



SERVICE NOTE

EFFECT: ZEKTOR

NUMBER: 001 8/9/82

An error has been identified in the ZEKTOR™ Owner's Manual (P/N 420-0743), page number 45. Please make this simple correction to your documentation:

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>QTY. REQD.</u>	<u>DESCRIPTION</u>
3	800-0390	1	Assy Rotary Control

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ZEKTOR CONVERTAPAK INSTRUCTIONS

1. On the pre-addressed reply card, fill in the serial numbers of the new boards and mail the card back to SEGA/Gremlin.
2. Turn on the game to be converted and make sure it operates properly.
3. Turn the game off and proceed. The only tools you will need are a pair of dikes (wirecutters) and a small phillips screwdriver.
4. Unlock and open the coin mech door and reach under the control panel and flip the fasteners on both sides. The panel will now swing out towards you. Disconnect the control panel harness, slide the spring-loaded pins on both sides, remove the panel and set aside.
5. Next, remove the front plexiglass by pulling out the frame support piece on the bottom and pull the plexiglass out. The interior graphics are now free for removal.
6. Remove the logo by withdrawing the four (4) phillips screws securing the bracket at the bottom of the logo panel. The logo is now free for removal.
7. Remove the four (4) securing screws on the cover of the G-80 cage and set the cover and screws aside.
8. At the CPU Board (second from the right), use your dikes to CAREFULLY cut the harness tie wraps. At this point it would wise to separate the various harnesses to the individual boards, labeling each as to Board and connector "window" positioning. Each connector has a smooth face and a "windowed" face, keying the pins.
9. On the right hand side of the cabinet, level with the cage, is an "L-bracket" which holds connectors J1, 2, and 3. Disconnect J1 by pressing the two securing tabs at the top and bottom of the connector and pushing the unit out of the bracket.

10. Once assured that the connectors on the Sound, X-Y Timing and X-Y Control Boards are marked, separate and remove the CPU Master Harness Assembly, along with the Volume Control Block connector P9.
11. Referring to the location diagram on the outside of the cage cover, remove the EPROM Board (first board on the left), Speech Board (second board on the left in a SPACE FURY conversion), Sound Board (first board on the right), and CPU Board (second from the right).
12. On the CPU Board, exchange U21 (a 40-pin IC) and U25 (a 24-pin IC) for the IC's marked and provided in the kit. Take care to ensure that the IC's are seated properly and that no legs are bent during installation.
13. Install the new EPROM Board (first position on the left), Speech Board (second board from the left), and Sound Board (first position on the right). Re-install the CPU Board (second board from the right), again ensuring that the boards are all seated properly in the card cage.
14. Now install the new CPU Master Harness Assembly (P/N 800-0378). Proper alignment can be verified by keeping the brown wires on the connectors up, and the connector "lip" to the left.
15. Mount the new J1 connector into its mounting on the right side of the cabinet; this is the new Control Panel Harness, and should be led to facilitate mating with the Control Panel.
16. Referring now to your connector labeling, replace the single connector to the Sound Board, X-Y Timing and X-Y Control Boards respectively. The new CPU Harness provides for a Speech Board connector that is installed now, with the connector "window" facing away from the board.
17. Re-mate connectors P1 and P2 with the CPU Master Harness, and reconnect P9. At this point, all connectors and harnesses should be in place.

Speech
Board
Smooth
ON OUTSIDE

18. Install the new Control Panel, plug in the harness connector and rotate the control panel to the operating position. Close both latches. The control panel plug, P10, must be connected or the monitor will not illuminate.
19. Make a visual inspection, to recheck all connections, plug power cord in and apply power by pulling out the interlock switch on the J-box. The light behind the logo will illuminate and the monitor will display the Zektor in the advertisement mode.
20. Depress the self test switch on the CPU board (second from the right) and observe the monitor while the various tests are conducted.
21. Turn power off and unplug power cord.
22. Replace the G-80 cage cover, and place the new board location decal (P/N 420-0747) on the front.
23. Install the new logo panel, replacing the four (4) screws removed previously. Clean the CRT face and front plexiglass with a conventional glass cleaner. Install the new interior graphics (P/N 420-0768) over the CRT, and place the game instructions decal (P/N 420-0746) centered on the lower portion of the interior graphics. Replace the plexiglass and the frame support piece.
24. If you have any questions, call SEGA/Gremlin Customer Service toll-free number (800) 854-1938.



SERVICE NOTE

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The following lists comprise the Recommended Spare Parts List for the support of 10 games (and presumes the user to a stock of common ICs consistent with a contemporary digital electronic repair facility):

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>REF. DES.</u>	<u>PRICE</u>
ASSY ROTARY INTERFACE 800-0382					
1.	370-0006	2	XSTR, Opto Electric Encoder	DS1, DS2	5.60
ASSY AC JUNCTION BOX 800-0145					
2.	270-0001	1	FILTER, EMI		20.00
3.	514-0001	5	FUSE, 2A 250V S.B.		1.50
4.	514-0051	5	FUSE, 1A 250V		.70
5.	514-0053	5	FUSE, 5A S.B.		.70
ASSY COLOR X-Y MONITOR 200-0025					
6.	481-0211	1	DIODE, Zener 1N751	ZD903, 904	.30
7.	481-0207	1	RECTIFIER, 1A 1400V	D901	.80
8.	560-0062	1	XFMR, Horiz. Buffer	T900	5.20
9.	560-0073	1	XFMR, Horiz. Output	T901	49.20
10.	180-0010	1	CHOKE, Horiz. Delay	L900	1.60
11.	482-0242	2	XSTR, 5A 1400V Power	Q900	5.50
12.	481-0202	1	RECTIFIER	D400-403	6.50
13.	481-0020	2	RECTIFIER, 1A 200V	D404	.40
14.	481-0204	1	DIODE, Zener 1N5263B	ZD400	.30
15.	481-0205	1	DIODE, Zener 1N5239B	ZD401	.30
16.	481-0179	1	DIODE, Zener 9.1V 1W 5%	ZD402	.50
17.	482-0260	4	XSTR, 2N6259	Q605, 606, 705, 706	8.30
18.	800-0307	1	PCB, Input Limiter		54.40
19.	800-0318	1	PCB, Input Clamp		15.50
ASSY EMI TRANSFORMER 800-0190					
20.	560-0055	1	XFMR, G-80 Power Supply		120.70

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>REF. DES.</u>	<u>PRICE</u>
ASSY CPU BOARD		800-0107			
21.	151-0060	2	CAP, 0.1MF 16V - C	C37	.20
22.	151-0061	5	CAP, 220PF 16V - C	C1	.30
23.	230-0013	1	XTAL, 8.000 MHz	Y1	12.00
ASSY 2716 EPROM BOARD		800-0151			
24.	151-0058	2	CAP, 0.01MF 16V - C	C2	.20
ASSY X-Y CONTROL BOARD		800-0163			
25.	481-0006	2	DIODE, 1N914	D1	1.00
ASSY X-Y TIMING BOARD		800-0161			
26.	230-0009	1	XTAL, 15.46848 MHz	Y1	10.00
ASSY SPEECH BOARD		800-0294			
27.	230-0033	1	XTAL, 3.12 MHz	Y1	4.20
28.	315-0077	1	IC, 8035	U14	10.50
ASSY SOUND BOARD		800-3249			
29.	151-0012	5	CAP, 0.1MF 50V - C	C2, 3, 5 et al.	.50
30.	152-0001	2	CAP, 0.1MF 100V - F	C13, 14, et al.	.50
31.	152-0037	2	CAP, 0.68 MF 100V - F	C10, 11, et al.	.20
32.	313-0037	1	IC, TL081	U1, 3, et al.	.70
33.	313-0046	2	IC, CA3080E	U6-11, 15, 16	1.80
34.	315-0007	1	IC, C4011A	U17-19, 22	.60
35.	482-0006	2	XSTR, 2N4403	Q2-11	.50
ASSY G-80 POWER SUPPLY CHASSIS					
36.	482-0104	2	XSTR, PWR T1P141	T1P141	4.12
37.	482-0100	2	XSTR, PWR T1P125	T1P125	1.20
38.	482-0019	2	XSTR, PWR T1P120	T1P120	2.00
ASSY G-80 POWER SUPPLY PC BOARD					
39.	150-0088	2	CAP, 10MF 25V - E	C5, 8, et al.	.40
40.	150-0097	1	CAP, 4700MF 16V - E	C15, 16, 27, 28	2.20
41.	151-0011	1	CAP, 0.01MF 50V - C	C21, 22, 25, 29	.50
42.	481-0002	1	DIODE, MR751	D10, 12.	1.60
43.	481-0004	3	DIODE, MR501	D6-9, 11, 13-17	1.00

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>REF. DES.</u>	<u>PRICE</u>
44.	481-0006	1	DIODE, 1N914	D1, 4, 5	1.00
45.	514-0002	3	FUSE, 3A		.50
46.	514-0006	3	FUSE, 1.5A		.26
47.	514-0008	3	FUSE, 10A Slow Blow		.70

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SEGA[®]/Gremlin[®]

TO: ALL SEGA/GREMLIN DISTRIBUTORS

SUBJECT: ZEKTOR

DATE: June 25, 1982

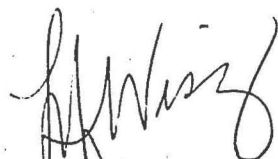
We trust that you have received your new ZEKTOR games and are in the process of testing these games for income.

While ZEKTOR provides players with action, speed, and the sound effects of a "war-of-the-worlds" space adventure, we have refined the game even further with several changes, such as:

1. Most of the images are new to clarify the game play and to enhance the graphic appearance of the game.
2. The explosions are modified to heighten player appeal.
3. The transition time between rounds has been shortened to build the excitement of game play as the player proceeds from round to round.
4. The advertising sequence has been extended to help the first time player better understand the game concept. This is now interwoven with credit status display to permit play credits while maintaining this extensive advertising.

Under separate cover, we are sending to you a new program board for ZEKTOR. We urge you to make this exchange immediately, both on location and in your display room. An RMA number will also be issued to you for the return of the original board(s) for credit.

We would appreciate receiving your comments on this new game program.


LEONARD J. WISZ
DIRECTOR OF MARKETING

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