OF TABLE/UPRIGHT

| SW | 3 | TYPE | |
|----|-----|---------|---------|
| | OFF | TABLE | - mer V |
| • | ON | UPRIGHT | |

3. BONUS LIFE

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

4. DIFFICULTY OF THE GAME

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

2. COIN 2

| SW | 5 | 6 | 7 | 8 | COIN | PLAY | |
|----|-----|----------|-----|-----|------|------|---|
| • | OFF | OFF | OFF | OFF | 1 | 1 | |
| | ON | 633.5 | | | 1 | 2 | |
| | OFF | ON | | | 1 | 3 | |
| | ON | | | | 1 | 4 | |
| | OFF | OFF | ON | OFF | 1 | 5 | |
| | ON | | | | | 1 | 6 |
| | OFF | ON | | | 1 | 7 | |
| | ON | | | | 2 | 1 | |
| | OFF | OFF | OFF | ON | 2 | 3 | |
| | ON | | | | | 2 | 5 |
| | OFF | ON | | | | 3 | 1 |
| | ON | | | | 3 | 2 | |
| | OFF | OFF | ON | ON | 3 | 4 | |
| | ON | 4 4000 0 | | | 4 | 1 | |
| | OFF | ON | | | 4 | 3 | |
| | ON | | | | VC |)ID | |

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 | * (16) |

2.

| SW | 2 | | | |
|----|-----|---|--|----|
| • | OFF | | | |
| | ON | W | | ** |

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.

