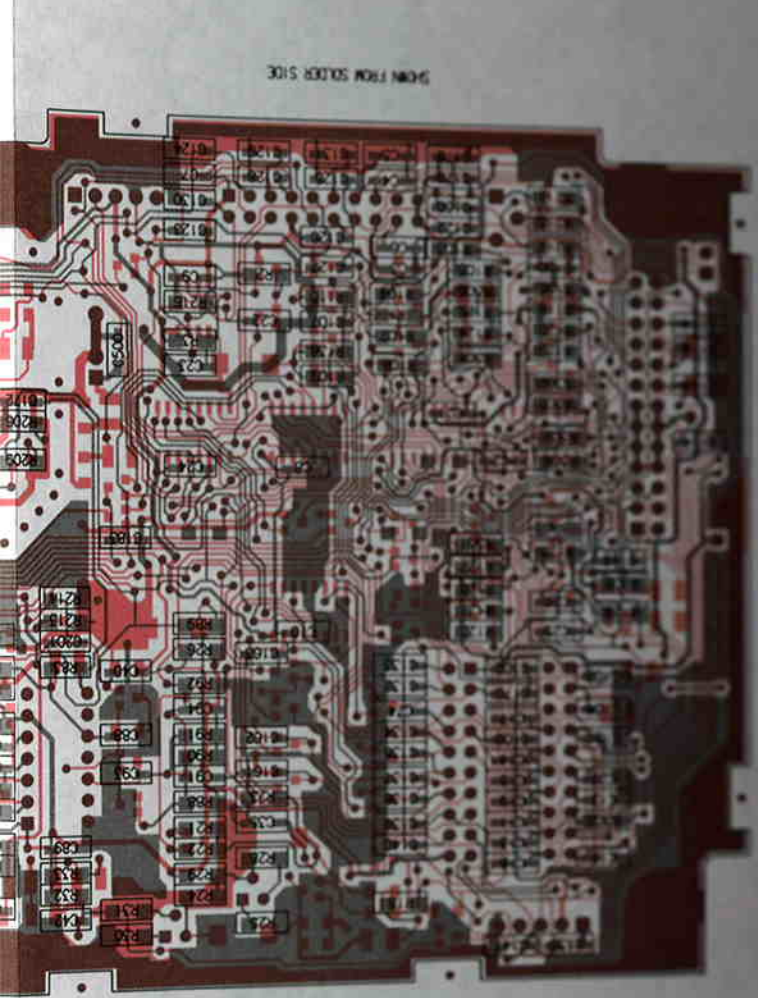
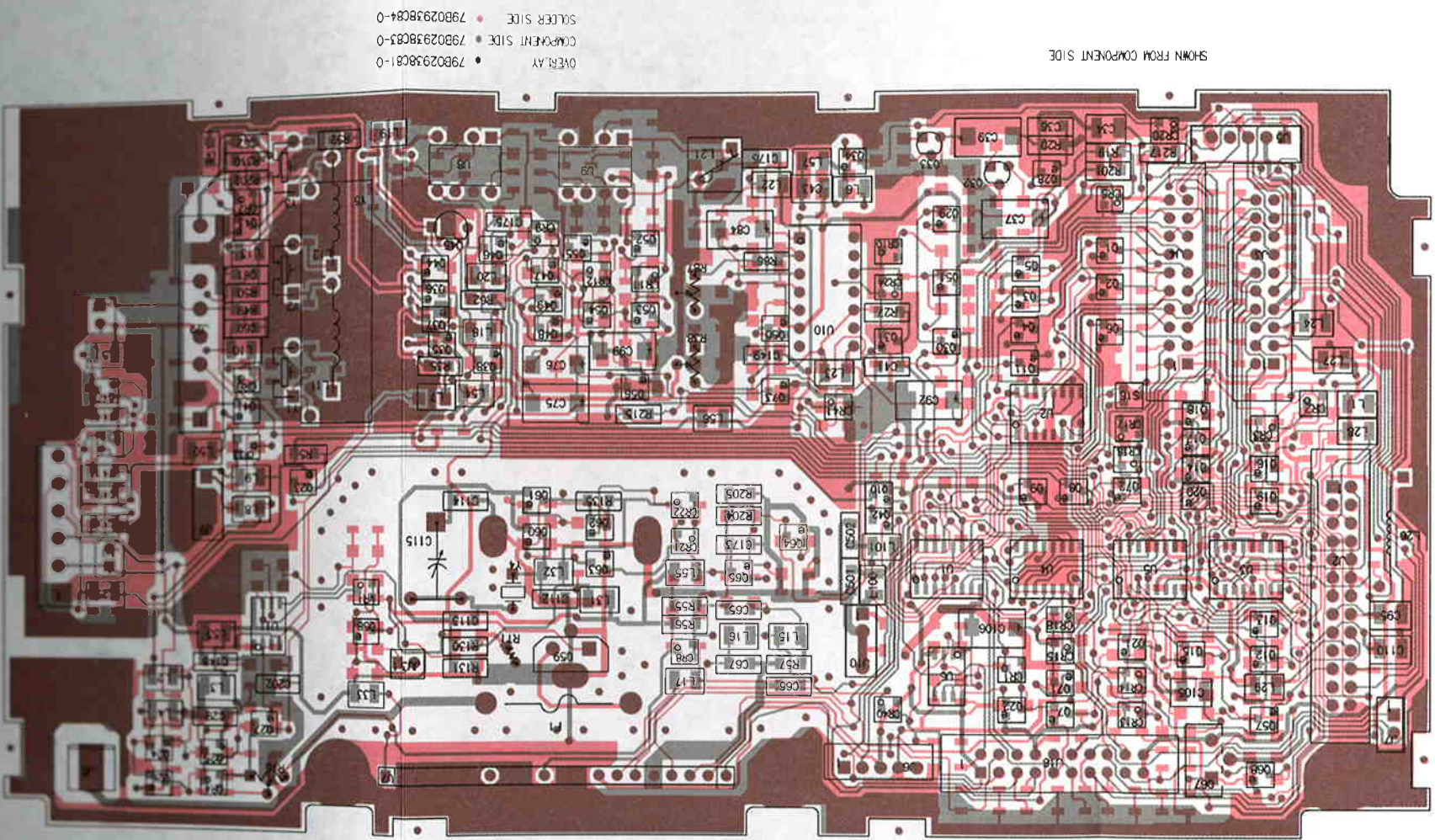
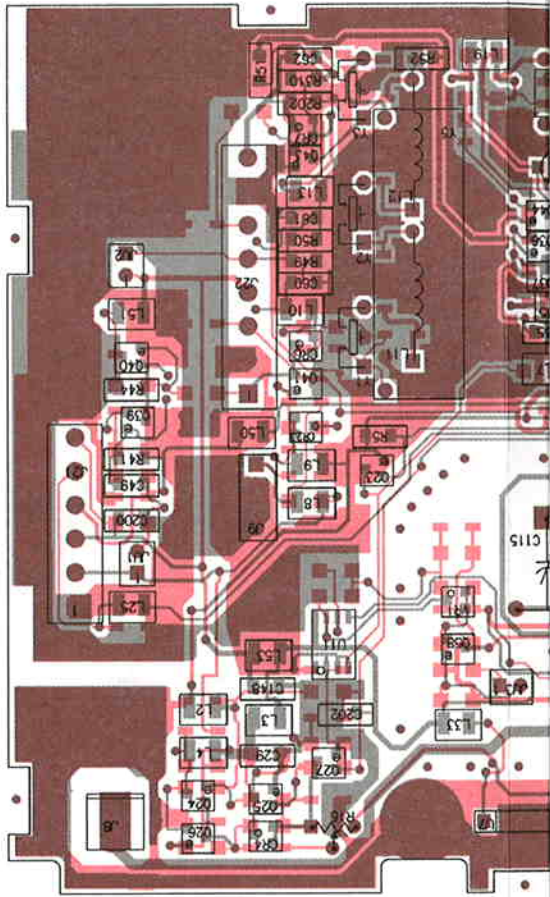


"A" BOARD

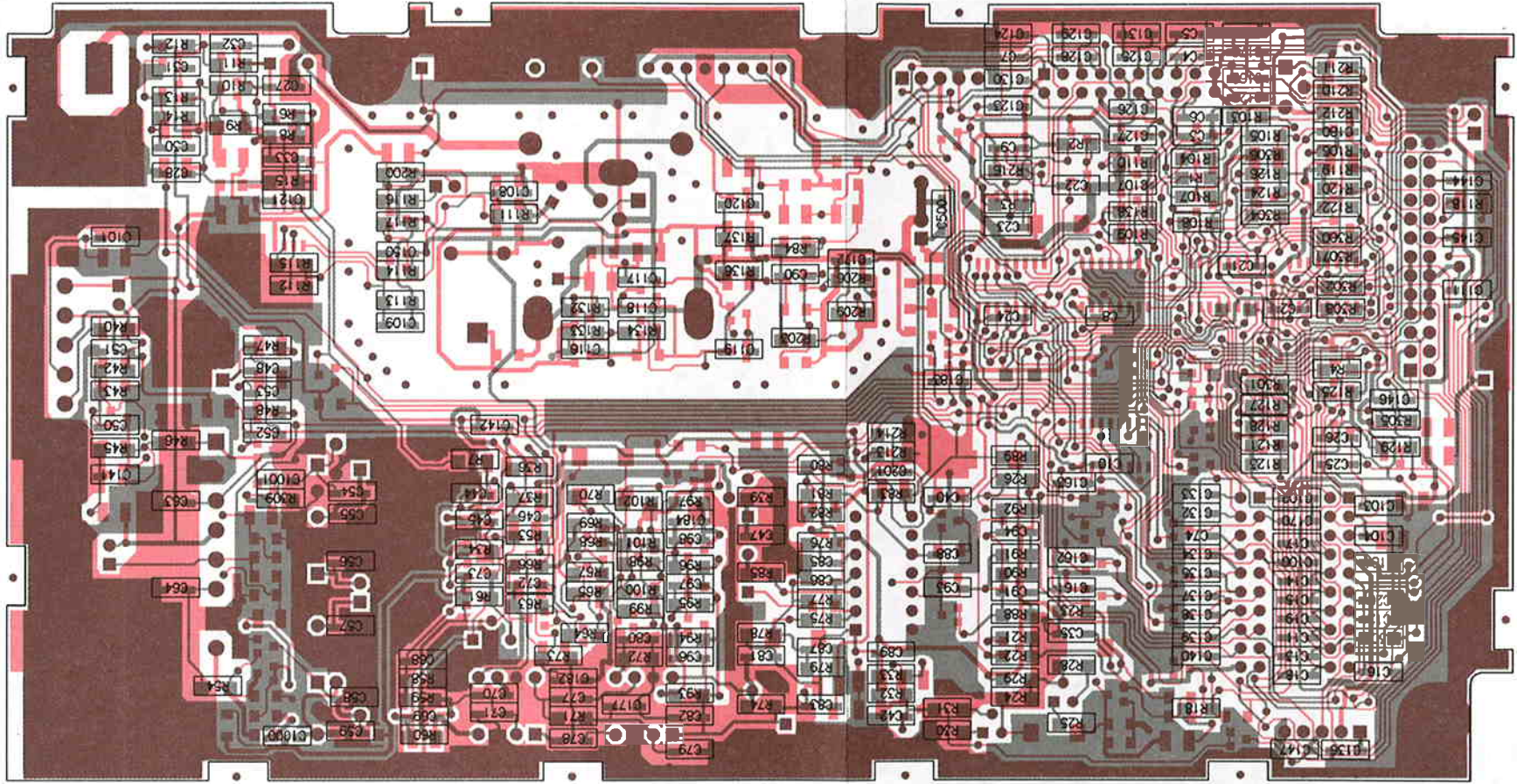
Model FLN6201B

Printed Circuit Board Details





02938081-0
02938083-0
02938084-0

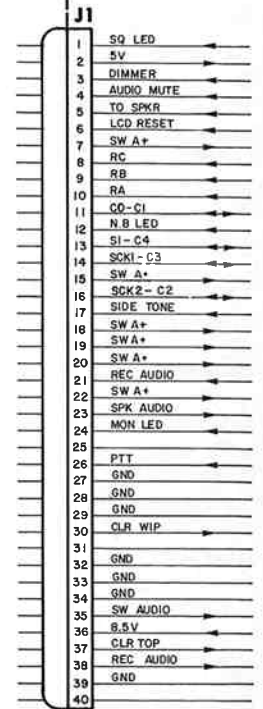
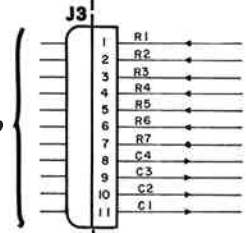


SHOWN FROM SOLDER SIDE

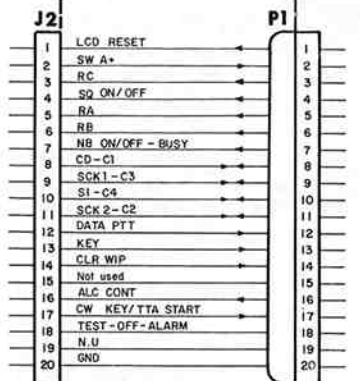
OVERLAY
COMPONENT SIDE
SOLDER SIDE

TO KEYBOARD

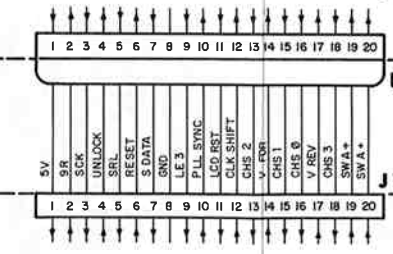
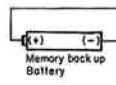
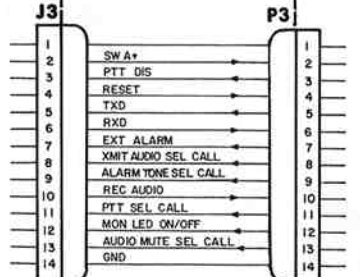
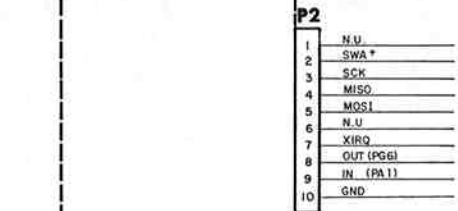
C BOARD



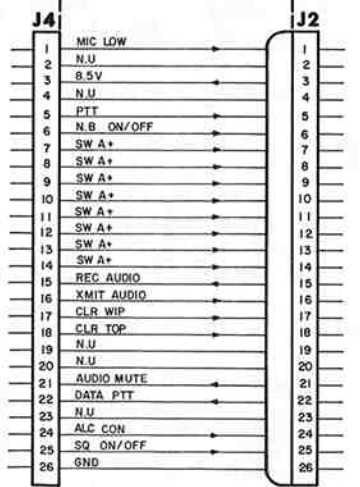
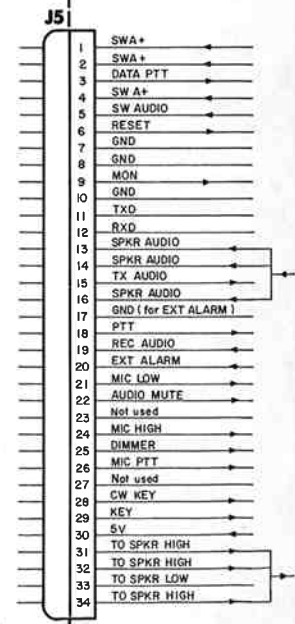
INTERCONNECT BOARD



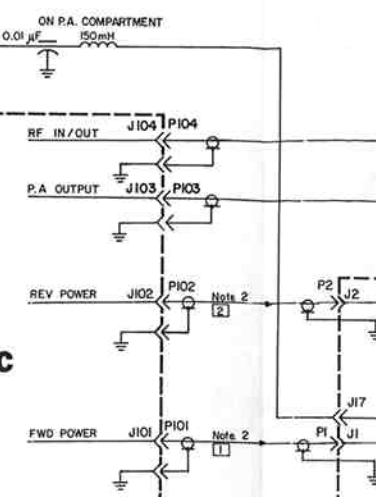
S BOARD



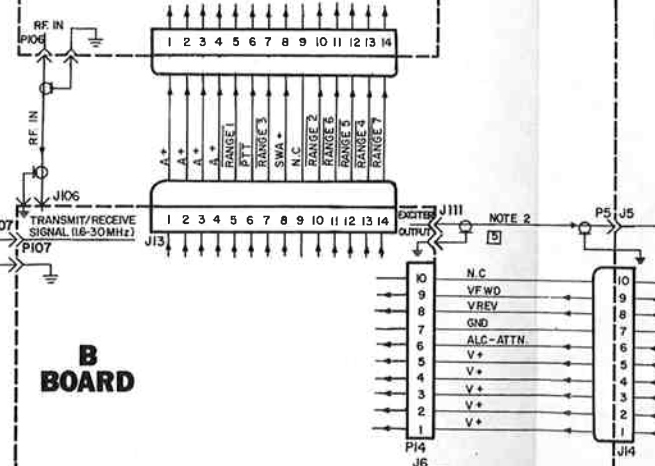
TO FRONT PANEL VIA FLEX CABLE



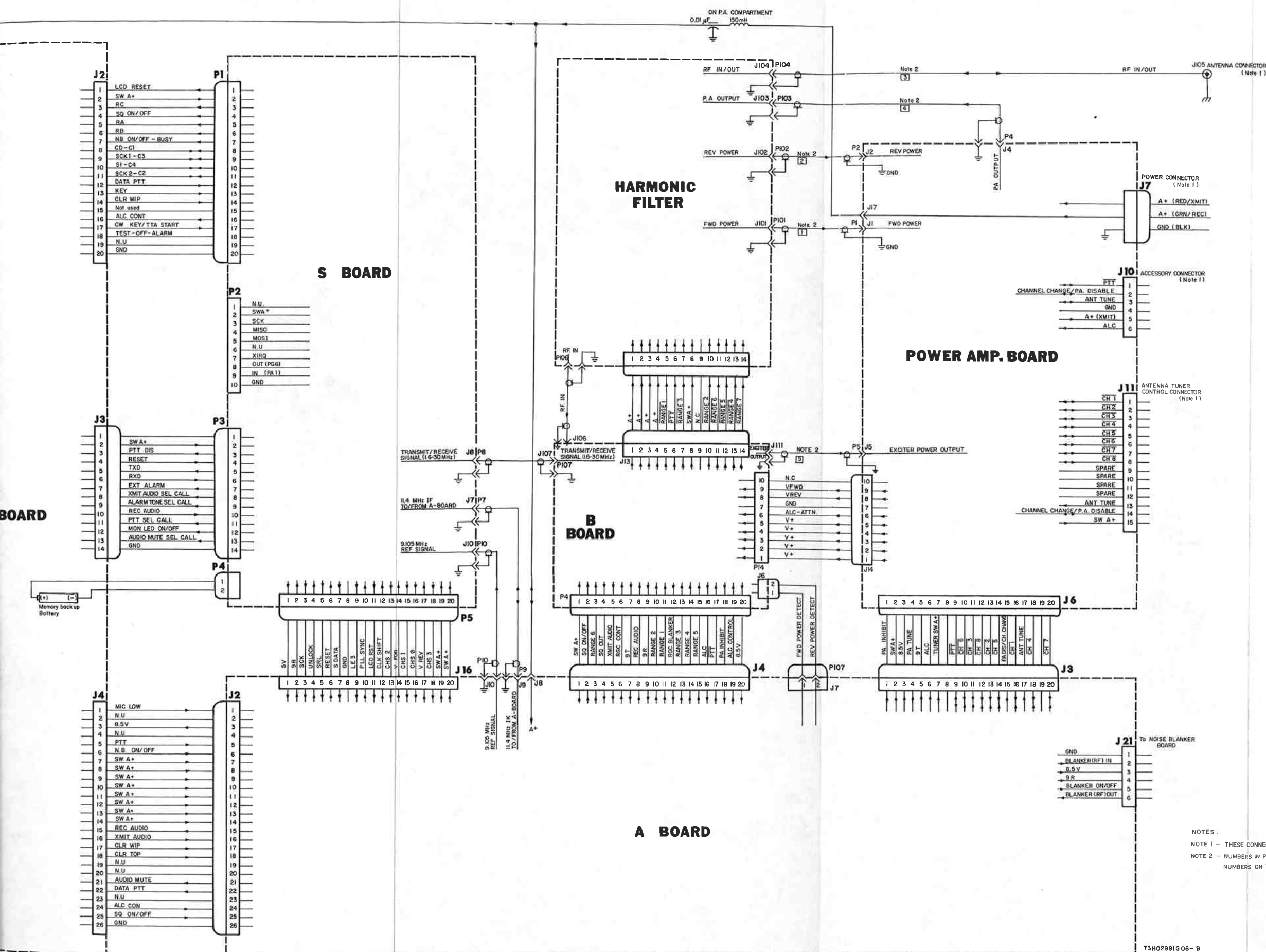
HARMONIC FILTER



B BOARD



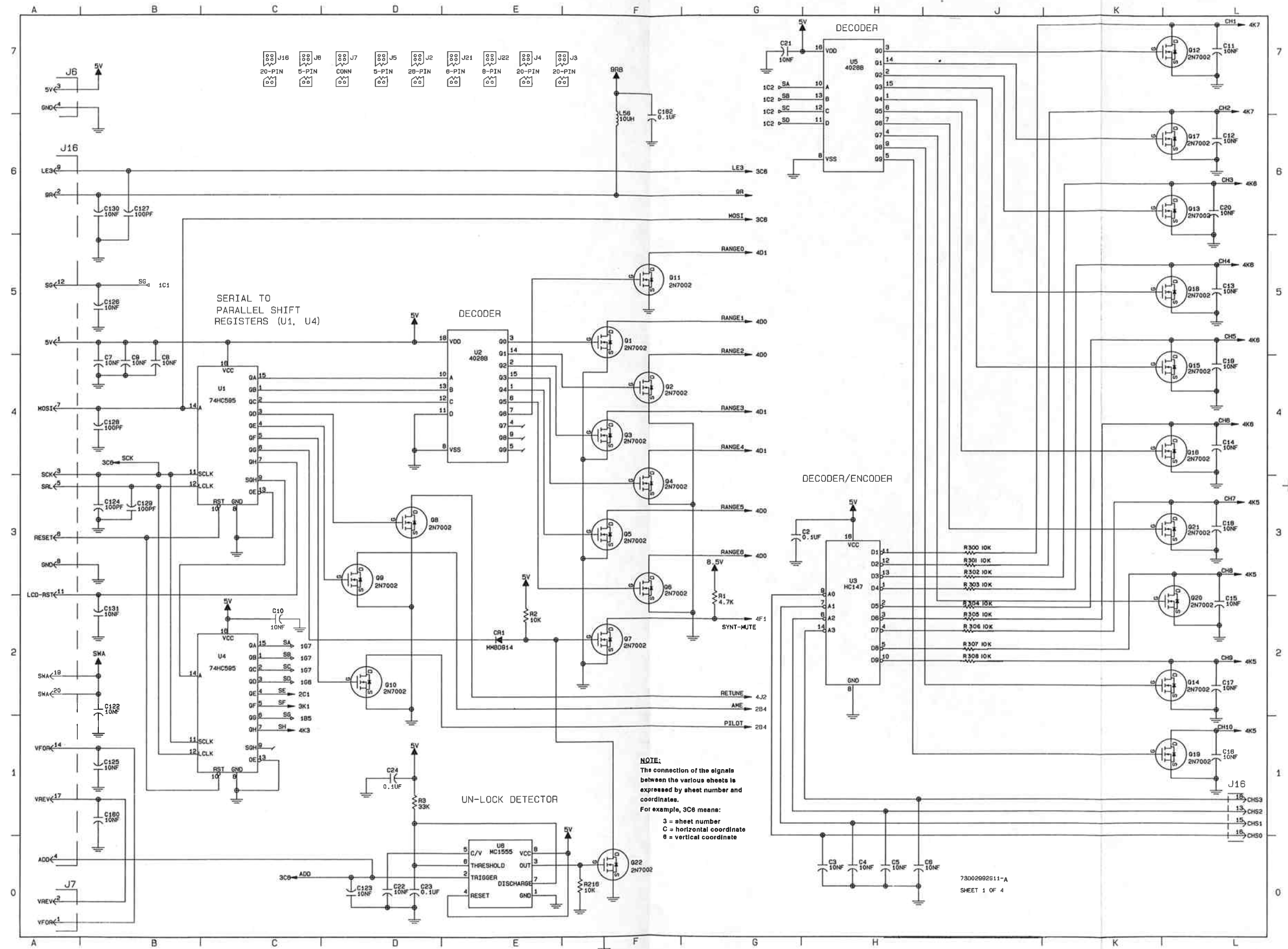
RADIO INTERCABLING DIAGRAM



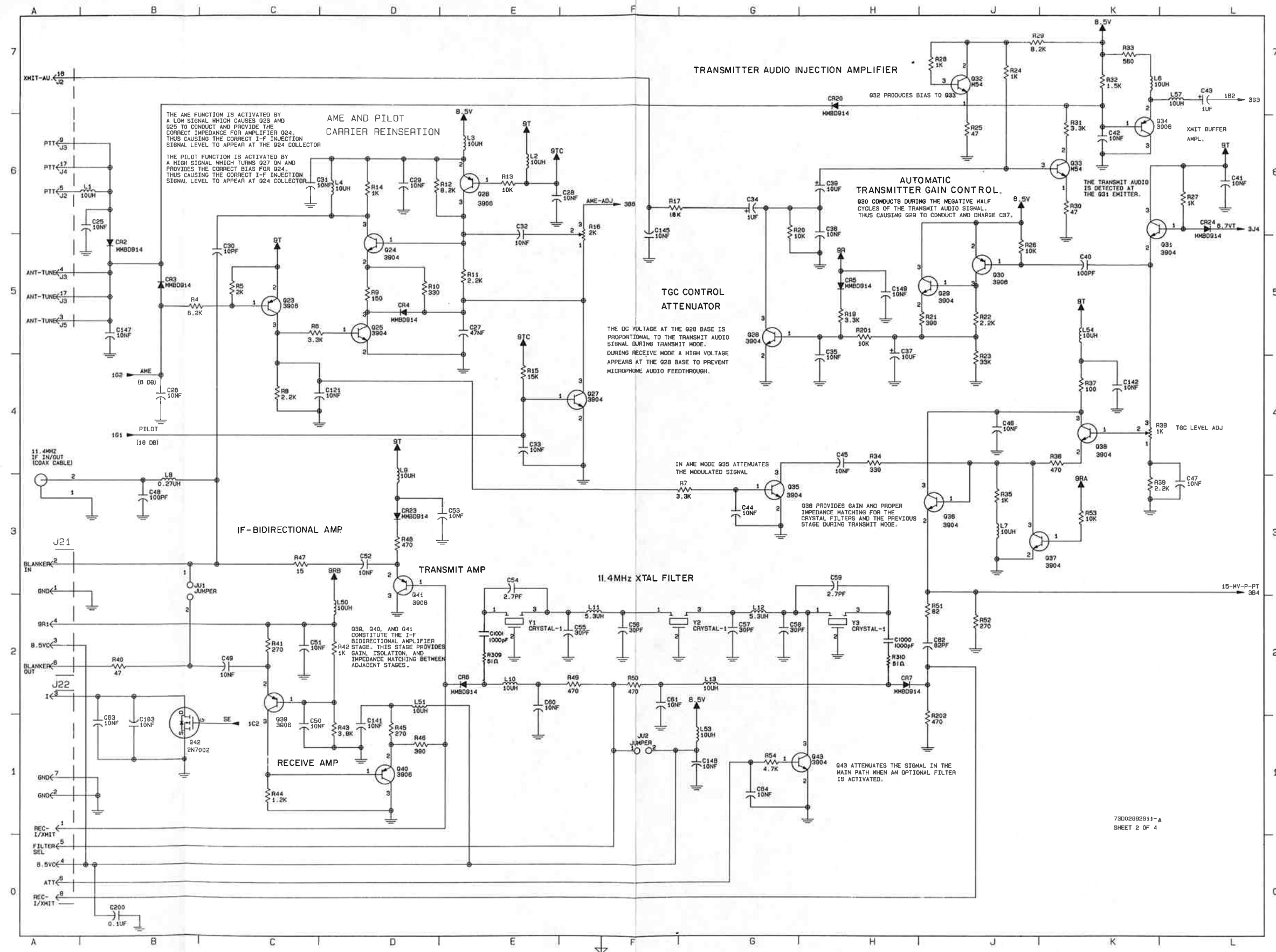
"A" BOARD

Model FLN6201B

Schematic Diagram



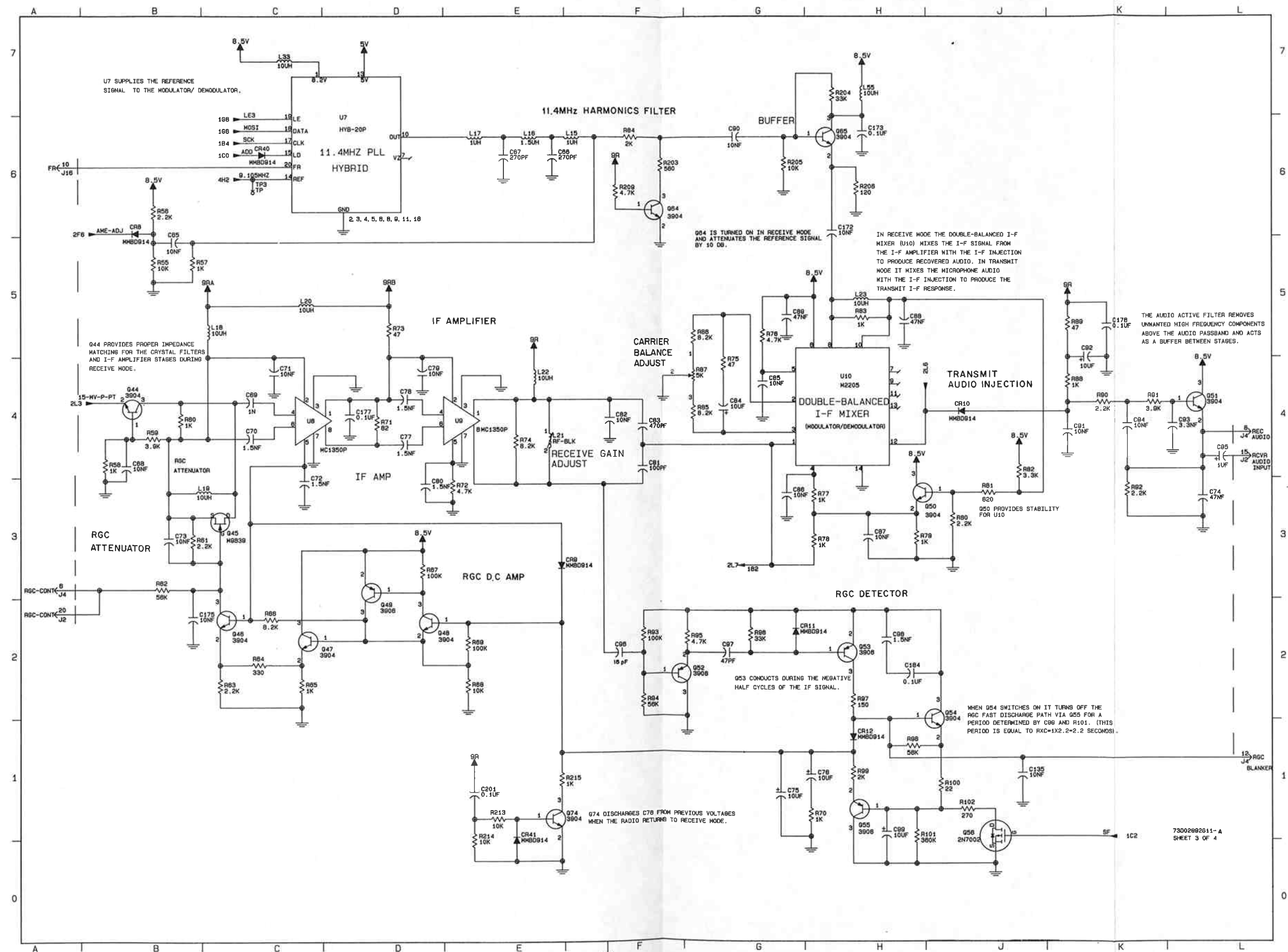
Schematic Diagram



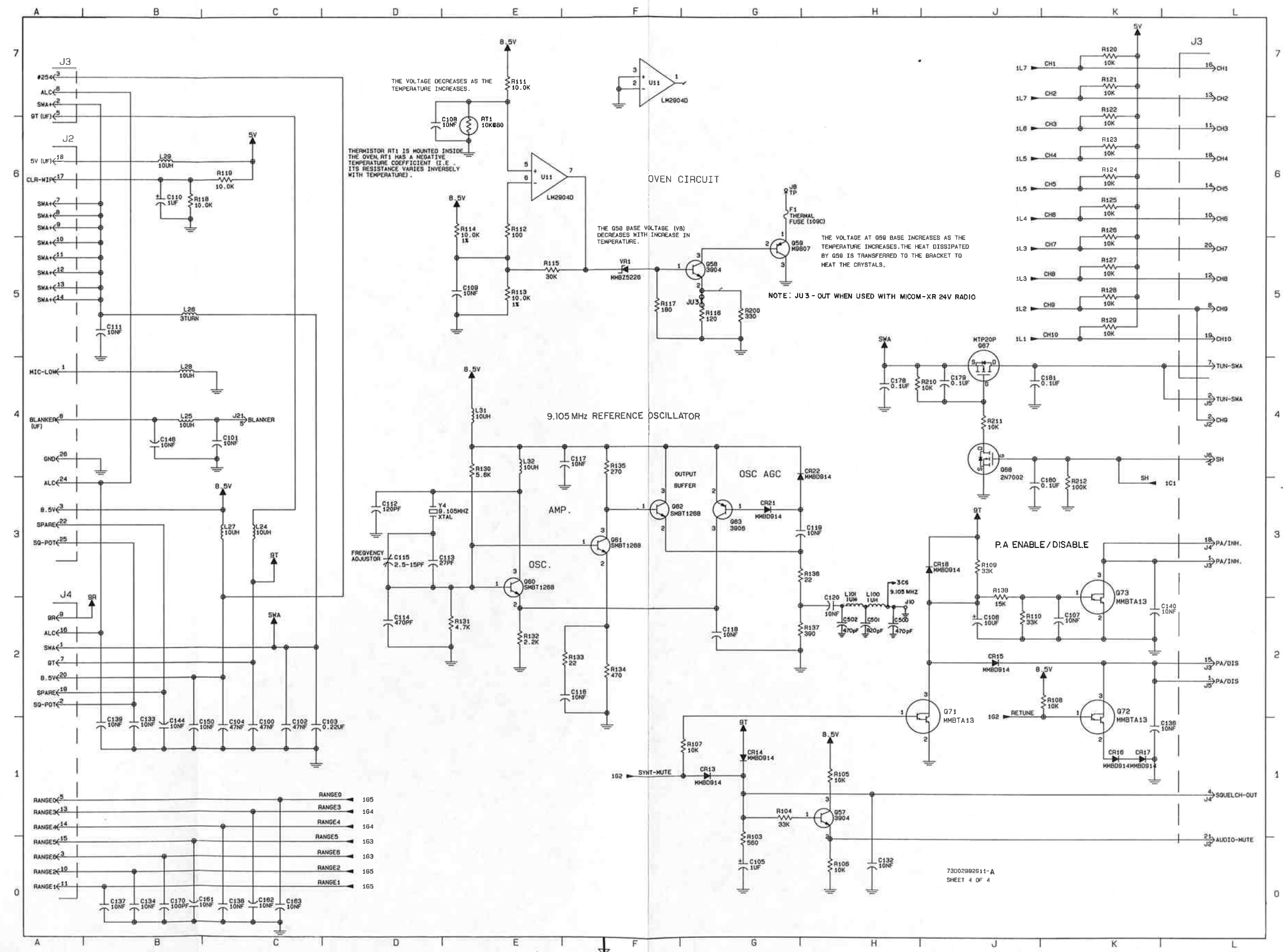
"A" BOARD

Model FLN6201B

Schematic Diagram



"A" BOARD
Model FLN6201B
Schematic Diagram



"A" BOARD

Model FLN6201B

Parts list

MOTOROLA PART NO.	DESCRIPTION
2113740B51	120 pF ±30
2113740B35	27 pF 5% 50V
2113741B13	470 pF
2084546K01	cap variable glass 2.5-15.5 NPO
2113741B45	10 nF
2113740B49	100 pF
2113741B45	10 nF
2113740B49	100 pF
2113740B49	100 pF
2113741B45	10 nF
2113740B49	100 pF
2113741B45	10 nF
2113741B69	100 nF
2113741B45	10 nF
2113741B69	100 nF
2113741B45	10 nF
2113741B69	100 nF
2113741B45	10 nF
2113741B21	1 nF
2113741B13	470 pF
diodes: (see note 1)	
4813833C09	GEN PURP .1A 100V
fuses:	
6583964K01	fuse thermal 3AMP 15V
connectors, receptacle:	
2808044H07	plug header 26 pin
2808044H09	plug header 20 pin
2880128M01	plug connector 5 pin
2880128M02	plug connector 2 pin
2908255C03	PCB connector tab 187 SERIES
0908109L02	coax
0983533H03	CONN
2883447L12	plug 6 pin
2883447L13	plug 8 pin
jumpers:	
2880001R02	CON PCB 2 pin
coils:	
2411087A38	10μH 10%
2411087A19	.27μH 10%
2411087A38	10μH 10%
2483368M01	RF 5.3H WHT
2411087A38	10μH 10%
2411087B26	1.0μH 5%
2411087B28	1.5μH 5%
2411087B26	1.0μH 5%
2411087A38	10μH 10%
2483471M02	RF 3.5μH
2411087A38	10μH 10%
2483977B02	choke 3 turns
2411087A38	10μH 10%
2411087B26	1.0μH 5%
transistors: (see note 1)	
4813823A07	N-CH TMOS FET 2N7000
4813824A17	PNP40V .2A GENP B=1
4813824A10	NPN 40V .2A GENP B
4813824A17	PNP40V .2A GENP B=1
4813824A10	NPN 40V .2A GENP B

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
Q30	4813824A17	PNP40V .2A GENP B=1
Q31	4813824A10	NPN 40V .2A GENP B
Q32-33	4800134674	NPN 34674
Q34	4813824A17	PNP40V .2A GENP B=1
Q35-38	4813824A10	NPN 40V .2A GENP B
Q39-41	4813824A17	PNP40V .2A GENP B=1
Q42	4813823A07	N-CH TMOS FET 2N7000
Q43-44	4813824A10	NPN 40V .2A GENP B
Q45	4811043C12	48R00869839 A/I
Q46-48	4813824A10	NPN 40V .2A GENP B
Q49	4813824A17	PNP40V .2A GENP B=1
Q50-51	4813824A10	NPN 40V .2A GENP B
Q52-53	4813824A17	PNP40V .2A GENP B=1
Q54	4813824A10	NPN 40V .2A GENP B
Q55	4813824A17	PNP40V .2A GENP B=1
Q56	4813823A07	N-CH TMOS FET 2N7000
Q57-58	4813824A10	NPN 40V .2A GENP B
Q59	4800869807	M9807
Q60-62	4805128M87	NPN silicon RF TSTR SOT RH
Q63	4813824A17	PNP40V .2A GENP B=1
Q64-65	4813824A10	NPN 40V .2A GENP B
Q67	4808237G13	power MOSFET P-CH MTP
Q68	4813823A07	N-CH TMOS FET 2N7000
Q71-72	4813824A06	NPN 30V Darlington
Q73	4813824A10	NPN 40V .2A GENP B
Q100	4813824A06	NPN 30V Darlington
resistors, Ω, ± 5%, 1/8W, unless otherwise specified:		
R1	0611077A90	4700
R2	0611077A98	10K
R3	0611077B11	33K
R4	0611077A96	8200
R5	0611077A81	2000
R6-7	0611077A86	3300
R8	0611077A82	2200
R9	0611077A54	150
R10	0611077A62	330
R11	0611077A82	2200
R12	0611077A96	8200
R14	0611077A74	1000
R15	0611077B03	15K
R16	1883452F02	variable 2000 ± 10% 1/2W
R18	0611077B04	16K
R19	0611077A86	3300
R20	0611077A98	10K
R21	0611077A64	390
R22	0611077A82	2200
R23	0611077B11	33K
R24	0611077A74	1000
R25	0611077A42	47
R26	0611077A98	10K
R27-28	0611077A74	1000
R29	0611077A96	8200
R30	0611077A42	47
R31	0611077A86	3300
R32	0611077A78	1500
R33	0611077A68	560
R34	0611077A62	330
R35	0611077A74	1000
R36	0611077A66	470
R37	0611077A50	100
R38	1883452F10	variable 1000 ± 10% 1/2W
R39	0611077A82	2200
R40	0611077A42	47
R41	0611077A60	270
R42	0611077A74	1000

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
R43	0611077A88	3900
R44	0611077A76	1200
R45	0611077A60	270
R46	0611077A64	390
R47	0611077A34	22
R48-50	0611077A66	470
R51	0611077A34	22
R52	0611077A60	270
R54	0611077A90	4700
R55	0611077A98	10K
R56	0611077A82	2200
R57-58	0611077A74	1000
R59	0611077A88	3900
R60	0611077A74	1000
R61	0611077A82	2200
R62	0611077B17	56K
R63	0611077A82	2200
R64	0611077A62	330
R65	0611077A74	1000
R66	0611077A96	8200
R67,69	0611077B23	100K
R70	0611077A74	1000
R71	0611077A48	82
R72	0611077A90	4700
R73	0611077A42	47
R74	0611077A96	8200
R75	0611077A42	47
R76	0611077A90	4700
R77-79	0611077A74	1000
R80	0611077A82	2200
R81	0611077A72	820
R82	0611077A86	3300
R83	0611077A74	1000
R84	0611077A81	2000
R85-86	0611077A96	8200
R87	1883452F12	variable 5000 10 1/2W
R88	0611077A74	1000
R89	0611077A42	47
R90	0611077A82	2200
R91	0611077A88	3900
R92	0611077A82	2200
R93	0611077B23	100K
R94	0611077B17	56K
R95	0611077A90	4700
R96	0611077B11	33K
R97	0611077A54	150
R98	0611077B17	56K
R99	0611077A81	2000
R100	0611077A34	22
R101	0611077B23	100K
R102	0611077A60	270
R103	0611077A68	560
R104	0611077B11	33K
R105-108	0611077A98	10K
R109-110	0611077B11	33K
R111	0611077F91	10.0K 1
R112	0611077A50	100W
R113-114	0611077F91	10.0K 1
R115	0611077B10	30K
R116-117	0611077A56	180
R118-119	0611077F91	10.0K ± 1%
R120-126,		
R127-129	0611077A98	10K
R130	0611077A92	5600
R131	0611077A90	4700
R132	0611077A82	2200
R133	0611077A34	22

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
R134	0611077A66	470
R135	0611077A60	270
R136	0611077A34	22
R137	0611077A64	390
R138-	0611077B03	15K
R200	0611077A60	270
R201	0611077A98	10K
R202	0611077A66	470
R203	0611077A68	560
R204	0611077B11	33K
R205	0611077A98	10K
R206	0611077A52	120
R209	0611077A90	4700
R210-211,		
R213-214	0611077A98	10K
R215	0611077A74	1000
R216-217,		
R300-308	0611077A98	10K
R309-310	0611077A43	51
R667	0611077B36	360K
integrated circuits: (see note 1)		
U1	5113805A75	8 bit SER to PAR/PAR
U2	5108007K18	BCD to DECIMAL DECODER
U3	5113805A32	BCD to DEC ENCDR 74HC147
U4	5113805A75	8 bit SER to PAR/PAR HC595
U5	5108007K18	BCD to DECIMAL DECODER
U6	5113815G02	TIMER 555
U7	5102520S01	PLL 11.4 hybrid
U8-9	5113815D23	AGC/RF VIDEO AMP
U10	5183222M05	22M05 modulator/demodulator
U11	5113818A01	low COST SING SPLY LM2904
zener diodes: (see note 1)		
VR1	4880140L01	SOT Zener 3.3V
crystals: (see note 2)		
Y1	9102612S03	filter set 11.4MHz
Y4	4802587S05	9.105 MHz CASE HC-49/4
non-referenced items:		
	0198213421	flat cable 20pin
	0198213486	oven NEW "A" BD
	0198213908	coax ref OSC
	0198213909	coax IF IMP
1	1482372N01	insulator HTR
3	1484540B01	insulator XTAL
1	2682671D27	shield
2	3883017N01	plug for jumper
1	4282371N01	clip XTAL
1	5582370N01	cover lock fastener
	8404325E31	P.C.B
Notes		
1. For optimum performance, diodes, transistors and integrated circuits must be ordered by MOTOROLA part numbers.		
2. When ordering quartz crystal units or ceramic resonators, specify carrier frequency, crystal (or resonator) frequency, and crystal (or resonator) type number.		

parts list

FLN6201B "A" Board PL-2112-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
capacitors: μ F, $\pm$ 5%, 50V, unless otherwise specified		
C2	2113741B69	100 nF
C3-22	2113741B45	10 nF
C23-24	2113741B69	100 nF
C25-26	2113741B45	10 nF
C27	2113741B61	47 nF
C28-29	2113741B45	10 nF
C30	2113740B25	10 pF $\pm$ 30
C31-33	2113741B45	10 nF
C34	2311049A08	1 μ F $\pm$ 10% 35V
C35-36	2113741B45	10 nF
C37,39	2311049A19	10 μ F $\pm$ 10% 25V
C40	2113740B49	100 pF
C41-42	2113741B45	10 nF
C43	2311049A08	1 μ F $\pm$ 10% 35V
C44-47	2113741B45	10 nF
C48	2113740B49	100 pF
C49-53	2113741B45	10 nF
C54	2113740B11	2.7 pF
C55-58	2113740B36	30 pF
C59	2113740B11	2.7 pF
C60-61	2113741B45	10 nF
C62	2113740B47	82 pF
C63-65	2113741B45	10 nF
C66-67	2113740B58	240 pF
C68	2113741B45	10 nF
C69	2113741B21	1 nF
C70	2113740B76	1.5 nF
C71	2113741B45	10 nF
C72	2113740B76	1.5 nF
C73	2113741B45	10 nF
C74	2113741B61	47 nF
C75-76	2311049A19	10 μ F $\pm$ 10% 25V
C77-78	2113740B76	1.5 nF
C79	2113741B45	10 nF
C80	2113740B76	1.5 nF
C81	2113740B49	100 pF
C82	2113741B45	10 nF
C83	2113741B13	470 pF
C84	2311049A19	10 μ F $\pm$ 10% 25V
C85-87	2113741B45	10 nF
C88-89	2113741B61	47 nF
C91	2113741B45	10 nF
C92	2311049A19	10 μ F $\pm$ 10% 25V
C93	2113741B33	3.3 nF
C94	2113741B45	10 nF
C95	2311049A08	1 μ F $\pm$ 10% 35V
C96	2113740B29	15 pF
C97	2113740B41	47 pF
C98	2113740B76	1.5 nF
C99	2311049A19	10 $\pm$ 10% 25V
C100	2113741B61	47 nF
C101	2113741B45	10 nF
C102	2113741B61	47 nF
C103	2113743B21	0.22 μ F
C104	2113741B61	47 nF
C105	2311049A08	1 μ F $\pm$ 10% 35V
C106	2311049A19	10 μ F $\pm$ 10% 25V
C107-109	2113741B45	10 nF
C110	2311049A08	1 μ F $\pm$ 10% 35V
C111	2113741B45	10 nF

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C112	2113740B51	120 pF $\pm$ 30
C113	2113740B35	27 pF 5% 50V
C114	2113741B13	470 pF
C115	2084546K01	cap variable glass 2.5-15.5 NPO
C116-123	2113741B45	10 nF
C124	2113740B49	100 pF
C125-126	2113741B45	10 nF
C127	2113740B49	100 pF
C128-129	2113740B49	100 pF
C130-150,		
C160-163	2113741B45	10 nF
C170	2113740B49	100 pF
C172	2113741B45	10 nF
C173	2113741B69	100 nF
C175	2113741B45	10 nF
C176-182	2113741B69	100 nF
C183	2113741B45	10 nF
C184,200-201	2113741B69	100 nF
C202	2113741B45	10 nF
C501	2113741B21	1 nF
502	2113741B13	470 pF
diodes: (see note 1)		
CR1-18,20-24,		
CR40-41	4813833C09	GEN PURP .1A 100V
fuses:		
	6583964K01	fuse thermal 3AMP 15V
connectors, receptacle:		
J2	2808044H07	plug header 26 pin
J3-4	2808044H09	plug header 20 pin
J5-6	2880128M01	plug connector 5 pin
J7	2880128M02	plug connector 2 pin
J8	2908255C03	PCB connector tab 187 SERIES
J9-10	0908109L02	coax
J16	0983533H03	CONN
J21	2883447L12	plug 6 pin
J22	2883447L13	plug 8 pin
jumpers:		
JU1-2	2880001R02	CON PCB 2 pin
coils:		
L1-4,6-7	2411087A38	10 μ H 10%
L8	2411087A19	.27 μ H 10%
L9-10	2411087A38	10 μ H 10%
L11-12	2483368M01	RF 5.3H WHT
L13	2411087A38	10 μ H 10%
L15	2411087B26	1.0 μ H 5%
L16	2411087B28	1.5 μ H 5%
L17	2411087B26	1.0 μ H 5%
L18-20	2411087A38	10 μ H 10%
L21	2483471M02	RF 3.5 μ H
L22-25	2411087A38	10 μ H 10%
L26	2483977B02	choke 3 turns
L27-29,31-33,		
L50-51,53-57	2411087A38	10 μ H 10%
L100-101	2411087B26	1.0 μ H 5%
transistors: (see note 1)		
Q1-22	4813823A07	N-CH TMOS FET 2N7000
Q23	4813824A17	PNP40V .2A GENP B=1
Q24-25	4813824A10	NPN 40V .2A GENP B
Q26	4813824A17	PNP40V .2A GENP B=1
Q27-29	4813824A10	NPN 40V .2A GENP B

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
Q30	4813824A17	PNP40V .2A GENP B=1
Q31	4813824A10	NPN 40V .2A GENP B
Q32-33	4800134674	NPN 34674
Q34	4813824A17	PNP40V .2A GENP B=1
Q35-38	4813824A10	NPN 40V .2A GENP B
Q39-41	4813824A17	PNP40V .2A GENP B=1
Q42	4813823A07	N-CH TMOS FET 2N7000
Q43-44	4813824A10	NPN 40V .2A GENP B
Q45	4811043C12	48R00869839 A/I
Q46-48	4813824A10	NPN 40V .2A GENP B
Q49	4813824A17	PNP40V .2A GENP B=1
Q50-51	4813824A10	NPN 40V .2A GENP B
Q52-53	4813824A17	PNP40V .2A GENP B=1
Q54	4813824A10	NPN 40V .2A GENP B
Q55	4813824A17	PNP40V .2A GENP B=1
Q56	4813823A07	N-CH TMOS FET 2N7000
Q57-58	4813824A10	NPN 40V .2A GENP B
Q59	4800869807	M9807
Q60-62	4805128M87	NPN silicon RF TSTR SOT RH
Q63	4813824A17	PNP40V .2A GENP B=1
Q64-65	4813824A10	NPN 40V .2A GENP B
Q67	4808237G13	power MOSFET P-CH MTP
Q68	4813823A07	N-CH TMOS FET 2N7000
Q71-72	4813824A06	NPN 30V Darlington
Q73	4813824A10	NPN 40V .2A GENP B
Q100	4813824A06	NPN 30V Darlington
resistors, Ω , $\pm$ 5%, $\frac{1}{4}$ W, unless otherwise specified:		
R1	0611077A90	4700
R2	0611077A98	10K
R3	0611077B11	33K
R4	0611077A96	8200
R5	0611077A81	2000
R6-7	0611077A86	3300
R8	0611077A82	2200
R9	0611077A54	150
R10	0611077A62	330
R11	0611077A82	2200
R12	0611077A96	8200
R14	0611077A74	1000
R15	0611077B03	15K
R16	1883452F02	variable 2000 $\pm$ 10% $\frac{1}{2}$ W
R18	0611077B04	16K
R19	0611077A86	3300
R20	0611077A98	10K
R21	0611077A64	390
R22	0611077A82	2200
R23	0611077B11	33K
R24	0611077A74	1000
R25	0611077A42	47
R26	0611077A98	10K
R27-28	0611077A74	1000
R29	0611077A96	8200
R30	0611077A42	47
R31	0611077A86	3300
R32	0611077A78	1500
R33	0611077A68	560
R34	0611077A62	330
R35	0611077A74	1000
R36	0611077A66	470
R37	0611077A50	100
R38	1883452F10	variable 1000 $\pm$ 10% $\frac{1}{2}$ W
R39	0611077A82	2200
R40	0611077A42	47
R41	0611077A60	270
R42	0611077A74	1000

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
R43		061
R44		061
R45		061
R46		061
R47		061
R48-50		061
R51		061
R52		061
R54		061
R55		061
R56		061
R57-58		061
R59		061
R60		061
R61		061
R62		061
R63		061
R64		061
R65		061
R66		061
R67,69		061
R70		061
R71		061
R72		061
R73		061
R74		061
R75		061
R76		061
R77-79		061
R80		061
R81		061
R82		061
R83		061
R84		061
R85-86		061
R87		188
R88		061
R89		061
R90		061
R91		061
R92		061
R93		061
R94		061
R95		061
R96		061
R97		061
R98		061
R99		061
R100		061
R101		061
R102		061
R103		061
R104		061
R105-108		061
R109-110		061
R111		061
R112		061
R113-114		061
R115		061
R116-117		061
R118-119		061
R120-126,		061
R127-129		061
R130		061
R131		061
R132		061
R133		061