



SERVICE NOTE

EFFECT: SPACE FURY

NUMBER: 001

July 29, 1981

1 of 2

To ensure continued reliability of your Space Fury Color X-Y Monitor, we request you install this retrofit according to the following rework instructions. Parts and illustration are enclosed for your convenience. If you have any questions regarding this note, contact SEGA/Gremlin Customer Service, 800-854-1098.

REWORK INSTRUCTIONS Color X-Y Monitor

1. Remove C407 (Clip leads).
2. Add a 1K ohm $\frac{1}{2}$ watt 5% resistor in parallel with R732.
3. Add a 680 ohm $\frac{1}{2}$ watt 5% resistor in parallel with R632.
4. Add RC Network assembly between R624 and R632.
5. Add RC Network assembly between R724 and R732.
6. Print a number "1" in the lower right hand corner of the P.C.B. to show that the monitor has been modified.
7. Use a 25 watt soldering iron.

Parts List

<u>QTY</u>	<u>GREMLIN PART NO.</u>	<u>DESCRIPTION</u>
1	471-0102	Resistor, 1K ohm $\frac{1}{2}$ W 5%
1	471-0681	Resistor, 680 ohm $\frac{1}{2}$ W 5%
2	800-0304	Assembly RC Network

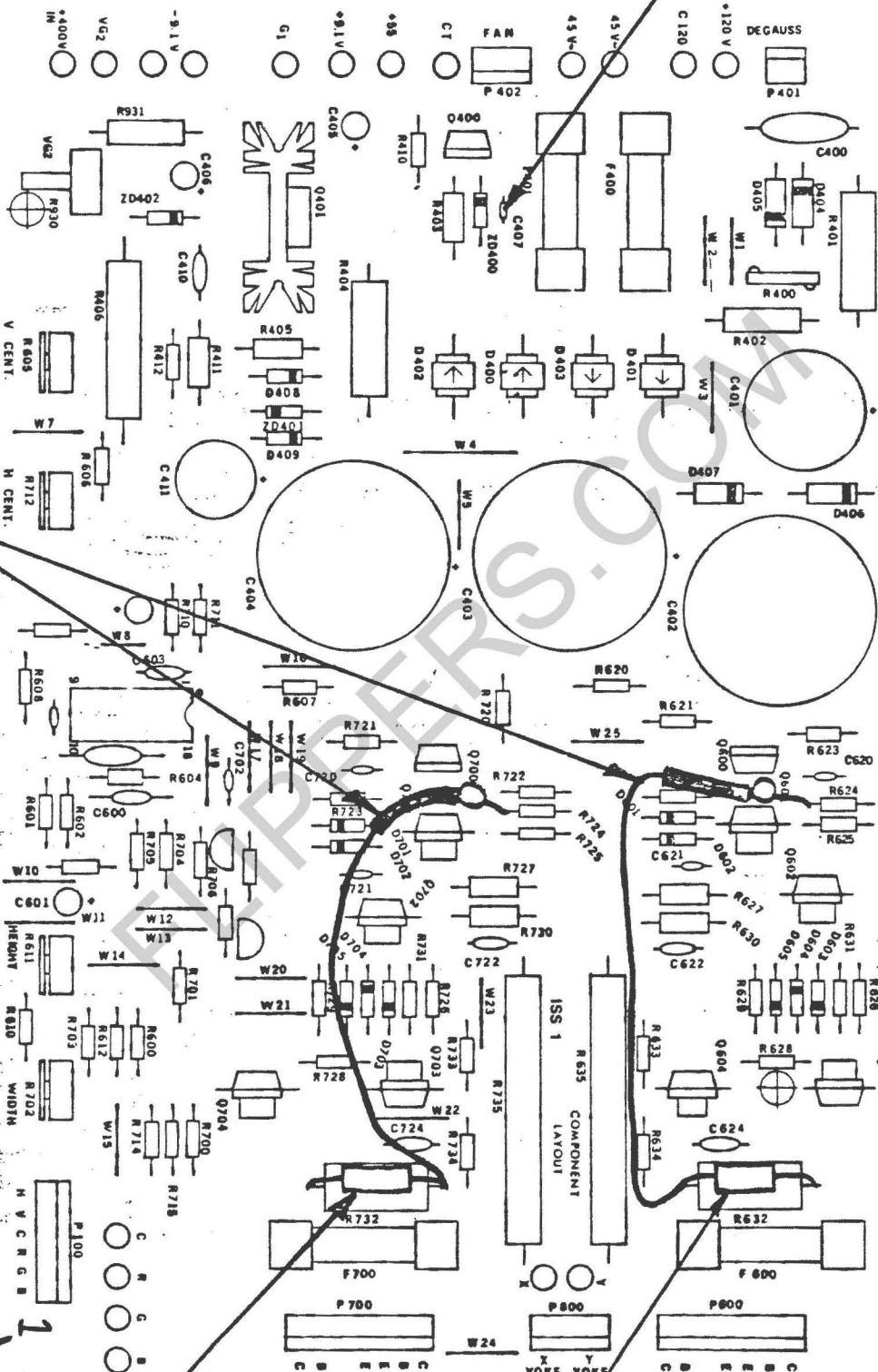
X-Y P.C.B. COMPONENT LAYOUT

①

REMOVE CAP C407.

④ ADD
800-0304 ASSY
⑤ RC NETWORK

⑥ MARK REWORKED BOARD WITH NO. 1



ADD
471-0102-00 RES
② 1KΩ 1/2W 5%

ADD
471-0681-00 RES
③ 680Ω 1/2W 5%



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An error was found on page 30 of the Owners Manual (P/N 420-0631), the A.C. Junction Box Assy. Item 8 Description should read:
5 amp fuse, 250 V, Slow-Blow (not 2 amp fuse, 250 V, Slow-Burn).
Please correct your manual to reflect this change.

Also, Item 8 Part Number should be corrected to read: 514-0053. The entire line correction looks like this:

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>QTY REQD.</u>	<u>DESCRIPTION</u>
8	514-0053	1	5 amp fuse, 250 V, Slow-Blow

Additionally, 220 VAC installations (i.e. Europe) require an input transformer strapping change, (input AC to pins 1 and 4) and a change down to a 3 amp fuse, 250 V, Slow-Blow (P/N 514-0011).



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Multiplier problems (gate racing) resulting in a frozen display can be alleviated by modifying the X-Y Timing Board as follows: PCB# 170-0218, 800-0161 Assy, Rev.A/

1. cut pin-1 of U14 as close to the PC Board as possible and lift the pin away from the board.
2. install a 2.25" jumper wire (AWG 30, 28, or 26) from pin-5 of U23 to pin-1 of U14 (on leg of the IC).

This rework will be incorporated on the 170-0218 Rev. E PC Board.

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Gremlin - Space Odyssey +
SPACE FURY

To set game for 50¢ - per play
both sides locate blue dip switch
(SW. 2) on C.P.U. board.

SW 1	-	on
2	-	on
3	-	off
4	-	on
5	-	on
6	-	on
7	-	off
8	-	on

For 25¢ per play

SW 1 - on	SW 5 - on
SW 2 - on	SW 6 - on
SW 3 - off	SW 7 - off
SW 4 - off	SW 8 - off

August 6, 1981

ATTENTION SERVICE MANAGER:

In reference to our Service Note of July 29 concerning retrofit instructions for Space Fury X-Y monitors, be aware that this retrofit does not repair a non-working monitor. If your monitor is not functioning properly, you must first repair it and then install the retrofit. Two additional items to keep in mind when installing the retrofit are:

1. Insure that none of the copper heatsinks mounted on the transistors on the circuit board are touching each other.
2. Inspect the bottom side of the circuit board to insure that no solder has melted and shorted components.

If you have any questions, call SEGA/Gremlin Customer Service, 800-854-1098.

Gremlin Industries, Inc.

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