Column 1 (top-left)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
C 27	24G208	Cap, Disc, 150 pF, 500 V, 10%,
C 28	24G499	Cap, Disc, .05 uF, 1 kV
C 29	24G256	Cap, Lytic, 20 uF, 400 V, +100/-0%
C 30-34	24G344	Cap, Poly, 47 pF, 160 V, 10%
C 35, 36	24G377	Cap, Poly, 30 pF, 630 V, 2.5%
CR 1-3, 5-10, 18, 19	50C5-2:A	Diode, Sil 75 V, 4148
CR 11, 12	50G17	Diode, Hot, 50V, 10 mA, 501
CR 13-17	50G13-2	Diode, Pin, 110 V, 100mA, 5767
FL 1	33G304	Filter, Bandpass, 88-108 MHz
IC 1	69G29	IC, Reg, +5V, 100 mA, 78L05
IC 6	69G189	IC, Op-Amp, Dual, Bifet, TL082
IC 7-9	69G235	IC, Microwave, 10 dB, MSA0304
IC 10	69G234	IC, Microwave, 12 dB, MSA0204
IC 12	69G195	IC, Reg, Adj, 1.5A, LM2931
IC 13	69G116	IC, Reg, -5V, 100 mA, 79L05
L 1-4	46G83	Inductor, Rad, .33 uH, 1000 mA, 10%
L 12	46G111	Inductor, Axial, 1 uH, 10%
L 18, 19	46G96	Inductor, Axial, 10 uH, 10%
L 5	46G99	Inductor, Rad, .68 uH, 1000 mA, 10%
L 6	46G103	Inductor, Axial, 100 uH, 84 mA, 10%
L 7, 8	46G169	Inductor, Axial, .18 uH, 10%
L 9, 10	46G168	Inductor, Axial, .22 uH, 10%
L 11	33G281	Mixer, SBL-1
L 13-16	41G18	Relay, Reed, 12 V, DPDT,
L 17	41G27	Relay, Reed, 12 V, DPST
R 21	15C26-15	Pot, MVPC Cerm, 1 K, 1/2 W, 20%
R 46	15C26-3	Pot, MVPC Cerm, 500, 1/2 W, 20%
TR 1-6	19A33-1	Trans, NPN, 2N3904
TR 7	19A34-1	Trans, PNP, 2N3906

AM Board (4000 BOARD)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
C 1- 5, 8, 9, 91, 93	24G382	Cap, Rlytic, 10 uF, 16 V, 20%
C 7	24G382	Cap, Rlytic, 10 uF, 16 V, 20%
C 10- 23	24G483	Cap, Mylar, .01 uF, 50V, 5%
C 22, 57, 58, 87, 88	24G482	Cap, Mylar, .1 uF, 50 V, 5%
C 32-37, 80, 81	24G407	Cap, Rlytic, 47 uF, 25 V, +50/-10%
C 39-43	24G442	Cap, Rlytic, 100 uF, 16 V, +50/-10%
C 44-46	24G368	Cap, Disc, .001 uF, 100 V, 10%
C 47-49	24G384	Cap, Lytic, 2.2 uF, 50 V, 20%
C 50	24G314	Cap, Disc, 15 pF, 500 V, 5%, NPO
C 51-54	24G22	Cap, Disc, 330 pF, 1000 V, 10%
C 55	24G49	Cap, Disc, 390 pF, 600 V, 10%
C 62, 69	24G77	Cap, Disc, 20 pF, 500 V, 5%, NPO
C 65	24G75	Cap, Disc, 27 pF, 500 V, 5%, NPO
C 66	24G362	Cap, Trimmer, 2-10 pF, 100 V
C 67	24G353	Cap, Disc, 220 pF, 50 V, 20%, NPO
C 70	24G483	Cap, Mylar, .01 uF, 50 V, 5%
C 71, 72	24G368	Cap, Disc, .001 uF, 100 V, 10%

Column 2 (top-middle)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
C 73	24G162	Cap, Disc, 62 pF, 500 V
C 74	24G349	Cap, Poly, 510 pF, 160 V, 5%
C 75	24G87	Cap, Mylar, .0022 uF, 50 V, 5%
C 76-79	24G231	Cap, Poly, 750 pF, 33 V, 5%
C 84, 85	24G83	Cap, Disc, 33 pF, 500 V
C 86	24G290	Cap, Disc, 39 pF, 500 V
C 89, 90	24G86	Cap, Disc, 10 pF, 500 V
CR 1	50C5-2:A	Diode, Sil, 75 V, 4148
CR 2	50C12-1	Diode, Zener, 6.2 V, 5%, 825
FL 1	33G270	Filter, 4.5 MHz Trap
FL 2	33G289	Filter, Bandpass, 5.5 MHz
IC 1-5	69G144	IC, Bal-Modltor, MC1496
IC 6	69G116	IC, Reg, -5V, 100 mA, 79L05
IC 7	69G263	IC, Prescaler, CA3232E
IC 8	69G130	IC, D/A, 8-Bit, DAC-0802
IC 9	69G46	IC, Op-Amp, Quad, Bifet, TL084
IC 10	69G29	IC, Reg, +5V, 100 mA, 78L05
IC 11	69G244	IC, CMOS, Quad 2 In Nor, 74HC02
IC 12	69G42	IC, Counter, Decade, 74LS90
IC 13	69G246	IC, CMOS, Flip-Flop, 74HC74
IC 14	69G195	IC, Reg, Adj, 1.5A, LM2931
IC 15	69G382	IC, High Speed Latch Comparator
L 1	46G103	Inductor, Axial, 100 uH, 10%
L 2	46G54	Inductor, Trimmer, 260 uH
L 3	46G9	Inductor, Axial, 10000 uH, 10%
L 7	46G119	Inductor, Axial, 15 uH, 10%
L 8, 9	46G96	Inductor, Axial, 10 uH, 10%
L 10, 11	46G140	Inductor, Axial, 1.5 uH, 10%
L 12	46G111	Inductor, Adj, 70 uH
L 13	46G198	Inductor, Adj, 1100 uH
L 14-17	46G195	Inductor, Axial, 68 uH
L 18-21	46G196	Inductor, Axial, 120 uH
L 22, 23	46G197	Inductor, Axial, 220 uH
R 58-60	15A34-2	Pot, 10 K
R 86	15C26-20	Pot, MVPC Cerm, 5 K, 1/2 W, 20%
R 110, 111	15A34-1	Pot, 5 K
R 1, 2	14A38-3923A	Res, Met.F, 3.92 K, 1/4 W, 1%
R 3, 4	14A38-2403A	Res, Met.F, 2.4 K, 1/4 W, 1%
R 5	14A38-2003A	Res, Met.F, 2 K, 1/4 W, 1%
R 6, 49	14A38-1603A	Res, Met.F, 1.6 K, 1/4 W, 1%
R 47, 48	14A38-4703A	Res, Met.F, 4.7K, 1/4 W, 1%
R 69	14A38-1003A	Res, Met.F, 1 K, 1/4 W, 1%
R 70, 71	14A38-1004A	Res, Met.F, 10 K, 1/4 W, 1%
R 75	14A38-4702A	Res, Met.F, 470 1/4 W, 1%
R 87	14A38-3653A	Res, Met.F, 3.65 K, 1/4 W, 1%
TR 1, 3, 4, 9, 10	19A33-1	Trans, NPN, 40 V, 2N3904
TR 5, 6, 8	19A34-1	Trans, PNP, 40 V, 2N3906
TR 7	19A44	Trans, NPN, 40 V, 2N4401

Column 3 (top-right)

PLL Board (5000 BOARD)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
C 1	24G464	Cap, Disc, 120 pF, 500 V, 5%, NPO
C 2	24G496	Cap, Mylar, .47 uF, 50 V, 10%
C 3	24G42	Cap, Disc., .005 uF, 500 V, +80/-20%
C 4, 23, 156	24G483	Cap, Mylar, .01 uF, 50 V, 5%
C 5, 6, 9, 11, 14, 16, 129, 131, 136, 150, 153, 157	24G368	Cap, Disc, .001 uF, 100 V, 10%
C 7	24G49	Cap, Disc, 3390 pF, 600 V, 10%
C 8, 27, 33, 40, 51, 58	24G77	Cap, Disc, 20 pF, 500 V, 5%, NPO
C 10, 12, 13, 15, 18, 19, 31, 32, 34, 52, 143, 149, 154, 161	24G482	Cap, Mylar, .1 uF, 50V, 5%
C 17, 142	24G410	Cap, Rlytic, 220 uF, 25 V, +50/-10%
C 20	24G474	Cap, Trim, 5.1-50 pF, 250 V
C 21	24G113	Cap, Disc, 270 pF, 500 V, 10%
C 22, 42, 59-62, 76, 87, 89, 97, 98, 101, 112, 122, 123, 158, 159	24G382	Cap, Rlytic, 10 uF, 16 V, 20%
C 24	24G75	Cap, Disc, 27 pF, 500 V, 5% NPO
C 25, 46	24G452	Cap, Disc, 8.2 pF, 100 V, 5%, NPO
C 28, 41, 44, 75	24G450	Cap, Rlytic, 1 uF, 50 V, 20%
C 29, 30, 43	24G317	Cap, Disc, 36 pF, 500 V, 5%, NPO
C 30, 35, 39, 53, 57, 160	24G82	Cap, Disc, 100 pF, 500 V, 20%, NPO
C 36, 38, 54, 56	25G290	Cap, Disc, 39 pF, 500 V, 10%, NPO
C 37, 55	24G71	Cap, Disc, 130 pF, 500 V, 10% NPO
C 45	24G324	Cap, Disc, 12 pF, 500 V, 5%, NPO
C 47-49	24G290	Cap, Disc, 39 pF, 500 V, 10%, NPO
C 50	24G482	Cap, Mylar, .1 uF, 50 V
C 63-68, 71-73, 88, 103, 111, 124, 130, 137-139, 141, 149	24G442	Cap, Rlytic, 100 uF, 16 V, +50/-10%
C 69, 70, 74	24G437	Cap, Rlytic, 470 uF, 25 V, +100/-20%
C 77-81, 90, 104, 113, 125	24G465	Cap, Chip, .01 uF, 50 V, 10%
C 82	24G439	Cap, Chip, 8.2 pF, 50 V, 10%
C 83, 107	24G507	Cap, Chip, 27 pF, 50 V, 10%, NPO
C 84, 95, 96, 99, 108, 119120144	24G438	Cap, Chip, 10 pF, 50 V, 10%, NPO
C 85, 92, 101, 115, 128	24G494	Cap, Chip, 100 pF, 50 V, 10%, NPO
C 86, 100, 109, 121	24G508	Cap, Chip, 36 pF, 50 V, 10%, NPO
C 93, 105, 116, 127, 134, 135155	24G419	Cap, Chip, .001 uF, 50 V, 20%
C 94	24G516	Cap, Chip, 30 pF, 50 V, 10%, NPO
C 106	24G521	Cap, Chip, 39 pF, 5%, 50 V, NPO
C 117	24G522	Cap, Chip, 25 pF, 5%, 50 V, NPO
C 118	24G515	Cap, Chip, 20 pF, 50 V, 10%, NPO
C 133	24G368	Cap, Disc, .001 uF, 100 V, 10%
CR 1-6, 9-11, 17, 21-28	50C5-2:A	Diode, Sil, 75 V, 4148
CR 12-16, 18-20	50G18	Diode, Vari, 30 V, 20 pF, 10%, MV209
IC 1	69G267	IC, Gate, Quad 2-Input, 74 HC00
IC 2	69G46	IC, Op-Amp, Quad, Bifet, TL084
IC 3, 11-14	69G63	IC, Op-Amp, Single, Bifet, TL081

Column 1 (bottom-left)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
IC 4	69G95	IC, Dig, TTL, Quad Nand, 74LS26
IC 5, 6, 15, 44	69G233	IC, Microwave, 19 dB, MSA0104
IC 7, 8, 27	69G345	IC, Prescaler, 200 MHz, Dual Mod
IC 9, 10, 28	69G224	IC, PLL, Dual, 145156
IC 16	69G234	IC, Microwave, 12 dB, MSA0204
IC 17, 35-38	69G195	IC, Reg., Adj., 1.5A, LM2931
IC 18	69G135	IC, Reg, +12 V, 500 mA, 78M12
IC 19, 23, 26	69G29	IC, Reg, +5V, 100 mA, 78L05
IC 20, 24, 25, 39-42	69G147	IC, Reg, +8 V, 100 mA, 78L08, TTL
IC 21, 22	69G116	IC, Reg, -5V, 100 mA, 69L05
IC 29, 30, 31, 32	69G312	IC, MSA0185, Wideband Amp
IC 33, 43, 45	69G235	IC, Microwave, 10 dB, MSA0304
IC 34	69G65-B	IC, Switch, 1x8, 4051B
IC 46	69G172	IC, Res, Net, 5X10K, 6 Pin
L 1, 3, 14, 16, 18, 20	46G119	Inductor, Axial, 15 uH, 10%
L 2	26G177	Inductor, Adj. .509 uH NOM
L 4, 5, 10, 11	46G163	Inductor, Wireform, 250 nH
L 6, 7, 12, 13	46A26:B	Inductor, Axial, .17 uH, 5%
L 8, 24	46G103	Inductor, Axial, 100 uH, 10%
L 9	46G171	Inductor, Adj., .322 uH (NOM)
L 15	46G172	Inductor, Adj. .986 uH (NOM)
L 17	46G173	Inductor, Adj., .086 uH (NOM)
L 19, 21	46G174	Inductor, Adj., .0595 uH (NOM)
L 23	41G18	Relay, Reed, 12 V, DPDT
R 146	15C26-10	Pot, MVPC Cerm, 20 K, 1/2 W, 20%
R 19	15C26-24	Pot, MHPC Cerm, 10 K, 1/2 W, 20%
R 42, 48	15A36-1	Pot, VPC 20T Cerm., 1 K, 10%
R 45	15C26-15	Pot, MVPC Cerm, 1 K, 1/2 W, 20%
R 59	15C26-20	Pot, MVPC Cerm, 5 K, 1/2 W, 20%
R 30, 81	14G93-162	Res, Chip, 1.6K, 1/8 W, 5%
R 43	14A38-5113A	Res, Met.F, 5.11 K, 1/4 W, 1%
R 78	14G93-201	Res, Chip, 200, 1/8 W, 5%
R 79	14G93-821	Res, Chip, 820 0hm, 1/8 W, 5%
R 82, 90, 98, 106, 113	14G93-102	Res, Chip, 1 K, 1/8 W, 5%
R 83, 91, 99, 107	14G93-333	Res, Chip, 33 K, 1/8 W, 5%
R 84, 92, 100, 108	14G93-183	Res, Chip, 18 K, 1/8 W, 5%
R 85, 87	14G93-272	Res, Chip, 2.7 K, 1/8 W, 5%
R 86, 95, 101, 109	14G93-101	Res, Chip, 100, 1/8 W, 5%
R 89, 97, 104, 112	14G93-271	Res, Chip, 270 Ohm, 1/8 W, 5%
R 93, 103, 111	14G93-331	Res, Chip, 330, 1/8 W, 5%
R 96, 102, 110	14G93-152	Res, Chip, 1.5 K, 1/8 W, 5%
T 1, 2	28A99	Transform, RF, Small Core Balun
TR 1, 2, 7-10	19G73	Trans, NPN, MRF904
TR 3, 5	19A33-1	Trans, NPN, 2N3904
TR 4	19A34-1	Trans, PNP, 2N3906
TR 11	19G70	Trans, N-Chnl, 2N700

Power Supply Board (6000 BOARD)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
T 1	28A112:C	Transformer, Power, SG80
C 2-9	24G424	Cap, Rlytic, 2200 uF, 25 V, +30/-10%
C 10, 11	24G556	Cap, Lytic, 10000 uF, 35 V

Column 2 (bottom-middle)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
CR 1-10	16G10	Diode, Sil, 400 V, 1 A, 1N4004
IC 1	69658	IC, Comp, LM311
L 1-5	46G92	Inductor, Wireform, 50 uH, 1.5 A

Attenuator Board (7000 BOARD)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
	24A254-2:A	Cap, FThru, .001 uF, 500 V, 20%
C 1	24G499	Cap, Disc, .05 uF, 1 kV
CR 1-5	50C5-2:A	Diode, Sil, 75 V, 4148
L 1-5	41G18	Relay, Reed, 12 V, DPDT
R 1-10	14G96-6191	Res, Chip, Melf, 60.9 Ohm, 1/4 W, 1%
R 11-15	14G96-1541	Res, Chip, Melf, 15.5 Ohm, 1/4 W, 1%

Display Board (8000 BOARD)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
C 1	24G483	Cap, Mylar., .01 uF, 50V, 5%
D 1, 2	23A88	LCD, 4 1/2 Digits, .1%
IC 1, 2	69G92	IC, LCD, Driver, 4332, CMOS
IC 3	69G3-B	IC, Gate, Nand, Quad, 4011B, CMOS
L 1-8	20G33	Lamp, Incand, 12 V @ 55 mA

Front Panel (9000 BOARD)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
C 1, 2	24G382	Cap, Rlytic, 10 uF, 16V, 20%
CR 1, 4-6	20G14	Lamp, LED, 2V, 10 mA, MV5054-1
CR 2, 3	50C5-2:A	Diode, Sil, 75V, 4148
IC 1	69G29	IC, Reg, +5V, 78L05
R 11, 13, 14	15B38	Pot, Vernier
R 16, 30	15A27-3	Pot, MHPC Plst, 1 K, 1/3 W, 20%
R 34, 45	15C26-18	Pot, MVPC Cerm, 2K, 1/2 W, 20%
SW 1, 2, 6, 7	25G358	Switch, rotary, 1 pole; 12 pos.
SW 3, 4	25G405	Switch, Pushbutton, 2 station
SW 5	25G404	Switch, Pushbutton, 1 station

Countdown Board (10,000 BOARD)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
C 1-8, 41	24G384	Cap, Lytic, 2.2 uF, 50 V, 20%
C 9-11, 15-19, 38, 39	24G483	Cap, Mylar, .01 uF, 50 V, 5%
C 20	24G195	Cap, Mylar, .022 uF, 250 V, 10%
C 21-23	24G382	Cap, Rlytic, 10 uF, 16 V, 20%
C 24, 25	24G487	Cap, Mylar, .0022 uF, 50 V, 5%
C 26, 29	24G447	Cap, Rlytic, 100 uF, 16 V, 20%
C 31, 32	24G496	Cap, Mylar, .47 uF, 50 V, 10%
C 36, 37	24G422	Cap, Rlytic, 100 uF, 100 V, +30/-10%
C 40	24G387	Cap, Trim, 2.5-18 pF
CR 1, 2, 4, 5	50C5-2:A	Diode, Sil, 75 V, 4148
CR 6	50G27	Diode, Vari-Cap, MVAM109
I 1, 2, 35	20G22	Lamp, Incand, 12 V, 30 mA
IC 1	69G267	IC, Gate, Quad 2 Input, 74HCD0

Column 3 (bottom-right)

SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
IC 2	69G224	IC, PLL, Dual, 145156
IC 3-6, 8	69G42	IC, Counter, Decade, 74LS90
IC 9	69G116	IC, Reg, -5V, 100 mA, 79L05
IC 10, 18	69G29	IC, Reg, +5V, 100 mA, 78L05
IC 13	69G328	IC, Op-Amp, NE5534, Lo Noise
IC 15	69G330	IC, Buffer, Pwr Amp, EL2003
IC 16	69G348	IC, Switched Capacitor Filter
IC 17	69G163	IC, Counter, 4 Bit, 74LS93
L 1	46G175	Inductor, Adj, 172 uH Nominal
R 57	15C26-24	Pot, MHPC Cerm, 10 K, 1/2 W, 20%
RT 1	33G262	MOV, 47 V, 10%
RT 3, 4	33G285	Thermistor, 100 Ohm, @ 25 Deg.C.
T 1	28A113	Transformer, 1:1, Lo Noise
TR 3	19A33-1	Trans, NPN, 2N3904
TR 4	19A34-1	Trans, PNP, 2N3906

Chassis Mounted Components

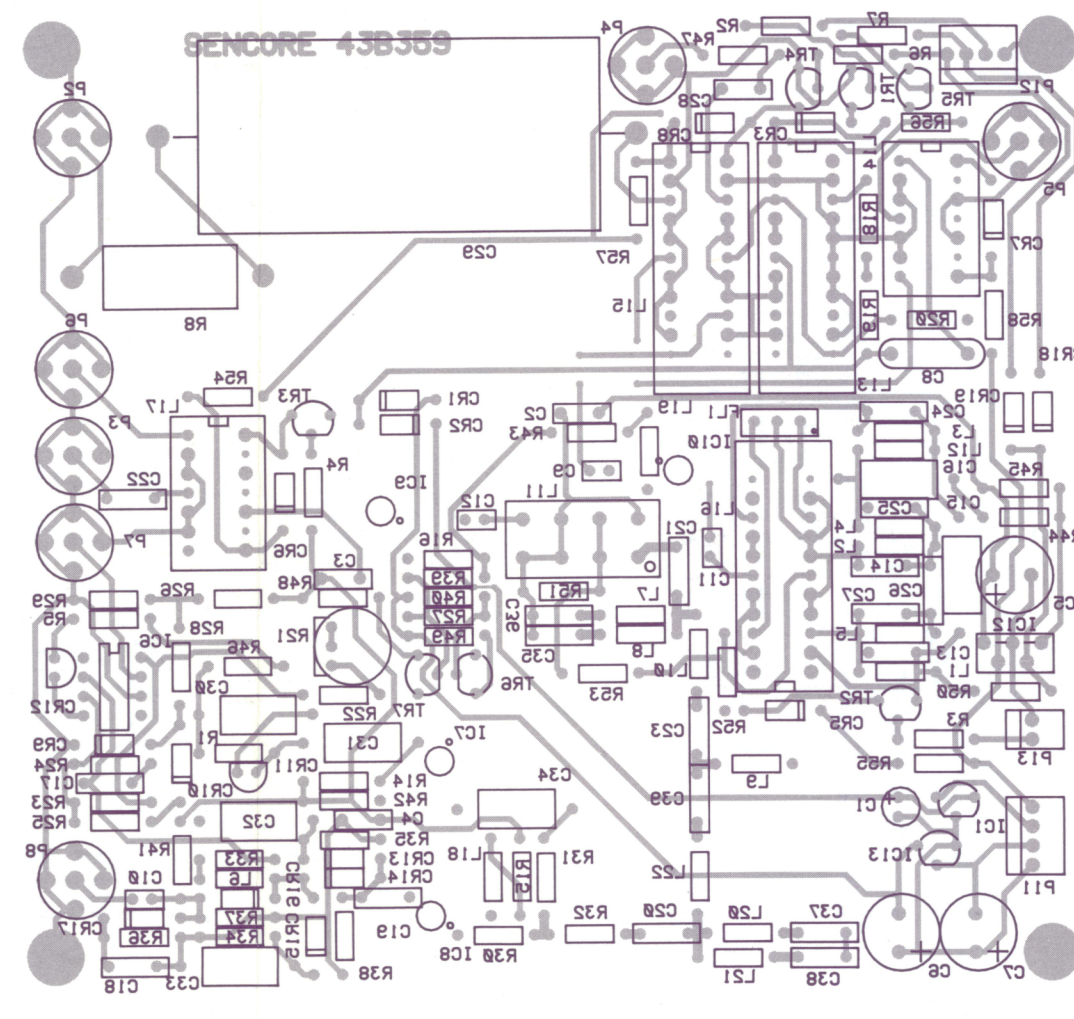| SCHEMATIC REFERENCE	PART NO.	DESCRIPTION
	25G403	Switch, Lighted Rocker, Gray
	44G20	Fuse, Slo-Blo 3AG, 1 Amp, 250 V
	8B387	Escutcheon, Front panel
	8B388	Escutcheon, Rear Panel
	256406	Rotary, Tuning, Push- Push

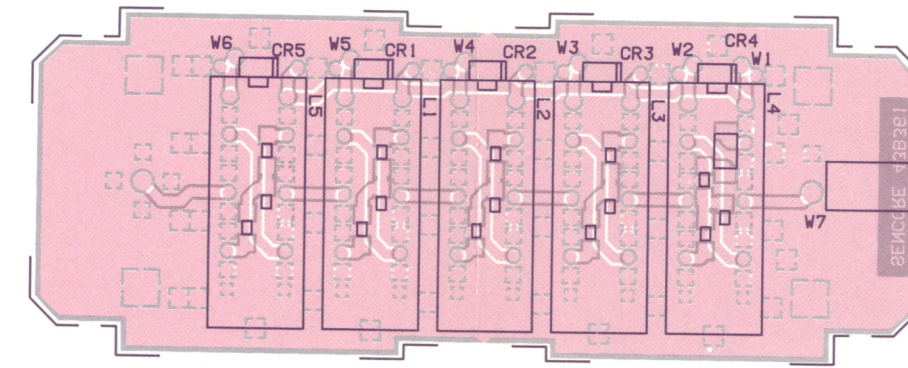**"1000" DIGITAL BOARD (Component View)**
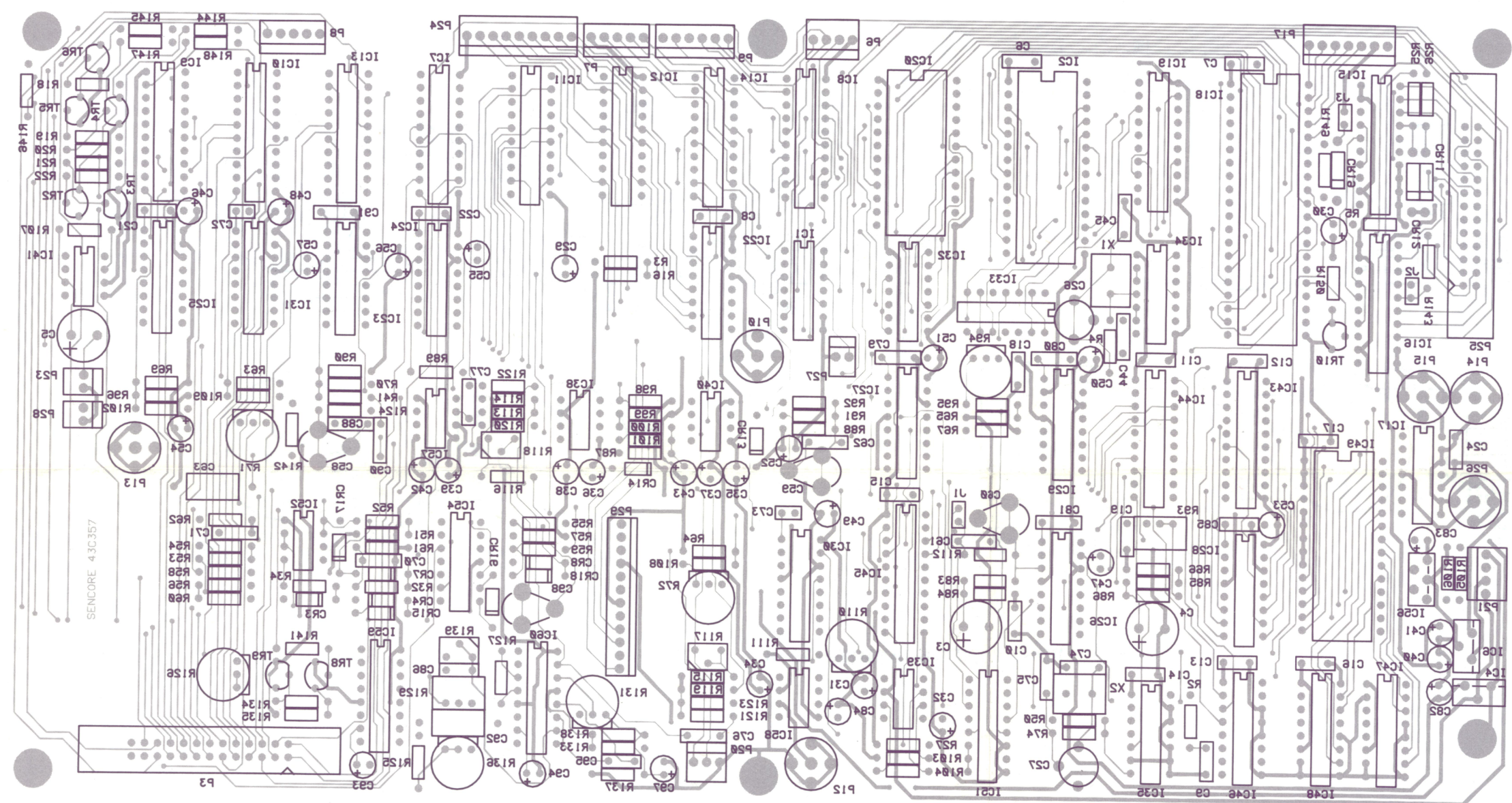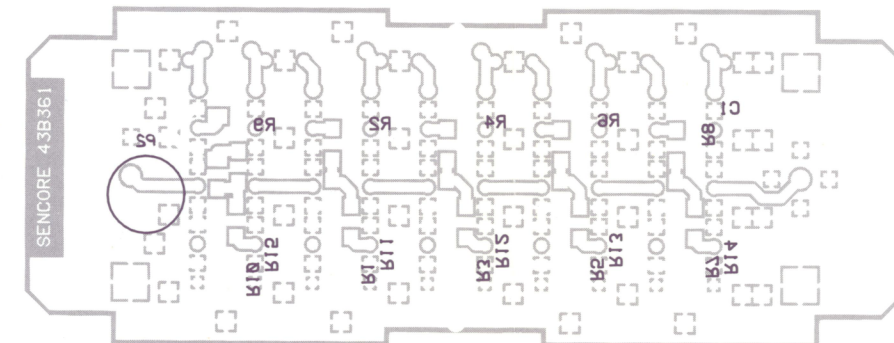
"1000" DIGITAL BOARD (Foil View)
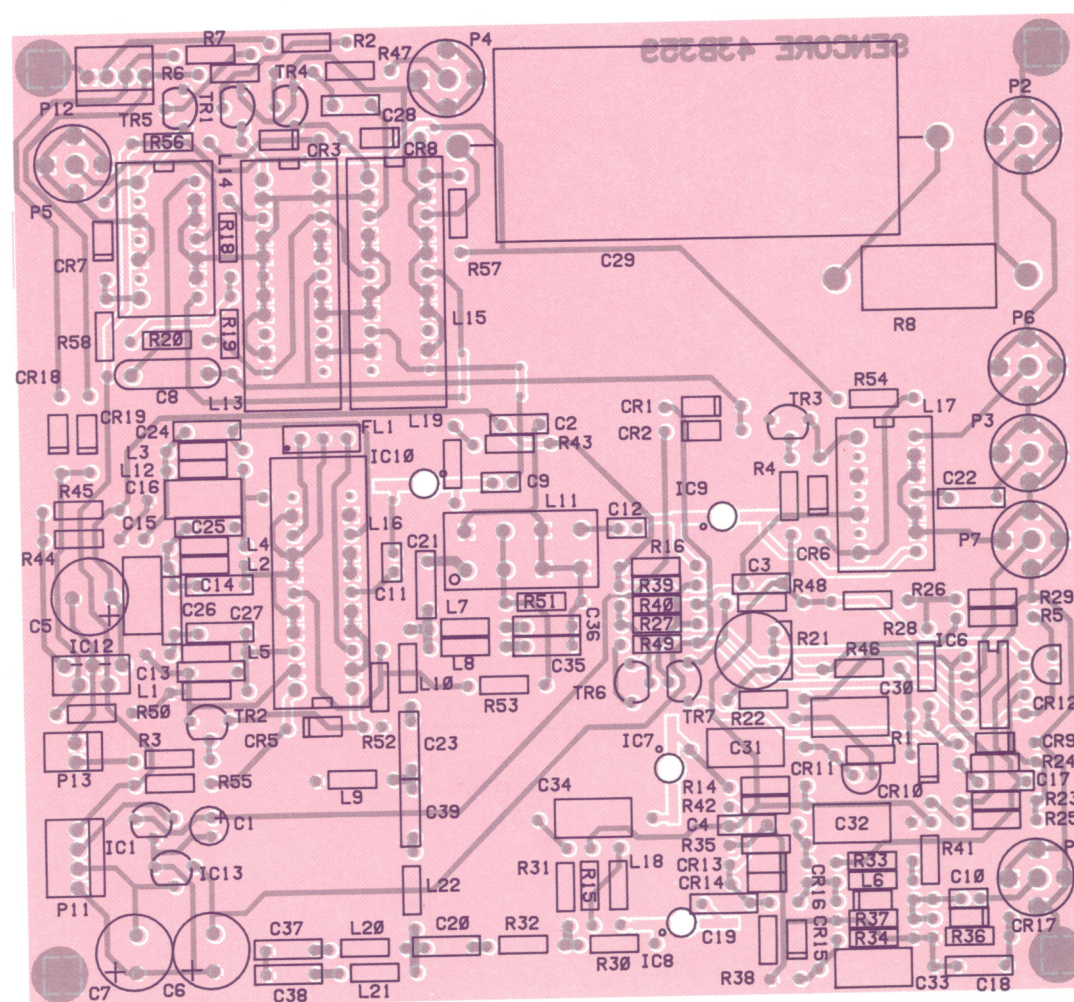
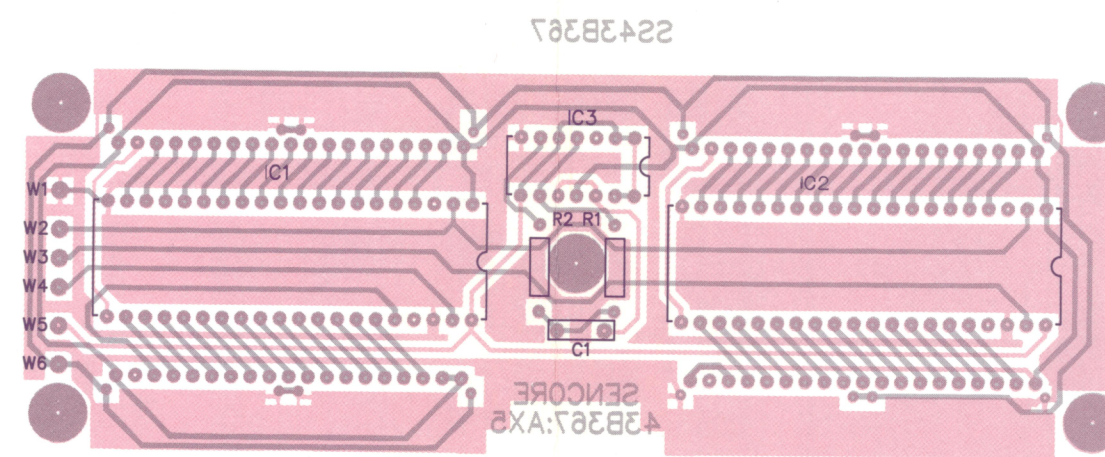**"3000" RF BOARD (Component View)**

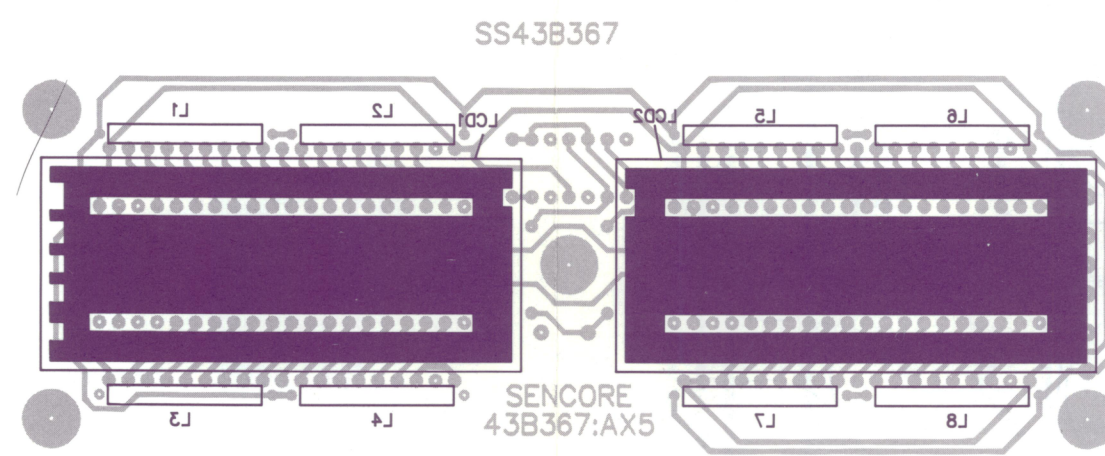**"3000" RF BOARD (Foil View)**
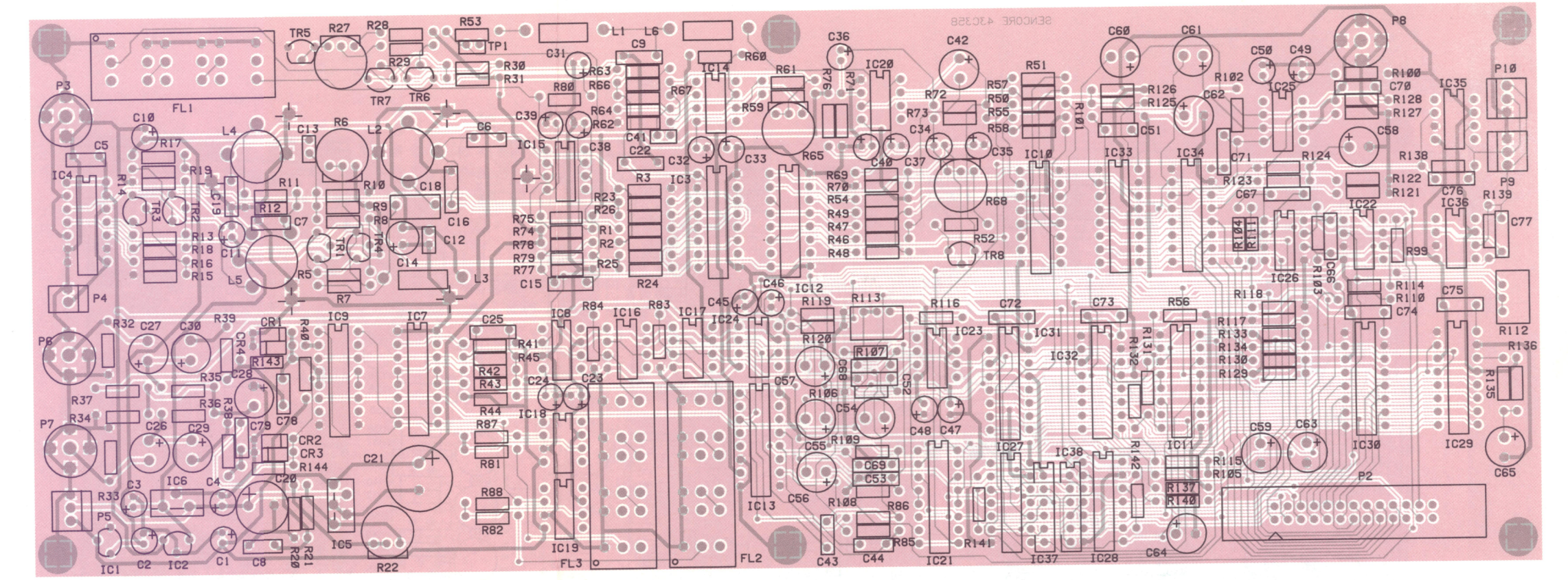
"7000" ATTENUATOR BOARD (Component View)

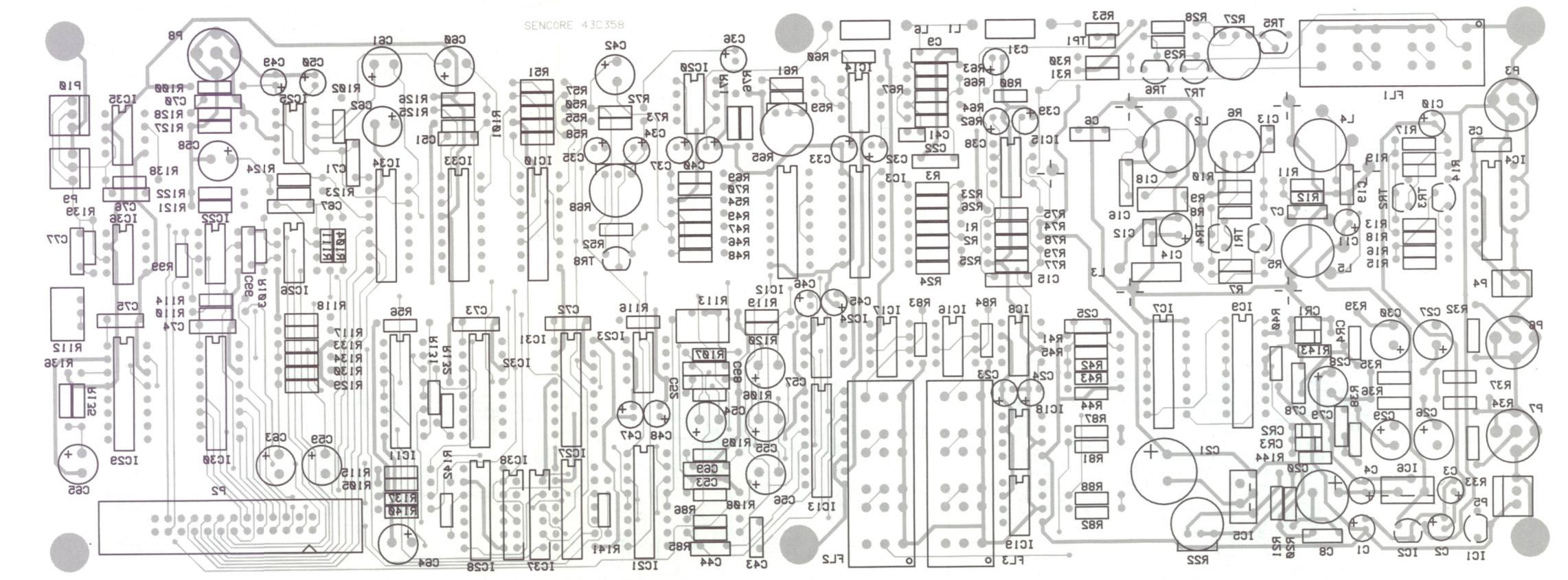**"7000" ATTENUATOR BOARD (Foil View)**

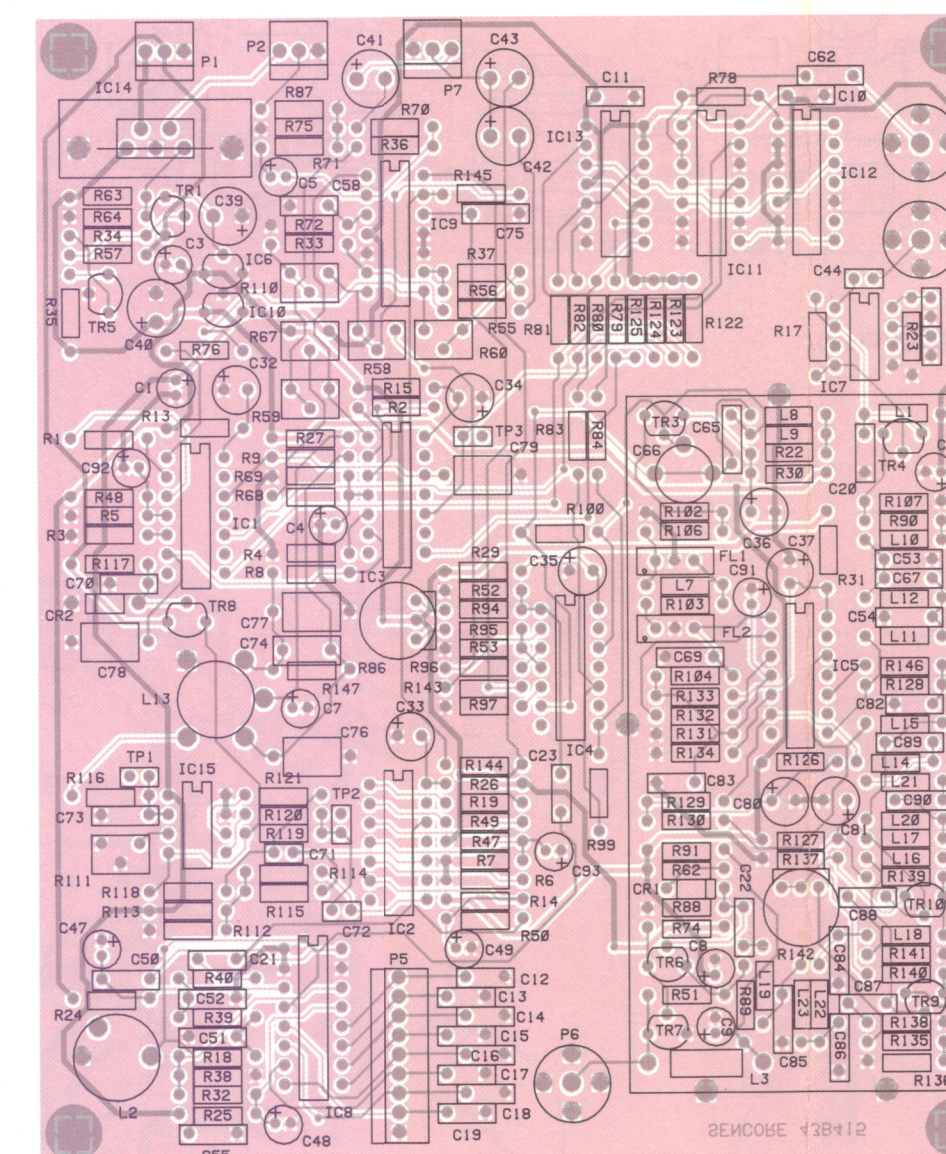**"8000" DISPLAY BOARD (Component View)**
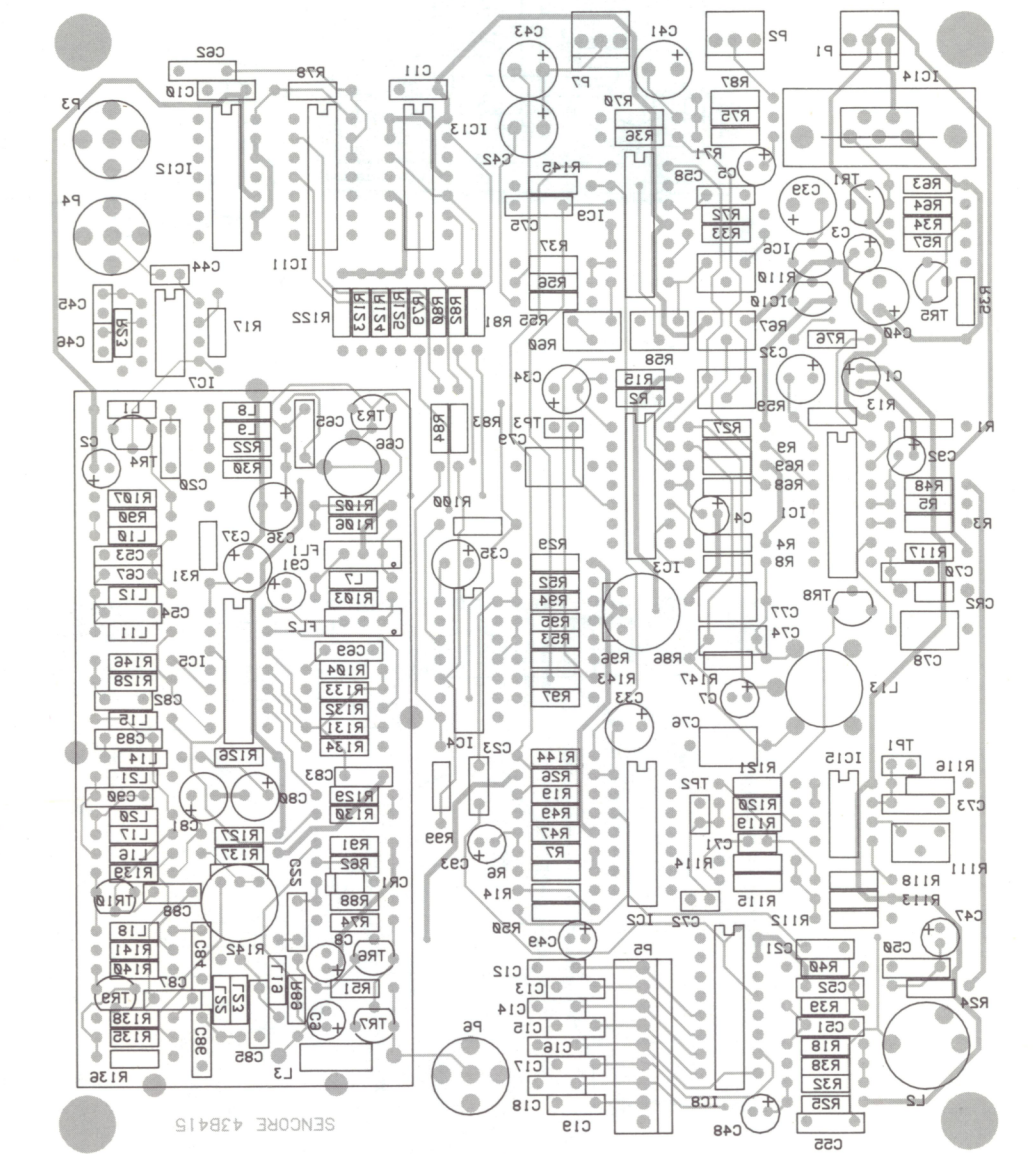
"8000" DISPLAY BOARD (Foil View)
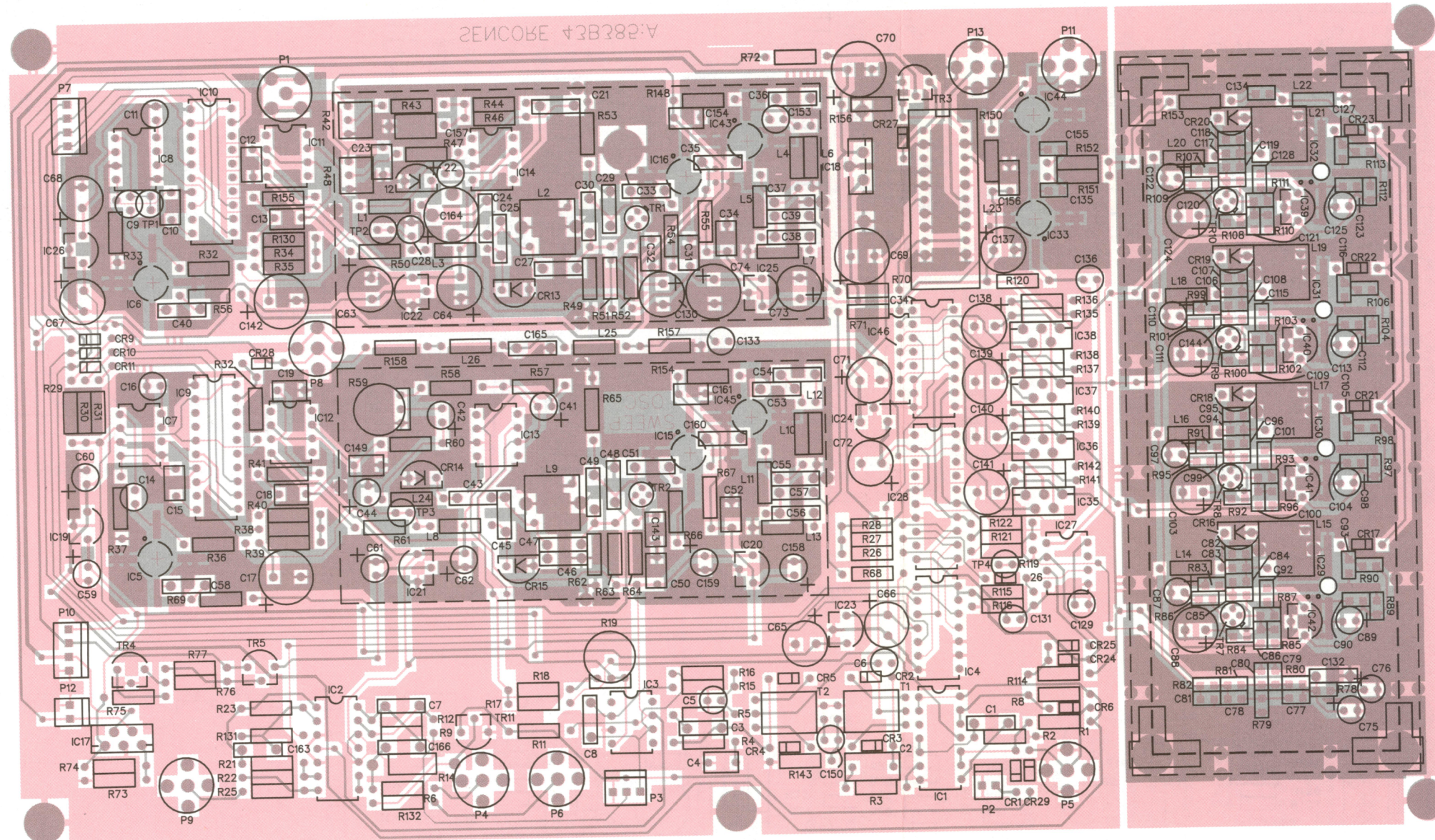
"2000" AUDIO BOARD (Component View)

"2000" AUDIO BOARD (Foil View)

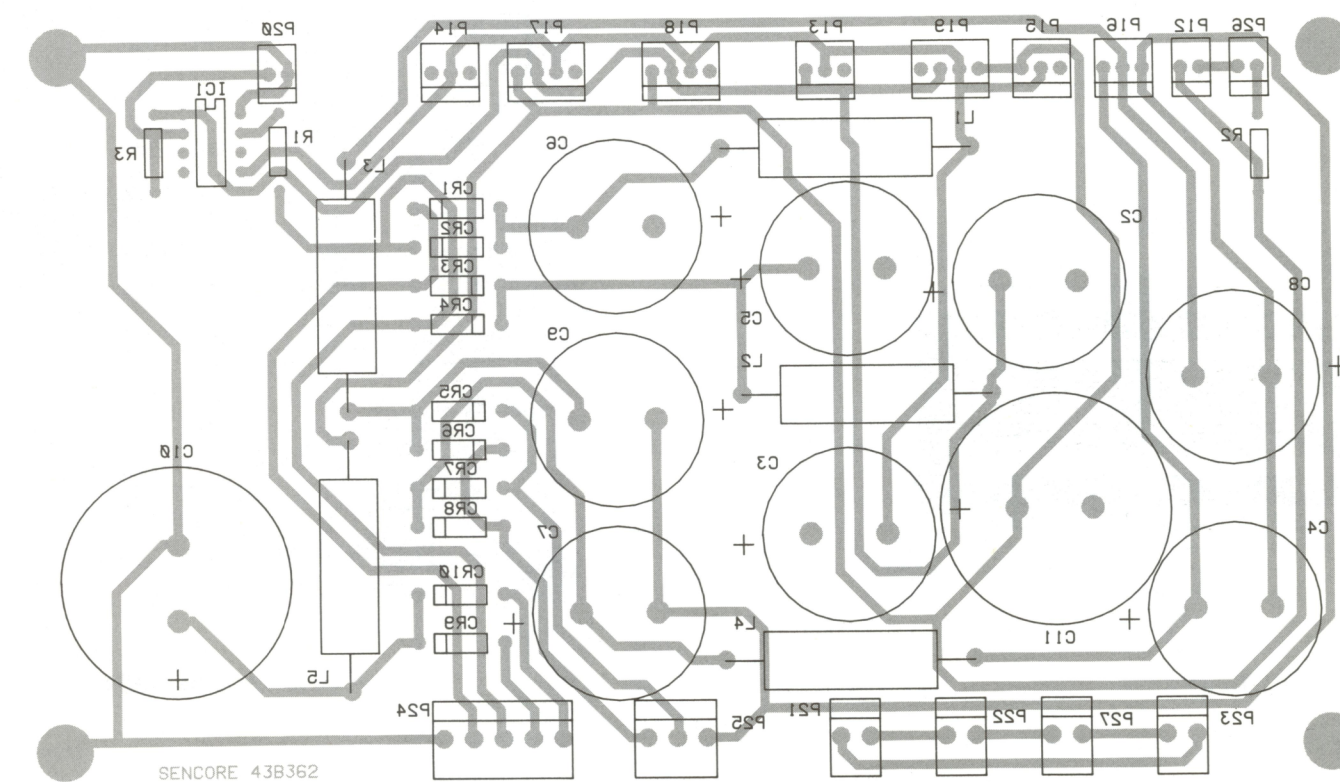**"4000" AM BOARD (Component View)**

"4000" AM BOARD (Foil View)

This sheet includes
PC board layouts.

SHEET 2

"5000" PLL BOARD (Component View)

"9000" FRONT PANEL BOARD (Component View)

"5000" PLL BOARD (Foil View)
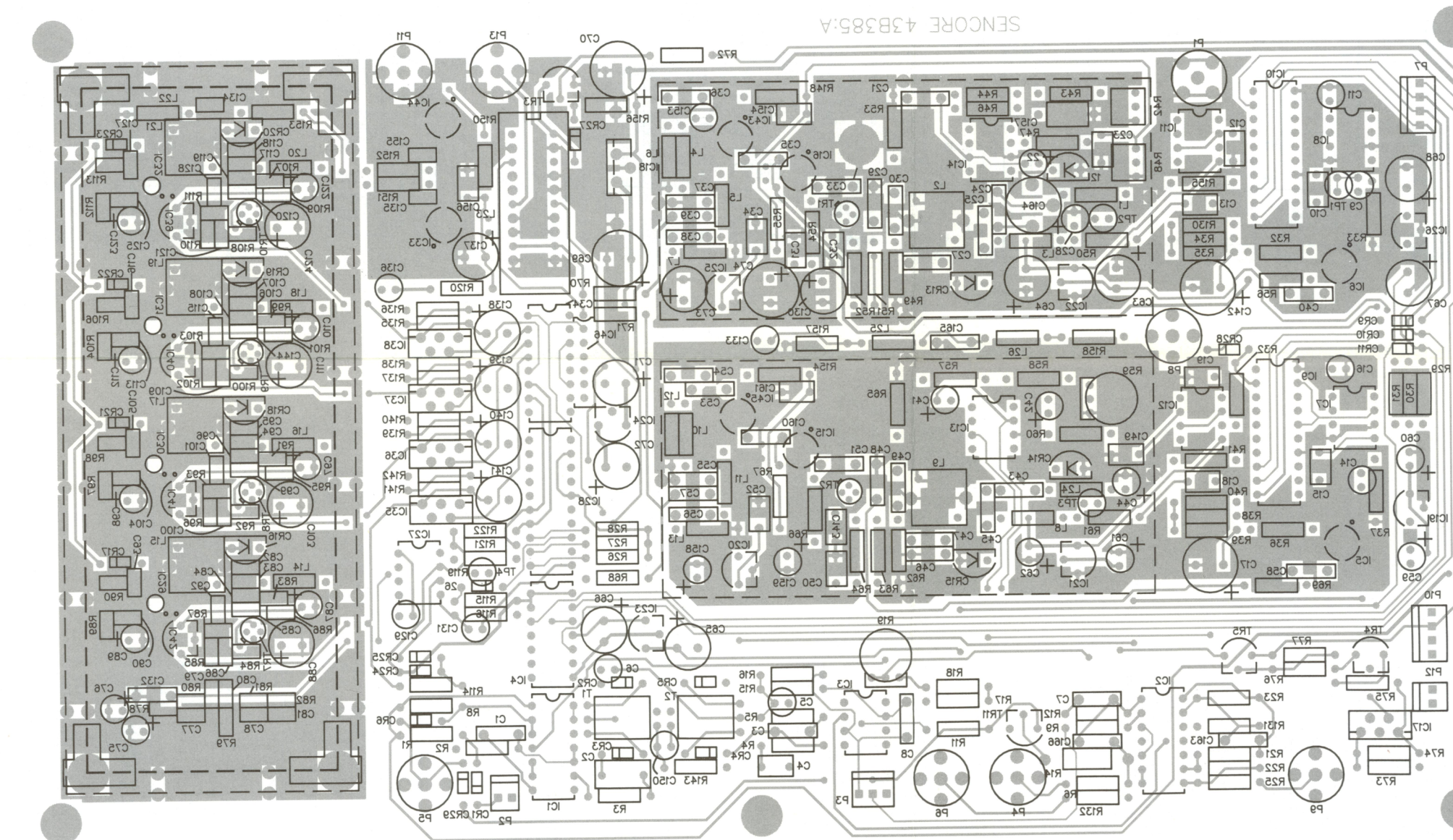
"9000" FRONT PANEL BOARD (Foil View)
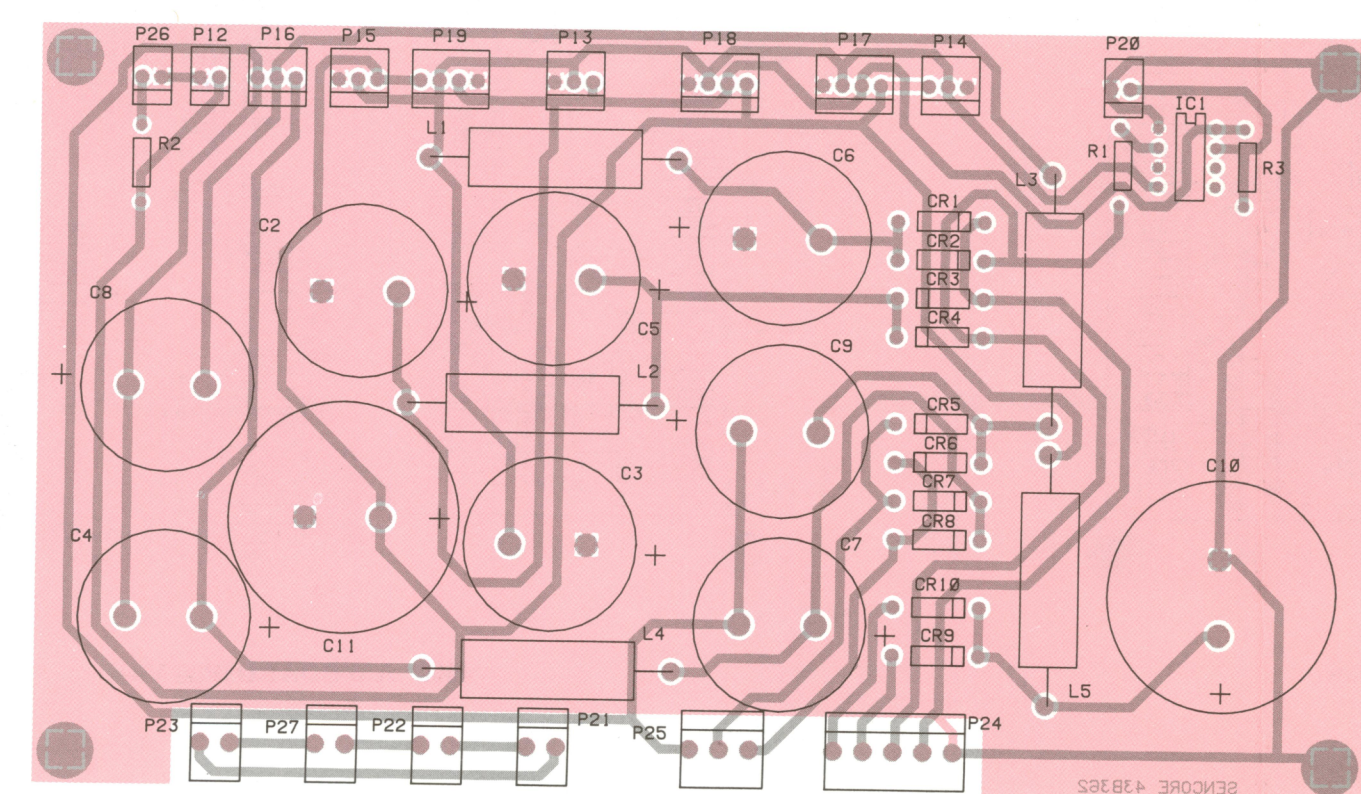
"6000" POWER SUPPLY BOARD (Component View)

"6000" POWER SUPPLY BOARD (Foil View)
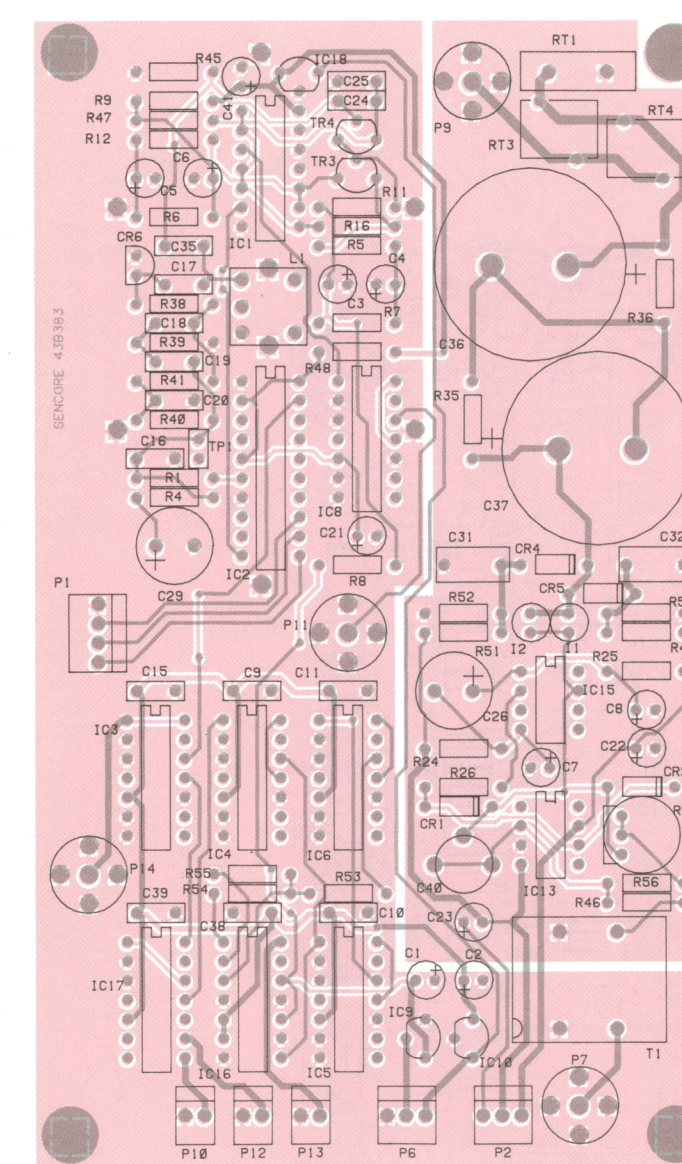
"10,000" COUNTDOWN BOARD (Component View)
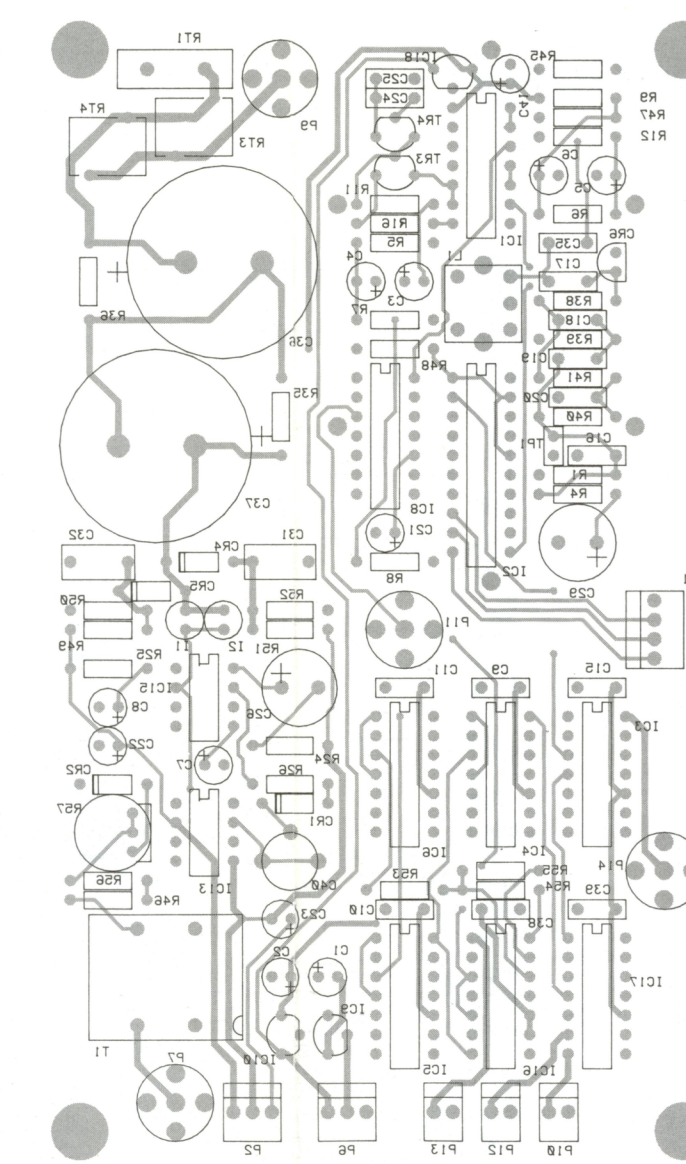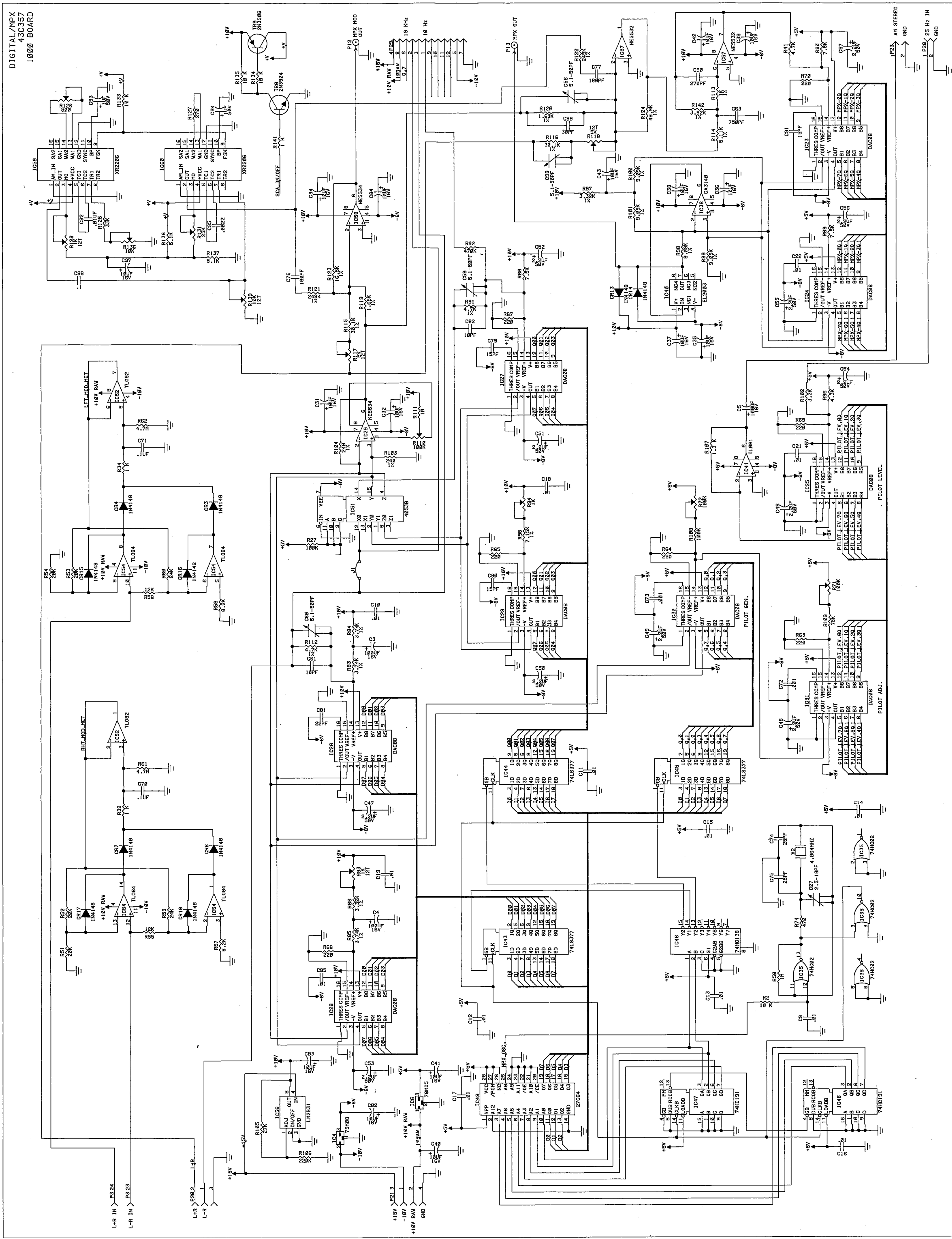
"10,000" COUNTDOWN BOARD (Foil View)
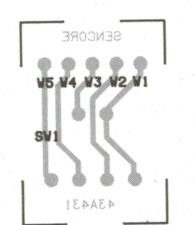
SWITCH BOARD (Component View)
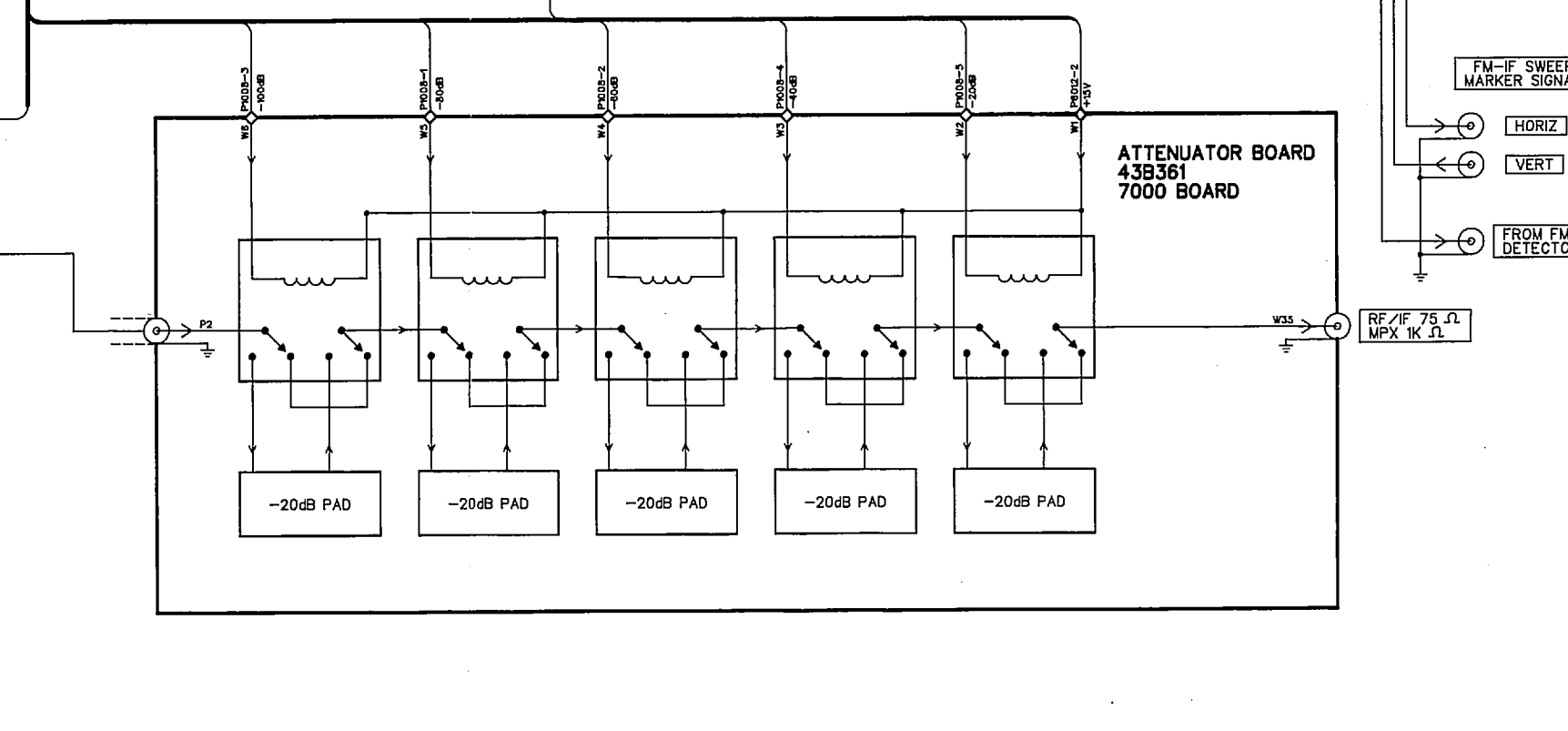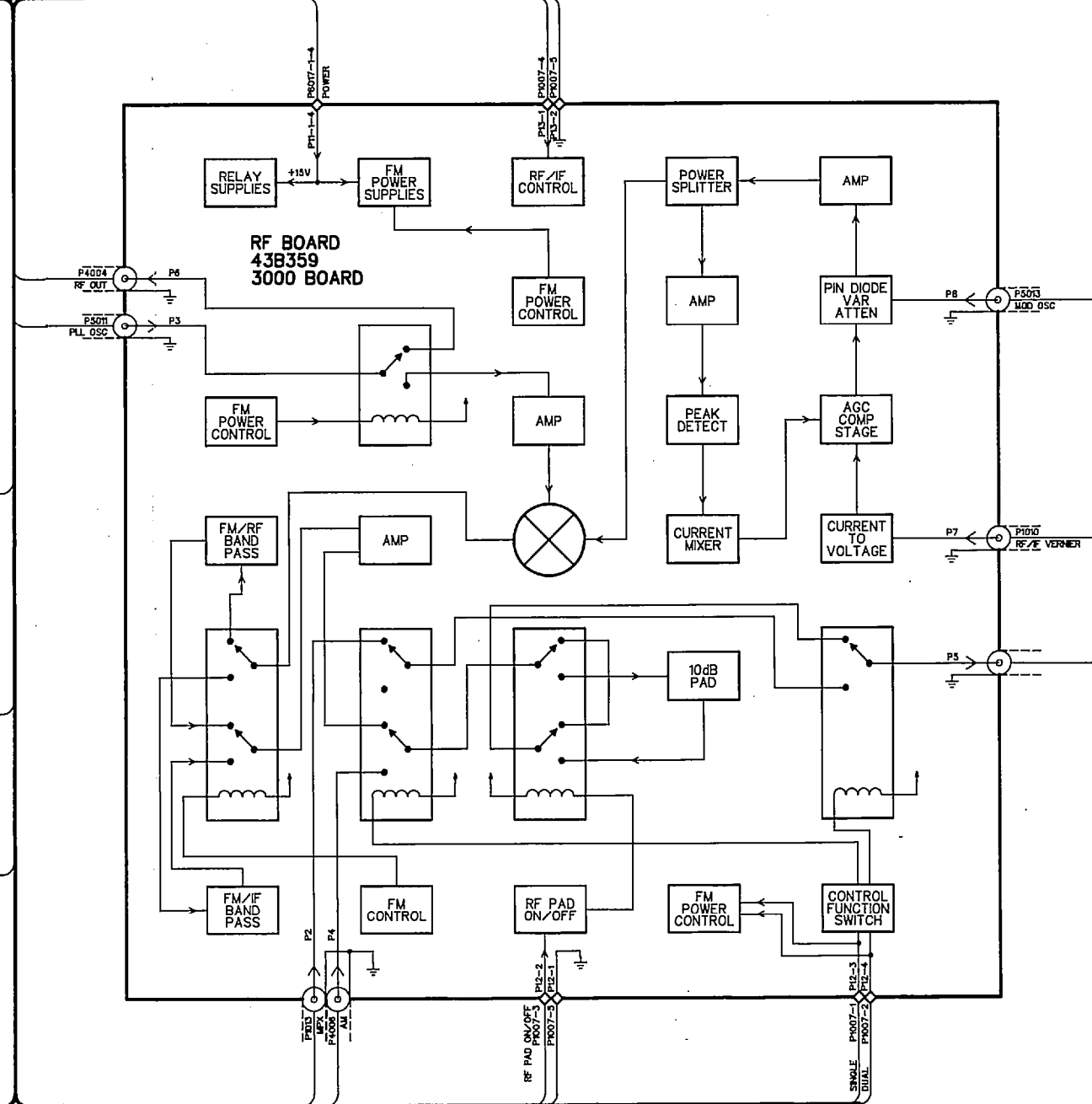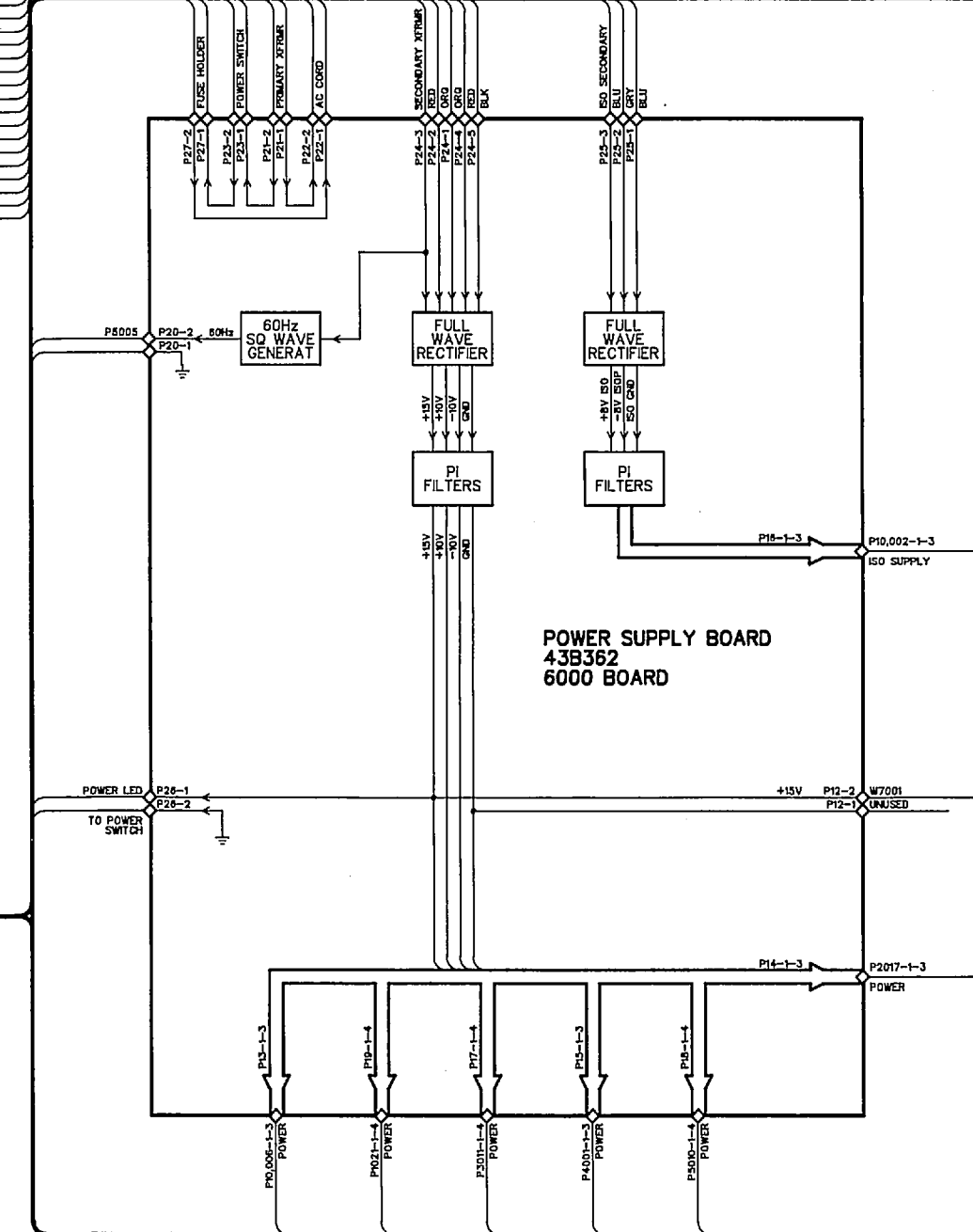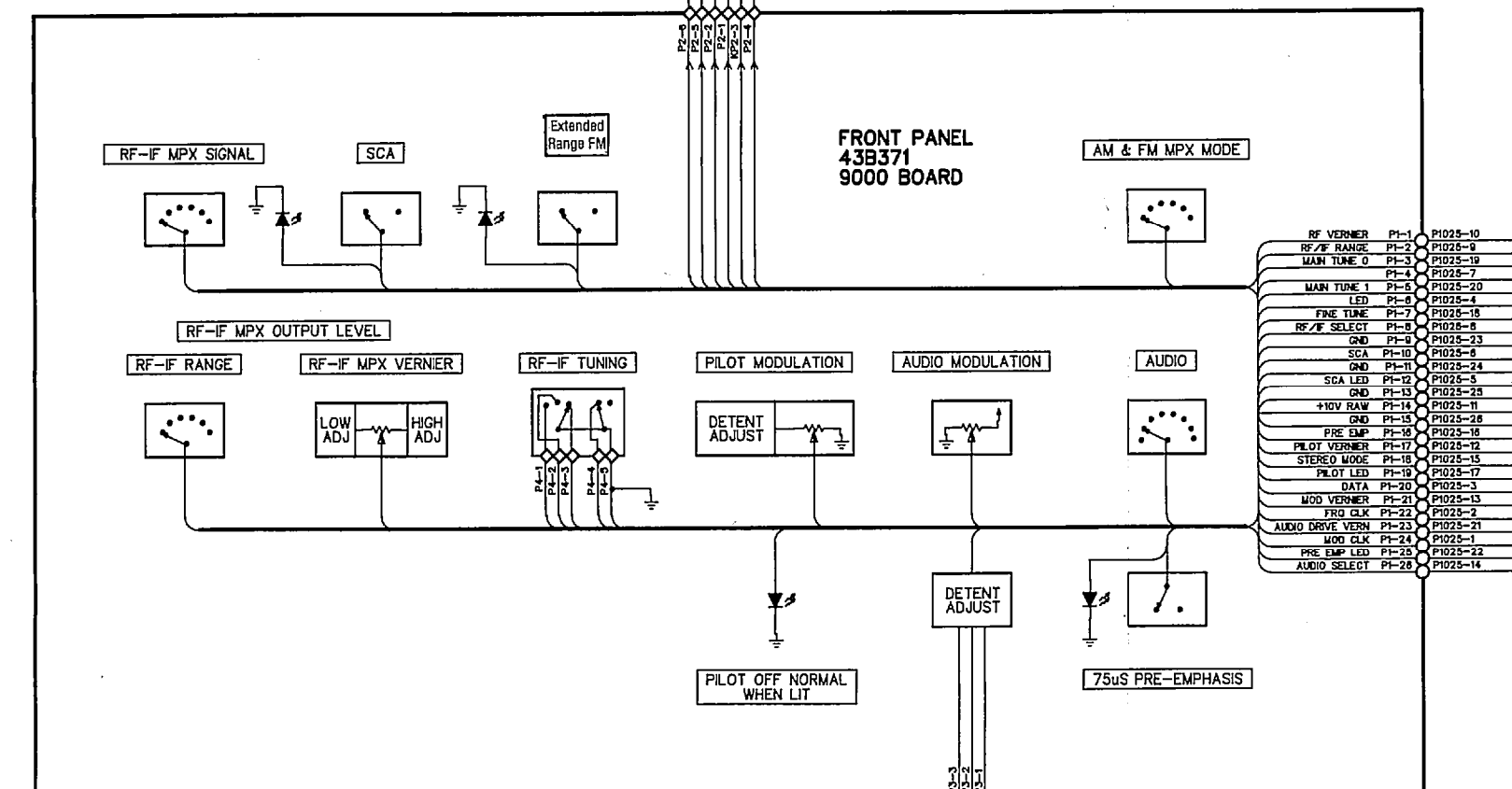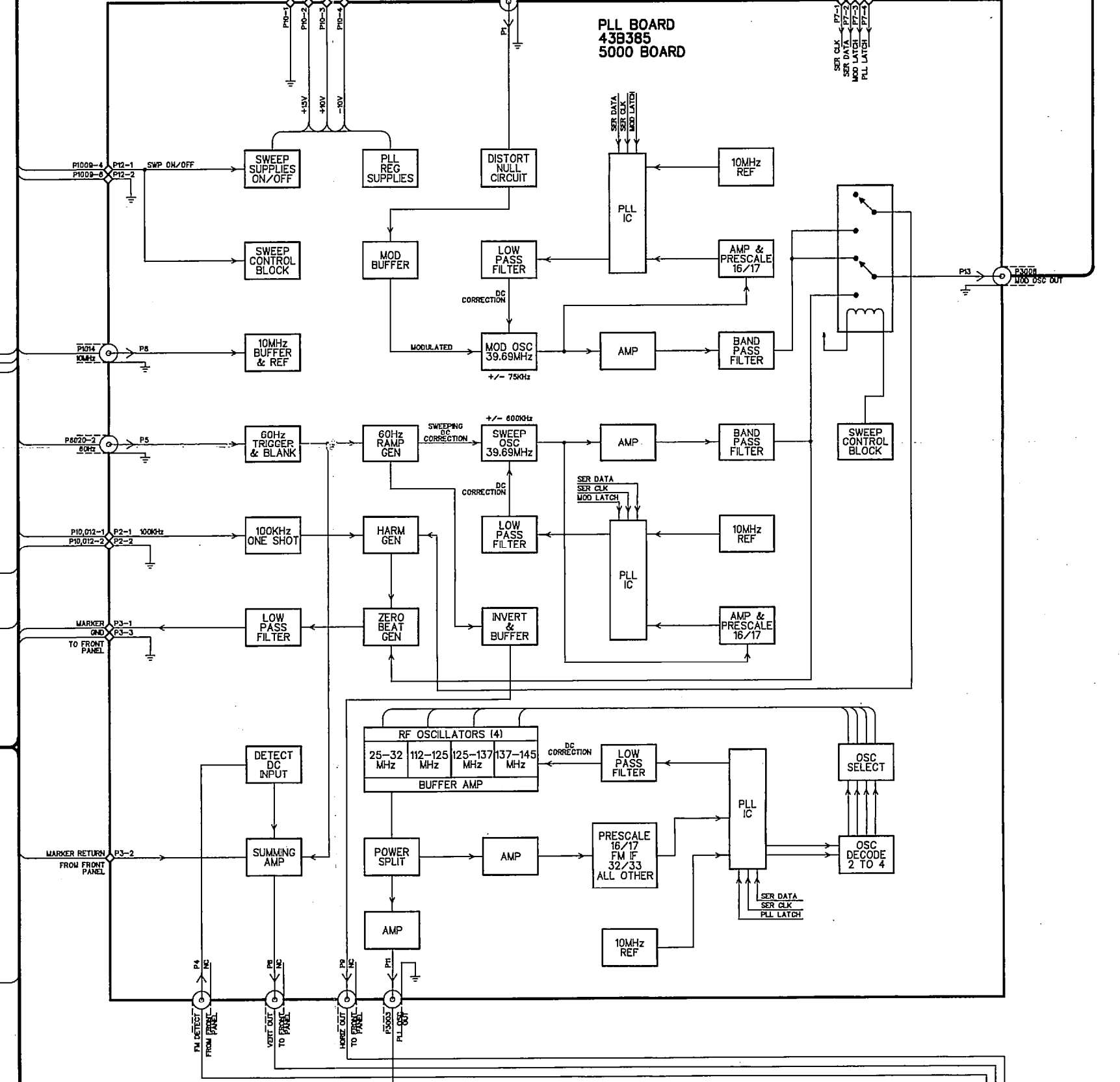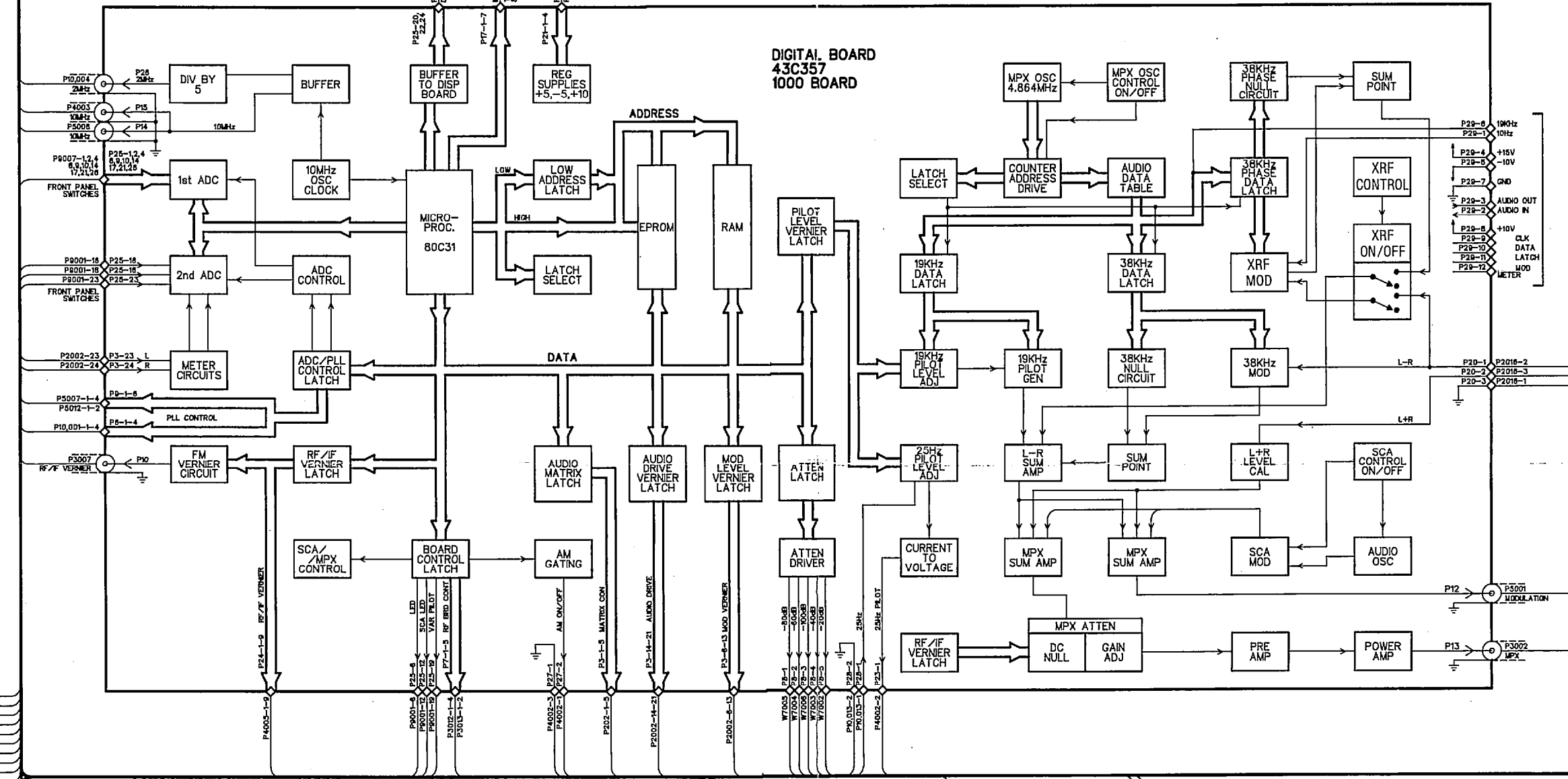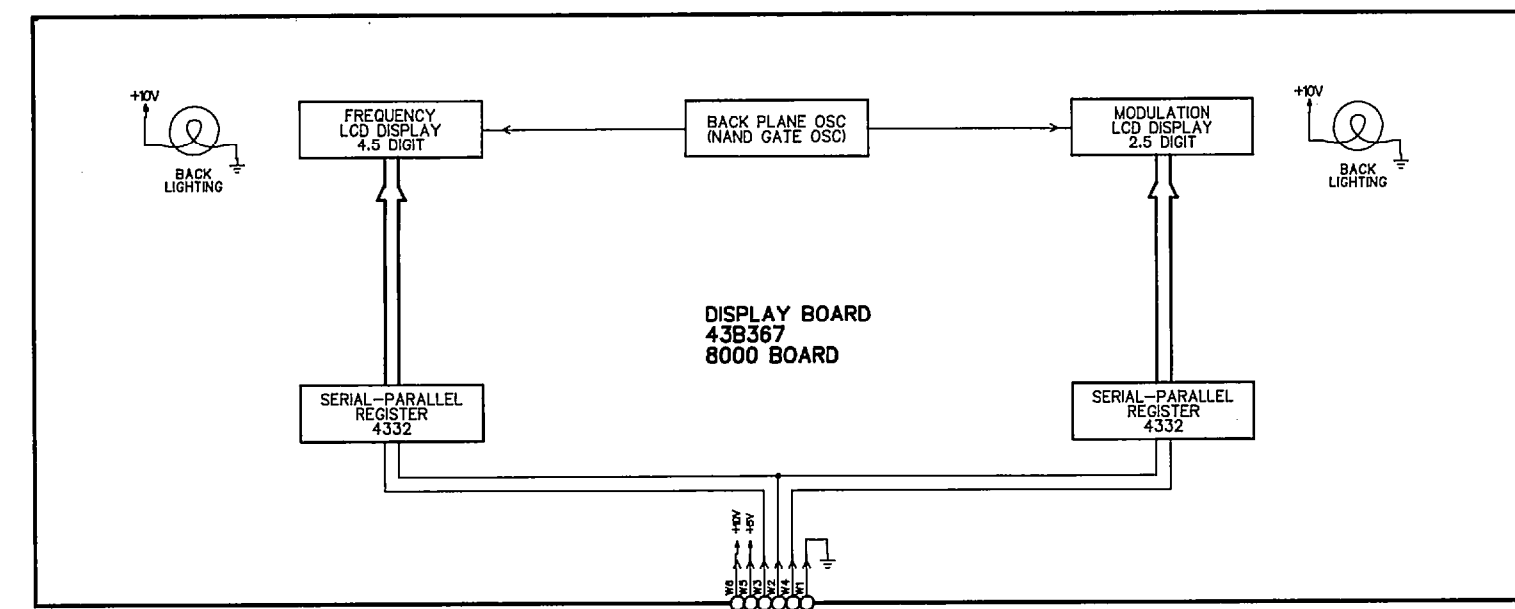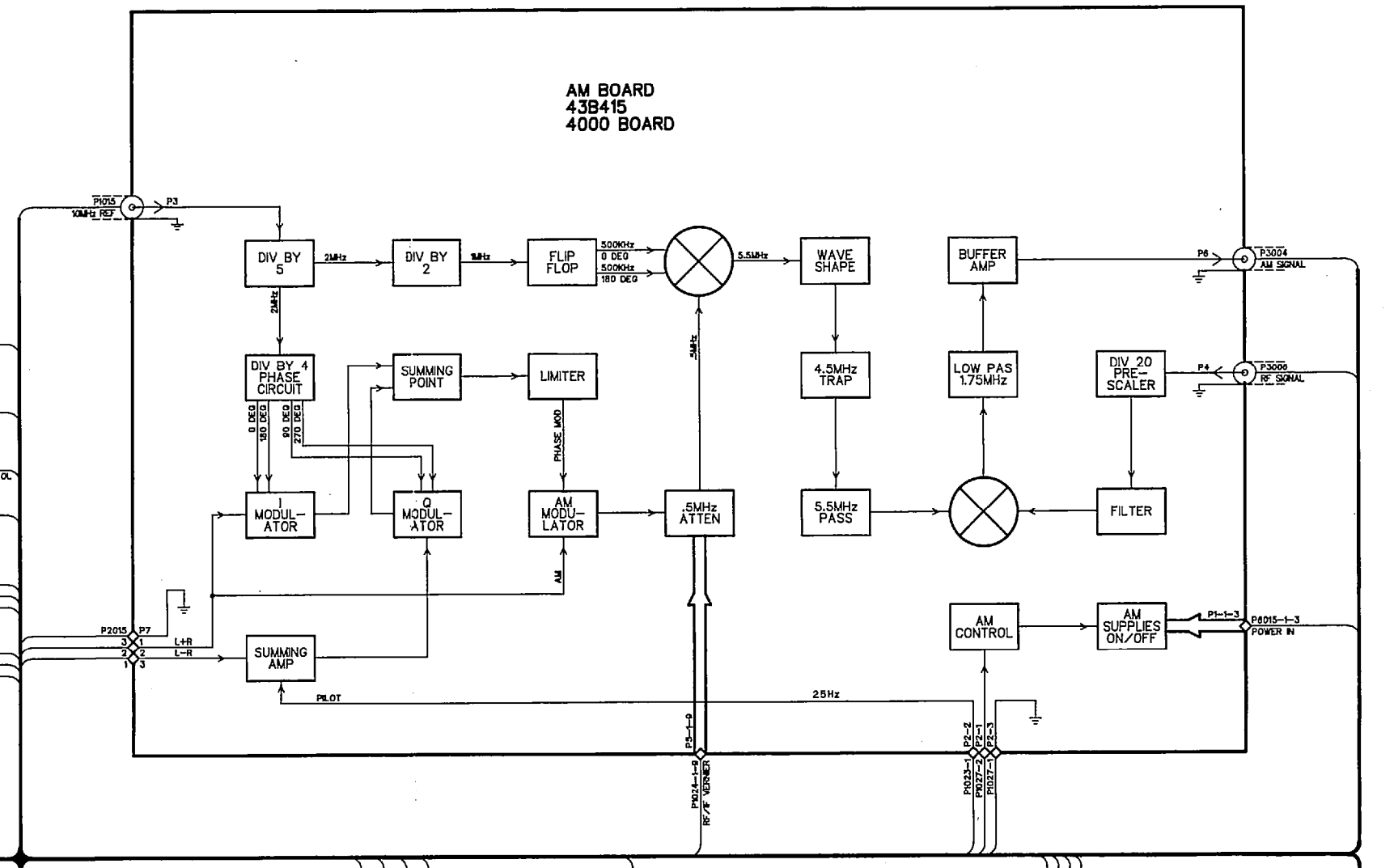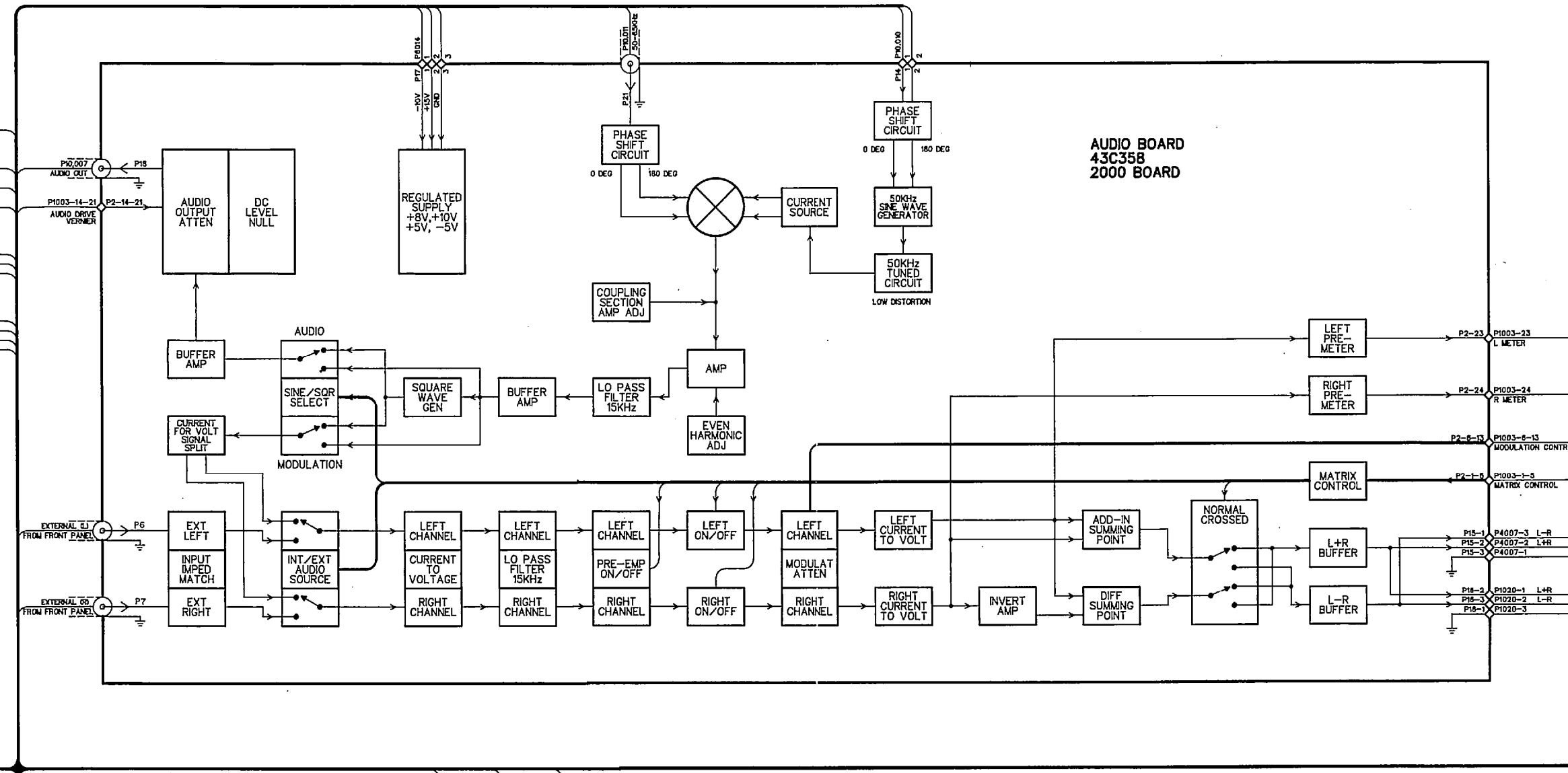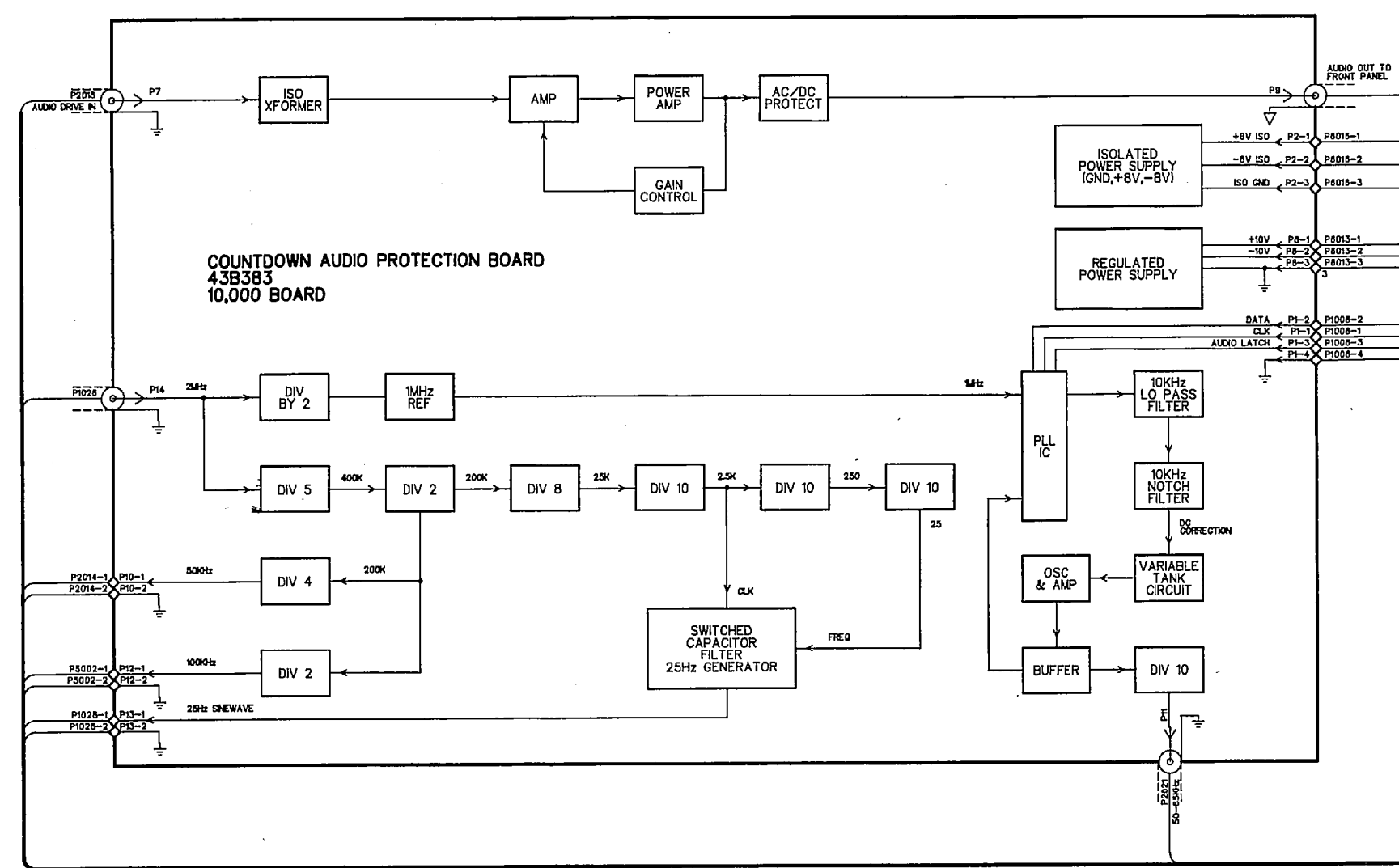
SENCORE INC.
SG80 BLOCK DIAGRAM
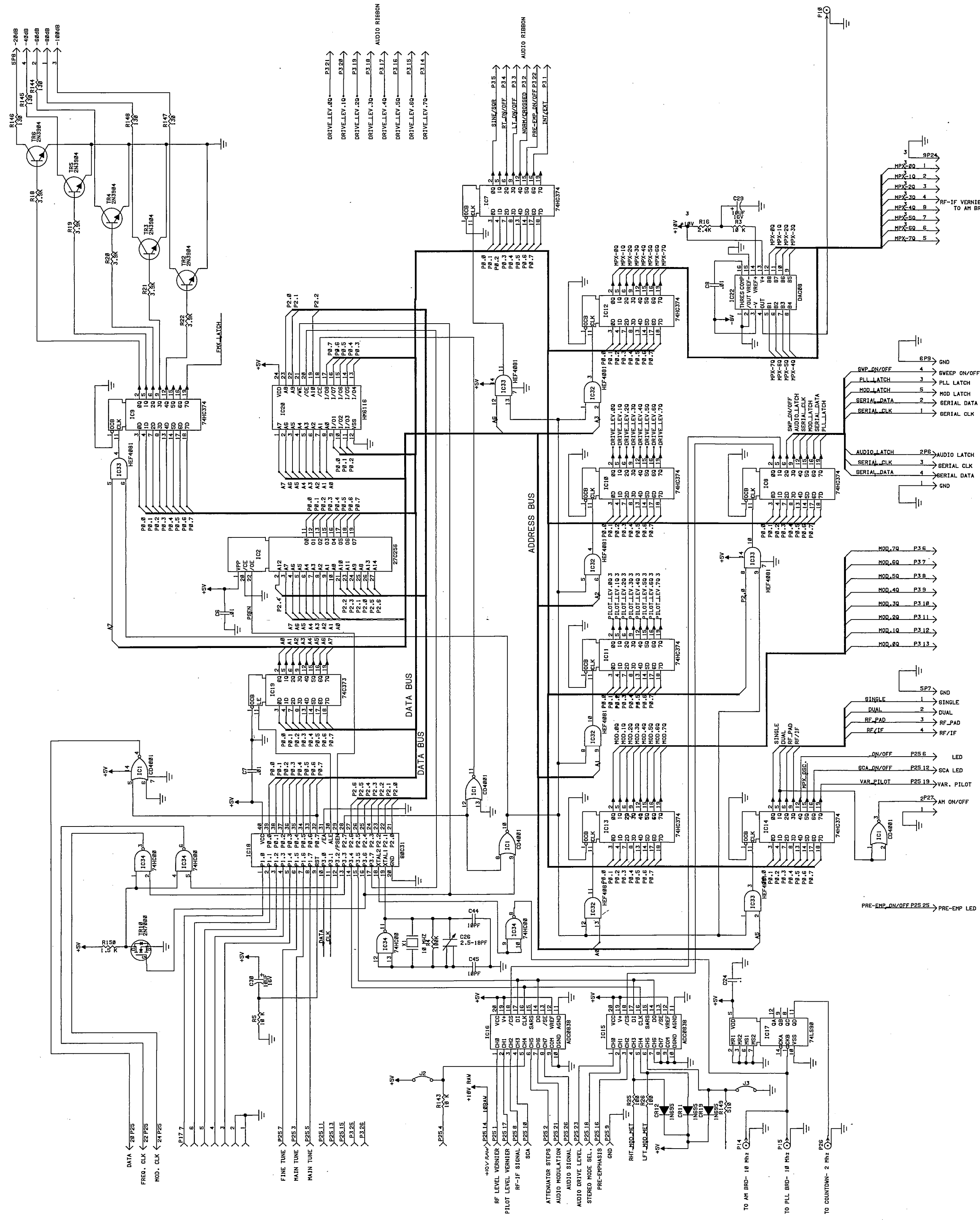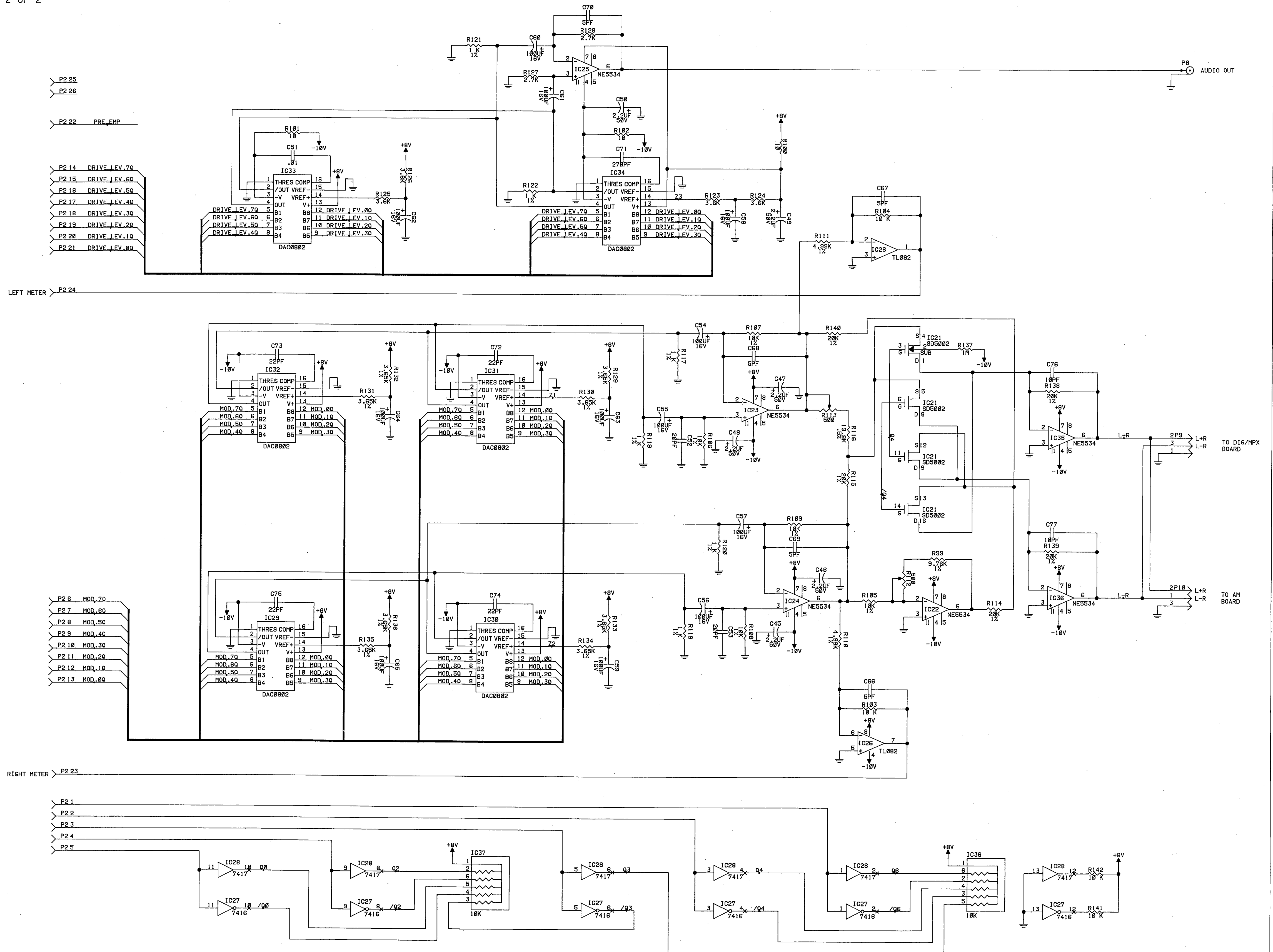
SG80 BLOCK DIAGRAM

This sheet included Block Diagram, board numbers 1000

SHEET 3

"1000" DIGITAL BOARD
PART 1 OF 2

DIGITAL/MPX
43C357
1000 BOARD

"1000" DIGITAL BOARD
PART 2 OF 2

DIGITAL/MPX
43C357
1000 BOARD

"2000" AUDIO BOARD
PART 1 OF 2

AUDIO
43C358
2000 BOARD
SHT 2 OF 2

"2000" AUDIO BOARD
PART 2 OF 2
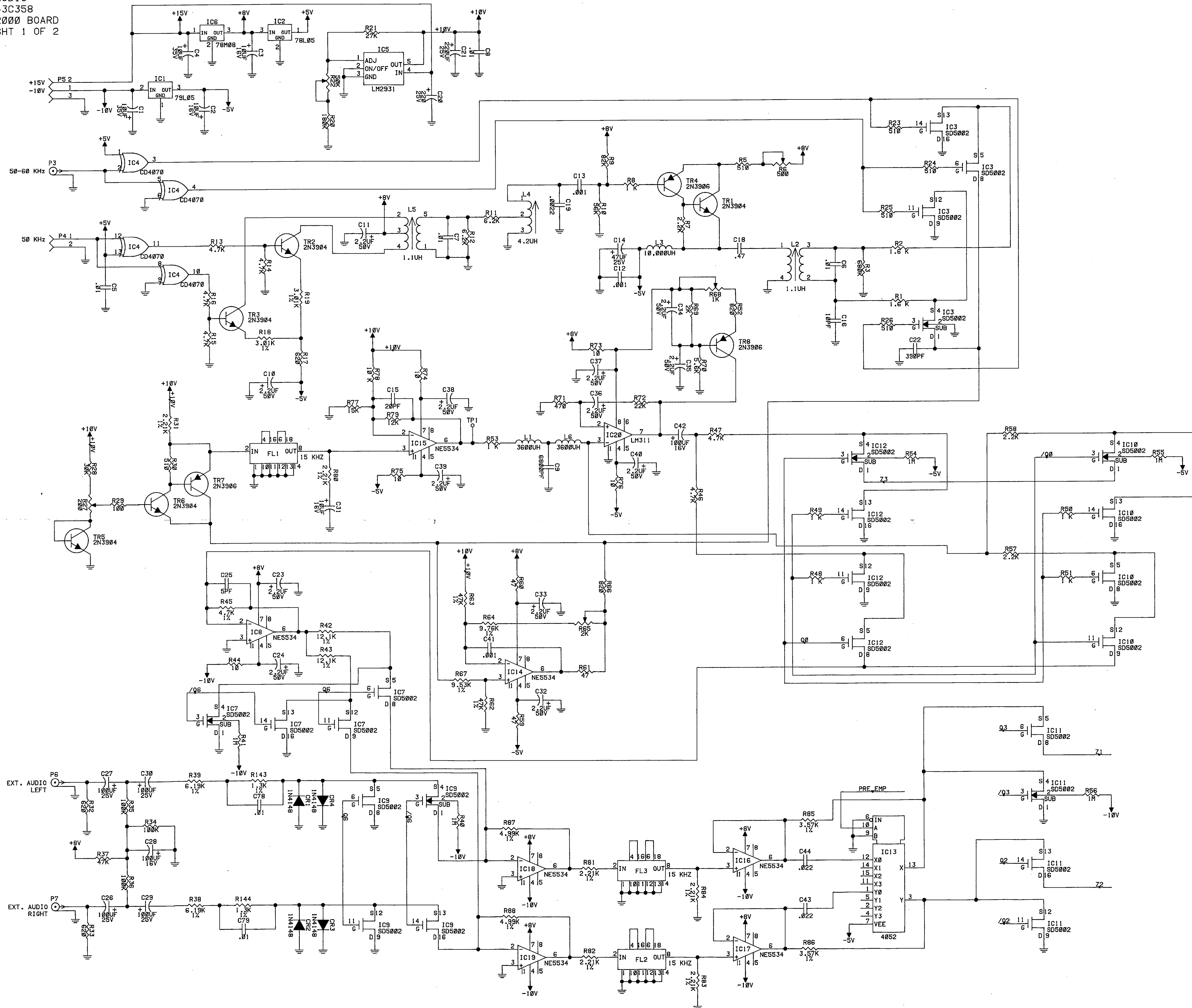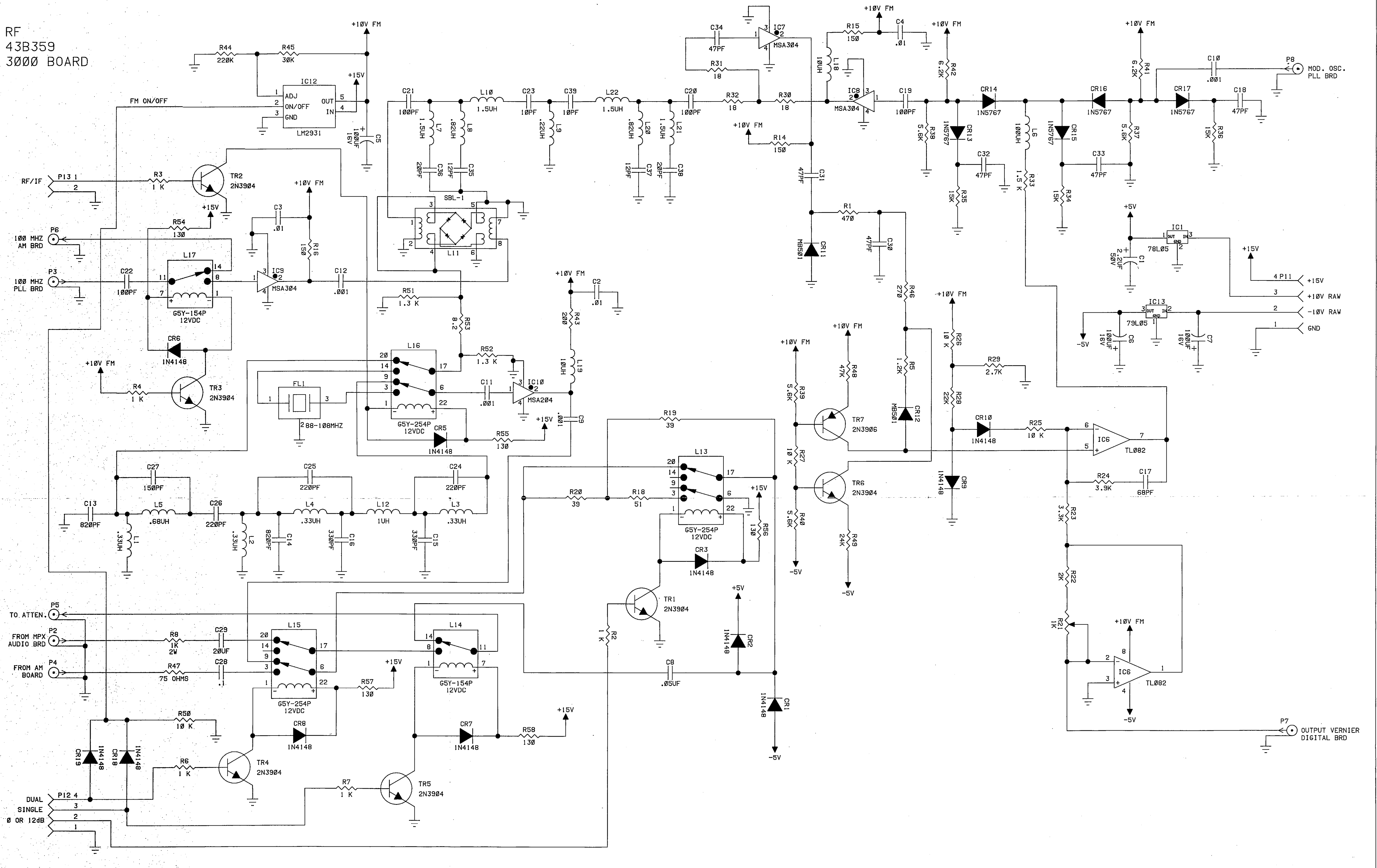
"3000" RF BOARD

"4000" AM BOARD

"5000" PLL BOARD
PART 1 OF 2

SHEET 6

This sheet includes
board numbers 5000
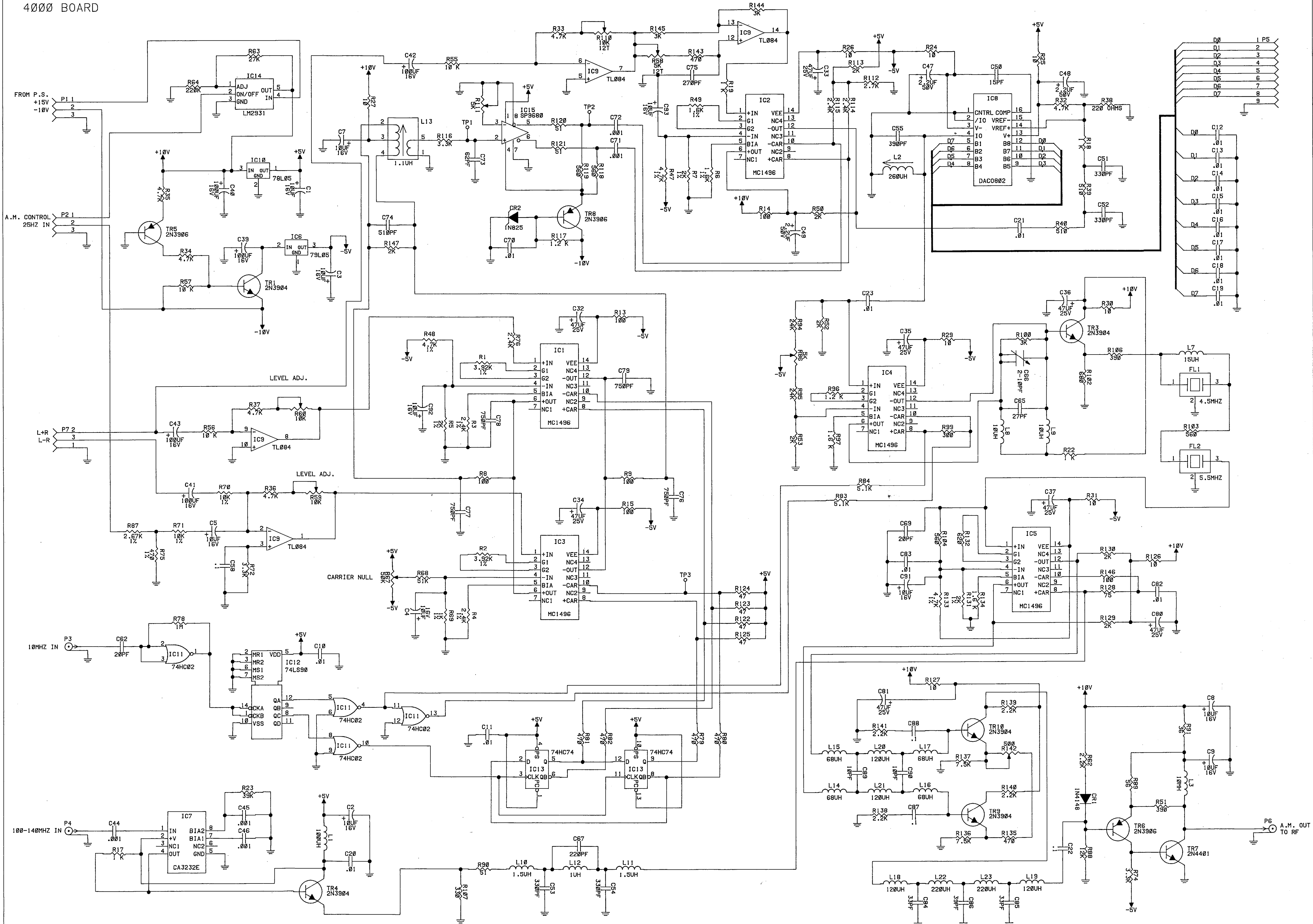
P.L.L.
43B385
5000 BOARD

POWER SUPPLIES IN

CONTROL IN
FROM DIGITAL

10MHZ IN
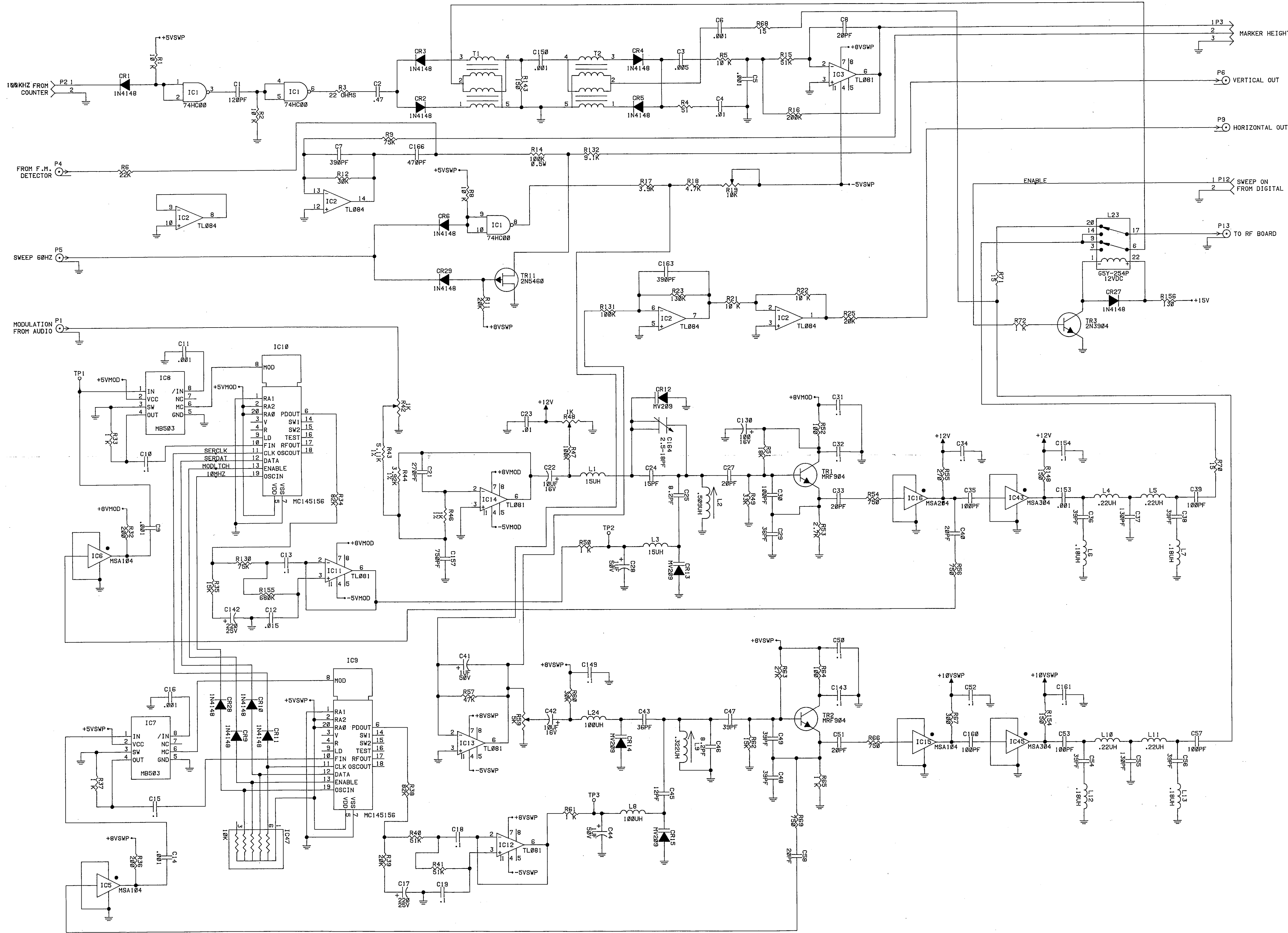
TO RF BOARD
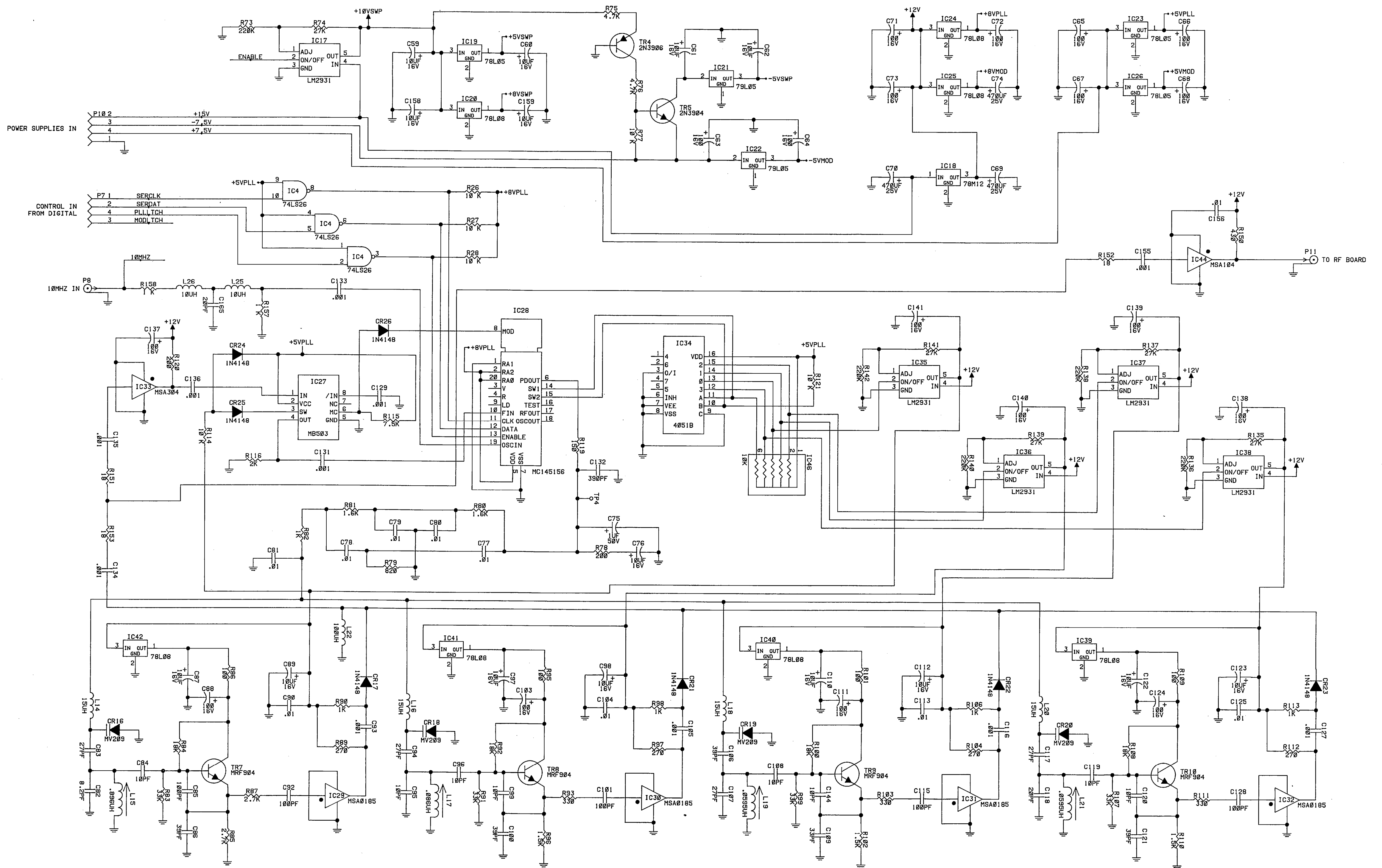
SG80 POWER SUPPLY
43B362
6000 BOARD

+10V
R3
2.2K

60 Hz TO PLL   P20 2
1

R1
100K
IC1
LM311
+10V
2
3
8 6
7
1 4 5
-10V

+10V   1 P19
3
2
4
TO DIGITAL/MPX BRD
-10V
+15V

CR10
1N4004
L5
50UH
+15V
C10
10,000UF
35V
C11
10,000UF
35V

FROM
SECENDARY
OF
TRANSFORMER
P24 5
4
3
2
1

CR9
1N4004

+15V   3 P15
2
1
TO AM BRD
-10V
+15V

CR4
1N4004
L2
50UH
+10V
CR3
1N4004
C5
2200UF
25V
C2
2200UF
25V

+10V   4 P18
3
2
1
TO PLL BRD
-10V
+15V

POWER SWITCH LED   P26 1
R2
820
+15V

CR2
1N4004
L1
50UH
CR1
1N4004
C6
2200UF
25V
C3
2200UF
25V
-10V

TO COUNTDOWN BRD   P13 3
2
1
+10V
-10V

+10V   4 P17
3
2
1
TO RF BRD
-10V
+15V

FROM
SECENDARY
OF
TRANSFORMER
P25 1
2
3

CR8
1N4004
L4
50UH
+8V
C7
2200UF
25V
C4
2200UF
25V

CR7
1N4004

+15V   1 P14
2
3
TO AUDIO BRD
-10V
+15V

TO PRIMARY
OF TRANSFORMER
P21 1
2

CR6
1N4004
L3
50UH
CR5
1N4004
C9
2200UF
25V
C8
2200UF
25V
-8V

+15V   2 P12
1
TO ATTENUATOR BRD

AC CORD IN   P22 1
2

FUSE HOLDER   P27 1
2

3 P16
2
1
TO COUNTDOWN BRD

POWER
SWITCH
P23 1
2

"6000" POWER SUPPLY BOARD

This sheet includes
board numbers 6000, 7000

SHEET 7

ATTENUATOR
43B361
7000 BOARD

R10 61.9 1% R9 61.9 1% R15 15.4 1%
R1 61.9 1% R2 61.9 1% R11 15.4 1%
R3 61.9 1% R4 61.9 1% R12 15.4 1%
R5 61.9 1% R6 61.9 1% R13 15.4 1%
R7 61.9 1% R8 61.9 1% R14 15.4 1%
C1 .047UF

L5 20 14 9 3 17 22 1 G5Y-254P 12VDC +15V CR5 1N4148
L1 20 14 9 3 17 6 22 1 G5Y-254P 12VDC +15V CR1 1N4148
L2 20 14 9 3 17 6 22 1 G5Y-254P 12VDC +15V CR2 1N4148
L3 20 14 9 3 17 6 22 1 G5Y-254P 12VDC +15V CR3 1N4148
L4 20 14 9 3 17 6 22 1 G5Y-254P 12VDC +15V CR4 1N4148

W7 OUTPUT

P2 INPUT

W6 −100dB
W5 −80dB
W4 −60dB
W3 −40dB
W2 −20dB
W1 +15V
+15V

"7000" ATTENUATOR BOARD

"8000" DISPLAY BOARD

"9000" FRONT PANEL BOARD

This sheet includes
Board numbers 8000, 9000
10,000 AM Test Leads.
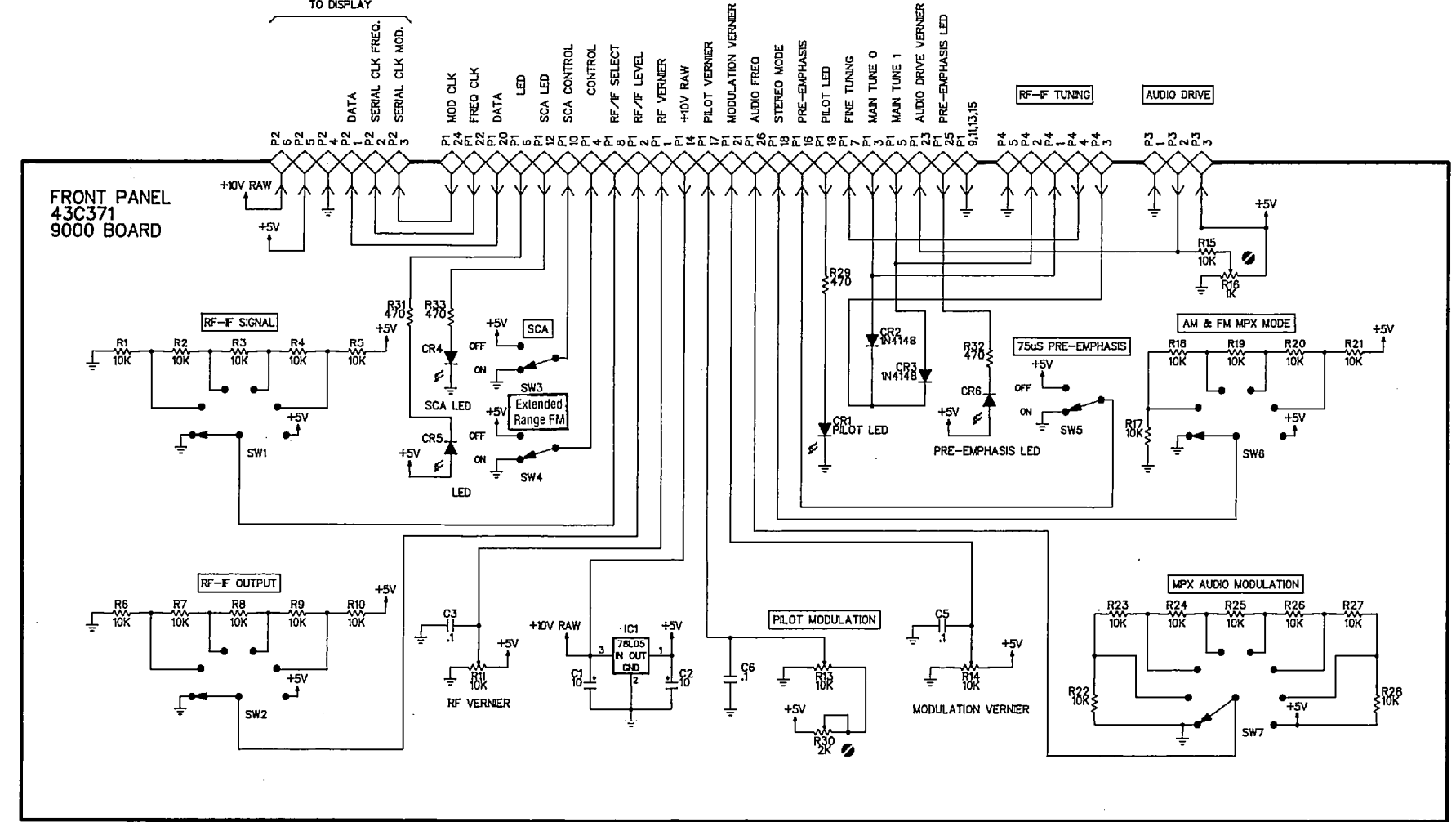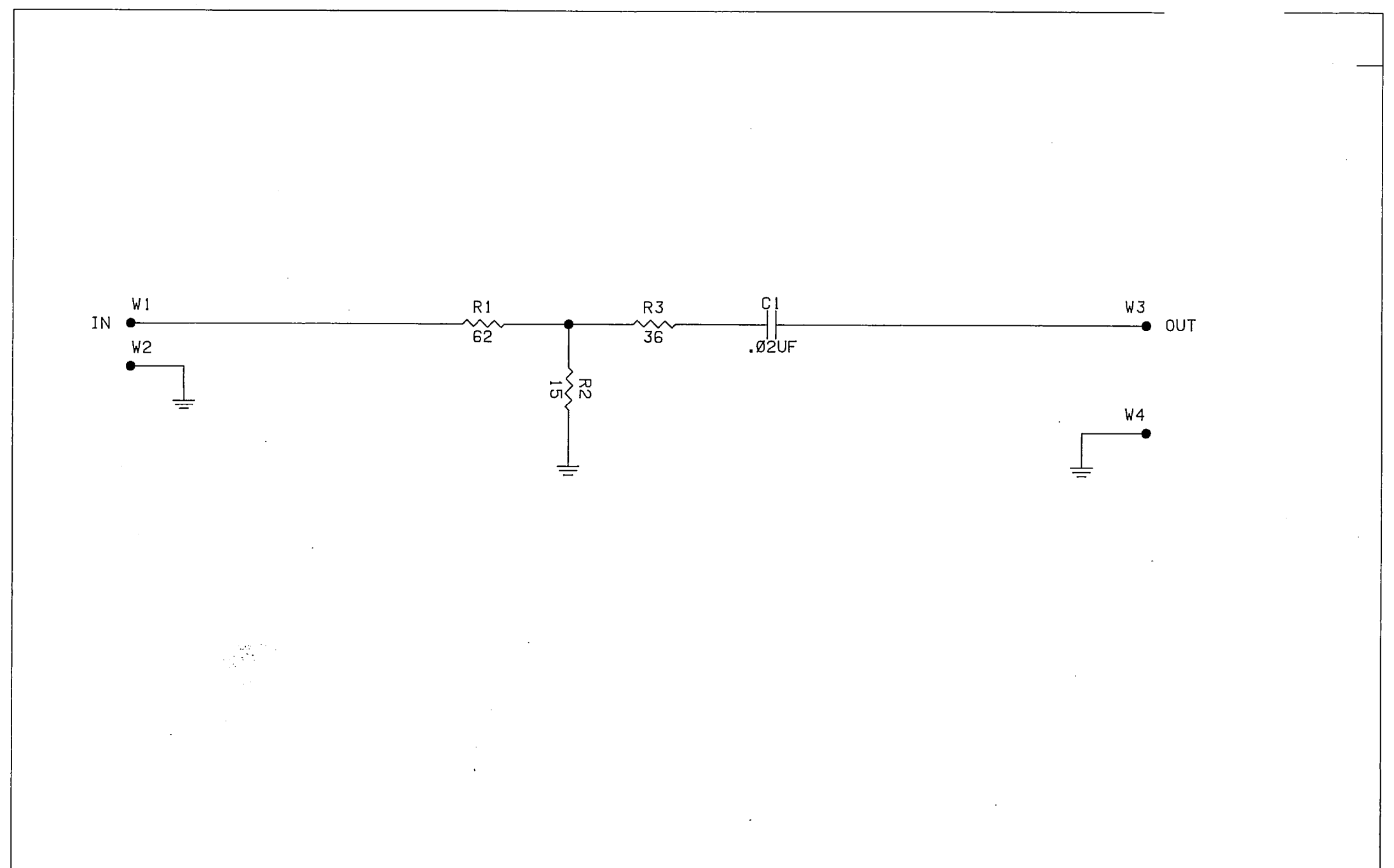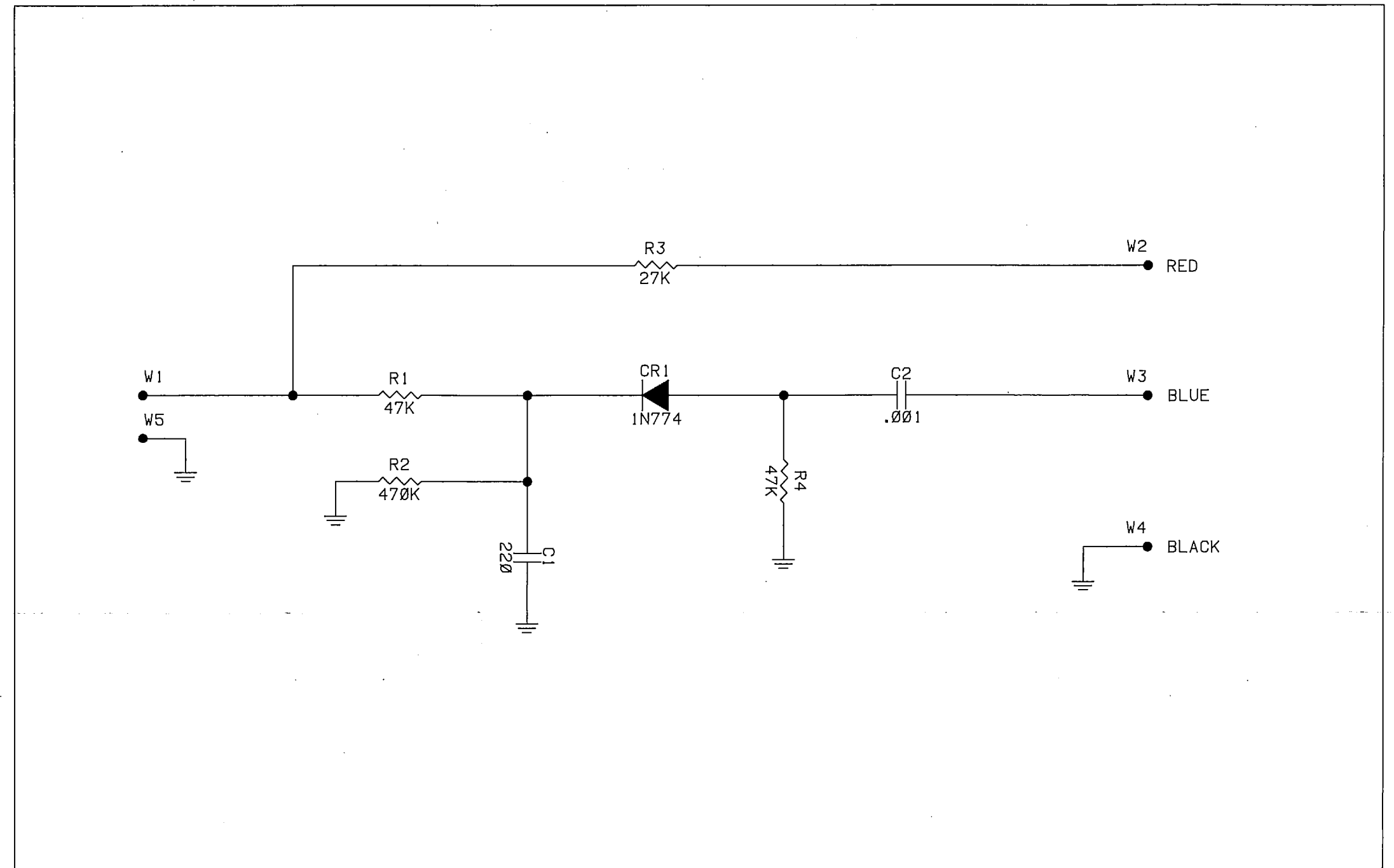
COUNTDOWN
43B383
10000 BOARD
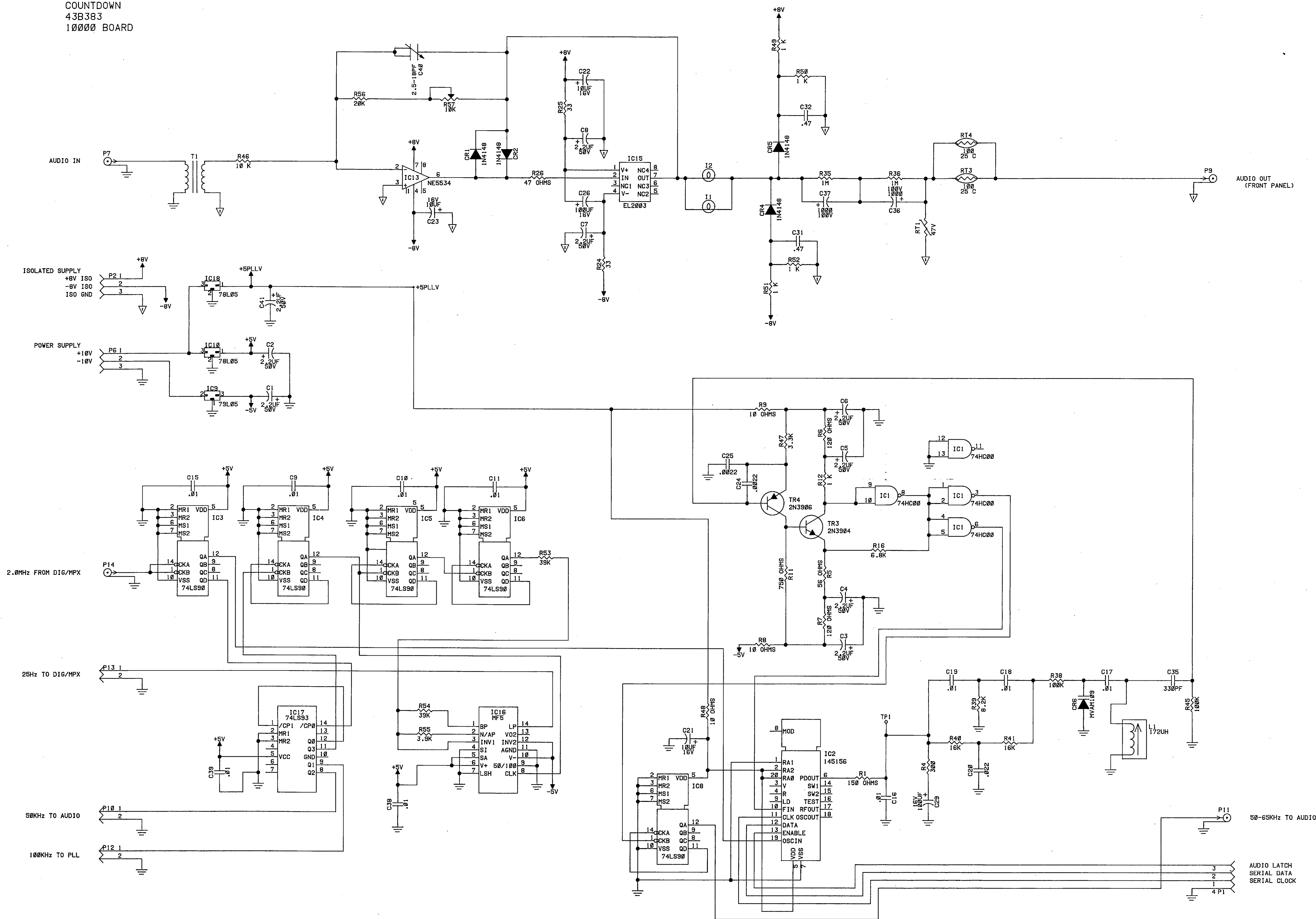
"10,000" COUNTDOWN BOARD

SG 80
Calibration notes

Test	HP switch box	Calibration points
1. FM THD	103,201,300,310	R5048,L5002,C5164
2. MOD %	200,210	FM R5042 AM R 4110
3. FM Seperation	103,201	R 1117,C 1060,R 2113
4. AM Seperation	202	R 4058,R 4059,R 4060

When setting up HP3488A use the following sequence: Local-reset-close-(#)-(,)-(#)-(,)-(#)-execute.

(note for FM Seperation RF output to max, modulation @ 100 %, Audio to 1 K hz. @ 100%, R only, L only.)
(note for AM Seperation pilot to 100 % audio off R1072 for 90 –20 db
pilot 0 % R 1071 for –55 db. 38 Khz on stereo mon. R1093 null
MPX seperation R 1118,C1058 & 98.)
(Mod cal 75db not 80)

A. For FM THD you have to press the up/down key on the RE201,then press the local/learn key on the RE201,now press the THDn key & readout results on the RE201 display.
B. For FM Mod % & AM Mod % use the HP8902A measuring reciever (FM, peak + auto tracking lights on)(AM, peak + & auto tracking lights on & AM , peak - &15Khz filter on.) (Belar to auto –SG80 to Stereo, pilot to 100%,audeo to 1 Khz signwave.)
C.
D. For FM seperation use the analog meters on the Belar stereo monitor unit. (Belar to auto mode for cal. , peak mode when idle.) (Belar to auto –SG80 to Stereo, pilot to 100%,audeo to 1 Khz signwave.)
E. For AM seperation use the BE AS10 AM modulation monitor analog meters. (BE AS10 set up:
1. Auto range both "on"
2. Inputs "L" & "R"
3. Polarity both "+"
4. Adjust SG*) until you get two green bars on the BE S10 with level to "pilot"
5. Switch between R only & L only & watch meters.
   SG80 setup
1. stereo
2. AMRF
3. X100K
4. Vernier to get two green bars on BS A10
5. Pilot to 100%

6. Audio mod to 100%
7. Audio to 1 Khz signwave

AUTO LEVELING CALIBRATION

(Cal. Unit under test with chip with a checksum of 4FDE.)
(Programmer to device select 4, then push online IB72 address set to 30)
Follow directions for zeroing the HP 436A before starting auto leveling procedure.

SG80 MPX SEPERATION CALIBRATION

SG80 SET TO MPX, X100K, VERNIER APPROX 15dB, PILOT MODULCATION TO 100%, AUDIO TO 1 kHz SINEWAVE, AUDIO MODULATION TO 100%, MODE SWITCH TO STEREO.

SET STEREO MONITOR TO "L" AND "R". USING THE SG80 VERNIER SET THE METERS ON THE STEREO MONITOR SO THAT THEY CENTER AROUND ZERO dB.

PUSH THE PHSE BUTTON ON THE MONITOR AND ADJUST THE RECESSED CAL ON THE MONITOR TO GET A MAXIMUM NULL.

PRESS THE PILOT BUTTON ON THE MONITOR, ADJUST R1072 FOR A READING ON THE METER OF 90 WITH THE PILOT MODULATION TO NORMAL (100%). THEN ADJUST PILOT MODULATION TO 50% AND CAL R1071 FOR A READING OF 50. GO BACK AND FORTH BETWEEN THE ADJUSTMENTS UNTIL NO CAL IS NEEDED.

PRESS THE 38 kHz BUTTON ON THE MONITOR AND ADJUST R1093 FOR MAX NULL ON THE RIGHT METER. SHOULD GO BELOW -45Db

PRESS THE "L" AND "R" BUTTONS, AND THE "DE-EMP" BUTTON, ALSO THE 75Usec BUTTON ON THE SG80. READJUST PILOT AND AUDIO MODULATION TO 100%. READJUST VERNIER TO CENTER AROUND 0Db.

USING R1118,C1058, AND C1098 CAL FOR MAX SEPERATION WHEN SWITCHING THE SG80'S MODE SWITCH TO "L ONLY" AND "R ONLY". SHOULD BE BELOW 65Db.