

## INTERNAL PARTS LIST

<u>ITEM #</u>	<u>LOCATION #</u>	<u>DESCRIPTION</u>	<u>PART #</u>	<u>REFERENCE</u>
1		Flag Housing	C 3297-6	
2		Flag Terminal	C 3901-3	
3		6-32 Hex Nut	C 1889-2	
4		#6 Internal Star Washer	C 5594-4	
5	S501	SPST Power Switch	D 5699A8	
6		6-32 x .37 Hex Screw	C 3322-2	
7		.5 x .195 Fiber Washer	C 3575-5	
8		Power LED Board	P10068B4	
9		Amber Power LED	C 4342-9	
10		6-32 x .25" Screw	C 4758-6	
11		PB Switch Collar	D 4108-3	
12		Pushbutton	D 5954J8	
13		Plunger	D 4808A6	
14		Switch Bracket	F10042A2	
15		6-32 x .37 Self Tap Screw	C 4320-6	
16		6-32 x .1" Screw	C 2138-3	
17	E301, E401	Red LED	C 5905-2	
18		IOC LED Board	P 9988-0	
19		Level Control Knob	D 5953J0	
20		.375 Hex Nut	C 1288-7	
21		Cable Strain Relief	D 2828-8	
22	R400 (shown); R300	Level Control	D 5696-6	
23		5 1/4" Rack Mount	D 5952J2	
24		6-32 x .75 Socket Cap Screw	C 1858-7	
25		10-24 x .75 Self Tap Screw	C 4017-7	
26		Terminal Strip G2	D 5366-6	
27		Terminal Strip 2G1	D 3323-9	
28	T500	Power Transformer	D 4380-8	
29		Rubber Gromet	C 1566-7	
30		#10 Flat Washer	C 2101-1	
31		#10 Internal Star Washer	C 2279-5	
32		10-32 Hex Nut	C 2170-6	
33	R500, R502	1.2K ohm 2W	C 3649-8	
34		10-32 x .5" Screw	C 2049-2	
35		Solder Lug .218	D 2934-4	
36		.312 Fiber Shoulder Washer	C 3320-6	
37		.3 x .525 x .125 Nylon Washer	C 1657-3	
38	C501	9300uf Filter Capacitor	C 5888-0	
39	C502	9300uf Filter Capacitor	C 5888-0	
40	C500	.1uf	C 2938-6	

## INTERNAL PARTS LIST (cont'd)

<u>ITEM #</u>	<u>LOCATION #</u>	<u>DESCRIPTION</u>	<u>PART #</u>	<u>REFERENCE</u>
41	D500	Bridge Rectifier	C 4305-6	
42		Strain Relief	C 2803-2	
43		AC Line Cord	D 6505-8	
44		Fuse Holder	C 5597A5	
45	F500	6.25A MDX Fuse	<del>C 4307-2</del>	100-120V AC
--	F500	3A Fuse	C 4384-1	200-240V AC
46	R303	.1 ohm 5W	C 4761-0	
--		2.7 ohm .5W 5% (in parallel with R303)	C 2857-8*	
47		6-32 x .62 Screw	C 3879-1	
48		#6 Solder Lug	C 3163-0	
49	Q303	MJ15003 NPN	C 7064-6	
50	Q301	MJ15003 NPN	C 7064-6	
51		Anodized TO3 Insulator	D 4039-1	
52		Plastic TO3 Insulator	D 4071-3	
53		TO220 Torque Spreader	C 654104	
54	Q300	TO220 MJE15028	C 5890-6	
55		TO220 Mica Insulator	C 6067-0	
56		1.1" Jumper Lug	D 5587-7	
57	Q302	TO220 MJE15028	C 5890-6	
58		TO66 Plastic Insulator	D 4113-3	
59	R301	.1 ohm 5W	C 4761-0	
--		2.7 ohm .5W 5% (in parallel with R301)	C 2857-8*	
60	C402	.1uf Capacitor	C 2938-6	
61		8-32 Hex Nut	C 1986-6	
62		.87 x .18 Fiber Washer	D 3609-1	
63	L300	3uh Coil	M43121-9	
64	L400	3uh Coil	M43121-9	
65		#8 Internal Star Washer	C 1951-0	
66		8-32 x 1.75" Stud	C 3324-8	
67		#8 Solder Lug	D 2935-1	
68		4.1" Hex Standoff	D 3961-6	
69		2 Conductor Phone Jack	C 3423-8	
70		.375 Fiber Shoulder Washer	C 1306-7	
71		Control Assembly	M20105-9	Incl. 71, 76-79
72		.62 x .375 Fiber Washer	C 1646-6	
73		8-32 x .25 Screw	C 2136-7	
74		.62 x .375 Bright Washer	C 2189-6	
75		.375 Bright Nut	C 1288N7	

## INTERNAL PARTS LIST (cont'd)

<u>ITEM #</u>	<u>LOCATION #</u>	<u>DESCRIPTION</u>	<u>PART #</u>	<u>REFERENCE</u>
76		Steel Eyelet	C 3529-2	
77		Foam Tape	S 2859-7	Specify length
78	S502	DPDT Slide Switch	C 4110-0	
79		Solder Lug .130	C 6818-6	
80	R501	1 ohm .25W	C 6392-2	
81		6-32 x .37 Screw	C 4329-6	
82		Board Mount Bracket	F 9562-4	
83		Main Board	Q42531-6	
84	C300	4.7uf @ 100V Axial Capacitor	C 5050-7	
85	C400	4.7uf @ 100V Axial Capacitor	C 5050-7	
86	S500	160° Thermal Switch	C 2799-2	
87	Q402 MJE15028	TO220 Power Transistor	C 5890-6	
88	Q400 MJE15028	TO220 Power Transistor	C 5890-6	
89	R403	.1 ohm 5W	C 4761-0	
--		2.7 ohm .5W 5%	C 2857-8*	
		(in parallel with R403)		
90	Q401	MJ15003 NPN	C 7064-6	
91	Q403	MJ15003 NPN	C 7064-6	
92	R401	.1 ohm 5W	C 4761-0	
--		2.7 ohm .5W 5%	C 2857-8*	
		(in parallel with R401)		
93	R302	2.7 ohm 1W	C 1001-4	
94	C301	.1uf	C 2938-6	
95	C401	.1uf	C 2938-6	
96	R402	2.7 ohm 1W	C 1001-4	
97		Dual Binding Post	C 2823-0	
98		IOC Module Assy	Q41880J7	

\* 2.7 ohm .5W 5% resistor is deleted on S/N 59665 and above.



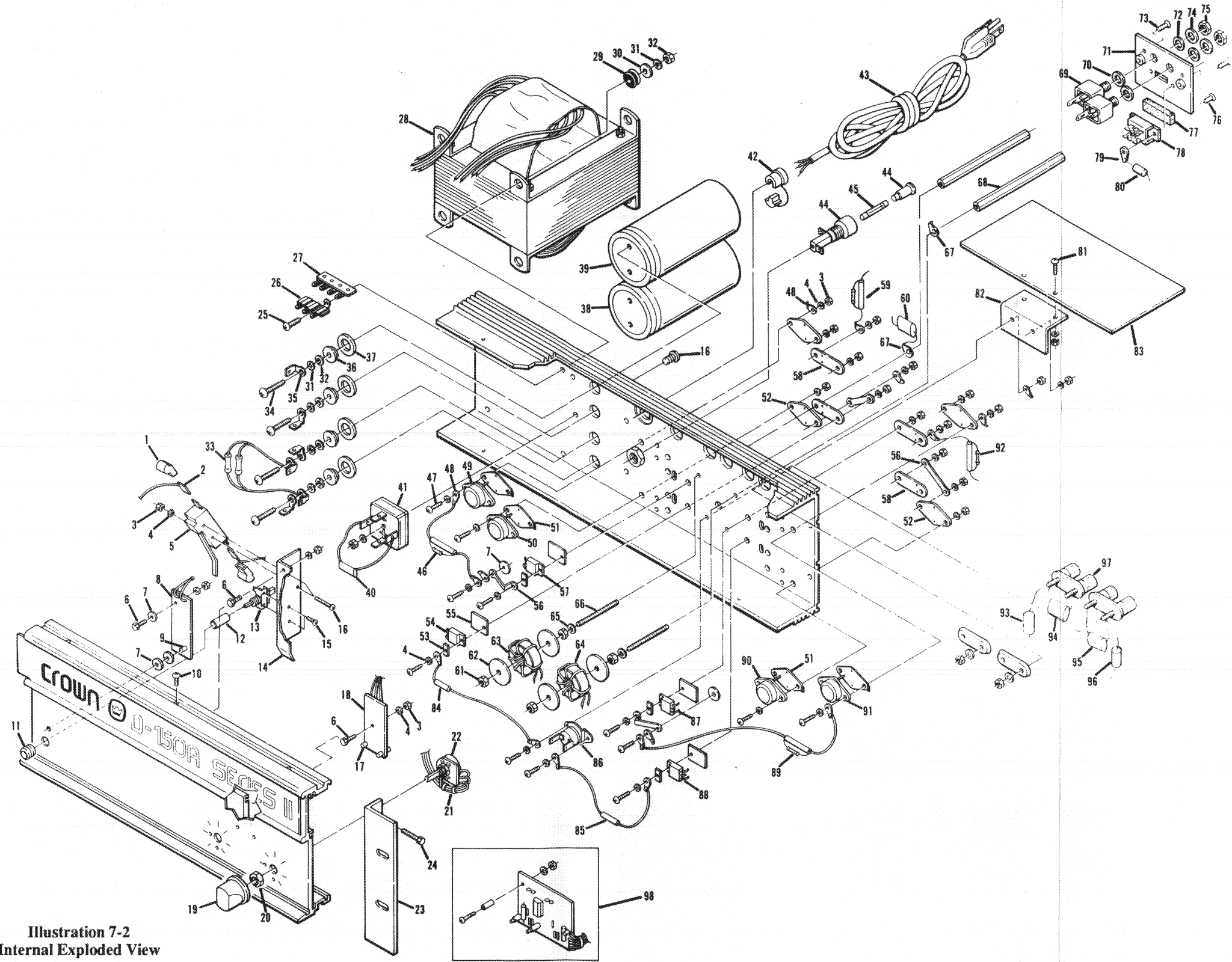
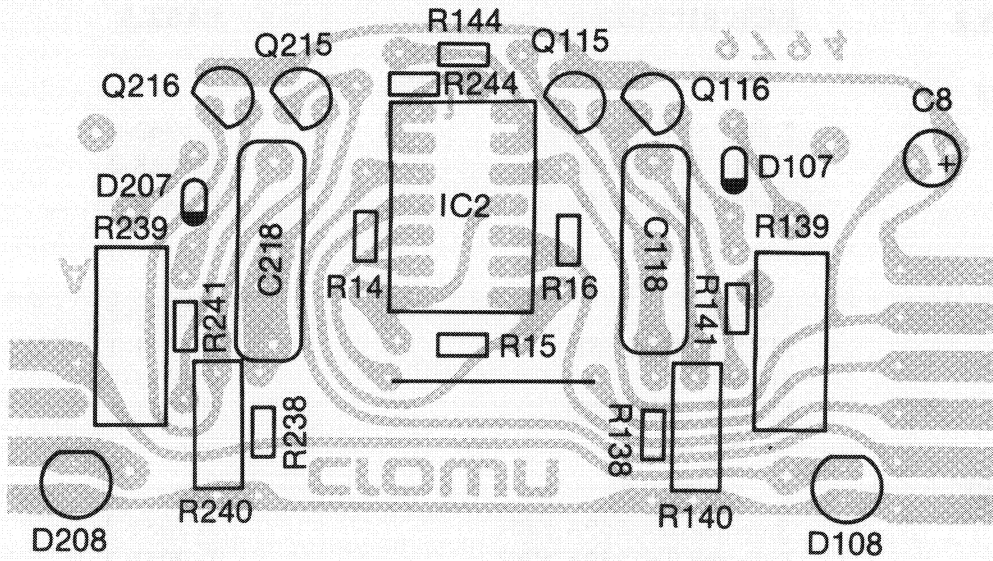


Illustration 7-2  
Internal Exploded View

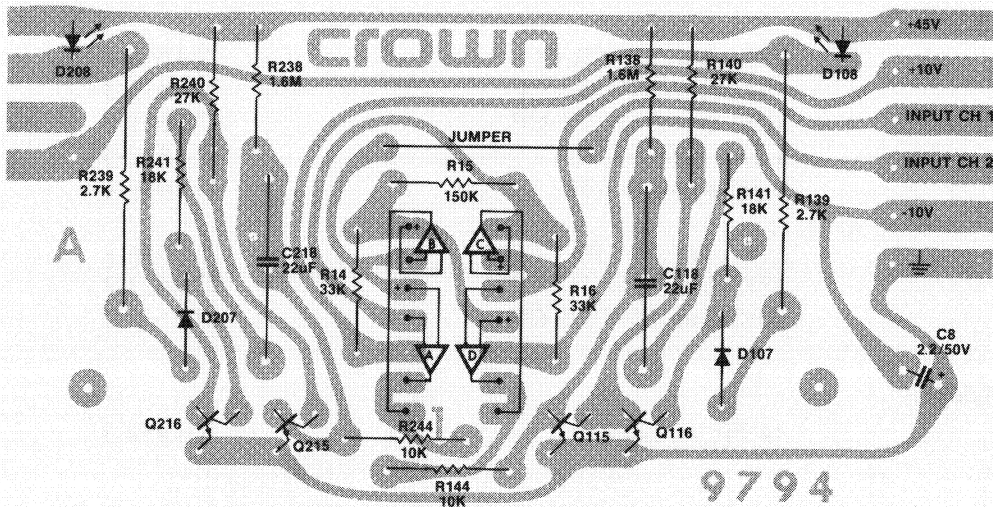


## IOC MODULE (Serial #59664 and below)

<u>LOCATION #</u>	<u>DESCRIPTION</u>	<u>PART #</u>
<i>CAPACITORS</i>		
C8	2.2MF 50V Vertical	C 5362-6
C118	.22MF 100V Film	C 3218-2
C218	.22MF 100V Film	C 3218-2
<i>DIODES</i>		
D107	1N4148	C 3181-2
D108	MV5053 Red LED	C 4341-1
D207	1N4148	C 3181-2
D208	MV5053 Red LED	C 4341-1
<i>TRANSISTORS</i>		
Q115	Selected 2N3859A NPN	D 2961-7
Q116	Selected 2N3859A NPN	D 2961-7
Q215	Selected 2N3859A NPN	D 2961-7
Q216	Selected 2N3859A NPN	D 2961-7
IC2A,B,C,D	LM 339 Voltage Comparator	C 4345-2
<i>RESISTORS</i>		
R14	33K ohm .25W 5% CF	C 4346-0
R15	150K ohm .25W 5% CF	C 4216-5
R16	33K ohm .25W 5% CF	C 4346-0
R138	1.6M .25W 5% CF	C 4235-5
R139	2.7K ohm 1W 10%	C 1079-0
R140	27K ohm .5W 5% CF	C 1056-8
R141	18K ohm .25W 5% CF	C 2633-3
R144	10K ohm .25W 5% CF	C 2631-7
R238	1.6M .25W 5% CF	C 4235-5
R239	2.7K ohm 1W 10%	C 1079-0
R240	27K ohm .5W 5% CF	C 1056-8
R241	18K ohm .25W 5% CF	C 2633-3
R244	10K ohm .25W 5% CF	C 2631-7
<i>MISCELLANEOUS</i>		
	14 Pin IC Socket	C 3450-1



**Illustration 7-3**  
**IOC Component Board Layout**  
 (S/N 59664 and below)



**Illustration 7-4**  
**IOC Foil Board Layout**  
 (S/N 59664 and below)



**D150A SERIES II MAIN MODULE Q41603J3  
FOR UNITS WITH SERIAL NUMBERS 51024 THROUGH 59428**

<u>LOCATION #</u>	<u>DESCRIPTION</u>	<u>PART #</u>
<i>CAPACITORS</i>		
C4	10MF 160V	C 2796-8
C5	10MF 50V Vertical	C 3728-0
C6	.01MF Disc	C 1751-4
C9	.1MF Disc	C 5639-7
C105	100PF Mica	C 3410-0
C101	.001MF 200V Film	C 3480-8
C102	200PF Mica	C 3411-3
C103	200PF Mica	C 3411-3
C104	47PF Mica	C 3409-7
C105	120PF Mica	C 3290-1
C106	100PF Mica	C 3410-5
C107	200PF Mica	C 3411-3
C108	10MF 50V Vertical	C 3728-0
C109	10MF 50V Vertical	C 3728-0
C110	.0027MF 200V Film	C 3481-6
C111	470PF Mica	C 2511-1
C112	.001MF 200V Film	C 3480-8
C113	.01MF Disc	C 1751-4
C114	200PF Mica	C 3411-3
C117	47PF Mica	C 3409-7
C200	100PF Mica	C 3410-5
C201	.001MF 200V Film	C 3480-8
C202	200PF Mica	C 3411-3
C203	200PF Mica	C 3411-3
C204	47PF Mica	C 3409-7
C205	120PF Mica	C 3290-1
C206	100PF Mica	C 3410-5
C207	200PF Mica	C 3411-3
C208	10MF 50V Vertical	C 3728-0
C209	10MF 50V Vertical	C 3728-0
C210	.0027MF 200V Film	C 3481-6
C211	470PF Mica	C 2511-1
C212	.001MF 200V Film	C 3480-8

## D-150 MAIN MODULE Q41603J3 (cont'd)

<u>LOCATION #</u>	<u>DESCRIPTION</u>	<u>PART #</u>
<i>CAPACITORS (cont.)</i>		
C213	.01MF Disc	C 1751-4
C214	200PF Mica	C 3411-3
C217	47PF Mica	C 3409-7
<i>DIODES</i>		
D1	1N4004	C 2851-1
D2	1N4004	C 2851-1
D3	1N961B 10V Zener	C 3549-0
D4	1N961B 10V Zener	C 3549-0
D5	1N961B 10V Zener	C 3549-0
D100	1N4148	C 3181-2
D101	1N4148	C 3181-2
D102	1N4004	C 2851-1
D103	1N4148	C 3181-2
D104	1N4148	C 3181-2
D105	1N4148	C 3181-2
D106	1N4004	C 2851-1
D107	1N270	D 6212-1
D200	1N4148	C 3181-2
D201	1N4148	C 3181-2
D202	1N4004	C 2851-1
D203	1N4148	C 3181-2
D204	1N4148	C 3181-2
D205	1N4148	C 3181-2
D206	1N4004	C 2851-1
D207	1N270	D 6212-1
<i>INTEGRATED CIRCUITS</i>		
IC1	UA739PC	C 3231-5
L100	.5 Microhenry Coil	C 3510-2
L200	.5 Microhenry Coil	C 3510-2
<i>RESISTORS</i>		
R2	2.2K ohm .5W 5%	C 1036-0
R3	1.5K ohm 2W 10%	C 3303-2
R5	8.2K ohm .25W 5%	C 2877-6
R8	1.5K ohm 2W 10%	C 3303-2
R9	1 ohm .5W 5%	C 3612-6