

# **SKYWOLF**

## **OWNER'S MANUAL**

*AK-Ohm Kaskade auf 1-T (245) Ram 09814*

**GOYO GOYO CORPORATION**

## Supersonic Speed Attack Helicopter "SKY WOLF"

### ===CONTENTS===

It is 1998. Conflicts between two nations have been escalating. It is inevitable that they will plunge into war.

Fearing the destruction of the world, the IEPC (the International Environment Peace Council) has developed the ultimate aeronautic weapon to suppress the conflict, "Sky Wolf".

Time is of the essence.

Secret military installations in both nations must be annihilated.

### ===Specifications for Operation System===

#### \* Joy-Stick (8 derections)

The helicopter can be moved up and down, to the right and to the left.

#### \* "A" Button

Ground attack shells are fired. If the button is pushed when the helicopter is at the upper portion of the screen, ground forming missiles are fired.

#### \* "B" Button

Air attack shells are fired.

#### \* Pushing A + B Buttons simultaneously

The helicopter turns loops. While it is turning loops, it can not be hit by buttons from the enemies.

===Main Characters===

\* Small helicopters

They appear on the screen from top and bottom, right and left.

There are also attacking helicopters.

\* Fighters

They appear on the screen from front, rear and ground level. They fire bullets.

\* Transport bombers

They appear at the upper portion of the screen, dropping parachute troops, time bombs and jetmantroops.

\* Tanks

They make pursuit, until destroyed.

\* Missile tanks

They appear on the ground, and leave firing missiles.

\* Combatants

Some run away, and some get into fighters.

\* Ground-to-air and sea-to-air forming missiles

They appear on the ground and on the sea and attack.

\* Submarines

They appear on the surface of the sea and fire sea-to-air forming missiles. While they are submerged, they can not be hit.

===Area Composition===

This is the system of 1 area and 2 stages and up to Area 4. After Area 4, the sequence is repeated.

\* Area 1 --- A desert a grassy plain, and the sea

\* Area 2 --- A city by night

\* Area 3 --- The air

\* Area 4 --- The ground and the sea

===Other Specifications===

- \* If a suddenly dropped green parachute is taken during a game, the player will gain power.
- \* If a helicopter (Red Wolf), which appears at the end of the stage, is destroyed, a red parachute comes out. If this is taken, the player will come into turbo mode, during which he can not be hit by attacking bullets. But he can attack. This turbo mode is automatically released after the lapse of a certain amount of time.
- \* When you destroy Red Wolf at the side of the stage and you are not in the turbo mode, the player can land on an air field. (You do not have to land.) If the player lands, he will gain power.
- \* If he goes to the end of each Area, he will make a forced landing. The bonus score is 10,000 points.
- \* If the player takes a flag, which appears on the lower part of the screen as a concealed character, you can fire the sun shells Use "A" button. While it is on the screen, the enemies' missiles are lured to the sun shells.
- \* Some of the enemies' missiles change into parachute bombs. The latter part is a desert scene.

C O N N E C T I O N   O F   H A R N E S S

<u>PARTS SIDE</u>		<u>SOLDER SIDE</u>
GND	1	GND
GND	2	GND
GND	3	GND
SP OUT	4	SERVICE
+12V	5	+12V
	6	
	7	
1P SHOT-2	8	COIN 2
+5V	9	+5V
1P DOWN	10	2P UP
2P SHOT-2	11	1P UP
2P SELECT	12	2P DOWN
1P SELECT	13	COIN 1
1P RIGHT	14	1P SHOT-1
1P LEFT	15	RED
BLUE	16	2P RIGHT
GREEN	17	2P LEFT
SYNC	18	2P SHOT-1

D I P S W

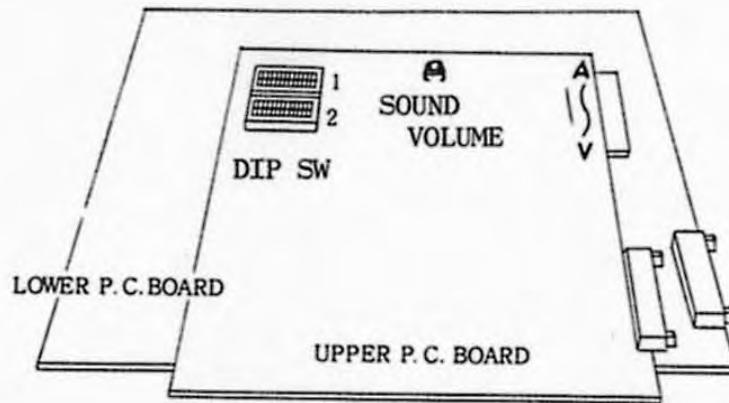
DIP SW NO. 1

SW NO.	3	4	5	6	7	8	9	10
NUMBER OF FIGHTERS	4 3						OFF	OFF
"	5 4						OFF	ON
"	6 5						ON	OFF
"	7 6						ON	ON
TYPE : TABLE		OFF						
UP RIGHT		ON						
STOP (NORMAL OFF)	ON							
SOUND TEST (NARMAL OFF)			ON					
FREE PLAY (NORMAL OFF)				ON				
CONTINUE PLAY (NARMAL OFF)						ON		

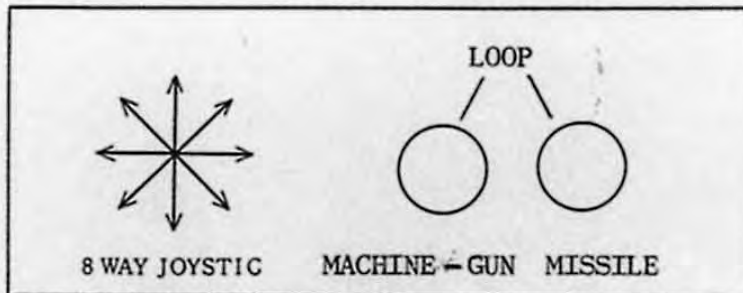
DIP SW NO. 2

SW No.	1	2	3	4	5	6	7	8
COIN 1								
1 PLAY / 1 COIN						OFF	OFF	OFF
2 PLAY / 1 COIN						OFF	OFF	ON
3 PLAY / 1 COIN						OFF	ON	OFF
4 PLAY / 1 COIN						OFF	ON	ON
6 PLAY / 1 COIN						ON	OFF	OFF
1 PLAY / 2 COIN						ON	OFF	ON
2 PLAY / 3 COIN						ON	ON	OFF
FREE PLAY						ON	ON	ON
COIN 2								
1 PLAY / 1 COIN			OFF	OFF	OFF			
2 PLAY / 1 COIN			OFF	OFF	ON			
3 PLAY / 1 COIN			OFF	ON	OFF			
4 PLAY / 3 COIN			OFF	ON	ON			
1 PLAY / 2 COIN			ON	OFF	OFF			
1 PLAY / 3 COIN			ON	OFF	ON			
1 PLAY / 4 COIN			ON	ON	OFF			
1 PLAY / 5 COIN			ON	ON	ON			

### 1. P.C. BOARD



### 2. CONTROL PANEL



### 3. POWER CAPACITY

+ 5 V	+ 5.2 V (HARNES SIDE)	5.0 A
+ 12 V	± 10%	1.0 A

### 4. CONDITION FOR USE

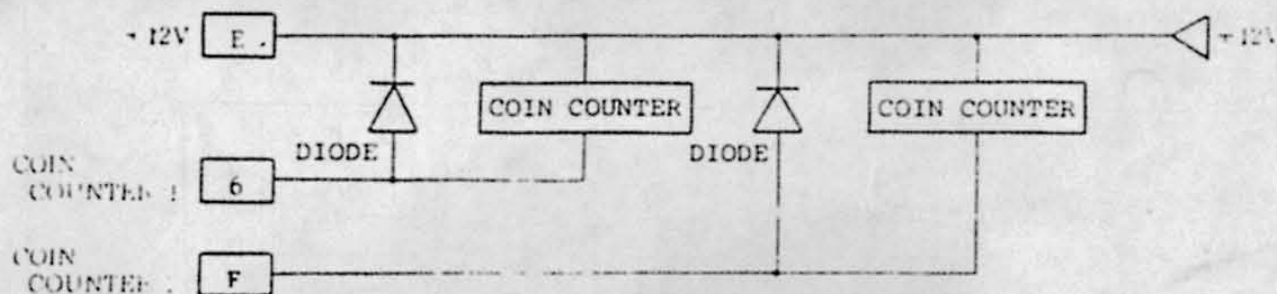
	TEMPERATURE	HUMIDITY
OPERATION	5 ~ 35° C	20 ~ 80%
PRESERVATION	- 15 ~ 65° C	10 ~ 90%



# SKY WOLF

\* WIRING DIAGRAM \*

COMPONENT SIDE		SOLDER SIDE	
SYNC	1	A	2P SHOOT 1
GREEN	2	B	2P LEFT
BLUE	3	C	2P RIGHT
1P LEFT	4	D	RED
1P RIGHT	5	E	1P SHOOT 1
1P SELECT	6	F	COIN 1
2P SELECT	7	H	2P DOWN
2P SHOOT 2	8	J	1P UP
1P DOWN	9	K	2P UP
+5v	10	L	+5v
1P SHOOT 2	11	M	COIN 2
	12	N	
COIN COUNTER 2	13	P	COIN COUNTER 1
+12v	14	R	+12v
SP(+)	15	S	SERVICE
	16	T	GND
SP(-)	17	U	GND
GND	18	V	GND







CONNECTION OF HARNESS

PARTS SIDE

SOLDER SIDE *to 6*

SYNC	1	2P SHOOT
GREEN	2	2 P LEFT
BLUE	3	2P RIGHT
1P LEFT	4	RED
1P RIGHT	5	1P SHOOT
1P SELECT(START)	6	COIN 1
2P SELECT	7	2P DOWN
2P SHIELD	8	1P UP
1P DOWN	9	2P UP
+5V	10	+5V
1P SHIELD	11	COIN 2
	12	
	13	
+12V	14	+12V
SPEAKER	15	SERVICE
GND <i>Speaker</i>	16	GND
GND	17	GND
GND	18	GND

\*\*\*\*\* SKY WOLF \*\*\*\*\*

DIP SWITCH 2

REMARKS	8	7	6	5	4	3	2	1
FIGHTER	4						OFF	OFF
	5						OFF	ON
	6						ON	OFF
	7						ON	ON
EXTEND PLAY	EVERY 50,000					OFF		
	EVERY 70,000					ON		
SLOW	NORMAL OFF				ON			
NO HIT	NORMAL OFF			ON				
SOUND TEST	NORMAL OFF		ON					
TYPE	TABLE		OFF					
	UPRIGHT		ON					
STOP	NORMAL OFF	ON						

DIP SWITCH 1

REMARKS	8	7	6	5	4	3	2	1
COIN 1	1 PLAY/ 1 COIN					OFF	OFF	OFF
	2 PLAY/ 1 COIN					OFF	OFF	ON
	3 PLAY/ 1 COIN					OFF	ON	OFF
	4 PLAY/ 1 COIN					OFF	ON	ON
	6 PLAY/ 1 COIN					ON	OFF	OFF
	1 PLAY/ 2 COIN					ON	OFF	ON
	2 PLAY/ 3 COIN					ON	ON	OFF
	FREE PLAY					ON	ON	ON
COIN 2	1 PLAY/ 1 COIN			OFF	OFF	OFF		
	2 PLAY/ 1 COIN			OFF	OFF	ON		
	3 PLAY/ 1 COIN			OFF	ON	OFF		
	4 PLAY/ 3 COIN			OFF	ON	ON		
	1 PLAY/ 2 COIN			ON	OFF	OFF		
	1 PLAY/ 3 COIN			ON	OFF	ON		
	1 PLAY/ 4 COIN			ON	ON	OFF		
	1 PLAY/ 5 COIN			ON	ON	ON		
DIFFICULTY	EASY	OFF	OFF					
	NORMAL	OFF	ON					
	DIFFICULT	ON	OFF					
	VERY DIFFICULT	ON	ON					



WIRING DIAGRAM

Buro



Dennis Frey

8520 Worms  
Alzeyer Straße 173  
Tel. 0 62 41/71 81

SOLDER SIDE

PARTS SIDE

2P SHOOT	1	VIDEO SYNC
2P LEFT	2	VIDEO GREEN
2P RIGHT	3	VIDEO BLUE
RBD	4	1P LEFT
1P SHOOT OUT	5	1P RIGHT
COIN	6	1P START
2P DOWN	7	2P START
1P UP	8	2P SHOOT OUT
2P UP	9	1P DOWN
+5V	10	+5V
	11	1P SHOOT
	12	
	13	
	14	+12V
	15	<del>SPEAKER</del> Speaker
	16	Speaker
GND	17	GND
GND	18	GND

(Speaker (-) an Gnd)

DIP SW 1

8 7 6 5 4 3 2 1

COIN 1	1PLAY/1COIN	OFF	OFF	OFF			
	2PLAY/1COIN	OFF	OFF	ON			
	3PLAY/1COIN	OFF	ON	OFF			
	4PLAY/1COIN	OFF	ON	ON			
	6PLAY/1COIN	ON	OFF	OFF			
	1PLAY/2COIN	ON	OFF	ON			
	2PLAY/3COIN	ON	ON	OFF			
	FRER PLAY	ON	ON	ON			
COIN 2	1PLAY/1COIN	OFF	OFF	OFF			
	2PLAY/1COIN	OFF	OFF	ON			
	3PLAY/1COIN	OFF	ON	OFF			
	4PLAY/3COIN	OFF	ON	ON			
	1PLAY/2COIN	ON	OFF	OFF			
	1PLAY/3COIN	ON	OFF	ON			
	1PLAY/4COIN	ON	ON	OFF			
	1PLAY/5COIN	ON	ON	ON			
DIFFICULTY	EASY	OFF	OFF				
	NOMAL	OFF	ON				
	DIFFICULT	ON	OFF				
	VERY DIFFICULT	ON	ON				

DIP SW 2

8 7 6 5 4 3 2 1

FICHTER	4					OFF	OFF
	5					OFF	ON
	6					ON	OFF
	7					ON	ON
EXTEND PLAY	EVERY 50000					OFF	
	EVERY 70000					ON	
SLOW	NORMAL				ON		
NO HIT	NORMAL						
SOUND TEST	NORMAL						
TYPE	TABLE				ON		
	UP RIGHT						
STOP	NORMAL	ON					
	OFF						

Shy Wolf

DIP SW

DIP SW NO.1

SW NO.	1	2	3	4	5	6	7	8
STOP (NORMAL OFF)	ON							
SOUND TEST (NORMAL OFF)			ON					
FREE PLAY (NORMAL OFF)				ON				
SLOW MOTION (NORMAL OFF)					ON			
CONTINUE PLAY						ON		
DIFFICULTY EASY								ON
HARD								OFF
TYPE : TABLE		OFF						
: UP RIGHT		ON						

DIP SW NO.2

SW NO.	1	2	3	4	5	6	7	8
COIN 1								
1 PLAY/1 COIN						OFF	OFF	OFF
2 PLAY/1 COIN						OFF	OFF	ON
3 PLAY/1 COIN						OFF	ON	OFF
4 PLAY/1 COIN						OFF	ON	ON
6 PLAY/1 COIN						ON	OFF	OFF
1 PLAY/2 COIN						ON	OFF	ON
2 PLAY/3 COIN						ON	ON	OFF
FREE PLAY						ON	ON	ON
COIN 2								
1 PLAY/1 COIN			OFF	OFF	OFF			
2 PLAY/1 COIN			OFF	OFF	ON			
3 PLAY/1 COIN			OFF	ON	OFF			
4 PLAY/3 COIN			OFF	ON	ON			
1 PLAY/2 COIN			ON	OFF	OFF			
1 PLAY/3 COIN			ON	OFF	ON			
1 PLAY/4 COIN			ON	ON	OFF			
1 PLAY/5 COIN			ON	ON	ON			