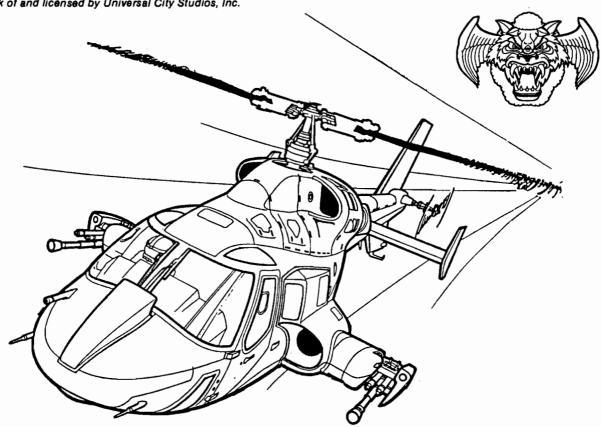
Flight Instruction MANUAL

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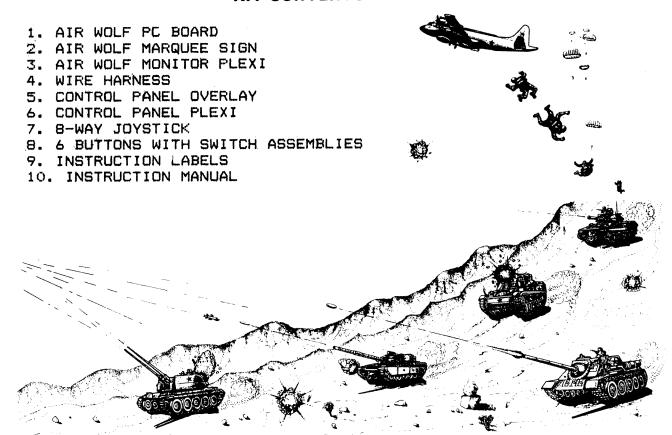
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KIT CONTENTS



IMPORTANT F.C.C. WARNING

WARNING

This equipment generates, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. As temporarily permitted by regulation it has not been tested for compliance pursuant to subpart J of part 15 of F.C.C. rules, which are designed to provide reasonable protection against such interference. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures may be necessary to correct the interference.

PREPARING THE CABINET

STEPS:

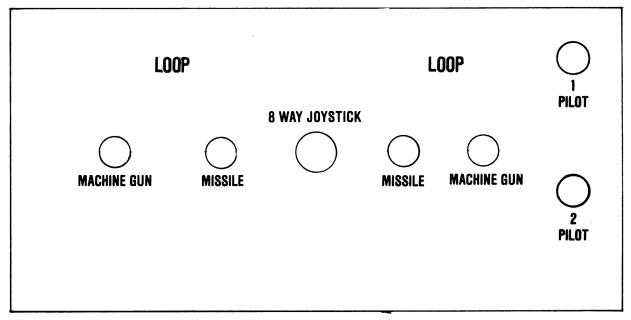
- 1. Remove the old P.C. board
- 2. Remove the control panel
- 3. Remove the marquee sign
- 4. Remove front or side decals
- 5. Remove the old wire harness

Leave all the A.C. wiring to monitor, power supply, flourescent lamps, fuses, on/off switches, and transformer circuitry intact. Remove all remaining wiring from the cabinet.

Clean the cabinet thoroughly and repair any visible damage. Using a coat of paint on an older cabinet can restore a "like new" appearance. If needed, painting should be performed at this time.

A little extra time and effort spent now on enhancing a cabinet's appearance will definitely result in increased earning power later!

SUGGESTED CONTROL PANEL LAYOUT



HORIZONTAL MONITOR MOUNTING +5. +12. — VOLTS REQUIRED

SPECIAL REQUIREMENTS

TV MONITOR:

This game is designed to be used with a

horizontally [X] vertically []

mounted R.G.B. monitor, with the PCB as a negative polarity video and sink signals.

Your new game requires one sink wire connection called "composite sink". Tie the horizontal and vertical wires together, this signal is negative. Most monitors have supply positions for both negative and positive sink.

POWER SUPPLY:

The power supply requirements are as follows:

+5 VDC at 7 amps [X] +12 VDC at 1 amps [X]

If the power supply in the game does not meet these requirements, it should be replaced prior to beginning the conversion procedures.

CONTROL PANEL:

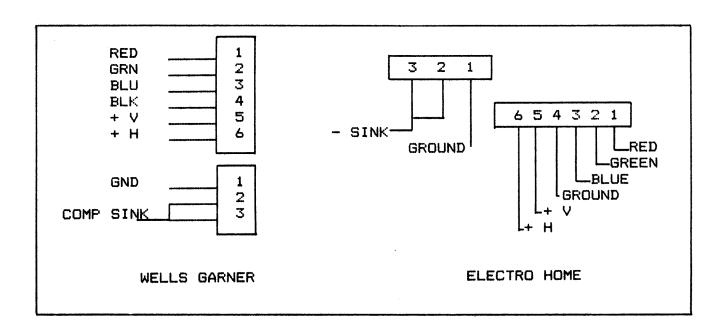
The control panel on the game to be converted can be either metal or wood. When selecting a game to convert consider the placement of joystick, push buttons and the monitor position.

Route the wires labeled control 1 (for upright) to your control panel. Cut this down to the required length. Strip and solder the wires to the joystick, and push buttons according to the pin-out assignments.

MONITOR WIRING:

Route the wires labelled "VIDEO" or "MONITOR" up to your monitor and cut the excess wire. Refer to the pin-out assignment at the back of this manual for video outputs. The color code is as follows:

RED wire		VIDEO	REI	כ	
GREEN wire	**** **** **** ****	VIDEO	GRE	EEN	
BLUE wire	areas delate more steel many	VIDEO	BLU	JE	
BLACK wire		VIDEO	GR	DUND	
WHITE wire		NEGAT:	IVE	COMP.	SINK



POWER SUPPLY WIRING:

Attach the wire harness connector to the main logic PCB.

*** CAUTION: Sometimes the connector is not keyed and

it is very easy to install it reversed on

the logic board. Double check that it is

wired and connected properly.

The label with the game name should face the component side of the PCB.

Separate the bundle of wires labeled "POWER" and route them to your power supply. Strip about 1/2 " off the insulation and attach them to the power supply screws. The color code is:

RED wire #	18		+ 5 VDC
GREEN wire	# 18	***************************************	+ 12 VDC
BLACK wire			GROUND

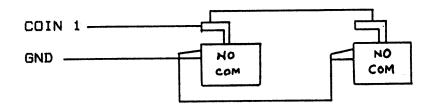
NOTE:

You can use the $-5\ \text{VDC}$ to power the lights to the coin door or the lighted push buttons.

COIN SWITCHES:

Most games have two coin outputs. Coin 1 must go to the N.O. (normally open) terminal of the microswitch, (same as with coin 2) and a ground wire will go to the common terminal of the microswitch.

If you wish to use a coin meter for both coin mechanisms, connect only one coin output to both coin switches. This will save you the use of two coin meters.



<CONNECTION OF HARNESS>

PARTS SIDE		SOLDER SIDE
GND	1	GND
GND	2	GND
	3	GND
SP OUT	4	SERVICE
+ 1 2 V	5	+ 1 2 V
	6	
	7	
1 P SHOT-2	8	COIN2
+ 5 V	9	+ 5 V
1 P DOWN	10	2 P U P
2 P SHOT-2	11	1P UP
2P SELECT	12	2 P DOWN
1P SELECT	13	COIN1
1P RIGHT	14	1 P SHOT-1
1P LEFT	15	RED

16 2 P RIGHT

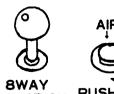
2P LEFT

2P SHOT-1

17

GROUND

18

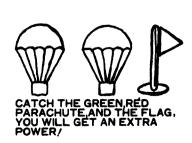


BLUE

SYNC

GREEN

BWAY
JOYSTICK PUSH TWO FIRING
BUTTONS LOOP



SWIT	CH NO.	1	2	3	4	5	6	7	8
NO OF	3							OFF	OFF
	4							OFF	ON
FIGHTERS	5							ON	OFF
6			•				ON	ON	
	TABLE		OFF						
TYPE	UP RIGHT		ON						
STOP	NORMAL OFF	ON							
SOUND TEST	NORMAL OFF			ON.					
	NORMAL OFF				ON				
CONTINUE PLAY	NORMAL OFF						ON		

DIP SW No.2

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