

Corrected Parts List and Schematic for 19-Inch Wells-Gardner Standard-Resolution Video Display

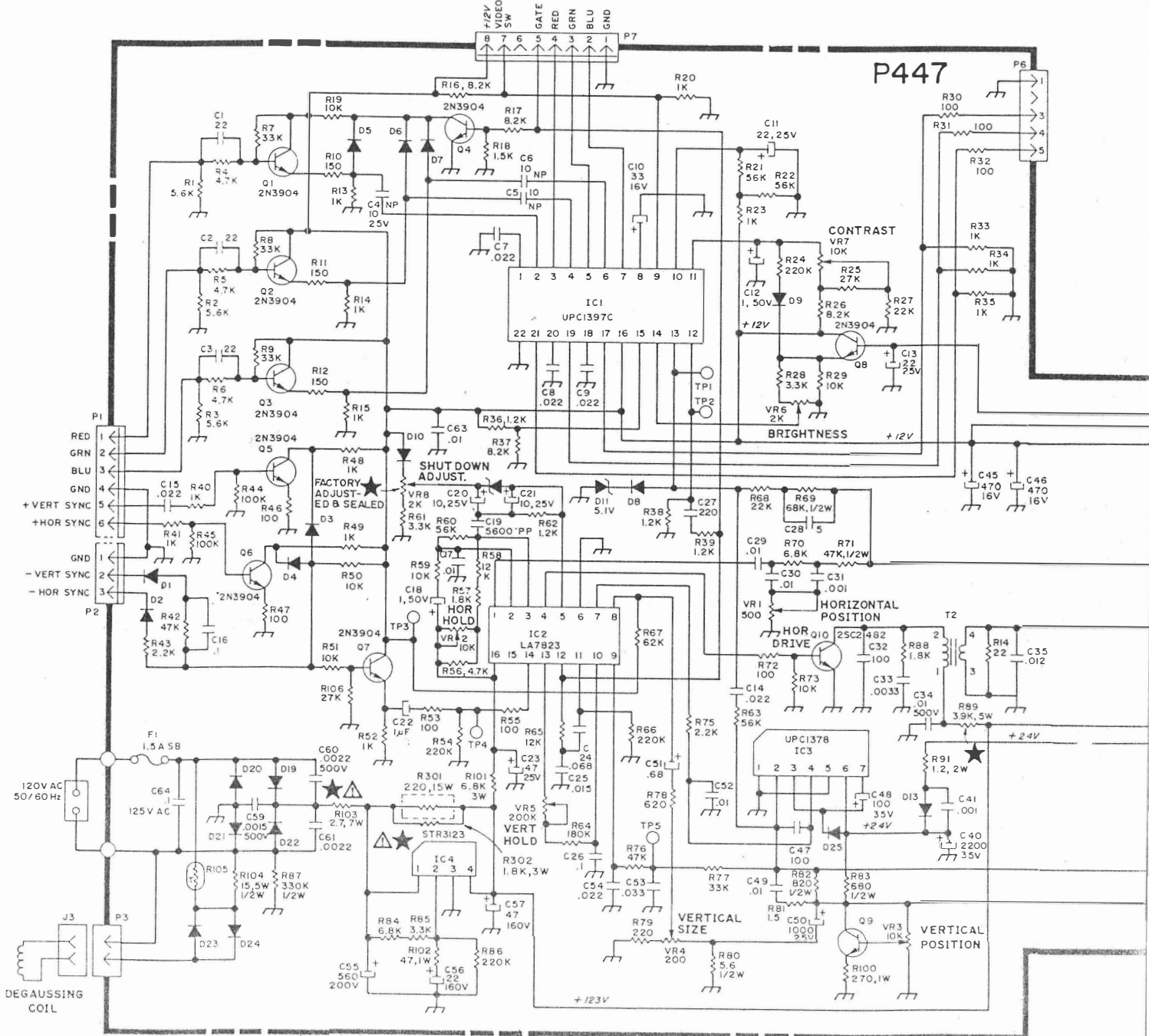
The video display service manual published by Wells-Gardner (and that was provided with your game) is not correct for several parts. This supplement provides corrected parts lists and a schematic. In addition, for your ordering convenience we are providing Atari part numbers instead of Wells-Gardner's.

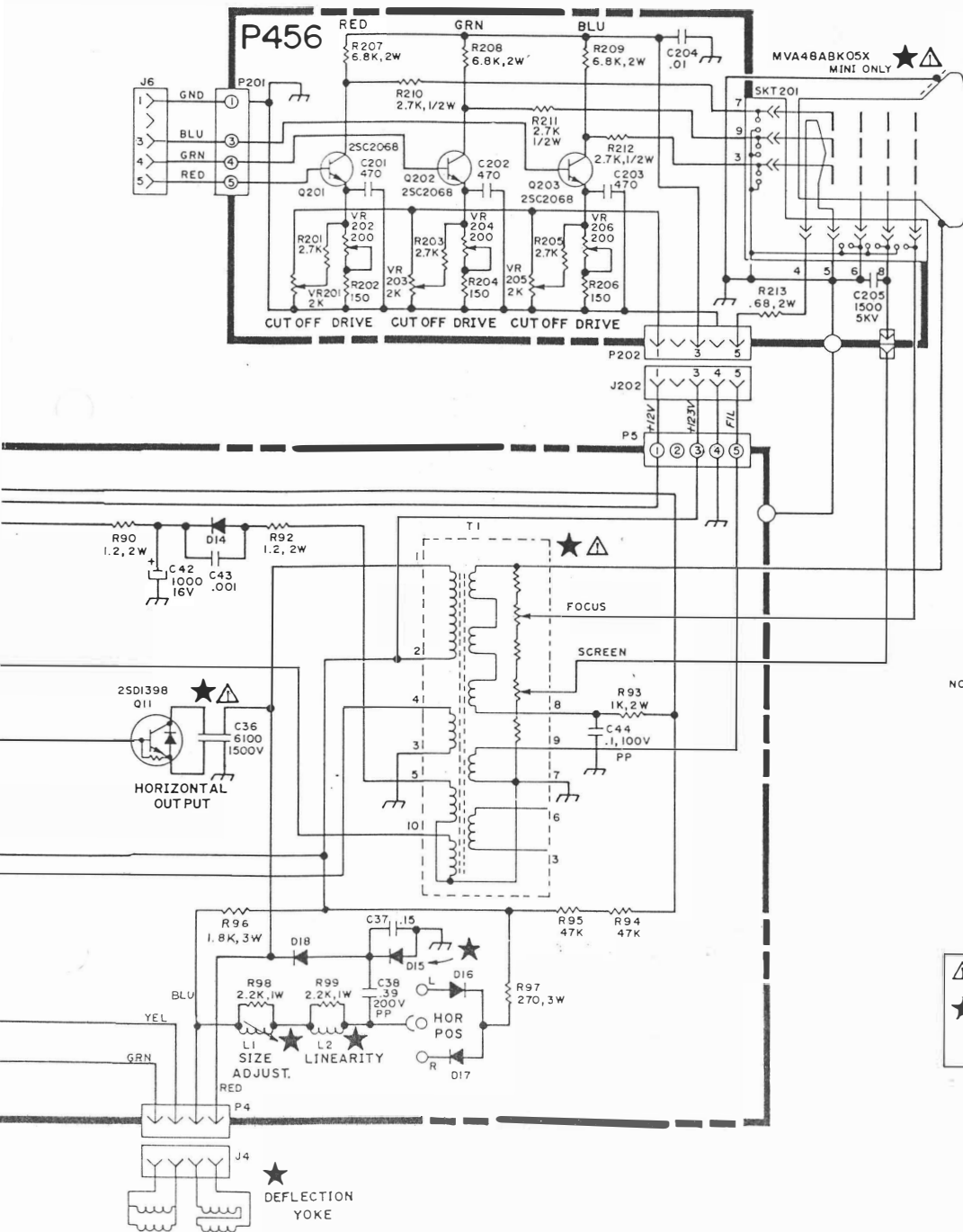
We suggest that you replace the applicable pages in your Wells-Gardner manual with the attached pages.

For technical assistance or to order these parts,
call your distributor or Atari Customer Service at (408) 434-3950
(Monday-Friday, 7:30 am-4:00 pm Pacific time)



19" COLOR MONITOR SCHEMATIC DIAGRAM





NOTES:

1. ALL RESISTORS ARE IN OHMS, 1/4W, 5% UNLESS OTHERWISE INDICATED.
2. CAPACITANCE VALUES LESS THAN 1 ARE IN MICROFARADS. ABOVE 1 IN PICOFARADS UNLESS OTHERWISE INDICATED.

⚠ CAUTION SAFETY-CRITICAL COMPONENT.
 ★ X-RAY RADIATION-RELATED COMPONENT.
 REPLACE ONLY WITH SAME TYPE PARTS AS SHOWN IN PARTS LIST.



Neck Board

Designator	Description	Part No.
Capacitors		
C201-C203	Capacitor, ceramic, 470 pF, $\pm 10\%$, Z5F	99-130998
C204	Capacitor, ceramic, .01 μ F, $\pm 10\%$, Y5P, 500 V	99-130958
C205	Capacitor, ceramic, .0015 μ F, 1.5 KV	99-130999
Transistor		
Q201-Q203	Transistor, 2SC2068LB/LBBK	99-131000
Resistors		
R201	Resistor, 2.7K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130738
R202	Resistor, 150 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130355
R203	Resistor, 2.7K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130738
R204	Resistor, 150 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130355
R205	Resistor, 2.7K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130738
R206	Resistor, 150 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130355
R207-R209	Resistor, metal oxide, 6.8K Ω , $\pm 5\%$, 2 W	99-130802
R210-R212	Resistor, 2.7K Ω , $\pm 10\%$, $\frac{1}{2}$ W	99-130583
R213	Resistor, .68 Ω , $\pm 5\%$, 2 W	99-130997
Potentiometers		
VR201	Potentiometer, 2.0K Ω	99-130937
VR202	Potentiometer, 200 Ω	99-130935
VR203	Potentiometer, 2.0K Ω	99-130937
VR204	Potentiometer, 200 Ω	99-130935
VR205	Potentiometer, 2.0K Ω	99-130937
VR206	Potentiometer, 200 Ω	99-130935
Miscellaneous		
SKT201	CRT Socket	99-131015

Main Board Parts List

Designator	Description	Part No.	Designator	Description	Part No.
Capacitors					
C1-C3	Capacitor, ceramic, 22 pF, $\pm 10\%$, npo	99-130940	C55	Capacitor, electrolytic, 560 μ F, 200 V	99-130971
C4-C6	Capacitor, electrolytic, 10 μ F, 25 V, np	99-130941	C56	Capacitor, electrolytic, 22 μ F, 160 V	99-130972
C7-C9	Capacitor, mylar, .022 μ F $\pm 10\%$, 50 V	99-130942	C57	Capacitor, electrolytic, 47 μ F, 160 V	99-130973
C10	Capacitor, electrolytic, 33 μ F, 16 V	99-130943	C59	Capacitor, ceramic, .0015 μ F, $\pm 10\%$, Y5P, 500 V	99-130974
C11	Capacitor, electrolytic, 22 μ F, 25 V	99-130944	C60, C61	Capacitor, ceramic, .0022 μ F, $\pm 10\%$, Y5P, 500 V	99-130975
C12	Capacitor, electrolytic, 1.0 μ F, 50 V	99-130945	C62	Capacitor, .1 μ F, $\pm 20\%$, 125 VAC	99-130976
C13	Capacitor, electrolytic, 22 μ F, 25 V	99-130944	C63	Capacitor, polyester, .01 μ F, $\pm 10\%$, 50 V	99-130947
C14-C15	Capacitor, mylar, .022 μ F $\pm 10\%$, 50 V	99-130942	Semiconductors		
C16	Capacitor, mylar, .1 μ F, $\pm 10\%$, 50 V	99-130946	D1-D10	Diode, 1N914B	99-130977
C17	Capacitor, polyester, .01 μ F, $\pm 10\%$, 50 V	99-130947	D11	Diode, zener, 5.1 V, $\pm 5\%$, $\frac{1}{2}$ W	99-130978
C18	Capacitor, electrolytic, 1.0 μ F, 50 V	99-130945	D12	Diode, zener, 10 V, $\pm 5\%$, $\frac{1}{2}$ W	99-130979
C19	Capacitor, pp, .0056 μ F, $\pm 2\%$, AWS 500 V	99-130948	D13-D17	Diode, switching	99-130980
C20, C21	Capacitor, electrolytic, 10 μ F, 25 V	99-130949	D18	Diode, Sanyo, GFE10R	99-130981
C22	Capacitor, electrolytic, 1.0 μ F, 50 V	99-130945	D19-D24	Diode, 1 A, 600 V	99-130982
C23	Capacitor, electrolytic, 47 μ F, 25 V	99-130950	D25	Diode, boost	99-130983
C24	Capacitor, mylar, .068 μ F, $\pm 10\%$, 50 V	99-130951	Integrated Circuits		
C25	Capacitor, polyester, .015 μ F, $\pm 10\%$, 50 V	99-130952	IC1	IC, video, UPC1397	99-130987
C26	Capacitor, mylar, .1 μ F, $\pm 10\%$, 50 V	99-130946	IC2	IC, horiz/vert, LA7823	99-130988
C27	Capacitor, ceramic, 220 μ F, $\pm 10\%$, Z5F	99-130953	IC3	IC, vert output, UPC1378	99-130989
C28	Capacitor, 5 pF, $\pm 20\%$, 2 KV, npo	99-130954	IC4	IC, regulator, STR3123	99-130991
C29	Capacitor, polyester, .01 μ F, $\pm 10\%$, 50 V	99-130947	IC4	Insulator, mica	99-130990
C30	Capacitor, ceramic, .001 μ F, $\pm 20\%$, Z5F, 500V	99-130955	Coils		
C31	Capacitor, polyester, .010 μ F, $\pm 10\%$, 50V	99-130947	L1 ★	Coil, width, TODAI	99-130992
C32	Capacitor, ceramic, 100 μ F, $\pm 10\%$, Z5F, 500 V	99-130956	L2 ★	Coil, linearity, TODAI	99-130993
C33	Capacitor, ceramic, .0033 μ F, $\pm 10\%$, Y5P, 500 V	99-130957	Transistors		
C34	Capacitor, ceramic, .01 μ F, $\pm 10\%$, Y5P, 500 V	99-130958	Q1-Q9	Transistor, NPN, 2N3904	99-130984
C35	Capacitor, polyester, .01 μ F, $\pm 10\%$, 50 V	99-130947	Q10	Transistor, NPN, cc	99-130985
C36 ★ ▲	Capacitor, pp, 6100 pF, $\pm 2\%$, 1.5 KV	99-130959	Q11	Transistor, 2SD1398	99-130986
C37	Capacitor, pp, .15 μ F, 100 V	99-130960	Resistors		
C38	Capacitor, pp, .39 μ F, $\pm 5\%$, 200 V	99-130961	R1-R3	Resistor, 5.6K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130869
C40	Capacitor, electrolytic, 2200 μ F, 35 V	99-130962	R4-R6	Resistor, 4.7K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130586
C41	Capacitor, ceramic, .001 μ F, $\pm 20\%$, Z5F, 500 V	99-130955	R7-R9	Resistor, 33K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130369
C42	Capacitor, electrolytic, 1000 μ F, 16 V	99-130963	R10-R12	Resistor, 150 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130355
C43	Capacitor, ceramic, .001 μ F, $\pm 20\%$, Z5F, 500 V	99-130955	R13-R15	Resistor, 1K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130392
C44	Capacitor, pp, .1 μ F, $\pm 10\%$, 100 V	99-130964	R16-R17	Resistor, 8.2K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130870
C45, C46	Capacitor, electrolytic, 470 μ F, 16 V	99-130965	R19	Resistor, 10K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130581
C47	Capacitor, ceramic, 100 μ F, $\pm 10\%$, Z5F, 500 V	99-130956	R20	Resistor, 1K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130392
C48	Capacitor, electrolytic, 100 μ F, 35 V	99-130966	R21	Resistor, 56K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130871
C49	Capacitor, polyester, .01 μ F, $\pm 10\%$, 50 V	99-130947	R22	Resistor, 5.6K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130869
C50	Capacitor, electrolytic, 1000 μ F, 25 V	99-130967	R24	Resistor, 220K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130685
C51	Capacitor, tantalum, .63 μ F, $\pm 10\%$, 35 V	99-130968	R25	Resistor, 27K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130643
C52	Capacitor, polyester, .01 μ F, $\pm 10\%$, 50 V	99-130947	R26	Resistor, 8.2K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130870
C53	Capacitor, polyester, .033 μ F, $\pm 5\%$, 50 V	99-130969	R27	Resistor, carbon, 22K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130783
C54	Capacitor, mylar, .022 μ F, $\pm 5\%$, 50 V	99-130970	R28	Resistor, 3.3K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130572
			R29	Resistor, 10K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130581
			R30-R32	Resistor, 100 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130351
			R33-R35	Resistor, 1K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130392
			R36	Resistor, 1.2K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130658
			R37	Resistor, 8.2K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130870

Main Board Parts List, Continued

Designator	Description	Part No.	Designator	Description	Part No.
R38, R39	Resistor, 1.2K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130658	R85	Resistor, 3.3K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130572
R40, R41	Resistor, 1K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130392	R86	Resistor, 220K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130685
R42	Resistor, 47K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130657	R87	Resistor, 330K Ω , $\pm 10\%$, $\frac{1}{2}$ W	99-130876
R43	Resistor, 2.2K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130373	R88	Resistor, 1.8K Ω , $\pm 5\%$, 1 W	99-130840
R44, R45	Resistor, 100K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130377	R89	Resistor, mo, 3.9K Ω , $\pm 5\%$, 5 W	99-130926
R46, R47	Resistor, 100 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130351	R90-R92	Resistor, mf, 1.2 Ω , $\pm 5\%$, 2 W	99-130927
R48, R49	Resistor, 1K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130392	R93	Resistor, 1K Ω , $\pm 5\%$, 2 W	99-130841
R50, R51	Resistor, 10K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130581	R94, R95	Resistor, 47K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130657
R52	Resistor, 1K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130392	R96	Resistor, ww, 1.8K Ω , $\pm 5\%$, 3 W	99-130928
R53	Resistor, 150 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130355	R97	Resistor, 270 Ω , $\pm 5\%$, 3 W	99-130842
R54	Resistor, 220K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130685	R98, R99	Resistor, mo, 2.2K Ω , $\pm 5\%$, 1 W	99-130687
R55	Resistor, 100 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130351	R100	Resistor, 270 Ω , $\pm 5\%$, 1 W	99-130839
R56	Resistor, 47K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130586	R101	Resistor, 6.8K Ω , $\pm 5\%$, 3 W	99-130843
R57	Resistor, 1.8K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130384	R102	Resistor, 47 Ω , $\pm 5\%$, 1 W	99-130838
R58	Resistor, 12K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130578	R103	Resistor, 2.7 Ω , $\pm 5\%$, 7 W	99-130929
R59	Resistor, 10K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130581	R104	Resistor, 15 Ω , $\pm 5\%$, 5 W	99-130930
R60	Resistor, 56K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130871	R105	Thermistor	99-130931
R61	Resistor, 3.3K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130572	R106	Resistor, 27K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130643
R62	Resistor, 1.2K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130658	R107	Resistor, 1K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130392
R63	Resistor, 56K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130871	R110	Resistor, 27K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130643
R64	Resistor, 180K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130873	R111	Resistor, 4.7K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130586
R65	Resistor, 12K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130578	R301 * 	Resistor, ww, 220 Ω , 15 W	99-130932
R66	Resistor, 220K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130685	Transformers		
R67	Resistor, 62K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130872	T1	Transformer, flyback	99-130994
R68	Resistor, carbon, 22K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130783	T2	Transformer, horiz driver	99-130995
R69	Resistor, 68K Ω , $\pm 5\%$, $\frac{1}{2}$ W	99-130677	Potentiometers		
R70	Resistor, 6.8K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130395	VR1	Potentiometer, 500 Ω	99-130933
R71	Resistor, 47K Ω , $\pm 5\%$, $\frac{1}{2}$ W	99-130875	VR2, VR3	Potentiometer, 10K Ω	99-130934
R72	Resistor, 100 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130351	VR4	Potentiometer, 200 Ω	99-130935
R73	Resistor, 10K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130581	VR5	Potentiometer, 200K Ω	99-130936
R74	Resistor, 22 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130867	VR6	Potentiometer, 2K Ω	99-130937
R75	Resistor, 2.2K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130373	VR7	Potentiometer, 10K Ω	99-130934
R76	Resistor, 47K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130657	VR8	Potentiometer, 2K Ω , .3 W	99-130938
R77	Resistor, 33K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130369	VR9	Potentiometer, 200 Ω	99-130939
R78	Resistor, 1K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130392	Miscellaneous		
R80	Resistor, 5.0 Ω , $\pm 5\%$, $\frac{1}{2}$ W	99-130874	F1	Fuse, 1.5 Amp, Slow-Blow	99-130996
R81	Resistor, 15 Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130592	Final Assembly Parts		
R82	Resistor, 820 Ω , $\pm 5\%$, $\frac{1}{2}$ W	99-130868	Purity/Convergence Ring Assembly		
R83	Resistor, 680 Ω , $\pm 5\%$, $\frac{1}{2}$ W	99-130598	*  Cathode Ray Tube, Philips, Type		
R84	Resistor, 6.8K Ω , $\pm 5\%$, $\frac{1}{4}$ W	99-130395	MVA48AB05X, 52%		
			* Deflection Yoke		
			99-130818		