## INSTRUCTION-MANUAL



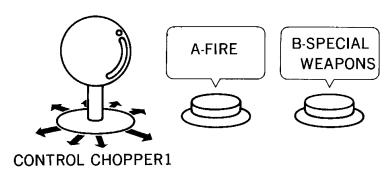
FLY! FIGHT! DESTROY!
THE CAVALRY SQUADRON WILL BOLDLY FIGHT
AGAINST ATTACKING INVADERS.





#### **HOW TO PLAY**

# CHARGE AND DESTROY INVADERS AT YOUR COMMAND OF HELICOPTER WITH MACHINE GUNS AND SPECIAL WEAPONS.



## **POWER-UP ITEMS**

Fire with fire button A and combine power up items with button B to make your attack more powerful.



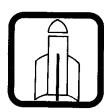
POWER UP OF MACHINE GUN



QUICK FIRING GUN



LONGER FIRING RANGE



HEAT SEEKING MISSILES

## **SPECIAL WEAPONS**

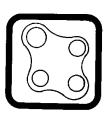
A maximum of four kinds of special weapons can be stocked, which will be shown on the screen. Use B button to fire special weapons.



NAPALM BOMBS Fighters on your side assist you with NAPALM BOMBS.



EXPLOSIVES Destroy enemies in wide range.



BARRIER ATTACK
Avoid enemy's attack
with barrier and make counter attack.

#### **DIP SW NO.1**

ITEM	CONTENTS	1	2	3	4	5	6	7	8
FLIP	NORMAL	OFF							
FLOP	INVERSE	ON							
UPRIGHT TYPE			OFF					`	i
TABLE TYPE		,	ON					*	
2ND EXTEND				OFF			İ		
EVERY EXTEND				ON					
NOS. OF	3				OFF				
CHOPPER	5				ON				
	1 COIN 1 PLAY					OFF	OFF		
PLAY PRICING	2 COIN 1 PLAY					ON	OFF		
COIN 1	3 COIN 1 PLAY					OFF	ON		
	4 COIN 1 PLAY					ON	ON		
	1 COIN 6 PLAY							OFF	OFF
PLAY PRICING	1 COIN 4 PLAY							ON	OFF
COIN 2	1 COIN 3 PLAY							OFF	ON
	1 COIN 2 PLAY							ON	ON

#### STANDARD SETTING FOR SHIPPING ARE AS UNDER

● GAME STYLE: UPRIGHT

● PLAY PRICING COIN 1:1 COIN 1 PLAY COIN 2:1 COIN 6 PLAY

● NOS. OF CHOPPER: 3

● 2ND EXTEND

• LEVEL OF DIFFICULTY: 2

• ATTRACTION SOUND: WITH SOUND

• EXTEND: 50,000/100,000 POINT

● CONTINUE: WITH

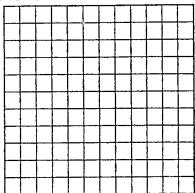
#### DIP SW NO.2

ITEM	CONTENTS	1	2	3	4	5	6	7
	2 NORMAL (STANDARD)	OFF	OFF					
LEVEL OF	1 EASY	ON	OFF					
DIFFICULTY	3 HARD	OFF	ON				^-	
	4 DIFFICULT	ON	ON					
ATTRACTION	WITH SOUND	1		OFF	OFF			
SOUND	WITHOUT SOUND		,	ON	OFF			
NEVER FINISH	NEVER FINISH			OFF	ON			
MONITOR SETTING	STOP VIDEO DISPLAY			ON	ON			
	50000 POINT/100000 POINT					OFF	OFF	
EXTEND	75000 POINT/150000 POINT					ON	OFF	
EXTEND	100000 POINT/200000 POINT					OFF	ON	
	NO/NO					ON	ON	
CONTINUE	WITH							OFF
	WITHOUT							ON

#### **DISPLAY TEST MODE**

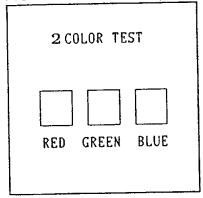
A) RAM & ROM are automatically self checked whenever power is applied. When the P.C. Board is checked, please set up Bit 8 of Dip Switch 2 "ON" position at the time of turning on the power for display test. Please switch off Bit 8 of Dip Switch 2 "OFF" position and then reapply the power to return to game play mode.

#### B) PICTURE 1 CROSS-HATCH



Adjust the monitor for a square pattern throughout the display and on the edge of the monitor.

#### C) PICTURE 2 COLOR TEST



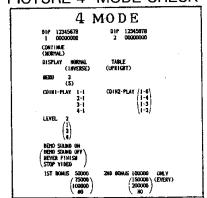
Assure that the correct colors are properly wired to the monitor.

#### D) PICTURE 3 LEVER & BUTTON TEST

	J O	_			
	3 LEVI	ΞR	SWIT	СН	0
P1	UP	0	P2	UP	0
P1	DOWN	0	P2	DOWN	0
P1	LEFT	0	P2	LEFT	0
P1	RIGHT	0	P2	RIGHT	0
P1	PUSH1	0	P2	PUSH1	0
P1	PUSH2	0	P2	PUSH2	0
P1	START	0	P2	START	0
co	IN1	0	C01	N2	0
SE	RVICE	0			

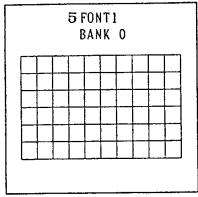
When a lever or button turns on, '0' on the monitor will change to '1'. Make sure the figure of '0' changes to '1' of "COIN" either pressing the service switch or inserting coins.

#### E) PICTURE 4 MODE CHECK



Set up the Dip Switch at your choice per the Dip Switch Setting List.

E)	PICT	URF	5	<b>FONT</b>	



Confirm that the charactors are displayed on the monitor.

G) PICTURE 6 FONT 2

		ONT2			
	L		L	I	J

Confirm that the characters are displayed on the monitor.

H) PICTURE 7 BACK 1

7 BA	CK1
BANE 9	BANK 1
SANK 2	BANK 3
BARE 4	BANK S
BANK 6	BANK 7
<u> </u>	

Confirm that the characters are displayed on the monitor.

I) PICTURE 8 SOUND TEST

8 SOUND CHECK
SOUND CODE 41

MUSIC 41-7F

EFFECT 81-BF

VOICE CO-FF

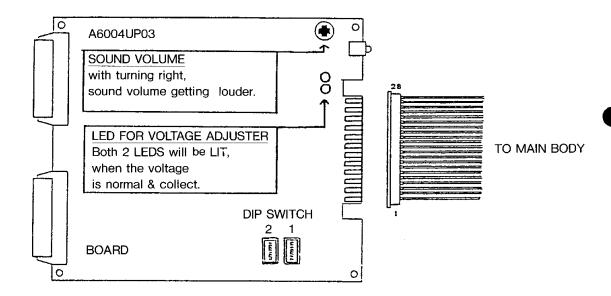
Set up the sound code ("?") to 41-7F or 81-BF by moving the Joy-Stick, or by pressing the fire button at CO-FF. Set the sound code to OE and press the fire button to stop the sound.

#### **PCB LAYOUT**

1-1) ADAPTION FOR EDGE CONNECTOR CR7E-56DA-3, 96E(56PIN): HRS

1-2) POWER SUPPLY:	VOLTAGE	CURRENT
SNK recommends the use of a switching type power	+5VDC	7 Amps
supply with minimum current ratings as stated.	+12 VDC	1 Amp
	-5VDC	1 Amp

NOTE: Assure that the voltage on the PCB is in the range from +5.00 V to +5.10 V. We have no responsibility for your any changes other than constructed. This layout will be changed without notice.



1) Don't test the circuits with Testor etc., even if you find mulfunction on solid state module.

The voltage inside Testor will break the circuits of IC.

- 2) When the voltage is correct, both LEDS will be lit.
- 3) Assure that the power is cut off when you replace parts or insert/disconnect the edge connector.
- 4) Make sure to pull off with plug, when you disconnect the power cord.
- 5) Always use caution to stay clear of the high voltage sections to avoid the possibility of electric shock.

#### **MONITOR ADJUSTMENT**

When you see the horizontal line at the corner of Monitor, extend the vertical side on the monitor board.

There is still the horizontal line even you made above adjustments, change the picture display size from narrow to wide.

#### **HARNESS**

#### CONNECTOR CR7E-56DA-3.96E (HRS) 3.96mm Pitch

(1) PARTS SIDE (28)

(A)

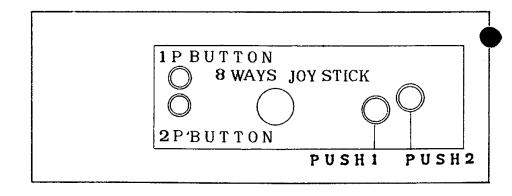
SOLDER SIDE

(f)

#### 56 PIN

PIN	<b>i</b> #	PARTS SIDE
Α	1	GND
В	2	GND
С	3	+ 5 V
D	4	+ 5 V
Е	5	- 5 V
F	6	+ 1 2 V
Н	7	KEY
J	8	COIN-COUNTER 1
К	9	
L	10	SPEAKER(+)
М	1 1	
N	12	VIDEO RED
Р	13	VIDEO BLUE
R	14	VIDEO GND
S	15	TEST SW
T	16	COIN SW 1
U	17	1P START SW
V	18	1P UP
w	19	1P DOWN
Х	20	1P LEFT
Y	21	1P RIGHT
Z	22	1P PUSH 1
a	23	1P PUSH 2
b	24	
С	25	
d	26	
е	27	GND
f	28	GND
	A B C D E F H J K L M N P R S T U V W X Y Z a b c d e	A 1 B 2 C 3 D 4 E 5 F 6 H 7 J 8 K 9 L 10 M 11 N 12 P 13 R 14 S 15 T 16 U 17 V 18 W 19 X 20 Y 21 Z 22 A 23 b 24 c 25 d 26 e 27

#### CONTROL WIRING DIAGRAM NOISE AC FUSE (JA) AZ নিনি WER SW - 6 V AC OUTLET + 124 FUSE COIN SW COLOR DISRLAY IB\* TITLE COUNTER ! \_SPEAKER L SPEAKER VIDEO RED VIDEO RED N I VIDEO GREEN VIDEO BLUE P IVIDEO SYNC VIDEO GIND R ISEPVICE SWITCH TEST SWITCH 14 SERVICE TI \_TEST | DEGUSE 1 81 2 0 2 3 26 A 1 2 3 4 5 6 7 8 9 1 0 1 1 2 P A 1 2 3 4 5 6 1 9 1 0 1 1 2 R C 11234 6 6 7 8 1 112 P P2 START SW PLAYER 2 PLAYER 2 SIDE





PLAYER 2 SPEAKERS CONTROL PANEL ASSY

PLAYER I SIDE

A 6 0 0 2 C T