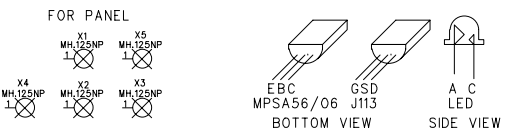
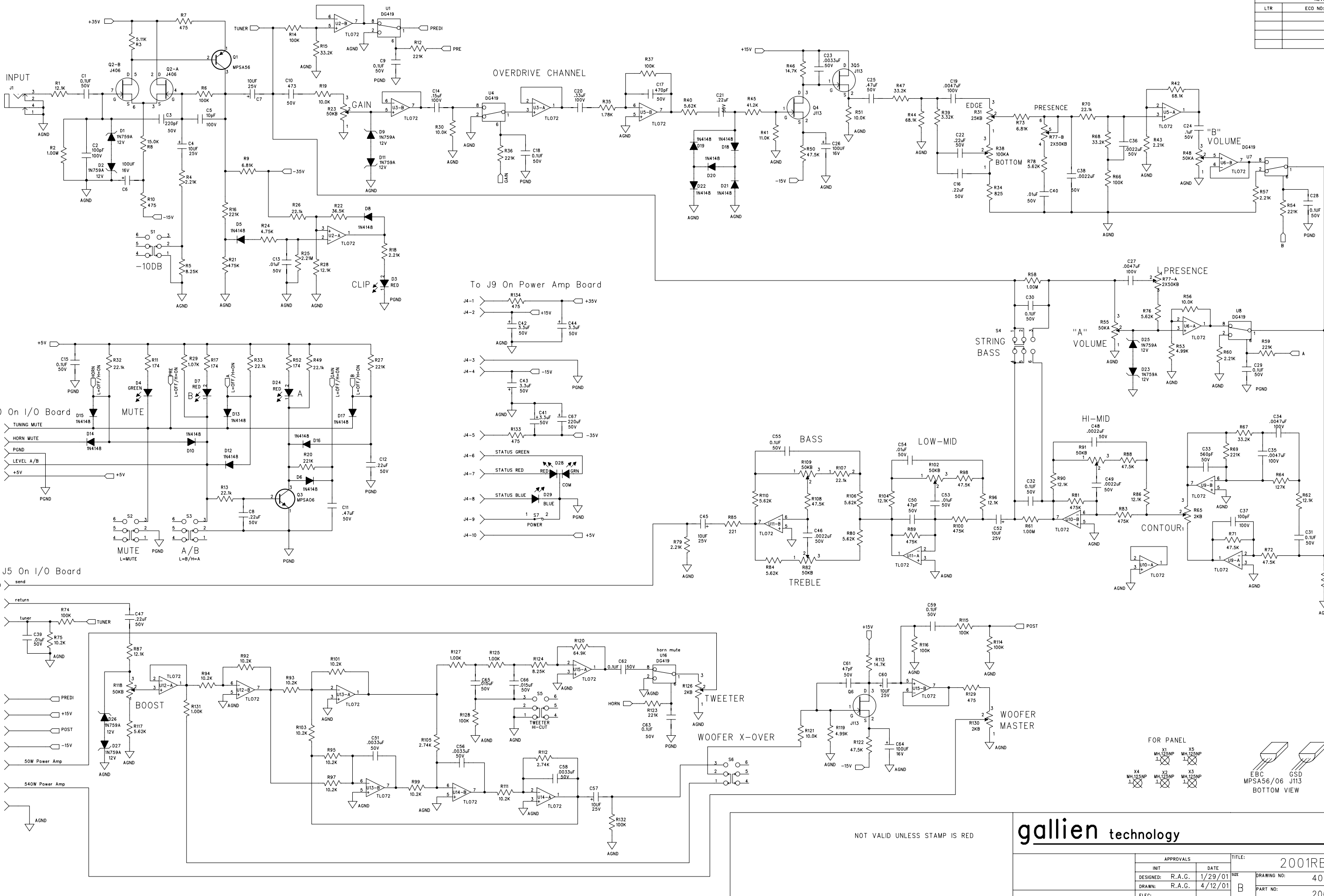


REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



NOT VALID UNLESS STAMP IS RED

gallien technology		2240 PARAGON DRIVE SAN JOSE CA. 95131 VOICE: 408-441-8081 FAX: 408-441-8085	
TITLE: 2001RB PREAMP		REV: A	
DESIGNED: R.A.G.	DATE: 1/29/01	DRAWING NO: 406-0133-A	
DRAWN: R.A.G.	DATE: 4/12/01	PART NO: 206-0133-A	
ELEC:		COMPANY: GALLIEN-KRUEGER	
MECH:		FILENAME: 6133A.SCH	
Q/A:			
RELEASED:			

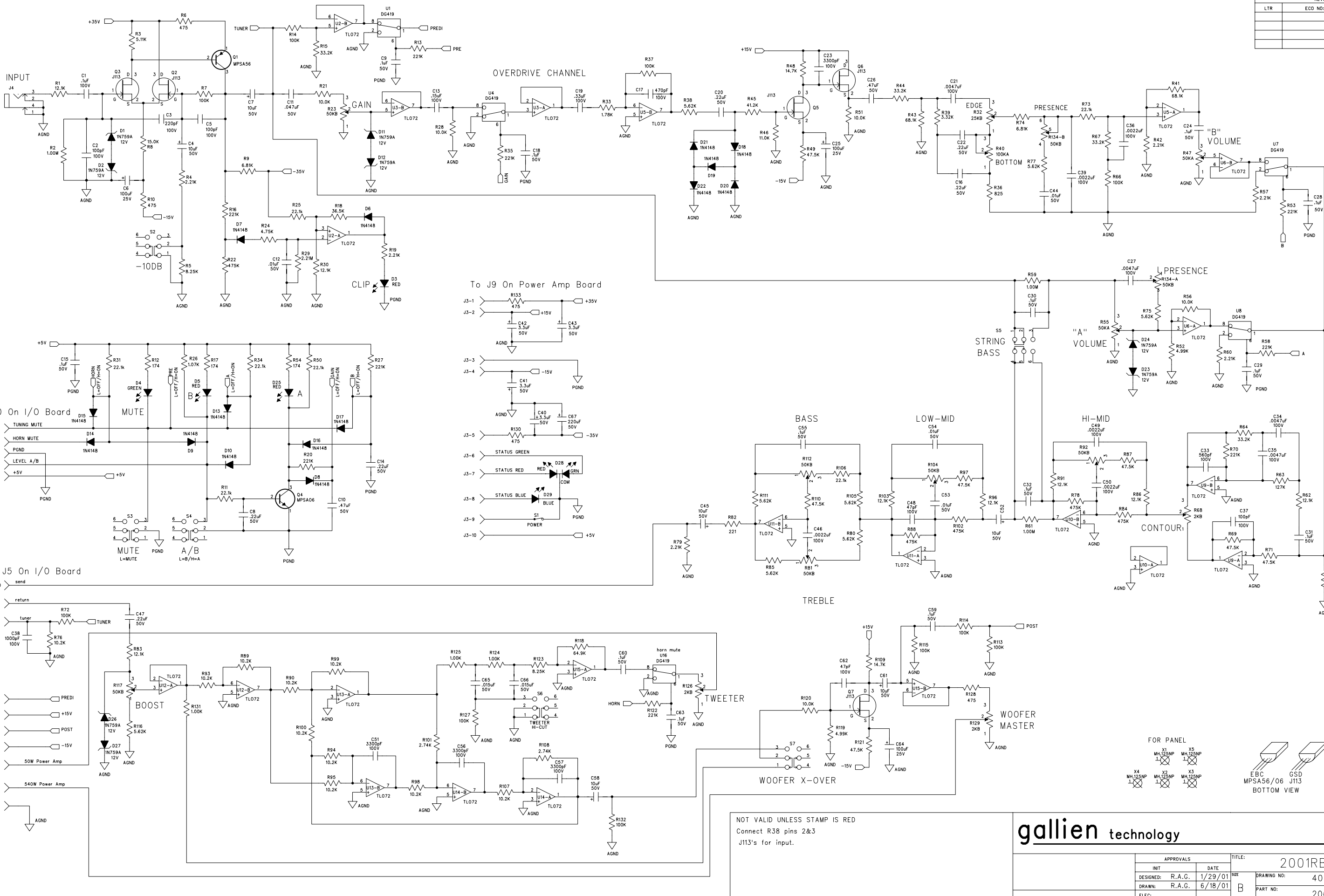
# **Bill of Materials 2001RB Preamp 206-0133-A**

Item	Qty	Reference	Description	Part Number
2	11	U2-3 U5-6 U9-15	TLO72CP, LOW NOISE JFET OPAMP	001-1030-1
3	5	U1 U4 U7-8 U16	SPDT Analog Switch	001-3029-0
4	1	Q3	MPSAO6, NPN,80V,500MA,TO-92	010-0012-0
5	1	Q1	MPSA56 PNP 80V 500MA TO-92	010-1013-0
6	3	Q4-6	J113,N-JFET,35V,2MA,TO-92	010-2010-0
7	1	Q2	J406,DUAL N-CH JFET 8PIN DIP	010-2040-0
8	8	D1-2 D9 D11 D23 D25-27	1N759A, ZENER,12V,5%,400MW, DO-35	020-0120-0
9	15	D5-6 D8 D10 D12-22	1N4148, RECT-FAST, 200MA, 100V, 4NS, DO-35	020-1000-0
10	1	D28	LED,RED/GRN,5MM,630NM/560NM,15MCD/15MCD	025-0012-0
11	1	D29	LED,BLUE, 10MA	025-0030-2
12	1	D4	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	025-0101-0
13	3	D3 D7 D24	LED,RED, 3MM, 635NM, 6MCD, 10MA, 40DEG	025-0116-0
14	1	C39	CAP, CER, AX, 102, 10%, 50V, X7R	030-2102-0
15	4	C13 C40 C53-54	CAP CER AXIAL,103,10%,50V,NPO	030-2103-0
16	14	C1 C9 C15 C18 C24 C28-32 C55 C59 C62-63	CAP CER AXIAL,104,10%,50V,X7R	030-2104-0
17	2	C65-66	CAP CER AXIAL,153,10%,50V,X7R	030-2153-0
18	1	C3	CAP CER AXIAL,221,10%,50V,NPO	030-2221-0
19	5	C36 C38 C46 C48-49	CAP CER AXIAL,222,10%,50V,X7R	030-2222-0
20	6	C8 C12 C16 C21-22 C47	CAP CER AXIAL,224,20%,50V,Z5U	030-2224-0
21	4	C23 C51 C56 C58	CAP CER AXIAL,332,10%,50V,X7R	030-2332-0
22	2	C50 C61	CAP CER AXIAL,47PF,10%,50V,NPO	030-2470-0
23	1	C17	CAP CER AXIAL,471,10%,50V,NPO	030-2471-0
24	1	C10	CAP CER AXIAL,473,10%,50V,X7R	030-2473-0
25	2	C11 C25	CAP CER AXIAL,474,20%,50V,Z5U	030-2474-0
26	1	C33	CAP CER AXIAL,561,10%,50V,X7R	030-2561-0
27	1	C5	CAP CER AXIAL,10PF,10%,100V	030-4100-0
28	2	C2 C37	CAP CER AXIAL,101,5%,100V,COG	030-4101-0
29	4	C19 C27 C34-35	CAP CER AXIAL, 472, 10%, 100V,,X7R	030-4472-0
30	6	C4 C7 C45 C52 C57 C60	CAP,ELEC,RAD,106,20%,25V,NP	031-0106-1
31	3	C6 C26 C64	CAP,ELEC,RAD,107,-10%,+50%,16V	031-0107-0
32	1	C67	CAP ELEC, 220uF 5% 50V	031-2227-0
33	4	C41-44	CAP,ELEC,RAD,335,20%,50V	031-2335-0
34	1	C14	CAP,PE,154,10%,100V,	032-4154-0
35	1	C20	CAP,PE,334,10%,100V,	032-4334-0
36	3	R125 R127 R131	RES,METAL FILM, 1.00K, 1/8W, 1%	060-1002-0
37	5	R19 R30 R51 R56 R121	RES,METAL FILM, 10.0K, 1/8W,1%	060-1003-0
38	10	R6 R14 R37 R66 R74 R114-116 R128 R132	RES,METAL FILM, 100K, 1/8W, 1%	060-1004-0

39	3	R2 R58 R61	RES, MF, 1.00M, 1%,1/8W, 060-1005-0	060-1005-0
40	10	R75 R92-95 R97 R99 R101 R103 R111	RES,METAL FILM, 10.2K, 1/8W, 1%	060-1023-0
41	1	R29	RES,METAL FILM, 1.07K, 1/8W, 1%	060-1072-0
42	1	R41	RES,METAL FILM, 11.0K, 1/8W, 1%	060-1103-0
43	8	R1 R28 R62 R86-87 R90 R96 R104	RES,METAL FILM, 12.1K OHM, 1/8W, 1%	060-1213-0
44	1	R64	RES,METAL FILM ,127K,1/8W,1%	060-1274-0
45	2	R46 R113	RES,METAL FILM, 14.7K, 1/8W, 1%	060-1473-0
46	1	R8	RES,METAL FILM, 15.0K, 1/8W, 1%	060-1503-0
47	3	R11 R17 R52	RES,METAL FILM, 174, 1/8W, 1%	060-1741-0
48	1	R35	RES,METAL FILM, 1.78K, 1/8W, 1%	060-1782-0
49	1	R85	RES,METAL FILM, 221 ohm, 1/8W, 1%	060-2211-0
50	7	R4 R18 R43 R57 R60 R63 R79	RES,METAL FILM, 2.21K, 1/8W, 1%	060-2212-0
51	7	R13 R26 R32-33 R49 R70 R107	RES,METAL FILM, 22.1K, 1/8W, 1%	060-2213-0
52	9	R12 R16 R20 R27 R36 R54 R59 R69 R123	RES,METAL FILM, 221K, 1/8W, 1%	060-2214-0
53	1	R25	RES, METAL FILM, 2.21M, 1/8W, 1%	060-2215-0
54	2	R105 R112	RES,METAL FILM, 2.74K, 1/8W, 1%	060-2742-0
55	1	R39	RES,METAL FILM, 3.32K, 1/8W, 1%	060-3322-0
56	4	R15 R47 R67-68	RES,METAL FILM, 33.2K, 1/8W, 1%	060-3323-0
57	1	R22	RES,METAL FILM, 36.5K, 1/8W, 1%	060-3653-0
58	1	R45	RES,METAL FILM, 41.2K, 1/8W, 1%	060-4123-0
59	5	R7 R10 R129 R133-134	RES,METAL FILM, 475 ohm, 1/8W, 1%	060-4751-0
60	1	R24	RES,METAL FILM, 4.75K, 1/8W, 1%	060-4752-0
61	7	R50 R71-72 R88 R98 R108 R122	RES,METAL FILM, 47.5K, 1/8W, 1%	060-4753-0
62	5	R21 R81 R83 R89 R100	RES,METAL FILM, 475K, 1/8W, 1%	060-4754-0
63	2	R53 R119	RES,METAL FILM, 4.99K, 1/8W, 1%	060-4992-0
64	1	R3	RES,METAL FILM, 5.11K, 1/8W, 1%	060-5112-0
65	8	R40 R76 R78 R80 R84 R106 R110 R117	RES,METAL FILM, 5.62K, 1/8W, 1%	060-5622-0
66	1	R120	RES,METAL FILM, 64.9K, 1/8W, 1%	060-6493-0
67	2	R9 R73	RES,METAL FILM, 6.81K, 1/8W, 1%	060-6812-0
68	2	R42 R44	RES,METAL FILM, 68.1K, 1/8W, 1%	060-6813-0
69	1	R34	RES,METAL FILM, 825 ohm, 1/8W, 1%	060-8251-0
70	2	R5 R124	RES,METAL FILM, 8.25K, 1/8W, 1%	060-8252-0
71	2	R48 R55	POT,50K-15A,7MM,KNURL,.1W	070-1513-0
72	6	R23 R82 R91 R102 R109 R118	POT,50KB,7MM,KNURL,.1W	070-1514-0
73	2	R65 R126	POT,2KB,7MM,KNURL,.1W	070-1522-0
74	1	R130	POT,2KB,7MM,KNURL,.1W	070-1522-0
75	1	R77	POT, 2X50KB, 7MM, KNURL, .1W	070-1523-0
76	1	R31	POT,25KB,7MM,KNURL,.1W	070-1526-0

77	1	R38	POT,100KA,7MM,KNURL,.1W	070-1527-0
78	1	S7	SWITCH, 8A/128A,250V,PP,PCB	090-0007-0
79	6	S1-6	SWITCH,MIMI PP,DPDT, .1A BRK/MAKE,PC TERM	090-0012-0
80	1	J1	JACK,1/4",MONO,PC,NON GROUNDING	092-0081-0
81	1	J2	HSG, 2MMX5, 26GA, IDC	093-0053-0
82	2	J3-4	HDR, 2MMX10, VERT, SHROUDED	093-0091-0

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

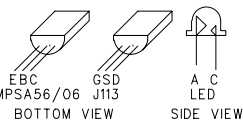


NOT VALID UNLESS STAMP IS RED  
Connect R38 pins 2&3  
J113's for input.

**gallien** technology

APPROVALS		TITLE:	
INIT	DATE	DESIGNED:	2001RB PREAMP
DESIGNED: R.A.G.	1/29/01	DRAWN: R.A.G.	6/18/01
ELEC:		MECH:	
Q/A:		RELEASED:	
PART NO:		COMPANY:	
206-0133-A1		GALLIEN-KRUEGER	
FILENAME:		6133A1.SCH	

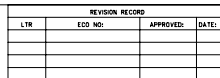
2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8081  
FAX: 408-441-8085



**Bill of Materials 2001RB Preamp 206-0133-A1**

Qty	Reference	Description	Part Number	MFR	MFR PART NO.
2	C65-66	CAP CER AXIAL,153,10%,50V,X7R	030-2153-0	KEMET	C410C153K5R5CA
4	C12 C44 C53-54	CAP CER AXIAL,103,10%,50V,X7R	030-2103-0	KEMET	C410C103K5R5CA
1	C11	CAP CER AXIAL, 0.047UF, 10%, 50V, X7R	030-2473-0	KEMET	C410C473K5R5CA
1	C13	CAP,PE,154,10%,100V,	032-4154-0	PACCOM	85154J100A5S5
1	C1	CAP,PE,104,10%,100V,	032-4104-0	PACCOM	85104J100A5S5
13	C9 C15 C18 C24 C28-32 C55 C59-60 C63	CAP CER AXIAL,104,10%,50V,X7R	030-2104-0	KEMET	C412C104K5R5CA
6	C8 C14 C16 C20 C22 C47	CAP CER AXIAL,224,20%,50V,Z5U	030-2224-0	KEMET	C410C224M5U5CA
1	C19	CAP,PE,334,5%,100V,	032-4334-0	PACCOM	85334J100A5S5
2	C10 C26	CAP CER AXIAL,474,20%,50V,Z5U	030-2474-0	AVX	SA305E474MAA
1	C38	CAP CER AXIAL,102,10%,100V,X7R	030-4102-0	KEMET	C410C102K1R5CA
3	C2 C5 C37	CAP CER AXIAL,101,5%,100V,COG	030-4101-0	KEMET	C410C101J1G5CA
3	C6 C25 C64	CAP,ELEC,RAD,107,20%,25V	031-1107-0	UNITED CHEMI-CON	SMG25VB101M6X11LL
6	C4 C7 C45 C52 C58 C61	CAP,ELEC,RAD, 106, 20%, 50V	031-2106-0	UNITED CHEMI-CON	SMG50VB10RM5X11LL
5	C36 C39 C46 C49-50	CAP CER AXIAL,222,10%,100V,X7R	030-2222-0	KEMET	C410C222K1R5CA
1	C3	CAP CER AXIAL,221,5%,100V,NPO	030-4221-0	KEMET	C410C221J1G5CA
1	C67	CAP, ELEC, 220uF, 20%, 50V	031-2227-0	UNITED CHEMI-CON	SMG50VB221M10X12LL
4	C40-43	CAP,ELEC,RAD,335,20%,50V	031-2335-0	UNITED CHEMI-CON	SMG50VB3R3M5X11LL
4	C23 C51 C56-57	CAP CER AXIAL,332,10%,100V,X7R	030-4332-0	KEMET	C410C332K1R5CA
4	C21 C27 C34-35	CAP CER AXIAL, 472, 10%, 100V,,X7R	030-4472-0	KEMET	C410C472K1R5CA
1	C17	CAP CER AXIAL,471,5%,100V,NPO	030-4471-0	KEMET	C410C471J1G5CA
2	C48 C62	CAP CER AXIAL,47PF,5%,100V,NPO	030-4470-0	KEMET	C410C470J1G5CA
1	C33	CAP CER AXIAL,561,10%,100V,X7R	030-4561-0	KEMET	C410C561K1R5CA
1	J4	JACK,1/4",MONO,PC,NON GROUNDING	092-0081-0	NEUTRIK	S102-84
15	D6-10 D13-22	1N4148, RECT-FAST, 200MA, 100V	020-1000-0	MOTOROLA	1N4148
8	D1-2 D11-12 D23-24 D26-27	1N759A, ZENER,12V,5%,400MW, DO-35	020-0120-0	MOTOROLA	1N759A
2	J2-3	HDR, 2MMX10, VERT, SHROUDED	093-0091-0		
1	J1	HSG, 2MMX5, 26GA, IDC	093-0053-0		
5	U1 U4 U7-8 U16	SPDT Analog Switch	001-3029-0		
11	U2-3 U5-6 U9-15	TLO72CP, LOW NOISE JFET OPAMP	001-1030-1		
1	D29	LED,BLUE, 10MA	025-0030-2	LOTEON	LTL-42B6
1	D4	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	025-0101-0	EVERLIGHT	EL204GD
1	D28	LED,RED/GRN,5MM,630NM/560NM,15MCD/15MCD	025-0012-0	STANLEY	VRPG5614S
3	D3 D5 D25	LED,RED, 3MM, 635NM, 6MCD, 10MA, 40DEG	025-0116-0	EVERLIGHT	EL204ID
1	R40	POT,100KA,7MM,KNURL,.1W	070-1527-0	SONG HUEI	16K1-A100K,L-15KC/7MM
1	R32	POT,25KB,7MM,KNURL,.1W	070-1526-0	SONG HUEI	16K1-B25K,L-15KC/7MM
3	R68 R126 R129	POT,2KB,7MM,KNURL,.1W	070-1522-0	SONG HUEI	16K1-B2K,L115KC/7MM
2	R47 R55	POT,50K-15A,7MM,KNURL,.1W	070-1513-0	SONG HUEI	16K-A50K,L-15KC/7MM
1	R134	POT, 2X50KB, 7MM, KNURL, .1W	070-1253-0	SONG HUEI	16T1-B50K,L-15KC/7MM
6	R23 R81 R92 R104 R112 R117	POT,50KB,7MM,KNURL,.1W	070-1514-0	SONG HUEI	16K1-B50K,L15KC/7MM
3	R124-125 R131	RES,METAL FILM, 1.00K, 1/8W, 1%	060-1002-0		
3	R2 R59 R61	RES, MF, 1.00M, 1%,1/8W, 060-1005-0	060-1005-0		
1	R26	RES,METAL FILM, 1.07K, 1/8W, 1%	060-1072-0		
1	R33	RES,METAL FILM, 1.78K, 1/8W, 1%	060-1782-0		
5	R21 R28 R51 R56 R120	RES,METAL FILM, 10.0K, 1/8W,1%	060-1003-0		
10	R76 R89-90 R93-95 R98-100 R107	RES,METAL FILM, 10.2K, 1/8W, 1%	060-1023-0		
10	R7 R14 R37 R66 R72 R113-115 R127 R132	RES,METAL FILM, 100K, 1/8W, 1%	060-1004-0		
1	R46	RES,METAL FILM, 11.0K, 1/8W, 1%	060-1103-0		
8	R1 R30 R62 R83 R86 R91 R96 R103	RES,METAL FILM, 12.1K OHM, 1/8W, 1%	060-1213-0		
1	R63	RES,METAL FILM ,127K,1/8W,1%	060-1274-0		
2	R48 R109	RES,METAL FILM, 14.7K, 1/8W, 1%	060-1473-0		
1	R8	RES,METAL FILM, 15.0K, 1/8W, 1%	060-1503-0		
3	R12 R17 R54	RES,METAL FILM, 174, 1/8W, 1%	060-1741-0		
7	R4 R19 R42 R57 R60 R65 R79	RES,METAL FILM, 2.21K, 1/8W, 1%	060-2212-0		
1	R29	RES, METAL FILM, 2.21M, 1/8W, 1%	060-2215-0		

2	R101 R108	RES,METAL FILM, 2.74K, 1/8W, 1%	060-2742-0		
7	R11 R25 R31 R34 R50 R73 R106	RES,METAL FILM, 22.1K, 1/8W, 1%	060-2213-0		
9	R13 R16 R20 R27 R35 R53 R58 R70 R122	RES,METAL FILM, 221K, 1/8W, 1%	060-2214-0		
1	R82	RES,METAL FILM, 221 ohm, 1/8W, 1%	060-2211-0		
1	R39	RES,METAL FILM, 3.32K, 1/8W, 1%	060-3322-0		
4	R15 R44 R64 R67	RES,METAL FILM, 33.2K, 1/8W, 1%	060-3323-0		
1	R18	RES,METAL FILM, 36.5K, 1/8W, 1%	060-3653-0		
1	R24	RES,METAL FILM, 4.75K, 1/8W, 1%	060-4752-0		
2	R52 R119	RES,METAL FILM, 4.99K, 1/8W, 1%	060-4992-0		
1	R45	RES,METAL FILM, 41.2K, 1/8W, 1%	060-4123-0		
7	R49 R69 R71 R87 R97 R110 R121	RES,METAL FILM, 47.5K, 1/8W, 1%	060-4753-0		
5	R22 R78 R84 R88 R102	RES,METAL FILM, 475K, 1/8W, 1%	060-4754-0		
5	R6 R10 R128 R130 R133	RES,METAL FILM, 475 ohm, 1/8W, 1%	060-4751-0		
1	R3	RES,METAL FILM, 5.11K, 1/8W, 1%	060-5112-0		
8	R38 R75 R77 R80 R85 R105 R111 R116	RES,METAL FILM, 5.62K, 1/8W, 1%	060-5622-0		
2	R9 R74	RES,METAL FILM, 6.81K, 1/8W, 1%	060-6812-0		
1	R118	RES,METAL FILM, 64.9K, 1/8W, 1%	060-6493-0		
2	R41 R43	RES,METAL FILM, 68.1K, 1/8W, 1%	060-6813-0		
2	R5 R123	RES,METAL FILM, 8.25K, 1/8W, 1%	060-8252-0		
1	R36	RES,METAL FILM, 825 ohm, 1/8W, 1%	060-8251-0		
6	S2-7	SWITCH,MIMI PP,DPDT, .1A BRK/MAKE,PC	090-0012-0	ELKECTRONIC COMP	MTH2UEE-1D911
1	S1	SWITCH, 8A/128A,250V,PP,PCB	090-0007-0	TECX	KDC-A04-10-B, B2-F
5	Q2-3 Q5-7	J113,N-JFET,35V,2MA,TO-92	010-2010-0	NATIONAL	J113
1	Q4	MPSA06, NPN,80V,500MA,TO-92	010-0012-0	MOTOROLA	MPSA06
1	Q1	MPSA56 PNP 80V 500MA TO-92	010-1013-0	MOTOROLA	MPSA56



TITLE: 2001RB PREAMP			
REV: B	DRAWING NO: 406-0133-A2		REV: A2
	PART NO: 206-0133-A2		
COMPANY: GALLIEN-KRUEGER			
FILENAME: 6133A2.SCH			

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8085  
FAX: 408-441-8085

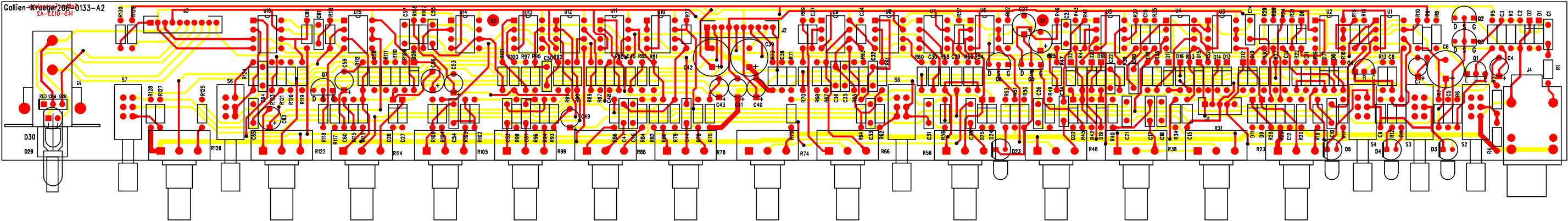


**Bill of Material 2001RB Preamp 206-0133-A2**

Qty	Reference	Description	Part No.	Mfr	Mfr Part No.
11	U2,3,5,6,9-15	TLO72CP, LOW NOISE JFET OPAMP	001-1030-1	MOTOROLA	TL072CP
5	U1 U4 U7-8 U16	DG419, Analog Switch	001-3029-0	MAXIM	DG419DJ
1	Q4	MPSAO6, NPN,80V,500MA,TO-92	010-0012-0	MOTOROLA	MPSA06
1	Q1	MPSA56 PNP 80V 500MA TO-92	010-1013-0	MOTOROLA	MPSA56
5	Q2-3 Q5-7	J113,N-JFET,35V,2MA,TO-92	010-2010-0	NATIONAL	J113
8	D1,2,9,11,24,25,27 D28	1N759A, ZENER,12V,5%,400MW, DO-35	020-0120-0 020-0120-0	MOTOROLA	1N759A
16	D6-8,10,12-22,26	1N4148, RECT-FAST, 200MA, 100V	020-1000-0	MOTOROLA	1N4148
1	D29	LED,RED/GRN,5MM,630NM/560NM,15MCD	025-0012-0	STANLEY	VRPG5614S
1	D3	LED,YELLOW, 3MM, 585NM, 5MCD, 10MA	025-0023-0	EVERLIGHT	EL204YD
1	D30	LED,BLUE, 10MA	025-0030-2	LOTEON	LTL-42B6
2	D5 D23	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	025-0101-0	EVERLIGHT	EL204GD
1	D4	LED,RED, 3MM, 635NM, 6MCD, 10MA	025-0116-0	EVERLIGHT	EL2041D
1	C12	CAP CER AXIAL,103,10%,50V,X7R	030-2103-0	KEMET	C410C103K5R5CA
7	C9,15,19,29,30,58 C62	CAP CER AXIAL,104,10%,50V,X7R	030-2104-0 030-2104-0	KEMET	C412C104K5R5CA
3	C8 C13 C45	CAP CER AXIAL,224,20%,50V,Z5U	030-2224-0	KEMET	C410C224M5U5CA
1	C11	CAP CER AXIAL,474,20%,50V,Z5U	030-2474-0	AVX	SA305E474MAA
1	C5	CAP CER AXIAL,10PF,10%,100V,COG	030-4100-0	KEMET	C410C100J1G5CA
2	C2 C37	CAP CER AXIAL,101,5%,100V,COG	030-4101-0	KEMET	C410C101J1G5CA
1	C38	CAP CER AXIAL,102,10%,100V,X7R	030-4102-0	KEMET	C410C102K1R5CA
1	C3	CAP CER AXIAL,221,5%,100V,NPO	030-4221-0	KEMET	C410C221J1G5CA
2	C48 C60	CAP CER AXIAL,47PF,5%,100V,NPO	030-4470-0	KEMET	C410C470J1G5CA
1	C34	CAP CER AXIAL,561,10%,100V,X7R	030-4561-0	KEMET	C410C561K1R5CA
4	C25 C27 C56 C63	CAP,ELEC,RAD,107,20%,25V	031-1107-0	UNITED CHEMI-CON	SMG25VB101M6X11LL
1	C6	CAP, ELEC, RAD, 470uF, 20%, 25V	031-1477-0	UNITED CHEMI-CON	SMG25VB417M10X12LL
6	C4,7,43,49,53,59	CAP,ELEC,RAD, 106, 20%, 50V	031-2106-0	UNITED CHEMI-CON	SMG50VB10RM5X11LL
2	C40-41	CAP,ELEC,RAD,335,20%,50V	031-2335-0	UNITED CHEMI-CON	SMG50VB3R3M5X11LL
2	C39 C42	CAP, ELEC, RAD, 470uF, 20%, 35V	031-2477-0	UNITED CHEMI-CON	SMG35VB471M10X16LL
2	C51-52	CAP,PE,103,5%,100V,	032-4103-0	PANASONIC	ECQV1103JM
1	C1	CAP,PE,104,10%,100V,	032-4104-0	PACCOM	85104J100A5S5
6	C24,31-33,54,61	CAP,PE,104,5%,100V,	032-4104-0	PANASONIC	ECQV1104JM
2	C64-65	CAP,PE,153,5%,100V,	032-4153-0	PANASONIC	ECQV1153JM
2	C14 C22	CAP,PE,224,5%,100V,	032-4224-0	PANASONIC	ECQV1224JM
3	C16-17 C20	CAP,PE,334,5%,100V,	032-4334-0	PANASONIC	ECQV1334JM
1	C10	CAP,PE,473,5%,100V,	032-4473-0	PANASONIC	ECQV1473JM
1	C26	CAP,PE,474,5%,100V,	032-4474-0	PANASONIC	ECQV1474JM
2	C18 C21	CAP,PE,102,5%,100V,	036-4102-0	PANASONIC	ECQB1102JF
3	C44 C46-47	CAP,PE,222,5%,100V,	036-4222-0	PANASONIC	ECQB1222JF
4	C23 C50 C55 C57	CAP,PE,332,5%,100V,	036-4332-0	PANASONIC	ECQB1332JF
3	C28 C35-36	CAP,PE,472,5%,100V,	036-4472-0	PANASONIC	ECQB1472JF
1	R9	RES, METAL FILM, 6.81K OHM, 1/4W, 1%	052-6812-0	ECI	M2F1AK006.81
4	R29,121,123,127	RES,METAL FILM, 1.00K, 1/8W, 1%	060-1002-0	ECI	M1F1AK001.00
16	R18,30,45,51,57,73 R87,89-92,95,97, R100,107,117	RES,METAL FILM, 10.0K, 1/8W,1%	060-1003-0 060-1003-0	ECI	M1F1AK010.00
8	R6,14,71,110-112 R124,128	RES,METAL FILM, 100K, 1/8W, 1%	060-1004-0 060-1004-0	ECI	M1F1AK100.00
3	R2 R59 R62	RES, MF, 1.00M, 1%,1/8W, 060-1005-0	060-1005-0	ECI	M1F1AM001.00
8	R1,28,63,82,83,86 R93,99	RES,METAL FILM, 12.1K OHM, 1/8W, 1%	060-1213-0 060-1213-0	ECI	M1F1AK012.10
1	R65	RES,METAL FILM, 121K, 1/8W, 1%	060-1214-0	ECI	M1F1AK121.00
1	R52	RES,METAL FILM, 137K, 1/8W, 1%	060-1374-0	ECI	M1F1AK137.00
3	R7 R46 R109	RES,METAL FILM, 15.0K, 1/8W, 1%	060-1503-0	ECI	M1F1AK015.00
1	R44	RES,METAL FILM, 150K, 1/8W, 1%	060-1504-0	ECI	M1F1AK150.00
3	R11 R17 R53	RES,METAL FILM, 182, 1/8W, 1%	060-1821-0	ECI	M1F1AJ182.00
1	R35	RES,METAL FILM, 1.82K, 1/8W, 1%	060-1822-0	ECI	M1F1AK001.82
2	R47 R81	RES,METAL FILM, 221 ohm, 1/8W, 1%	060-2211-0	ECI	M1F1AJ221.00
6	R19,43,58,61,64,75	RES,METAL FILM, 2.21K, 1/8W, 1%	060-2212-0	ECI	M1F1AK002.21
7	R13,26,32,33,49,50	RES,METAL FILM, 22.1K, 1/8W, 1%	060-2213-0	ECI	M1F1AK022.10
9	R12,16,22,27,36,55 R60 R68 R119	RES,METAL FILM, 221K, 1/8W, 1%	060-2214-0 060-2214-0	ECI	M1F1AK221.00
1	R25	RES, METAL FILM, 2.21M, 1/8W, 1%	060-2215-0	ECI	M1F1AM002.21
2	R101 R108	RES,METAL FILM, 2.74K, 1/8W, 1%	060-2742-0	ECI	M1F1AK002.74
1	R3	RES,METAL FILM, 3.01K, 1/8W, 1%	060-3012-0	ECI	M1F1AK003.01

1	R40	RES,METAL FILM, 3.32K, 1/8W, 1%	060-3322-0	ECI	M1F1AK003.32
2	R15 R67 R41	RES,METAL FILM, 33.2K, 1/8W, 1%	060-3323-0	ECI	M1F1AK033.20
3	R21 R42	RES,METAL FILM,39.2K,1/8W,1%	060-3923-0	ECI	M1F1AK039.2
5	R8,10,125,129,130	RES,METAL FILM, 475 ohm, 1/8W, 1%	060-4751-0	ECI	M1F1AJ475.00
1	R24	RES,METAL FILM, 4.75K, 1/8W, 1%	060-4752-0	ECI	M1F1AK004.75
6	R69-70 R84 R94	RES,METAL FILM, 47.5K, 1/8W, 1%	060-4753-0	ECI	M1F1AK047.50
	R104 R118		060-4753-0		
5	R20,77,79,85,96	RES,METAL FILM, 475K, 1/8W, 1%	060-4754-0	ECI	M1F1AK475.00
3	R5 R54 R115	RES,METAL FILM, 4.99K, 1/8W, 1%	060-4992-0	ECI	M1F1AK004.99
1	R37	RES,METAL FILM, 49.9K, 1/8W, 1%	060-4993-0	ECI	M1F1AK049.90
7	R39,72,76,80,102	RES,METAL FILM, 5.62K, 1/8W, 1%	060-5622-0	ECI	M1F1AK005.62
	R106,113		060-5622-0		
1	R116	RES,METAL FILM, 68.1K, 1/8W, 1%	060-6813-0	ECI	M1F1AK068.10
1	R34	RES,METAL FILM, 825 ohm, 1/8W, 1%	060-8251-0	ECI	M1F1AJ825.00
2	R4 R120	RES,METAL FILM, 8.25K, 1/8W, 1%	060-8252-0	ECI	M1F1AK008.25
1	R23	POT,50K-15A,7MM,KNURL,.1W	070-1513-0	SONG HUEI	16K1-A50K-L15KC
1	R56	POT,50K-15A,7MM,KNURL,.1W	070-1513-0	SONG HUEI	16K-A50K,L-15KC/7MM
1	R48	POT,50KB,7MM,KNURL,.1W	070-1514-0	SONG HUEI	16K1-B50K-L15KC
6	R74,78,88,98,105, R114	POT,50KB,7MM,KNURL,.1W	070-1514-0	SONG HUEI	16K1-B50K,L15KC/7MM
			070-1514-0		
3	R66 R122 R126	POT,2KB,7MM,KNURL,.1W	070-1522-0	SONG HUEI	16K1-B2K,L115KC/7MM
1	R31	POT,25KB,7MM,KNURL,.1W	070-1526-0	SONG HUEI	16K1-B25K, L-15KC/7MM
1	R38	POT,100KA,7MM,KNURL,.1W	070-1527-0	SONG HUEI	16K1-A100K, L-15KC/7MM
1	S1	SWITCH, 8A/128A,250V,PP,PCB	090-0007-0	TECX	KDC-A04-10-B, B2-F
6	S2-7	SWITCH,MIMI PP,DPDT,.1A BRK/MAKE,PC	090-0012-0	ELKECTRONIC COMP	MTH2UEE-1D911
1	J4	JACK,1/4",MONO,PC,NON GROUNDING	092-0081-0	NEUTRIK	S102-84
1	J1	HDR, 2MMX5, VERT, LOCK	093-0053-0	JST	B5B-PH-K-S
2	J2-3	HDR, 2MMX10, VERT, SHROUDED	093-2010-0	JST	B10B-PH-K-S

R103



PCB WORK INSTRUCTIONS

DWG #420-0133-A2

NOTES:

UNLESS OTHERWISE SPECIFIED:

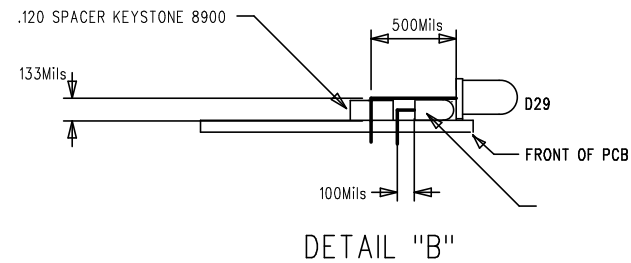
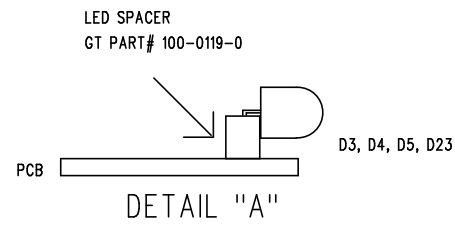
1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPs, LEDs) DENOTE PIN 1.
2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
3. ALL BOARDS MUST BE BARE BOARD TESTED.
4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

5. CLIP BUSHING TABS OFF ON POTS R23, 31, 38, 46, 55, 65, 73, 77, 87, 97, 104, 113, 121, 125.
6. SEE DETAIL A FOR MOUNTING D3, D4, D5 AND D23.
7. SEE DETAIL "B" FOR MOUNTING D29 AND D30.

FINAL QA

8. CHECK THAT ALL POTS, JACKS, AND SWITCHES ARE MOUNTED FLUSH AND STRAIGHT



NOT VALID UNLESS STAMP IS RED  Changed all signal ceramics to Mylar. Connected Q5, Q6 circuits to +5V. Modified tone circuits for "B" channel. Added diode to Q7 supply. Changed C5 to 10 pF		gallien technology		2240 PARAGON DRIVE SAN JOSE CA. 95131 VOICE: 408-441-8081 FAX: 408-441-8085	
		APPROVALS		TITLE: 2001RB PREAMP BD	
		INIT	DATE	SIZE	DRAWING NO: 405- 0133-A2
		DESIGNED: R.A.G.	12/15/00	B	PART NO: 145- 0133-A2
LAYER DESCRIPTION:  TOP SIDE BLUE/GREEN		DRAWN: R.A.G.		REV. A2	
		ELEC:			
		MECH:		COMPANY: GALLIEN-KRUEGER	
		GERBER FILE NAME: 5133A2.PCB		FILENAME: 5133A2.PCB	

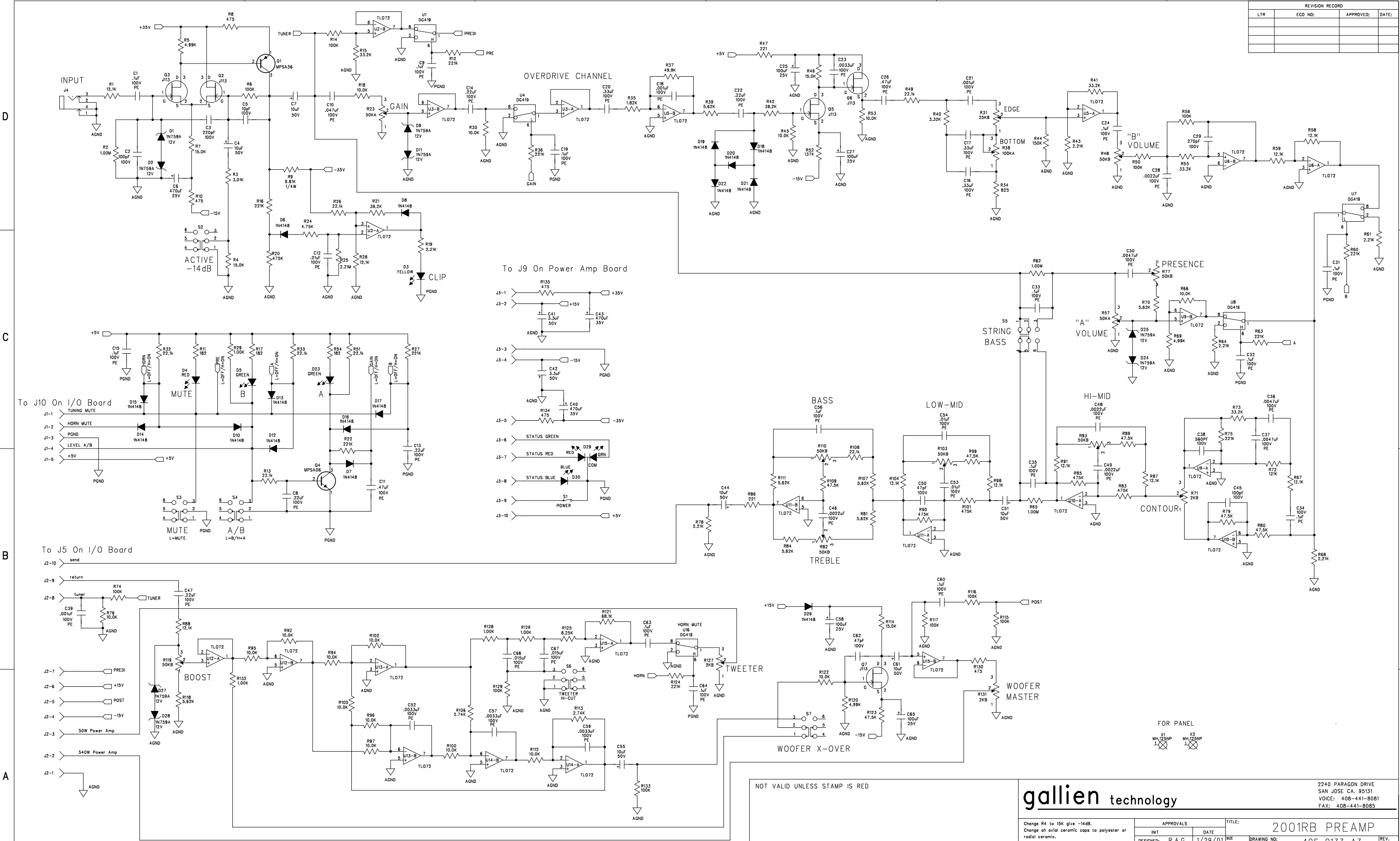
Customer Name:	Gallien-Krueger	Current Rev #:	A2	New ECO Rev #:	A2
Model:	2001RB			Page:	1 Of: 1
Assembly Description:	Preamp	Originator:	RAG and A. Villaflor		
Assembly Numbers:	206-0133-A2	Approved by:			
		Effective Date:	8/6/2002		

Effective		Document Update		Date	Initials
<input checked="" type="checkbox"/>	All in Process	<input checked="" type="checkbox"/>	Next Buy		
<input checked="" type="checkbox"/>	All in Service	<input checked="" type="checkbox"/>	Next Production Run		
<input checked="" type="checkbox"/>	All in Stock	<input type="checkbox"/>			
Beginning Serial Number:		<input type="checkbox"/>	Artwork		
Reason For Change		<input checked="" type="checkbox"/>	BOM		RAG
1.) To eliminate system oscillation at high gain, boost, master, and EQ settings while using channel "B" into 4 Ohms.		<input type="checkbox"/>	Control Form		
		<input type="checkbox"/>	Costing		
		<input type="checkbox"/>	Fab Drawing		
		<input type="checkbox"/>	Inspection Proc.		
2.) To eliminate 120 Hz hum caused by ground loop on preamp module.		<input checked="" type="checkbox"/>	Part Master File		RAG
		<input type="checkbox"/>	Punch Program		
		<input type="checkbox"/>	Schematic		
		<input type="checkbox"/>	Service Manual		
		<input checked="" type="checkbox"/>	Test Procedure		Arnel
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
<input type="checkbox"/>	Continued on ECO Supplement Page	<input type="checkbox"/>			

Description Of Change	Distribution	Date	Initials
1.) Change component values as indicated below.	<input type="checkbox"/> Accounting		
	<input type="checkbox"/> Assembly		
2.) Cut trace between R113 and R115. Re-route ground of R115 to negative leg of C63 using 24 AWG solid wire. Please refer to attached figures for proper guide.	<input type="checkbox"/> Customer		
	<input checked="" type="checkbox"/> Engineering		
	<input type="checkbox"/> Fabrication		
	<input checked="" type="checkbox"/> Incoming Q.C.		
	<input type="checkbox"/> Planning		
	<input checked="" type="checkbox"/> Production Eng.		
3.) The Rev level was not changed with this ECO because no units have been shipped yet.	<input checked="" type="checkbox"/> Purchasing		
	<input type="checkbox"/> Q.A.		
	<input type="checkbox"/> Receiving		
	<input type="checkbox"/> Service		
	<input type="checkbox"/> Vendor		
	<input checked="" type="checkbox"/> Test		
	<input checked="" type="checkbox"/> Photo attached		
<input type="checkbox"/>	Continued on ECO Supplement Page	<input type="checkbox"/>	Drawing(s) attached

Part Number	Description	Parts Added		Parts Deleted	
		Qty	Ref. Designator	Qty	Ref. Designator
060-1004-0	100K 1%			1	R37
060-4993-0	49.9K 1%	1	R37		
060-8253-0	82.5K 1%			1	R41
060-3323-0	33.2K 1%	1	R41		
030-4471-0	470PF			1	C18
036-4102-0	.001uF PE	1	C18		

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



gallien technology

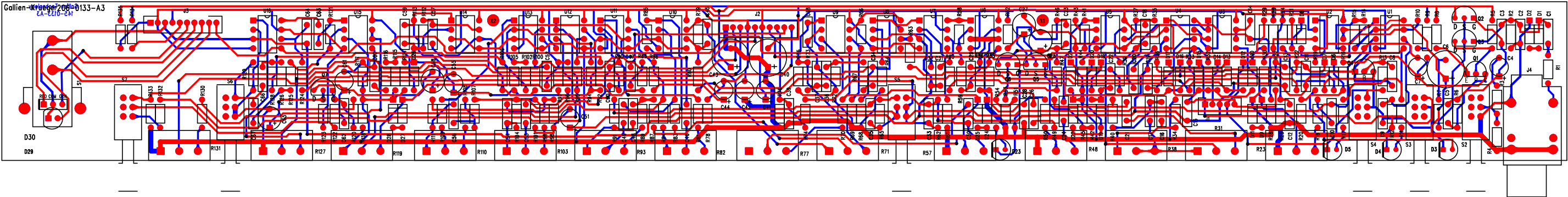
Change R4 to 15K give -14dB.  
Change all axial ceramic caps to polyester or radial ceramic.  
Connect R115 ground directly to C63 to reduce hum.  
Added low pass filter to distortion channel.

APPROVALS		TITLE:	
INIT	DATE	2001RB PREAMP	
DESIGNED: R.A.G.	1/29/01	SIZE	DRAWING NO: 406-0133-A3
DRAWN: R.A.G.	6/14/02	B	PART NO: 206-0133-A3
ELEC:			
MECH:		COMPANY:	GALLIEN-KRUEGER
Q/A:		FILENAME:	6133A3.SCH
RELEASED:			

A3

2001RB Preamp			206-0133-A3		
Part No.	Reference	Description	Manufacturer	Mfr. Part No.	Quan
001-1030-1	U2-3 U5-6 U9-15	TLO72CP, LOW NOISE JFET OPAMP	MOTOROLA	TL072CP	11.00
001-3029-0	U1 U4 U7-8 U16	DG419, Analog Switch	MAXIM	DG419DJ	5.00
010-0012-0	Q4	MPSAO6, NPN,80V,500MA,TO-92	MOTOROLA	MPS-A06	1.00
010-1013-0	Q1	MPSA56 PNP 80V 500MA TO-92	MOTOROLA	MPS-A56	1.00
010-2010-0	Q2-3 Q5-7	J113,N-JFET,35V,2MA,TO-92	NATIONAL	J113	5.00
020-0120-0	D1,2,9,11,24,25,27,28	1N759A, ZENER,12V,5%,400MW, DO-35	MOTOROLA	1N759A	8.00
020-1000-0	D6-8 D10 D12-22 D26	1N4148, RECT-FAST, 200MA, 100V	MOTOROLA	1N4148	16.00
025-0012-0	D29	LED,RED/GRN,5MM,630NM/560NM,15MCD	STANLEY	VRPG5614S	1.00
025-0023-0	D3	LED,YELLOW, 3MM, 585NM, 5MCD, 10MA	EVERLIGHT	EL204YD	1.00
025-0030-2	D30	LED,BLUE, 10MA	LITEON	LTL-42B6	1.00
025-0101-0	D5 D23	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	EVERLIGHT	EL204GD	2.00
025-0116-0	D4	LED,RED, 3MM, 635NM, 6MCD, 10MA	EVERLIGHT	EL2041D	1.00
031-1107-0	C25 C27 C58 C65	CAP,ELEC,RAD,107,20%,25V	UNITED CHEMI-CON	SMG25VB101M6X11LL	4.00
031-1477-0	C6	CAP, ELEC, RAD, 470uF, 20%, 25V	UNITED CHEMI-CON	SMG25VB471M10X12LL	1.00
031-2106-0	C4,7,44,51,55,61	CAP,ELEC,RAD, 106, 20%, 50V	UNITED CHEMI-CON	SMG50VB10RM5X11LL	6.00
031-2335-0	C41-42	CAP,ELEC,RAD,335,20%,50V	UNITED CHEMI-CON	SMG50VB3R3M5X11LL	2.00
031-2477-0	C40 C43	CAP, ELEC, RAD, 470uF, 20%, 35V	UNITED CHEMI-CON	SMG35VB471M10X16LL	2.00
032-4102-0	C18 C21 C39	CAP,PE,102,5%,100V,	PANASONIC	ECQB1102JF	3.00
032-4103-0	C12 C53-54	CAP,PE,103,5%,100V,	PANASONIC	ECQV1103JM	3.00
032-4104-0	C1,9,15,19,24,31-35,56	CAP,PE,104,5%,100V,	PANASONIC	ECQV1104JM	14.00
	C60,63,64				
032-4153-0	C66-67	CAP,PE,153,5%,100V,	PANASONIC	ECQV1153JM	2.00
032-4222-0	C28 C46 C48-49	CAP,PE,222,5%,100V,	PANASONIC	ECQB1222JF	4.00
032-4224-0	C8 C13-14 C22 C47	CAP,PE,224,5%,100V,	PANASONIC	ECQV1224JM	5.00
032-4332-0	C23 C52 C57 C59	CAP,PE,332,5%,100V,	PANASONIC	ECQB1332JF	4.00
032-4334-0	C16-17 C20	CAP,PE,334,5%,100V,	PANASONIC	ECQV1334JM	3.00
032-4472-0	C30 C36-37	CAP,PE,472,5%,100V,	PANASONIC	ECQB1472JF	3.00
032-4473-0	C10	CAP,PE,473,5%,100V,	PANASONIC	ECQV1473JM	1.00
032-4474-0	C11 C26	CAP,PE,474,5%,100V,	PANASONIC	ECQV1474JM	2.00
034-4100-0	C5	CAP, MCR,10pF,5%,100V,NPO	TAITRON	TMRS100J100NPOB	1.00
034-4101-0	C2 C45	CAP,MCR,100pF,5%,100V,	TAITRON	TMRS101J100NPOB	2.00
034-4221-0	C3	CAP,MCR,220pF,5%,100V,	TAITRON	TMRS221J100NPOB	1.00
034-4271-0	C29	CAP,MCR,270pF,5%,100V,	TAITRON	TMRS271J100NPOB	1.00
034-4470-0	C50 C62	CAP,MCR,47PF,5%,100V,NPO	TAITRON	TMRS470J100NPOB	2.00
034-4561-0	C38	CAP,MCR,560pF,5%,100V,	TAITRON	TMRS561J100NPOB	1.00
052-6812-0	R9	RES, METAL FILM, 6.81K OHM, 1/4W, 1%	ECI	M2F1AK006.81	1.00
060-1002-0	R29 R126 R128 R132	RES,METAL FILM, 1.00K, 1/8W, 1%	ECI	M1F1AK001.00	4.00
060-1003-0	R18,30,45,53,66,76,92	RES,METAL FILM, 10.0K, 1/8W,1%	ECI	M1F1AK010.00	16.00
060-1003-0	R94-97,100,102,105,112				
	R122				
060-1004-0	R6,14,50,56,74,115-117	RES,METAL FILM, 100K, 1/8W, 1%	ECI	M1F1AK100.00	10.00
	R129,133				
060-1005-0	R2 R62 R65	RES, MF, 1.00M, 1%,1/8W, 060-1005-0	ECI	M1F1AM001.00	3.00
060-1213-0	R1,28,58,59,67,87,88,91	RES,METAL FILM, 12.1K OHM, 1/8W, 1%	ECI	M1F1AK012.10	10.00
	R98,104				
060-1214-0	R72	RES,METAL FILM, 121K, 1/8W, 1%	ECI	M1F1AK121.00	1.00
060-1374-0	R52	RES,METAL FILM, 137K, 1/8W, 1%	ECI	M1F1AK137.00	1.00
060-1503-0	R4 R7 R46 R114	RES,METAL FILM, 15.0K, 1/8W, 1%	ECI	M1F1AK015.00	4.00
060-1504-0	R44	RES,METAL FILM, 150K, 1/8W, 1%	ECI	M1F1AK150.00	1.00
060-1821-0	R11 R17 R54	RES,METAL FILM, 182, 1/8W, 1%	ECI	M1F1AJ182.00	3.00
060-1822-0	R35	RES,METAL FILM, 1.82K, 1/8W, 1%	ECI	M1F1AK001.82	1.00
060-2211-0	R47 R86	RES,METAL FILM, 221 ohm, 1/8W, 1%	ECI	M1F1AJ221.00	2.00
060-2212-0	R19,43,61,64,68,78	RES,METAL FILM, 2.21K, 1/8W, 1%	ECI	M1F1AK002.21	6.00
060-2213-0	R13,26,32,33,49,51,108	RES,METAL FILM, 22.1K, 1/8W, 1%	ECI	M1F1AK022.10	7.00
060-2214-0	R12,16,22,27,36,60,63	RES,METAL FILM, 221K, 1/8W, 1%	ECI	M1F1AK221.00	9.00
	R75,124				
060-2215-0	R25	RES, METAL FILM, 2.21M, 1/8W, 1%	ECI	M1F1AM002.21	1.00
060-2742-0	R106 R113	RES,METAL FILM, 2.74K, 1/8W, 1%	ECI	M1F1AK002.74	2.00
060-3012-0	R3	RES,METAL FILM, 3.01K, 1/8W, 1%	ECI	M1F1AK003.01	1.00
060-3322-0	R40	RES,METAL FILM, 3.32K, 1/8W, 1%	ECI	M1F1AK003.32	1.00
060-3323-0	R15 R41 R55 R73	RES,METAL FILM, 33.2K, 1/8W, 1%	ECI	M1F1AK033.20	4.00
060-3923-0	R21 R42	RES,METAL FILM,39.2K,1/8W,1%	ECI	M1F1AK039.2	2.00
060-4751-0	R8,10,130,134,135	RES,METAL FILM, 475 ohm, 1/8W, 1%	ECI	M1F1AJ475.00	5.00
060-4752-0	R24	RES,METAL FILM, 4.75K, 1/8W, 1%	ECI	M1F1AK004.75	1.00
060-4753-0	R79,80,89,99,109,123	RES,METAL FILM, 47.5K, 1/8W, 1%	ECI	M1F1AK047.50	6.00
060-4754-0	R20,83,85,90,101	RES,METAL FILM, 475K, 1/8W, 1%	ECI	M1F1AK475.00	5.00

[illegible]



PCB WORK INSTRUCTIONS

DWG #420-0133-A3

NOTES:

UNLESS OTHERWISE SPECIFIED:

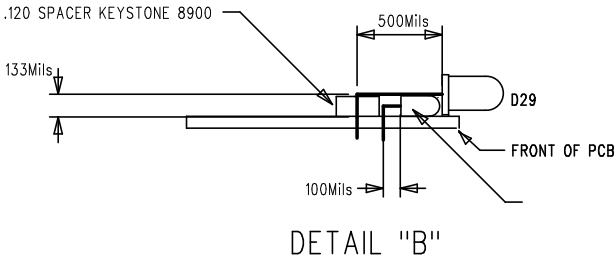
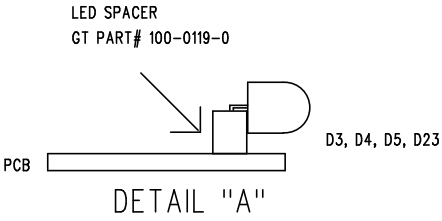
- 1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPS, LEDS) DENOTE PIN 1.
- 2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
- 3. ALL BOARDS MUST BE BARE BOARD TESTED.
- 4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

- 5. CLIP BUSHING TABS OFF ON POTS R23, 31, 38, 48, 57, 71, 77, 82, 93, 103, 110, 119, 127, 131.
- 6. SEE DETAIL A FOR MOUNTING D3, D4, D5 AND D23.
- 7. SEE DETAIL "B" FOR MOUNTING D29 AND D30.

FINAL QA

- 8. CHECK THAT ALL POTS, JACKS, AND SWITCHES ARE MOUNTED FLUSH AND STRAIGHT



NOT VALID UNLESS STAMP IS RED	gallien technology				2240 PARAGON DRIVE SAN JOSE CA. 95131 VOICE: 408-441-8081 FAX: 408-441-8085	
	APPROVALS		TITLE:		2001RB PREAMP BD	
	INIT	DATE	SIZE	DRAWING NO:	405- 0133-A3	REV.
	DESIGNED: R.A.G.	12/15/00	B	PART NO:	145- 0133-A3	A3
DRAWN: R.A.G.	6/18/02					
ELEC:						
LAYER DESCRIPTION:  TOP SIDE SOLDERGREEN	MECH:		COMPANY:		GALLIEN-KRUEGER	
	GERBER FILE NAME:		FILENAME:		5133A3.PCB	
	sort0126.pho					





REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

**gallien** technology

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8081  
FAX: 408-441-8085

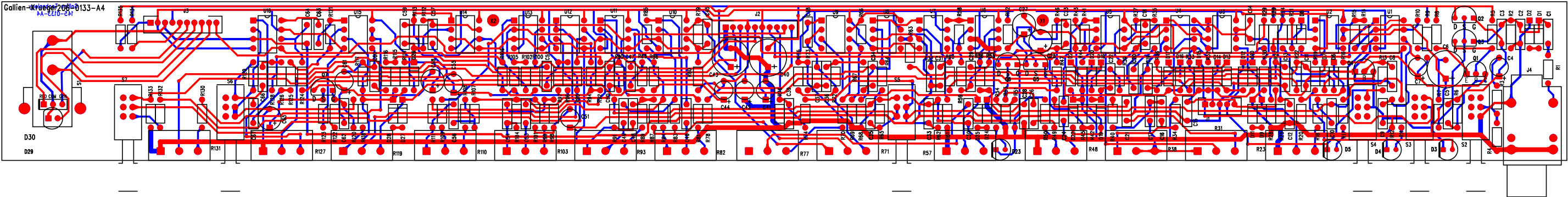
1. CORRECT WIREING OF U6 PINS 5&6.
2. CHANGE R4 TO 22,1K,

APPROVALS			TITLE: 2001RB PREAMP			
INT		DATE	SIZE	DRAWING NO:	REV.	
DESIGNED:	R.A.C.	1/29/01	B	406-0133-A4	A 4	
DRAWN:	R.A.C.	8/8/02		PART NO:		206-0133-A4
ELEC:				GALLIEN-KRUEGER		
MECH:						
Q/A:			COMPANY:			
RELEASED:			FILENAME:	6133A4.SCH		

NOT VALID UNLESS STAMP IS RED

2001RB Preamp			206-0133-A4		
Part No.	Reference	Description	Manufacturer	Mfr. Part No.	Quan
001-1030-1	U2-3 U5-6 U9-15	TLO72CP, LOW NOISE JFET OPAMP	MOTOROLA	TL072CP	11.00
001-3029-0	U1 U4 U7-8 U16	DG419, Analog Switch	MAXIM	DG419DJ	5.00
010-0012-0	Q4	MPSAO6, NPN,80V,500MA,TO-92	MOTOROLA	MPS-A06	1.00
010-1013-0	Q1	MPSA56 PNP 80V 500MA TO-92	MOTOROLA	MPS-A56	1.00
010-2010-0	Q2-3 Q5-7	J113,N-JFET,35V,2MA,TO-92	NATIONAL	J113	5.00
020-0120-0	D1,2,9,11,24,25,27,28	1N759A, ZENER,12V,5%,400MW, DO-35	MOTOROLA	1N759A	8.00
020-1000-0	D6-8 D10 D12-22 D26	1N4148, RECT-FAST, 200MA, 100V	MOTOROLA	1N4148	16.00
025-0012-0	D29	LED,RED/GRN,5MM,630NM/560NM,15MCD	STANLEY	VRPG5614S	1.00
025-0023-0	D3	LED,YELLOW, 3MM, 585NM, 5MCD, 10MA	EVERLIGHT	EL204YD	1.00
025-0030-2	D30	LED,BLUE, 10MA	LITEON	LTL-42B6	1.00
025-0101-0	D5 D23	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	EVERLIGHT	EL204GD	2.00
025-0116-0	D4	LED,RED, 3MM, 635NM, 6MCD, 10MA	EVERLIGHT	EL2041D	1.00
031-1107-0	C25 C27 C58 C65	CAP,ELEC,RAD,107,20%,25V	UNITED CHEMI-CON	SMG25VB101M6X11LL	4.00
031-1477-0	C6	CAP, ELEC, RAD, 470uF, 20%, 25V	UNITED CHEMI-CON	SMG25VB471M10X12LL	1.00
031-2106-0	C4,7,44,51,55,61	CAP,ELEC,RAD, 106, 20%, 50V	UNITED CHEMI-CON	SMG50VB10RM5X11LL	6.00
031-2335-0	C41-42	CAP,ELEC,RAD,335,20%,50V	UNITED CHEMI-CON	SMG50VB3R3M5X11LL	2.00
031-2477-0	C40 C43	CAP, ELEC, RAD, 470uF, 20%, 35V	UNITED CHEMI-CON	SMG35VB471M10X16LL	2.00
032-4102-0	C18 C21 C39	CAP,PE,102,5%,100V,	PANASONIC	ECQB1102JF	3.00
032-4103-0	C12 C53-54	CAP,PE,103,5%,100V,	PANASONIC	ECQV1103JM	3.00
032-4104-0	C1,9,15,19,24,31-35,56 C60,63,64	CAP,PE,104,5%,100V,	PANASONIC	ECQV1104JM	14.00
032-4153-0	C66-67	CAP,PE,153,5%,100V,	PANASONIC	ECQV1153JM	2.00
032-4222-0	C28 C46 C48-49	CAP,PE,222,5%,100V,	PANASONIC	ECQB1222JF	4.00
032-4224-0	C8 C13-14 C22 C47	CAP,PE,224,5%,100V,	PANASONIC	ECQV1224JM	5.00
032-4332-0	C23 C52 C57 C59	CAP,PE,332,5%,100V,	PANASONIC	ECQB1332JF	4.00
032-4334-0	C16-17 C20	CAP,PE,334,5%,100V,	PANASONIC	ECQV1334JM	3.00
032-4472-0	C30 C36-37	CAP,PE,472,5%,100V,	PANASONIC	ECQB1472JF	3.00
032-4473-0	C10	CAP,PE,473,5%,100V,	PANASONIC	ECQV1473JM	1.00
032-4474-0	C11 C26	CAP,PE,474,5%,100V,	PANASONIC	ECQV1474JM	2.00
034-4100-0	C5	CAP, MCR,10pF,5%,100V,NPO	TAITRON	TMRS100J100NPOB	1.00
034-4101-0	C2 C45	CAP,MCR,100pF,5%,100V,	TAITRON	TMRS101J100NPOB	2.00
034-4221-0	C3	CAP,MCR,220pF,5%,100V,	TAITRON	TMRS221J100NPOB	1.00
034-4271-0	C29	CAP,MCR,270pF,5%,100V,	TAITRON	TMRS271J100NPOB	1.00
034-4470-0	C50 C62	CAP,MCR,47PF,5%,100V,NPO	TAITRON	TMRS470J100NPOB	2.00
034-4561-0	C38	CAP,MCR,560pF,5%,100V,	TAITRON	TMRS561J100NPOB	1.00
052-6812-0	R9	RES, METAL FILM, 6.81K OHM, 1/4W, 1%	ECI	M2F1AK006.81	1.00
060-1002-0	R29 R126 R128 R132	RES,METAL FILM, 1.00K, 1/8W, 1%	ECI	M1F1AK001.00	4.00
060-1003-0	R18,30,45,53,66,76,92	RES,METAL FILM, 10.0K, 1/8W,1%	ECI	M1F1AK010.00	16.00
060-1003-0	R94-97,100,102,105,112 R122				
060-1004-0	R6,14,50,56,74,115-117 R129,133	RES,METAL FILM, 100K, 1/8W, 1%	ECI	M1F1AK100.00	10.00
060-1005-0	R2 R62 R65	RES, MF, 1.00M, 1%,1/8W, 060-1005-0	ECI	M1F1AM001.00	3.00
060-1213-0	R1,28,58,59,67,87,88,91 R98,104	RES,METAL FILM, 12.1K OHM, 1/8W, 1%	ECI	M1F1AK012.10	10.00
060-1214-0	R72	RES,METAL FILM, 121K, 1/8W, 1%	ECI	M1F1AK121.00	1.00
060-1374-0	R52	RES,METAL FILM, 137K, 1/8W, 1%	ECI	M1F1AK137.00	1.00
060-1503-0	R7 R46 R114	RES,METAL FILM, 15.0K, 1/8W, 1%	ECI	M1F1AK015.00	3.00
060-1504-0	R44	RES,METAL FILM, 150K, 1/8W, 1%	ECI	M1F1AK150.00	1.00
060-1821-0	R11 R17 R54	RES,METAL FILM, 182, 1/8W, 1%	ECI	M1F1AJ182.00	3.00
060-1822-0	R35	RES,METAL FILM, 1.82K, 1/8W, 1%	ECI	M1F1AK001.82	1.00
060-2211-0	R47 R86	RES,METAL FILM, 221 ohm, 1/8W, 1%	ECI	M1F1AJ221.00	2.00
060-2212-0	R19,43,61,64,68,78	RES,METAL FILM, 2.21K, 1/8W, 1%	ECI	M1F1AK002.21	6.00
060-2213-0	R4,13,26,32,33,49,51 R108	RES,METAL FILM, 22.1K, 1/8W, 1%	ECI	M1F1AK022.10	8.00
060-2214-0	R12,16,22,27,36,60,63 R75,124	RES,METAL FILM, 221K, 1/8W, 1%	ECI	M1F1AK221.00	9.00
060-2215-0	R25	RES, METAL FILM, 2.21M, 1/8W, 1%	ECI	M1F1AM002.21	1.00
060-2742-0	R106 R113	RES,METAL FILM, 2.74K, 1/8W, 1%	ECI	M1F1AK002.74	2.00
060-3012-0	R3	RES,METAL FILM, 3.01K, 1/8W, 1%	ECI	M1F1AK003.01	1.00
060-3322-0	R40	RES,METAL FILM, 3.32K, 1/8W, 1%	ECI	M1F1AK003.32	1.00
060-3323-0	R15 R41 R55 R73	RES,METAL FILM, 33.2K, 1/8W, 1%	ECI	M1F1AK033.20	4.00
060-3923-0	R21 R42	RES,METAL FILM,39.2K,1/8W,1%	ECI	M1F1AK039.2	2.00
060-4751-0	R8,10,130,134,135	RES,METAL FILM, 475 ohm, 1/8W, 1%	ECI	M1F1AJ475.00	5.00
060-4752-0	R24	RES,METAL FILM, 4.75K, 1/8W, 1%	ECI	M1F1AK004.75	1.00
060-4753-0	R79,80,89,99,109,123	RES,METAL FILM, 47.5K, 1/8W, 1%	ECI	M1F1AK047.50	6.00
060-4754-0	R20,83,85,90,101	RES,METAL FILM, 475K, 1/8W, 1%	ECI	M1F1AK475.00	5.00

[illegible]



PCB WORK INSTRUCTIONS  
DWG #420-0133-A4

NOTES:

UNLESS OTHERWISE SPECIFIED:

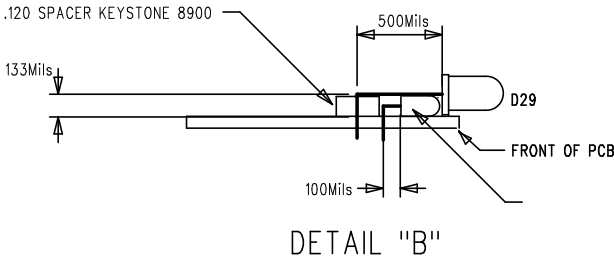
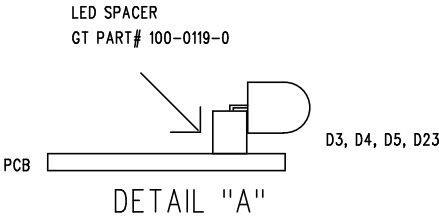
- 1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPS, LEDS) DENOTE PIN 1.
- 2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
- 3. ALL BOARDS MUST BE BARE BOARD TESTED.
- 4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

- 5. CLIP BUSHING TABS OFF ON POTS R23, 31, 38, 48, 57, 71, 77, 82, 93, 103, 110, 119, 127, 131.
- 6. SEE DETAIL A FOR MOUNTING D3, D4, D5 AND D23.
- 7. SEE DETAIL "B" FOR MOUNTING D29 AND D30.

FINAL QA

- 8. CHECK THAT ALL POTS, JACKS, AND SWITCHES ARE MOUNTED FLUSH AND STRAIGHT



NOT VALID UNLESS STAMP IS RED	gallien technology				2240 PARAGON DRIVE	
					SAN JOSE CA. 95131	
					VOICE: 408-441-8081	
					FAX: 408-441-8085	
	APPROVALS				TITLE: 2001RB PREAMP BD	
INIT		DATE				
DESIGNED: R.A.G.		12/15/00		SIZE	DRAWING NO: 405- 0133-A4	REV.
DRAWN: R.A.G.		8/8/02		B	PART NO: 145- 0133-A4	A4
ELEC:						
LAYER DESCRIPTION:  TOP SIDE BLUE BOTTOM GREEN				MECH:		COMPANY: GALLIEN-KRUEGER
				GERBER FILE NAME: set0126.pho		FILENAME: 5133A4.PCB

FCO FORM BEV-H



REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

gallien technology

2240 PARAGON DRIVE  
SAN JOSE CA. 95131  
VOICE: 408-441-8081  
FAX: 408-441-8085

1. CHANGE ALL POTS TO BRACKET STYLE

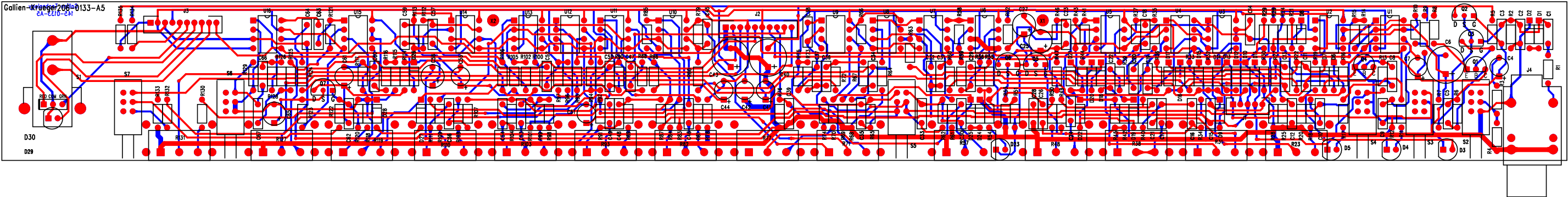
APPROVALS		TITLE: 2001RB PREAMP			
INT	DATE	SIZE	DRAWING NO:	REV.	
DESIGNED: R.A.G.	1/29/01	B	406-0133-A5	A5	
DRAWN: R.A.G.	9/12/02		PART NO:		206-0133-A5
ELEC:			COMPANY: GALLIEN-KRUEGER		
MECH:			FILENAME: 6133A5.SCH		
Q/A:					
RELEASED:					

NOT VALID UNLESS STAMP IS RED

2001RB Preamp			206-0133-A5		
Part No.	Reference	Description	Manufacturer	Mfr. Part No.	Quan
001-1030-1	U2-3 U5-6 U9-15	TLO72CP, LOW NOISE JFET OPAMP	MOTOROLA	TL072CP	11.00
001-3029-0	U1 U4 U7-8 U16	DG419, Analog Switch	MAXIM	DG419DJ	5.00
010-0012-0	Q4	MPSA06, NPN,80V,500MA,TO-92	MOTOROLA	MPS-A06	1.00
010-1013-0	Q1	MPSA56 PNP 80V 500MA TO-92	MOTOROLA	MPS-A56	1.00
010-2010-0	Q2-3 Q5-7	J113,N-JFET,35V,2MA,TO-92	NATIONAL	J113	5.00
020-0120-0	D1,2,9,11,24,25,27,28	1N759A, ZENER,12V,5%,400MW, DO-35	MOTOROLA	1N759A	8.00
020-1000-0	D6-8 D10 D12-22 D26	1N4148, RECT-FAST, 200MA, 100V	MOTOROLA	1N4148	16.00
025-0012-0	D29	LED,RED/GRN,5MM,630NM/560NM,15MCD	STANLEY	VRPG5614S	1.00
025-0023-0	D3	LED,YELLOW, 3MM, 585NM, 5MCD, 10MA	EVERLIGHT	EL204YD	1.00
025-0030-2	D30	LED,BLUE, 10MA	LITEON	LTL-42B6	1.00
025-0101-0	D5 D23	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	EVERLIGHT	EL204GD	2.00
025-0116-0	D4	LED,RED, 3MM, 635NM, 6MCD, 10MA	EVERLIGHT	EL2041D	1.00
031-1107-0	C25 C27 C58 C65	CAP,ELEC,RAD,107,20%,25V	UNITED CHEMI-CON	SMG25VB101M6X11LL	4.00
031-1477-0	C6	CAP, ELEC, RAD, 470uF, 20%, 25V	UNITED CHEMI-CON	SMG25VB471M10X12LL	1.00
031-2106-0	C4,7,44,51,55,61	CAP,ELEC,RAD, 106, 20%, 50V	UNITED CHEMI-CON	SMG50VB10RM5X11LL	6.00
031-2335-0	C41-42	CAP,ELEC,RAD,335,20%,50V	UNITED CHEMI-CON	SMG50VB3R3M5X11LL	2.00
031-2477-0	C40 C43	CAP, ELEC, RAD, 470uF, 20%, 35V	UNITED CHEMI-CON	SMG35VB471M10X16LL	2.00
032-4102-0	C18 C21 C39	CAP,PE,102,5%,100V,	PANASONIC	ECQB1102JF	3.00
032-4103-0	C12 C53-54	CAP,PE,103,5%,100V,	PANASONIC	ECQV1103JM	3.00
032-4104-0	C1,9,15,19,24,31-35,56 C60,63,64	CAP,PE,104,5%,100V,	PANASONIC	ECQV1104JM	14.00
032-4153-0	C66-67	CAP,PE,153,5%,100V,	PANASONIC	ECQV1153JM	2.00
032-4222-0	C28 C46 C48-49	CAP,PE,222,5%,100V,	PANASONIC	ECQB1222JF	4.00
032-4224-0	C8 C13-14 C22 C47	CAP,PE,224,5%,100V,	PANASONIC	ECQV1224JM	5.00
032-4332-0	C23 C52 C57 C59	CAP,PE,332,5%,100V,	PANASONIC	ECQB1332JF	4.00
032-4334-0	C16-17 C20	CAP,PE,334,5%,100V,	PANASONIC	ECQV1334JM	3.00
032-4472-0	C30 C36-37	CAP,PE,472,5%,100V,	PANASONIC	ECQB1472JF	3.00
032-4473-0	C10	CAP,PE,473,5%,100V,	PANASONIC	ECQV1473JM	1.00
032-4474-0	C11 C26	CAP,PE,474,5%,100V,	PANASONIC	ECQV1474JM	2.00
034-4100-0	C5	CAP, MCR,10pF,5%,100V,NPO	TAITRON	TMRS100J100NPOB	1.00
034-4101-0	C2 C45	CAP,MCR,100pF,5%,100V,	TAITRON	TMRS101J100NPOB	2.00
034-4221-0	C3	CAP,MCR,220pF,5%,100V,	TAITRON	TMRS221J100NPOB	1.00
034-4271-0	C29	CAP,MCR,270pF,5%,100V,	TAITRON	TMRS271J100NPOB	1.00
034-4470-0	C50 C62	CAP,MCR,47PF,5%,100V,NPO	TAITRON	TMRS470J100NPOB	2.00
034-4561-0	C38	CAP,MCR,560pF,5%,100V,	TAITRON	TMRS561J100NPOB	1.00
052-6812-0	R9	RES, METAL FILM, 6.81K OHM, 1/4W, 1%	ECI	M2F1AK006.81	1.00
060-1002-0	R29 R126 R128 R132	RES,METAL FILM, 1.00K, 1/8W, 1%	ECI	M1F1AK001.00	4.00
060-1003-0	R18,30,45,53,66,76,92	RES,METAL FILM, 10.0K, 1/8W,1%	ECI	M1F1AK010.00	16.00
060-1003-0	R94-97,100,102,105,112 R122				
060-1004-0	R6,14,50,56,74,115-117 R129,133	RES,METAL FILM, 100K, 1/8W, 1%	ECI	M1F1AK100.00	10.00
060-1005-0	R2 R62 R65	RES, MF, 1.00M, 1%,1/8W, 060-1005-0	ECI	M1F1AM001.00	3.00
060-1213-0	R1,28,58,59,67,87,88,91 R98,104	RES,METAL FILM, 12.1K OHM, 1/8W, 1%	ECI	M1F1AK012.10	10.00
060-1214-0	R72	RES,METAL FILM, 121K, 1/8W, 1%	ECI	M1F1AK121.00	1.00
060-1374-0	R52	RES,METAL FILM, 137K, 1/8W, 1%	ECI	M1F1AK137.00	1.00
060-1503-0	R7 R46 R114	RES,METAL FILM, 15.0K, 1/8W, 1%	ECI	M1F1AK015.00	3.00
060-1504-0	R44	RES,METAL FILM, 150K, 1/8W, 1%	ECI	M1F1AK150.00	1.00
060-1821-0	R11 R17 R54	RES,METAL FILM, 182, 1/8W, 1%	ECI	M1F1AJ182.00	3.00
060-1822-0	R35	RES,METAL FILM, 1.82K, 1/8W, 1%	ECI	M1F1AK001.82	1.00
060-2211-0	R47 R86	RES,METAL FILM, 221 ohm, 1/8W, 1%	ECI	M1F1AJ221.00	2.00
060-2212-0	R19,43,61,64,68,78	RES,METAL FILM, 2.21K, 1/8W, 1%	ECI	M1F1AK002.21	6.00
060-2213-0	R4,13,26,32,33,49,51 R108	RES,METAL FILM, 22.1K, 1/8W, 1%	ECI	M1F1AK022.10	8.00
060-2214-0	R12,16,22,27,36,60,63 R75,124	RES,METAL FILM, 221K, 1/8W, 1%	ECI	M1F1AK221.00	9.00
060-2215-0	R25	RES, METAL FILM, 2.21M, 1/8W, 1%	ECI	M1F1AM002.21	1.00
060-2742-0	R106 R113	RES,METAL FILM, 2.74K, 1/8W, 1%	ECI	M1F1AK002.74	2.00
060-3012-0	R3	RES,METAL FILM, 3.01K, 1/8W, 1%	ECI	M1F1AK003.01	1.00
060-3322-0	R40	RES,METAL FILM, 3.32K, 1/8W, 1%	ECI	M1F1AK003.32	1.00
060-3323-0	R15 R41 R55 R73	RES,METAL FILM, 33.2K, 1/8W, 1%	ECI	M1F1AK033.20	4.00
060-3923-0	R21 R42	RES,METAL FILM,39.2K,1/8W,1%	ECI	M1F1AK039.2	2.00
060-4751-0	R8,10,130,134,135	RES,METAL FILM, 475 ohm, 1/8W, 1%	ECI	M1F1AJ475.00	5.00
060-4752-0	R24	RES,METAL FILM, 4.75K, 1/8W, 1%	ECI	M1F1AK004.75	1.00
060-4753-0	R79,80,89,99,109,123	RES,METAL FILM, 47.5K, 1/8W, 1%	ECI	M1F1AK047.50	6.00
060-4754-0	R20,83,85,90,101	RES,METAL FILM, 475K, 1/8W, 1%	ECI	M1F1AK475.00	5.00

[illegible]





PCB WORK INSTRUCTIONS

DWG #420-0133-A5

NOTES:

UNLESS OTHERWISE SPECIFIED:

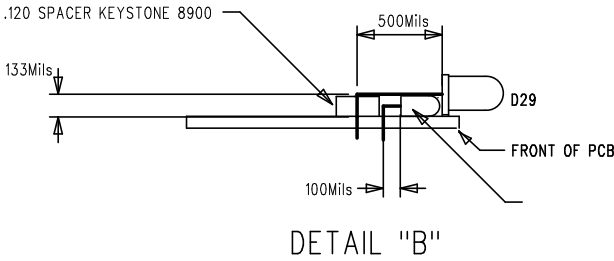
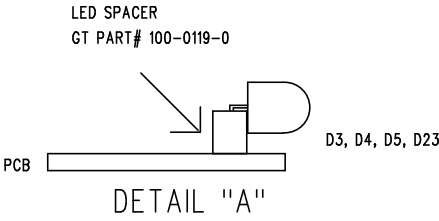
- 1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPs, LEDs) DENOTE PIN 1.
- 2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
- 3. ALL BOARDS MUST BE BARE BOARD TESTED.
- 4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

- 5. CLIP BUSHING TABS OFF ON POTS R23, 31, 38, 48, 57, 71, 77, 82, 93, 103, 110, 119, 127, 131.
- 6. SEE DETAIL A FOR MOUNTING D3, D4, D5 AND D23.
- 7. SEE DETAIL "B" FOR MOUNTING D29 AND D30.
- 8. CLIP BRACKET ON RIGHT SIDE OF R23 & 57 TO CLEAR D5 & 23.

FINAL QA

- 8. CHECK THAT ALL POTS, JACKS, AND SWITCHES ARE MOUNTED FLUSH AND STRAIGHT



NOT VALID UNLESS STAMP IS RED	gallien technology				2240 PARAGON DRIVE SAN JOSE CA. 95131 VOICE: 408-441-8081 FAX: 408-441-8085	
	APPROVALS		TITLE:			
	INIT	DATE	2001RB PREAMP BD			
	DESIGNED:	R.A.G.	12/15/00	SIZE	DRAWING NO: 405- 0133-A5	REV.
	DRAWN:	R.A.G.	9/12/02	B	PART NO: 145- 0133-A5	A5
ELEC:						
LAYER DESCRIPTION:  TOP SIDE SOLDERGREEN	MECH:		COMPANY:			
	GERBER FILE NAME:		GALLIEN-KRUEGER			
	sort026.pho		FILENAME: 5133A5.PCB			

LIEN-KRUEGER

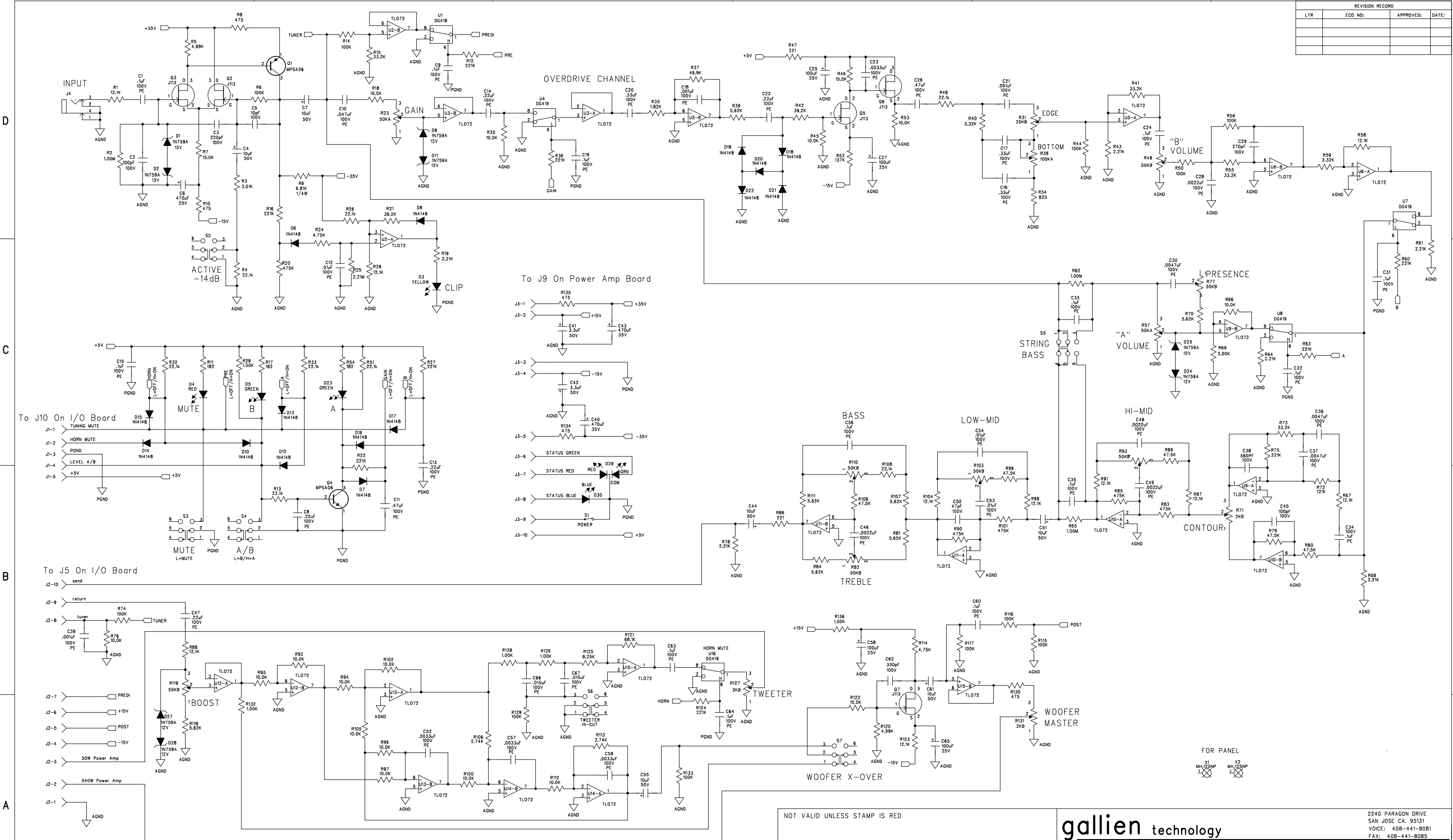
2001RB Preamp			206-0292-A		
Part No.	Reference	Description	Manufacturer	Mfr. Part No.	Quan
001-1030-1	U2-3 U5-6 U9-15	TLO72CP, LOW NOISE JFET OPAMP	MOTOROLA	TL072CP	11.00
001-3029-0	U1 U4 U7-8 U16	DG419, Analog Switch	MAXIM	DG419DJ	5.00
010-0012-0	Q4	MPSAO6, NPN,80V,500MA,TO-92	MOTOROLA	MPS-A06	1.00
010-1013-0	Q1	MPSA56 PNP 80V 500MA TO-92	MOTOROLA	MPS-A56	1.00
010-2010-0	Q2-3 Q5-7	J113,N-JFET,35V,2MA,TO-92	NATIONAL	J113	5.00
020-0120-0	D1,2,9,11,24,25,27,28	1N759A, ZENER,12V,5%,400MW, DO-35	MOTOROLA	1N759A	8.00
020-1000-0	D6-8 D10 D12-22 D26	1N4148, RECT-FAST, 200MA, 100V	MOTOROLA	1N4148	16.00
025-0012-0	D29	LED,RED/GRN,5MM,630NM/560NM,15MCD	STANLEY	VRPG5614S	1.00
025-0023-0	D3	LED,YELLOW, 3MM, 585NM, 5MCD, 10MA	EVERLIGHT	EL204YD	1.00
025-0030-2	D30	LED,BLUE, 10MA	LITEON	LTL-42B6	1.00
025-0101-0	D5 D23	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	EVERLIGHT	EL204GD	2.00
025-0116-0	D4	LED,RED, 3MM, 635NM, 6MCD, 10MA	EVERLIGHT	EL2041D	1.00
031-1107-0	C25 C27 C58 C65	CAP,ELEC,RAD,107,20%,25V	UNITED CHEMI-CON	SMG25VB101M6X11LL	4.00
031-1477-0	C6	CAP, ELEC, RAD, 470uF, 20%, 25V	UNITED CHEMI-CON	SMG25VB471M10X12LL	1.00
031-2106-0	C4,7,44,51,55,61	CAP,ELEC,RAD, 106, 20%, 50V	UNITED CHEMI-CON	SMG50VB10RM5X11LL	6.00
031-2335-0	C41-42	CAP,ELEC,RAD,335,20%,50V	UNITED CHEMI-CON	SMG50VB3R3M5X11LL	2.00
031-2477-0	C40 C43	CAP, ELEC, RAD, 470uF, 20%, 35V	UNITED CHEMI-CON	SMG35VB471M10X16LL	2.00
032-4102-0	C18 C21 C39	CAP,PE,102,5%,100V,	PANASONIC	ECQB1102JF	3.00
032-4103-0	C12 C53-54	CAP,PE,103,5%,100V,	PANASONIC	ECQV1103JM	3.00
032-4104-0	C1,9,15,19,24,31-35,56 C60,63,64	CAP,PE,104,5%,100V,	PANASONIC	ECQV1104JM	14.00
032-4153-0	C66-67	CAP,PE,153,5%,100V,	PANASONIC	ECQV1153JM	2.00
032-4222-0	C28 C46 C48-49	CAP,PE,222,5%,100V,	PANASONIC	ECQB1222JF	4.00
032-4224-0	C8 C13-14 C22 C47	CAP,PE,224,5%,100V,	PANASONIC	ECQV1224JM	5.00
032-4332-0	C23 C52 C57 C59	CAP,PE,332,5%,100V,	PANASONIC	ECQB1332JF	4.00
032-4334-0	C16-17 C20	CAP,PE,334,5%,100V,	PANASONIC	ECQV1334JM	3.00
032-4472-0	C30 C36-37	CAP,PE,472,5%,100V,	PANASONIC	ECQB1472JF	3.00
032-4473-0	C10	CAP,PE,473,5%,100V,	PANASONIC	ECQV1473JM	1.00
032-4474-0	C11 C26	CAP,PE,474,5%,100V,	PANASONIC	ECQV1474JM	2.00
034-4100-0	C5	CAP, MCR,10pF,5%,100V,NPO	TAITRON	TMRS100J100NPOB	1.00
034-4101-0	C2 C45	CAP,MCR,100pF,5%,100V,	TAITRON	TMRS101J100NPOB	2.00
034-4221-0	C3	CAP,MCR,220pF,5%,100V,	TAITRON	TMRS221J100NPOB	1.00
034-4271-0	C29	CAP,MCR,270pF,5%,100V,	TAITRON	TMRS271J100NPOB	1.00
034-4470-0	C50 C62	CAP,MCR,47PF,5%,100V,NPO	TAITRON	TMRS470J100NPOB	2.00
034-4561-0	C38	CAP,MCR,560pF,5%,100V,	TAITRON	TMRS561J100NPOB	1.00
052-6812-0	R9	RES, METAL FILM, 6.81K OHM, 1/4W, 1%	ECI	M2F1AK006.81	1.00
060-1002-0	R29 R126 R128 R132	RES,METAL FILM, 1.00K, 1/8W, 1%	ECI	M1F1AK001.00	4.00
060-1003-0	R18,30,45,53,66,76,92	RES,METAL FILM, 10.0K, 1/8W,1%	ECI	M1F1AK010.00	16.00
060-1003-0	R94-97,100,102,105,112 R122				
060-1004-0	R6,14,50,56,74,115-117 R129,133	RES,METAL FILM, 100K, 1/8W, 1%	ECI	M1F1AK100.00	10.00
060-1005-0	R2 R62 R65	RES, MF, 1.00M, 1%,1/8W, 060-1005-0	ECI	M1F1AM001.00	3.00
060-1213-0	R1,28,58,59,67,87,88,91 R98,104	RES,METAL FILM, 12.1K OHM, 1/8W, 1%	ECI	M1F1AK012.10	10.00
060-1214-0	R72	RES,METAL FILM, 121K, 1/8W, 1%	ECI	M1F1AK121.00	1.00
060-1374-0	R52	RES,METAL FILM, 137K, 1/8W, 1%	ECI	M1F1AK137.00	1.00
060-1503-0	R7 R46 R114	RES,METAL FILM, 15.0K, 1/8W, 1%	ECI	M1F1AK015.00	3.00
060-1504-0	R44	RES,METAL FILM, 150K, 1/8W, 1%	ECI	M1F1AK150.00	1.00
060-1821-0	R11 R17 R54	RES,METAL FILM, 182, 1/8W, 1%	ECI	M1F1AJ182.00	3.00
060-1822-0	R35	RES,METAL FILM, 1.82K, 1/8W, 1%	ECI	M1F1AK001.82	1.00
060-2211-0	R47 R86	RES,METAL FILM, 221 ohm, 1/8W, 1%	ECI	M1F1AJ221.00	2.00
060-2212-0	R19,43,61,64,68,78	RES,METAL FILM, 2.21K, 1/8W, 1%	ECI	M1F1AK002.21	6.00
060-2213-0	R4,13,26,32,33,49,51 R108	RES,METAL FILM, 22.1K, 1/8W, 1%	ECI	M1F1AK022.10	8.00
060-2214-0	R12,16,22,27,36,60,63 R75,124	RES,METAL FILM, 221K, 1/8W, 1%	ECI	M1F1AK221.00	9.00
060-2215-0	R25	RES, METAL FILM, 2.21M, 1/8W, 1%	ECI	M1F1AM002.21	1.00
060-2742-0	R106 R113	RES,METAL FILM, 2.74K, 1/8W, 1%	ECI	M1F1AK002.74	2.00
060-3012-0	R3	RES,METAL FILM, 3.01K, 1/8W, 1%	ECI	M1F1AK003.01	1.00
060-3322-0	R40	RES,METAL FILM, 3.32K, 1/8W, 1%	ECI	M1F1AK003.32	1.00
060-3323-0	R15 R41 R55 R73	RES,METAL FILM, 33.2K, 1/8W, 1%	ECI	M1F1AK033.20	4.00
060-3923-0	R21 R42	RES,METAL FILM,39.2K,1/8W,1%	ECI	M1F1AK039.2	2.00
060-4751-0	R8,10,130,134,135	RES,METAL FILM, 475 ohm, 1/8W, 1%	ECI	M1F1AJ475.00	5.00
060-4752-0	R24	RES,METAL FILM, 4.75K, 1/8W, 1%	ECI	M1F1AK004.75	1.00
060-4753-0	R79,80,89,99,109,123	RES,METAL FILM, 47.5K, 1/8W, 1%	ECI	M1F1AK047.50	6.00
060-4754-0	R20,83,85,90,101	RES,METAL FILM, 475K, 1/8W, 1%	ECI	M1F1AK475.00	5.00

6292A BOM-12/1/2004-Rev B



ECO FORM REV-H

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



gallen technology

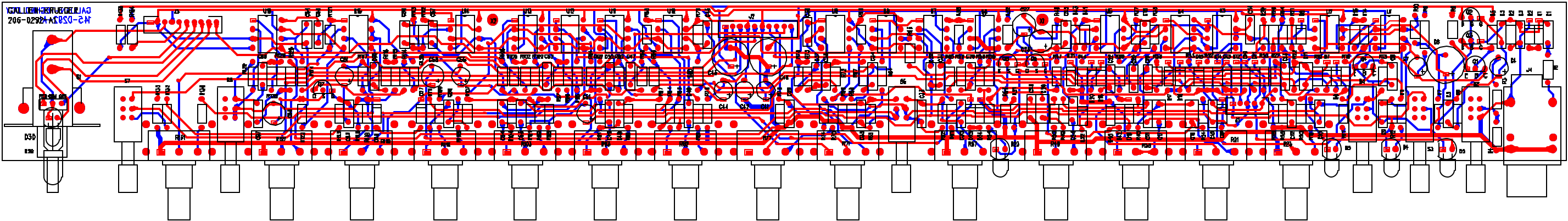
1. CORRECT DECALS FOR C11,16,17,26.
2. CHANGE BOARD REV TO 206-0292-A1.
3. CHANGE R69 TO 2.00K.
4. CHANGE R114/4.74K, R123/12.1K, C62/330PF.
5. REPLACE D26 WITH R136/1.00K.
6. MOVE MINI SWITCHES DOWN .075.
7. CHANGE R59 TO 3.32K.

APPROVALS		TITLE:	
INIT	DATE	SIZE	DRAWING NO: 406-0292-A1
DESIGNED: R.A.G.	1/29/01	B	PART NO: 206-0292-A1
DRAWN: R.A.G.	8/14/03		COMPANY: GALLIEN-KRUEGER
ELEC:			FILENAME: 6292A1.SCH
MECH:			
Q/A:			
RELEASED:			

2001RB Preamp			206-0292-A1		
Part No.	Reference	Description	Manufacturer	Mfr. Part No.	Quan
001-1030-1	U2-3 U5-6 U9-15	TLO72CP, LOW NOISE JFET OPAMP	MOTOROLA	TL072CP	11.00
001-3029-0	U1 U4 U7-8 U16	DG419, Analog Switch	MAXIM	DG419DJ	5.00
010-0012-0	Q4	MPSAO6, NPN,80V,500MA,TO-92	MOTOROLA	MPS-A06	1.00
010-1013-0	Q1	MPSA56 PNP 80V 500MA TO-92	MOTOROLA	MPS-A56	1.00
010-2010-0	Q2-3 Q5-7	J113,N-JFET,35V,2MA,TO-92	NATIONAL	J113	5.00
020-0120-0	D1,2,9,11,24,25,27,28	1N759A, ZENER,12V,5%,400MW, DO-35	MOTOROLA	1N759A	8.00
020-1000-0	D6-8 D10 D12-22	1N4148, RECT-FAST, 200MA, 100V	MOTOROLA	1N4148	15.00
025-0012-0	D29	LED,RED/GRN,5MM,630NM/560NM,	STANLEY	VRPG5614S	1.00
025-0023-0	D3	LED,YELLOW, 3MM, 585NM, 5MCD, 10MA	EVERLIGHT	EL204YD	1.00
025-0030-2	D30	LED,BLUE, 10MA	LITEON	LTL-42B6	1.00
025-0101-0	D5 D23	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	EVERLIGHT	EL204GD	2.00
025-0116-0	D4	LED,RED, 3MM, 635NM, 6MCD, 10MA,	EVERLIGHT	EL2041D	1.00
031-1107-0	C25 C27 C58 C65	CAP,ELEC,RAD,107,20%,25V	UNITED CHEMI-CON	SMG25VB101M6X11LL	4.00
031-1477-0	C6	CAP, ELEC, RAD, 470uF, 20%, 25V	UNITED CHEMI-CON	SMG25VB471M10X12LL	1.00
031-2106-0	C4 C7 C44 C51 C55 C61	CAP,ELEC,RAD, 106, 20%, 50V	UNITED CHEMI-CON	SMG50VB10RM5X11LL	6.00
031-2335-0	C41-42	CAP,ELEC,RAD,335,20%,50V	UNITED CHEMI-CON	SMG50VB3R3M5X11LL	2.00
031-2477-0	C40 C43	CAP, ELEC, RAD, 470uF, 20%, 35V	UNITED CHEMI-CON	SMG35VB471M10X16LL	2.00
032-4102-0	C18 C21 C39	CAP,PE,102,5%,100V,	PANASONIC	ECQB1102JF	3.00
032-4103-0	C12 C53-54	CAP,PE,103,5%,100V,	PANASONIC	ECQV1103JM	3.00
032-4104-0	C1 C9 C15 C19 C24	CAP,PE,104,5%,100V,	PANASONIC	ECQV1104JM	14.00
	C31-35 C56 C60 C63-64				
032-4153-0	C66-67	CAP,PE,153,5%,100V,	PANASONIC	ECQV1153JM	2.00
032-4222-0	C28 C46 C48-49	CAP,PE,222,5%,100V,	PANASONIC	ECQB1222JF	4.00
032-4224-0	C8 C13-14 C22 C47	CAP,PE,224,5%,100V,	PANASONIC	ECQV1224JM	5.00
032-4332-0	C23 C52 C57 C59	CAP,PE,332,5%,100V,	PANASONIC	ECQB1332JF	4.00
032-4334-0	C16-17 C20	CAP,PE,334,5%,100V,	PANASONIC	ECQV1334JM	3.00
032-4472-0	C30 C36-37	CAP,PE,472,5%,100V,	PANASONIC	ECQB1472JF	3.00
032-4473-0	C10	CAP,PE,473,5%,100V,	PANASONIC	ECQV1473JM	1.00
032-4474-0	C11 C26	CAP,PE,474,5%,100V,	PANASONIC	ECQV1474JM	2.00
034-4100-0	C5	CAP, MCR,10pF,5%,100V,NPO	TAITRON	TMRS100J100NPOB	1.00
034-4101-0	C2 C45	CAP,MCR,100pF,5%,100V,	TAITRON	TMRS101J100NPOB	2.00
034-4221-0	C3	CAP,MCR,220pF,5%,100V,	TAITRON	TMRS221J100NPOB	1.00
034-4271-0	C29	CAP,MCR,270pF,5%,100V,	TAITRON	TMRS271J100NPOB	1.00
034-4331-0	C62	CAP,MCR,330PF,5%,100V	TAITRON	TMRS331J100NPOB	1.00
034-4470-0	C50	CAP,MCR,47PF,5%,100V,NPO	TAITRON	TMRS470J100NPOB	1.00
034-4561-0	C38	CAP,MCR,560pF,5%,100V,	TAITRON	TMRS561J100NPOB	1.00
052-6812-0	R9	RES, METAL FILM, 6.81K OHM, 1/4W,	ECI	M2F1AK006.81	1.00
060-1002-0	R29,126,128,132,136	RES,METAL FILM, 1.00K, 1/8W, 1%	ECI	M1F1AK001.00	5.00
060-1003-0	R18,30,45,53,66,76	RES,METAL FILM, 10.0K, 1/8W,1%	ECI	M1F1AK010.00	16.00
	R92 R94-97 R100 R102				
	R105 R112 R122				
060-1004-0	R6 R14 R50 R56 R74	RES,METAL FILM, 100K, 1/8W, 1%	ECI	M1F1AK100.00	10.00
	R115-117 R129 R133				
060-1005-0	R2 R62 R65	RES, MF, 1.00M, 1%,1/8W,	ECI	M1F1AM001.00	3.00
	060-1005-0				
060-1213-0	R1,28,58,67,87,88	RES,METAL FILM, 12.1K OHM, 1/8W,	ECI	M1F1AK012.10	10.00
	R91,98,104,123				
060-1214-0	R72	RES,METAL FILM, 121K, 1/8W, 1%	ECI	M1F1AK121.00	1.00
060-1374-0	R52	RES,METAL FILM, 137K, 1/8W, 1%	ECI	M1F1AK137.00	1.00
060-1503-0	R7 R46	RES,METAL FILM, 15.0K, 1/8W, 1%	ECI	M1F1AK015.00	2.00
060-1504-0	R44	RES,METAL FILM, 150K, 1/8W, 1%	ECI	M1F1AK150.00	1.00
060-1821-0	R11 R17 R54	RES,METAL FILM, 182, 1/8W, 1%	ECI	M1F1AJ182.00	3.00
060-1822-0	R35	RES,METAL FILM, 1.82K, 1/8W, 1%	ECI	M1F1AK001.82	1.00
060-2002-0	R69	RES,METAL FILM, 2.00K, 1/8W, 1%	ECI	M1F1AK002.00	1.00
060-2211-0	R47 R86	RES,METAL FILM, 221 ohm, 1/8W, 1%	ECI	M1F1AJ221.00	2.00
060-2212-0	R19,43,61,64,68,78	RES,METAL FILM, 2.21K, 1/8W, 1%	ECI	M1F1AK002.21	6.00
060-2213-0	R4,13,26,32,33,49	RES,METAL FILM, 22.1K, 1/8W, 1%	ECI	M1F1AK022.10	8.00
	R51 R108				
060-2214-0	R12,16,22,27,36,60	RES,METAL FILM, 221K, 1/8W, 1%	ECI	M1F1AK221.00	9.00
	R63 R75 R124				
060-2215-0	R25	RES, METAL FILM, 2.21M, 1/8W, 1%	ECI	M1F1AM002.21	1.00
060-2742-0	R106 R113	RES,METAL FILM, 2.74K, 1/8W, 1%	ECI	M1F1AK002.74	2.00
060-3012-0	R3	RES,METAL FILM, 3.01K, 1/8W, 1%	ECI	M1F1AK003.01	1.00
060-3322-0	R40,59	RES,METAL FILM, 3.32K, 1/8W, 1%	ECI	M1F1AK003.32	2.00



6292A1 BOM-12/1/2004-Rev B



PCB WORK INSTRUCTIONS

DWG #420-0292-A1

NOTES:

UNLESS OTHERWISE SPECIFIED:

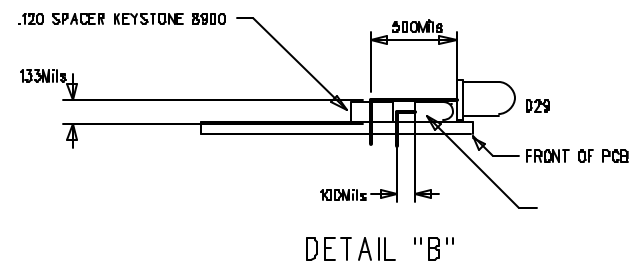
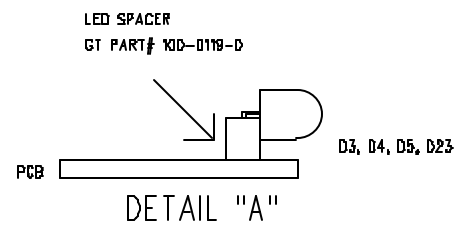
1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPs, SIPs, LEDs) DENOTE PIN 1.
2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
3. ALL BOARDS MUST BE BARE BOARD TESTED.
4. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

LOADING

6. SEE DETAIL A FOR MOUNTING D3, D4, D5 AND D23.
7. SEE DETAIL "B" FOR MOUNTING D28 AND D30.
8. CLIP BRACKET ON RIGHT SIDE OF R23 & 57 TO CLEAR D5 & 23.

FINAL QA

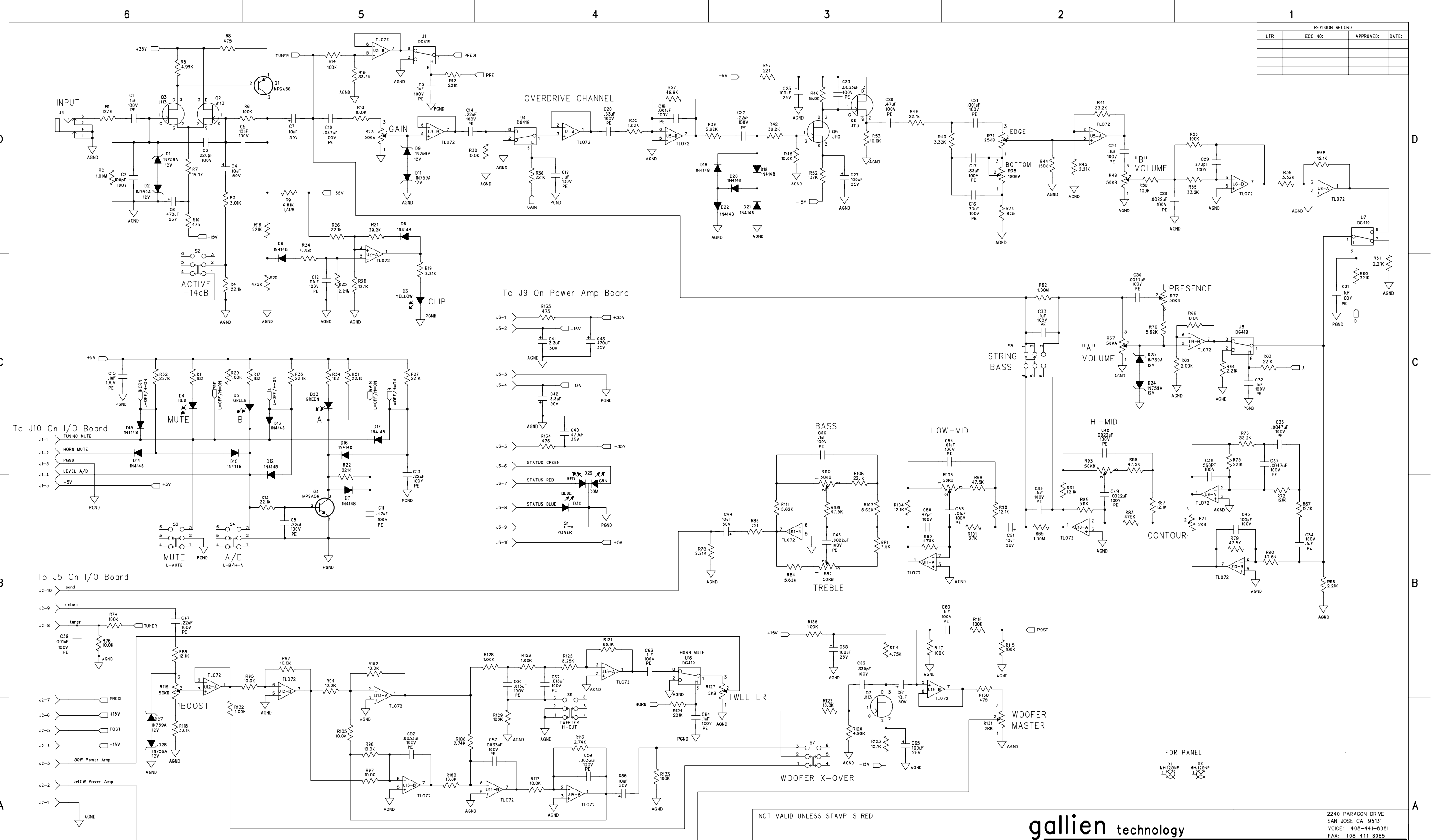
9. CHECK THAT ALL POTS, JACKS, AND SWITCHES ARE MOUNTED FLUSH AND STRAIGHT



NOT VALID UNLESS STAMP IS RED	gallien technology			2234 INDUSTRIAL DRIVE STOCKTON CA. 95210 VOICE: 208-234-7301 FAX: 208-234-8120	
	APPROVALS		TITLE: 2001RB PREAMP BD		
	INIT	DATE	B	DRAWING NO: 405- 0292-A1	REV. A1
	DESIGNED: R.A.G.	12/15/00		PART NO: 145- 0292-A1	
	DRAWN: R.A.G.	7/10/03			
LAYER DESCRIPTION:  TOP SIDE BULKY GREEN	ELEC:				
	MECH:		COMPANY: GALLIEN-KRUEGER		
	GERBER FILE NAME: sort0126.pho		FILENAME: 5292A1.PCB		

ECO FORM REV-3

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



NOT VALID UNLESS STAMP IS RED

gallien technology

REV A2: PRE-AMP REVOCED  
1. CHANGE BOARD REV TO 206-0292-A2.  
2. CHANGE R81 TO 7.5K.  
3. CHANGE R85 TO 511K.  
4. CHANGE R101 TO 127K.  
5. CHANGE R118 TO 3.0K.

APPROVALS		DATE
INIT	R.A.G.	1/29/01
DRAWN:	Noli	8/16/04
ELEC:		
MECH:		
Q/A:		
RELEASED:		

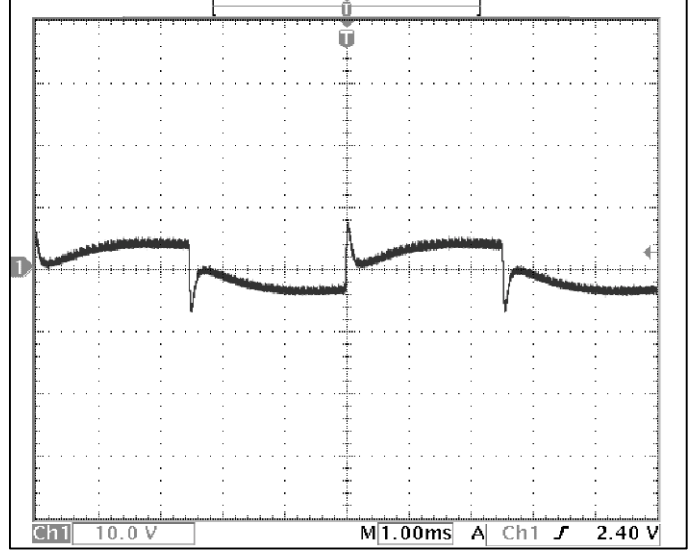
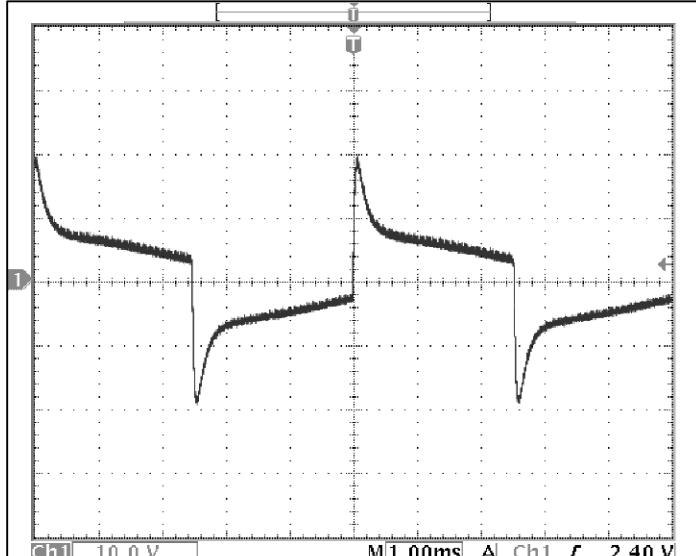
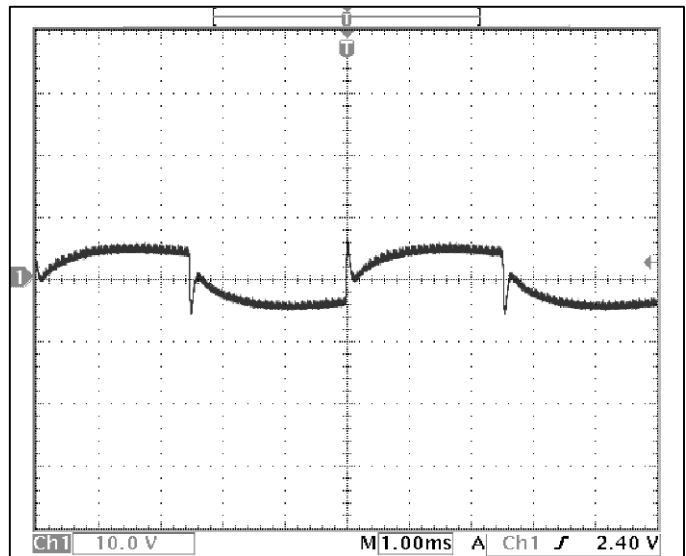
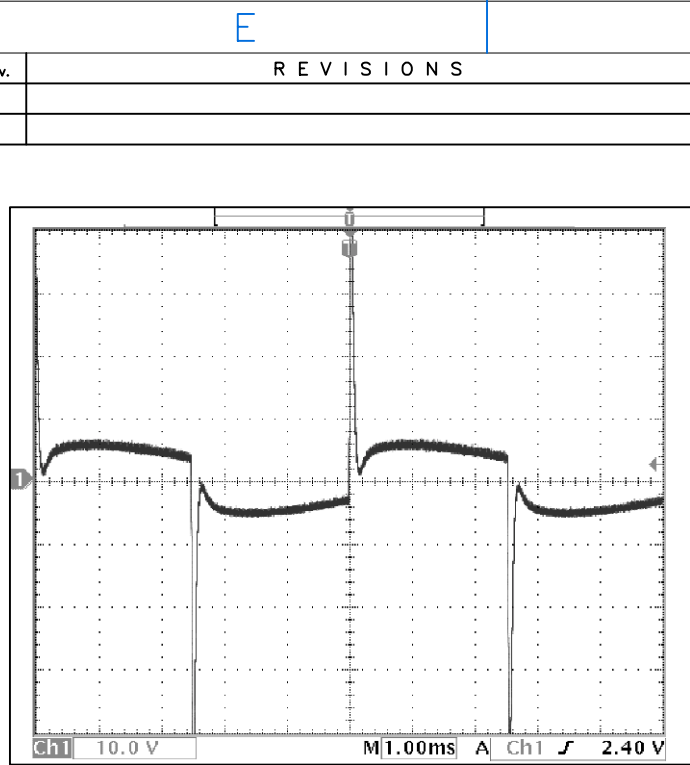
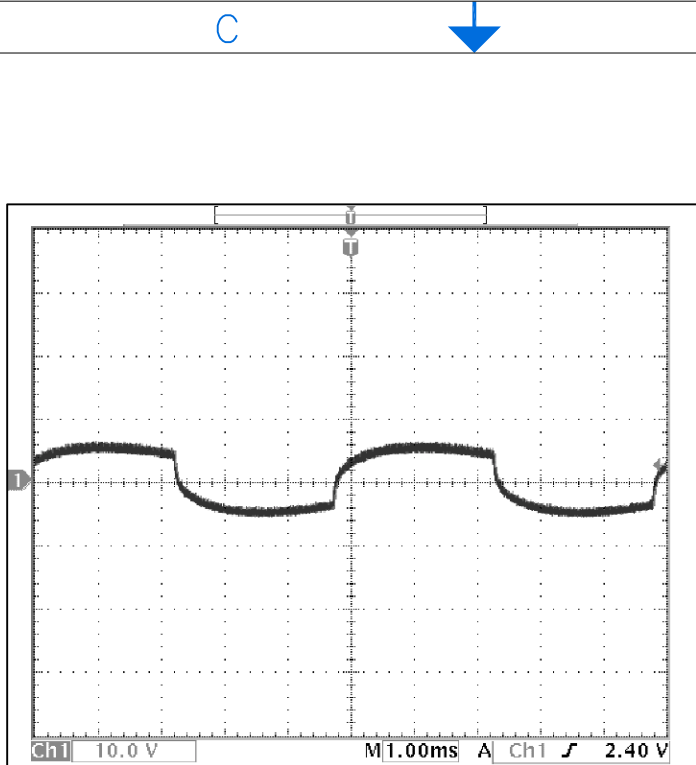
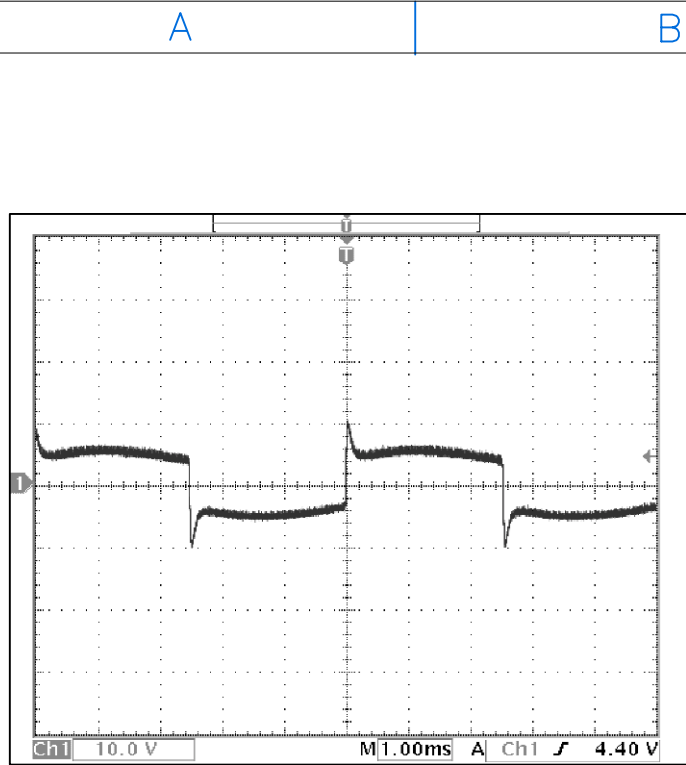
TITLES		DATE
DESIGNED:	2001RB PREAMP	1/29/01
DRAWING NO:	406-0292-A2	
PART NO:	206-0292-A2	
COMPANY:	GALLIEN-KRUEGER	
FILENAME:	6292A2.SCH	

REV: A2

2001RB Preamp			206-0292-A2		
Part No.	Reference	Description	Manufacturer	Mfr. Part No.	Quan
032-4102-0	C18 C21 C39	CAP,PE,102,5%,100V,	PANASONIC	ECQB1102JF	3
032-4222-0	C28 C46 C48-49	CAP,PE,222,5%,100V,	PANASONIC	ECQB1222JF	4
032-4332-0	C23 C52 C57 C59	CAP,PE,332,5%,100V,	PANASONIC	ECQB1332JF	4
032-4472-0	C30 C36-37	CAP,PE,472,5%,100V,	PANASONIC	ECQB1472JF	3
032-4153-0	C66-67	CAP,PE,153,5%,100V,	PANASONIC	ECQV1153JM	2
032-4103-0	C12 C53-54	CAP,PE,103,5%,100V,	PANASONIC	ECQV1103JM	3
032-4473-0	C10	CAP,PE,473,5%,100V,	PANASONIC	ECQV1473JM	1
032-4104-0	C1 C9 C15 C19 C24 C31-35 C56 C60 C63-64	CAP,PE,104,5%,100V,	PANASONIC	ECQV1104JM	14
032-4224-0	C8 C13-14 C22 C47	CAP,PE,224,5%,100V,	PANASONIC	ECQV1224JM	5
032-4334-0	C16-17 C20	CAP,PE,334,5%,100V,	PANASONIC	ECQV1334JM	3
032-4474-0	C11 C26	CAP,PE,474,5%,100V,	PANASONIC	ECQV1474JM	2
034-4101-0	C2 C45	CAP,MCR,100pF,5%,100V,	TAITRON	TMRS101J100NPOB	2
031-1107-0	C25 C27 C58 C65	CAP,ELEC,RAD,107,20%,25V	UNITED CHEMI-CON	SMG25VB101M6X11LL	4
034-4100-0	C5	CAP, MCR,10pF,5%,100V,NPO	TAITRON	TMRS100J100NPOB	1
031-2106-0	C4 C7 C44 C51 C55 C61	CAP,ELEC,RAD, 106, 20%, 50V	UNITED CHEMI-CON	SMG50VB10RM5X11LL	6
034-4221-0	C3	CAP,MCR,220pF,5%,100V,	TAITRON	TMRS221J100NPOB	1
034-4271-0	C29	CAP,MCR,270pF,5%,100V,	TAITRON	TMRS271J100NPOB	1
031-2335-0	C41-42	CAP,ELEC,RAD,335,20%,50V	UNITED CHEMI-CON	SMG50VB3R3M5X11LL	2
034-4331-0	C62	CAP,MCR,330pF,5%,100V,	TAITRON	TMRS331J100NPOB	1
031-1477-0	C6	CAP, ELEC, RAD, 470uF, 20%, 25V	UNITED CHEMI-CON	SMG25VB471M10X12LL	1
031-2477-0	C40 C43	CAP, ELEC, RAD, 470uF, 20%, 35V	UNITED CHEMI-CON	SMG35VB471M10X16LL	2
034-4470-0	C50	CAP,MCR,47PF,5%,100V,NPO	TAITRON	TMRS470J100NPOB	1
034-4561-0	C38	CAP,MCR,560pF,5%,100V,	TAITRON	TMRS561J100NPOB	1
092-0081-0	J4	JACK,1/4",MONO,PC,NON GROUNDING	NEUTRIK	S102-84	1
020-1000-0	D6-8 D10 D12-22	1N4148, RECT-FAST, 200MA, 100V	MOTOROLA	1N4148	15
020-0120-0	D1-2 D9 D11 D24-25 D27-28	1N759A, ZENER,12V,5%,400MW, DO-35	MOTOROLA	1N759A	8
093-2010-0	J2-3	HDR, 2MMX10, VERT, SHROUDED	JST	B10B-PH-K-S	2
093-0053-0	J1	HDR, 2MMX5, VERT, LOCK	JST	B5B-PH-K-S	1
001-3029-0	U1 U4 U7-8 U16	DG419, Analog Switch	MAXIM	DG419DJ	5
001-1030-1	U2-3 U5-6 U9-15	TLO72CP, LOW NOISE JFET OPAMP	MOTOROLA	TL072CP	11
025-0030-2	D30	LED,BLUE, 10MA	LITEON	LT1-42B6	1
025-0101-0	D5 D23	LED,GREEN, 3MM, 565NM, 6MCD, 10MA	EVERLIGHT	EL204GD	2
025-0012-0	D29	LED,RED/GRN,5MM,630NM/560NM,15MCD/15	STANLEY	VRPG5614S	1
025-0116-0	D4	LED,RED, 3MM, 635NM, 6MCD, 10MA, 40DEG	EVERLIGHT	EL2041D	1
025-0023-0	D3	LED,YELLOW, 3MM, 585NM, 5MCD, 10MA	EVERLIGHT	EL204YD	1
000-0000-0	X1-2	.125 HOLE, NON-PLATED			2
070-1527-0	R38	POT,100KA,7MM,KNURL,.1W	SONG HUEI	16K1-A100K-L15KC	1
070-1526-0	R31	POT,25KB,7MM,KNURL,.1W	SONG HUEI	16K1-B25K-L15KC	1
070-1522-0	R71 R127 R131	POT,2KB,7MM,KNURL,.1W	SONG HUEI	16K1-B2K-L15KC	3
070-1513-0	R23 R57	POT,50K-15A,7MM,KNURL,.1W	SONG HUEI	16K1-A50K-L15KC	2
070-1514-0	R48 R77 R82 R93 R103 R110 R119	POT,50KB,7MM,KNURL,.1W	SONG HUEI	16K1-B50K-L15KC	7
060-1002-0	R29 R126 R128 R132 R136	RES,METAL FILM, 1.00K, 1/8W, 1%	ECI	M1F1AK001.00	5
060-1005-0	R2 R62 R65	RES, MF, 1.00M, 1%,1/8W, 060-1005-0	ECI	M1F1AM001.00	3
060-1822-0	R35	RES,METAL FILM, 1.82K, 1/8W, 1%	ECI	M1F1AK001.82	1
060-1003-0	R18 R30 R45 R53 R66 R76 R92 R94-97 R100 R102 R105 R112 R122	RES,METAL FILM, 10.0K, 1/8W,1%	ECI	M1F1AK010.00	16
060-1003-0	R84	RES,METAL FILM, 5.62K, 1/8W,1%	ECI	M1F1AK005.62	1
060-1004-0	R6 R14 R50 R56 R74 R115-117 R129 R133	RES,METAL FILM, 100K, 1/8W, 1%	ECI	M1F1AK100.00	10
060-1213-0	R1 R28 R58 R67 R87-88 R91 R98 R104	RES,METAL FILM, 12.1K OHM, 1/8W, 1%	ECI	M1F1AK012.10	9
060-1213-0	R123	RES,METAL FILM, 12.1K, 1/8W, 1%	ECI	M1F1AK012.10	1
060-1214-0	R72	RES,METAL FILM, 121K, 1/8W, 1%	ECI	M1F1AK121.00	1
060-1374-0	R52	RES,METAL FILM, 137K, 1/8W, 1%	ECI	M1F1AK137.00	1
060-1503-0	R7 R46	RES,METAL FILM, 15.0K, 1/8W, 1%	ECI	M1F1AK015.00	2
060-1504-0	R44	RES,METAL FILM, 150K, 1/8W, 1%	ECI	M1F1AK150.00	1
060-1821-0	R11 R17 R54	RES,METAL FILM, 182, 1/8W, 1%	ECI	M1F1AJ182.00	3
060-2002-0	R69	RES,METAL FILM, 2.00K, 1/8W, 1%	ECI	M1F1AK002.00	1
060-2212-0	R19 R43 R61 R64 R68 R78	RES,METAL FILM, 2.21K, 1/8W, 1%	ECI	M1F1AK002.21	6
060-2215-0	R25	RES, METAL FILM, 2.21M, 1/8W, 1%	ECI	M1F1AM002.21	1
060-2742-0	R106 R113	RES,METAL FILM, 2.74K, 1/8W, 1%	ECI	M1F1AK002.74	2

6292A2 BOM-12/1/2004-Rev B

Customer Name:	Gallien-Krueger		Current Rev #:	A1	New ECO Rev #:	A2
Model:	2001RB		Distribute To:		Page:	1 Of: 2
Assembly Description:	Preamp		Originator:	Enrique Hernandez		
Assembly Numbers:	206-0292-A		Approved by:			
	145-0292-A		Effective Date:	8/26/2004		
Effective			Document Update		Date	Initials
<input checked="" type="checkbox"/>	All in Process	<input checked="" type="checkbox"/>	Next Buy	<input type="checkbox"/>	Artwork	
<input type="checkbox"/>	All in Service	<input type="checkbox"/>	Next Production Run	<input type="checkbox"/>	Assembly Dwg.	
<input type="checkbox"/>	All in Stock	<input type="checkbox"/>		<input type="checkbox"/>	Board Artwork	
Beginning Serial Number:			<input checked="" type="checkbox"/>	BOM		Noli
Reason For Change			<input type="checkbox"/>	Control Form		
Re-voicing of the Pre-Amp:			<input type="checkbox"/>	Costing		
Resistors R81, R85, R101, and R118 were replaced with different value resistors, as listed below, to reduce brightness, and increase low end bass efficiency of the amplifier.			<input type="checkbox"/>	Fab Drawing		
			<input type="checkbox"/>	Inspection Proc.		
			<input checked="" type="checkbox"/>	Part Master File		Noli
			<input checked="" type="checkbox"/>	Schematic		Noli
			<input type="checkbox"/>	Service Manual		
			<input checked="" type="checkbox"/>	Test Procedure		
			<input type="checkbox"/>			
			Other Affected Assemblies			
			302-0290, 302-1290, 302-2290			
			302-0100			
<input type="checkbox"/>	Continued on ECO Supplement Page					
Description Of Change			Distribution		Date	Initials
See changes below.			<input type="checkbox"/>	Accounting		
			<input type="checkbox"/>	Assembly		
Update BOM.			<input checked="" type="checkbox"/>	Engineering		
			<input checked="" type="checkbox"/>	Incoming Q.C.		
Update Part Master file.			<input checked="" type="checkbox"/>	Production Eng.		
			<input checked="" type="checkbox"/>	Purchasing		
			<input type="checkbox"/>	Q.A.		
			<input type="checkbox"/>	Service		
			<input checked="" type="checkbox"/>	Test		
<input type="checkbox"/>	Continued on Supplement Page		<input type="checkbox"/>	Drawing(s) attached		
Part Number	Description	Parts Added		Parts Deleted		
		Qty	Ref. Designator	Qty	Ref. Designator	
060-5622-0	5.62K, 1/8W, MF			1	R81	
060-4754-0	475K, 1/8W, MF			1	R85	
060-4754-0	475K, 1/8W, MF			1	R101	
060-5622-0	5.62K, 1/8W, MF			1	R118	
060-7502-0	7.5K, 1/8W, MF	1	R81			
060-5114-0	511K, 1/8W, MF	1	R85			
060-1274-0	127K, 1/8W, MF	1	R101			
060-3012-0	3.01K, 1/8W, MF	1	R118			



1. Apply signal into the input with 200Hz square wave @ -46dBV(5mVrms).
2. Set Level-B, Level-A, all Active EQ's, Boost, Tweeter, and Woofer to center (halfway), Contour and Presence to 0.
3. Gain, Edge, and Bottom to maximum.
4. Look at output with scope set on 10V/div and 1ms/div.

HOLE REFERENCE CHART		
HOLE	DESCRIPTION	QTY.

ZONE	Dim.	ECO#	Rev.	REVISIONS		Date

QTY PER ASSY		PART NUMBER		DESCRIPTION		DESIGNATION(S)	ITEM NO.
PROPRIETARY		PARTS LIST					
THIS DRAWING CONTAINS INFORMATION WHICH IS PROPRIETARY TO GALLIEN TECHNOLOGY CORPORATION. DO NOT REPRODUCE IN ANY FORM OR DISTRIBUTE IN ANY FASHION WITHOUT THE EXPRESS WRITTEN PERMISSION OF GALLIEN TECHNOLOGY CORPORATION.		gallien technology		2234 INDUSTRIAL DRIVE		STOCKTON, CA 95206	
		TITLE:		2001RB			
UNLESS OTHERWISE INDICATED DIMENSIONS SHOWN ARE IN INCHES		APPROVALS		SIZE		DRAWING NUMBER:	
TOLERANCES FRACTION ±		INIT		DATE		REVISION	
ANGLES ±		MECH. DESIGN:		8/31/04		A2	
.XX ± 0.01		DRAWN BY: EAH					
.XXX ± 0.005		ELEC:					
MATERIAL: (SEE NOTE 1)		PROJ. MGR:					
FINISH: (SEE NOTE 1)		Q/A:					
		RELEASED:					
				SCALE: NOT TO SCALE		SHEET 1 OF 3	



ZONE	Dim.	ECO#	Rev.	REVISIONS	Date

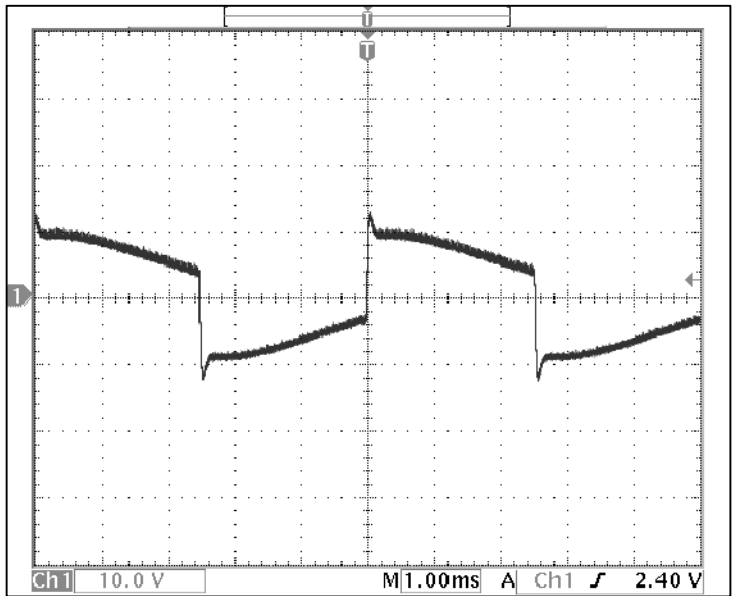


Figure 7  
Lo-Mid to 10

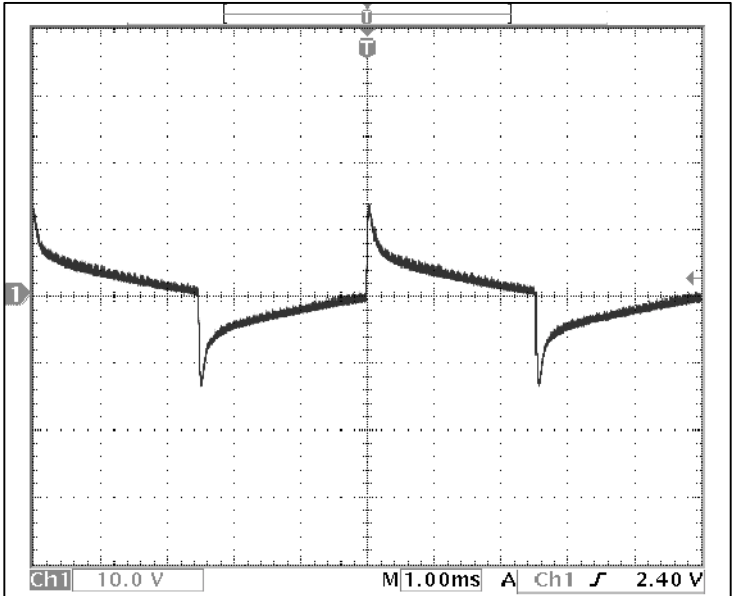


Figure 8  
Bass to 0

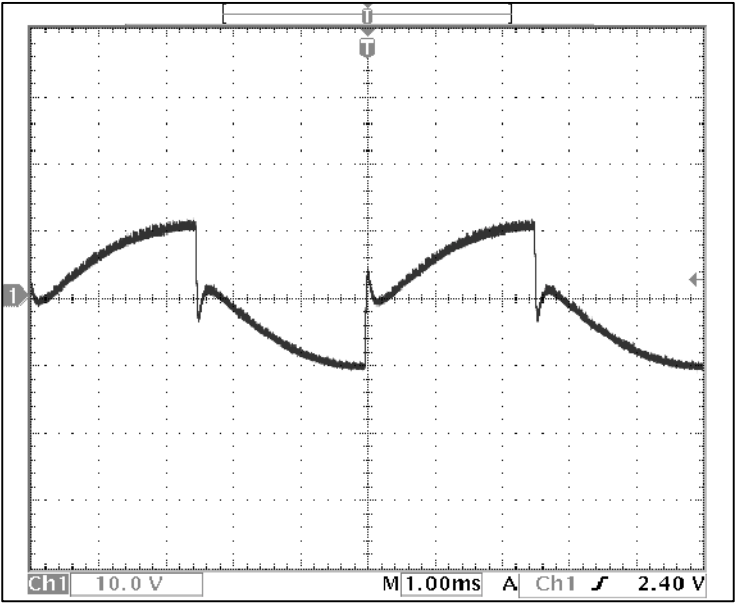


Figure 9  
Bass to 10

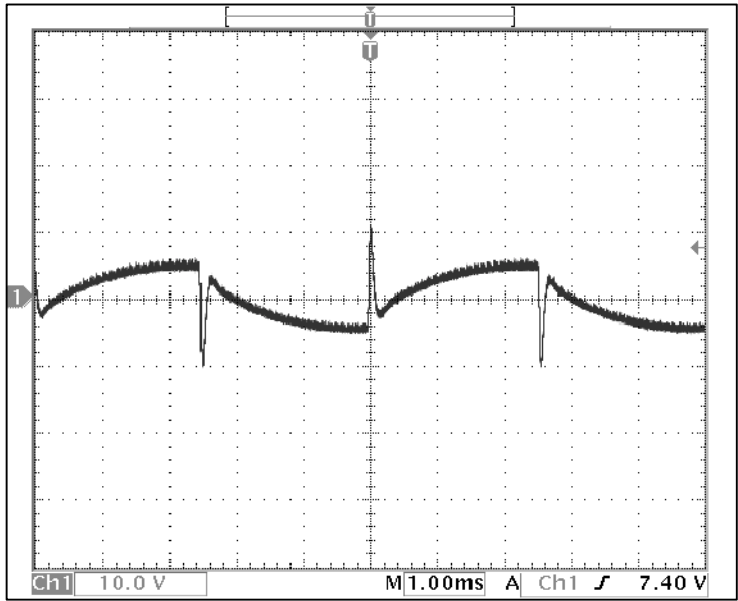


Figure 10  
Contour to 10

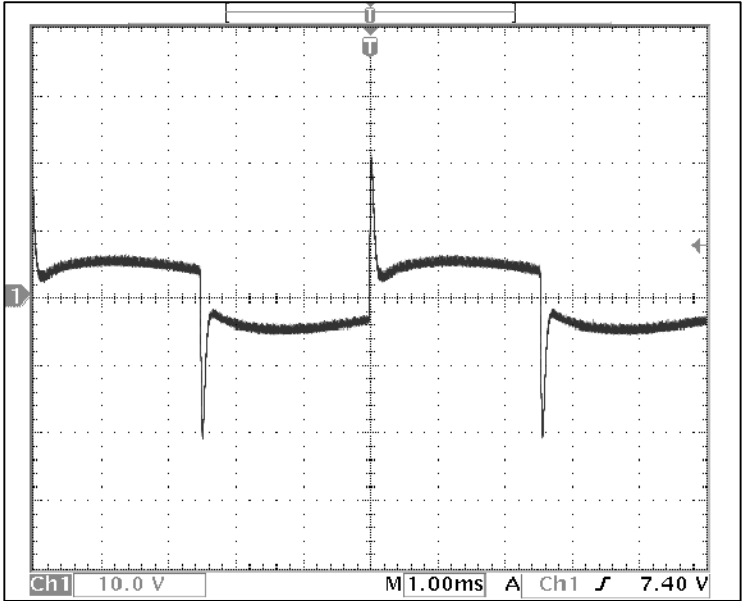


Figure 11  
Presence to Ten

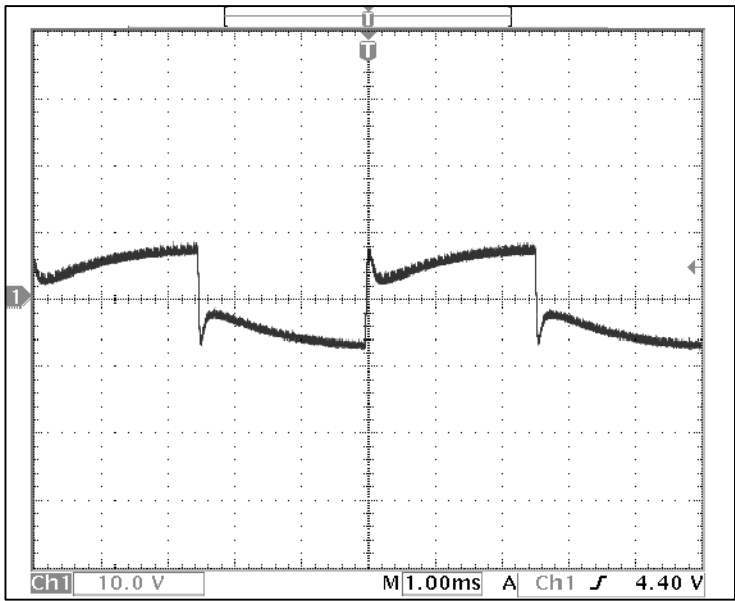


Figure 12  
String Bass Switch In

1. Apply signal into the input with 200Hz square wave @ -46dBV(5mVrms).
2. Set Level-B, Level-A, all Active EQ's, Boost, Tweeter, and Woofer to center (halfway), Contour and Presence to 0.
3. Gain, Edge, and Bottom to maximum.
4. Look at output with scope set on 10V/div and 1ms/div.

HOLE REFERENCE CHART		
HOLE	DESCRIPTION	QTY.

QTY PER ASSY		PART NUMBER		DESCRIPTION	DESIGNATION(S)	ITEM NO.		
PROPRIETARY		PARTS LIST						
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UNLESS OTHERWISE INDICATED DIMENSIONS SHOWN ARE IN INCHES				TITLE: <b>2001RB</b>				
TOLERANCES FRACTION ± ANGLES ± .XX ± 0.01 .XXX ± 0.005		APPROVALS INIT MECH. DESIGN: DRAWN BY: <b>EAH</b> ELEC: PROJ. MGR.: Q/A: RELEASED:		DATE 8/31/04	SIZE <b>B</b>	DRAWING NUMBER: PART NUMBER: <b>206-0292-A2</b>		
MATERIAL: (SEE NOTE 1)		FINISH: (SEE NOTE 1)		REVISION <b>A2</b>				
				FILENAME:				
				SCALE: NOT TO SCALE				
				SHEET 2 OF 3				

