

ENGINEERING CHANGE ORDER

MODEL:

2000RB/1000RE

Gallien Krueger

LEVEL: System

DATE: 4/5/96

2000RB/1000RB power amp board in main
206-0100-07.302-0000-0.1000-0.1000-0.1000-0 REV#

Board

ORIGINATOR: MJG

Fab

EFFECTIVE

PENDING

APPROVAL

INITIAL

DATE

Next production Run

Pending/Reject Reason:

Engineering

MJG

4/5/96

All in Process

Material

All in Stock

Production

All being Serviced

Type of Change:

Necessary

Fabrication

Others:

Improvement

Marketing

50 boards in current run

Other

Cost accounting

REASON FOR CHANGE:

AFFECTED AREA:

Going to different fan- also results in components needing to be changed.

Schematic

Continued on ECO supplement page _____

Artwork

Bill of Material

main assy ✓ MJG
board ✓ MJG

Comp. Control Form

Assembly Drawing

Test Procedure

Fab Drawing

Silkscreen

Punch Program

DESCRIPTION OF CHANGE:

- 1) Change fan from Fonsan DF0824H to Adda AD0824HB-A70GL (on main assy.)
- 2) On board: change R547D from 330 ohms to 220 ohms and R54 from 4.7 ohm, 1/4 W to 3.3 ohm 1/4W.

Continued on ECO supplement page _____

TOTAL PARTS ADDED: new

TOTAL PARTS DELETED: old

PART#	DESCRIPTION	QTY	REF.DES.	PART#	DESCRIPTION	QTY	REF.DES.
086-0000-0	24V Fan (Adda)	1	-	100-0085-0	24V Fan (Fonsan)	1	-
051-0332-0	3.3R, 1/4W res	1	R544	051-0470-0	4.7R, 1/4W res	1	R544
050-2201-0	220R, 1/8W res	1	R547D	05-330-0	330R, 1/8W res	1	R547D

DISTRIBUTION:

Engineering

Material

Production

Fabrication

Others:

ENGINEERING CHANGE ORDER

ECO#: 29

GALLIEN TECHNOLOGY
2240 Paragon Dr., San Jose, CA 95131

Tel: (408) 441-8081
Fax: (408) 441-8085

MODEL:
1000/2000RB

CUSTOMER: Gallien Krueger
DESC.: 1000/2000 RB Main Assy.
ASSY#'s: 302-0000-0,-1000-0,-2000-0
302-0010-0,-1010-0,-2010-0

Level: System
 Board
 Fab

DATE: 9/5/96
ORIGINATOR:
M Johns
Checked by:

EFFECTIVE
 Next production Run
 All in Process
 All in Stock
 All being serviced

PENDING
Pending/reject reason:
 Necessary change
 Improvement

RELATED ECO'S FOR:
 Raw Board:
 Loaded Board:
 Sheet Metal: ECO 28
 Heatsink: ECO 24
 Main Assy:

REASON FOR CHANGE:
To give better heatsink support as described in ECO 24

Continued on ECO Supplement Page

AFFECTED AREA:	By:	Date:
<input type="checkbox"/> Schematic		
<input type="checkbox"/> Board Artwork		
<input type="checkbox"/> Board BOM		
<input type="checkbox"/> Reference Des.		
<input checked="" type="checkbox"/> Main Assy BOM	MJ	9/5/96
<input checked="" type="checkbox"/> Comp cntrl frm.		
<input checked="" type="checkbox"/> Assembly Dwg.		
<input type="checkbox"/> Test Procedure		
<input checked="" type="checkbox"/> Fab Drawing	JB	
<input type="checkbox"/> Silkscreen		
<input type="checkbox"/> Punch Program		
<input type="checkbox"/> Auto Insert Pgm		

DESCRIPTION OF CHANGE:

- 1) Remove heatsink bracket from BOM.
- 2) Chasis parts change to allow for new 2" standoff insertion.
- 3) Bolt Rev B heatsink through the holes into the standoffs.

Continued on ECO Supplement Page

DISTRIBUTION:

Engineering
 Purchasing
 Main Assembly
 P.C. Assy
 Q.A.
 Fabrication
 Service Centers

PAGE 1 OF 1

Drawing(s) attached

TOTAL PARTS ADDED:			
Part #:	Description	Qty.	Ref. Designator
FOR 2000RB:			
111-6096-0	2" standoff	2	
111-0081-0	1/2", 440 bolt	2	
132-0584-A	new 2000rb chs	1	
132-0028-B	2000RB htsink	2	
FOR 1000RB:			
111-6096-0	2" standoff	1	
111-0081-0	1/2", 440 bolt	1	
132-0590-A	new 1000rb chs	1	
132-0028-B	2000RB htsink	1	

TOTAL PARTS DELETED:			
Part #:	Description	Qty.	Ref. Designator
FOR 2000RB:			
132-0588-0	2000rb bracket	2	
132-0584-0	old 2000rb chs	1	
132-0028-A	2000RB htsink	2	
FOR 1000RB:			
132-0588-0	2000rb bracket	1	
132-0590-0	old 1000rb chs	1	
132-0028-A	2000RB htsink	1	

ENGINEERING CHANGE ORDER

ECO#: **30**

GALLIEN TECHNOLOGY: Tel: (408) 441-8081
 2240 Paragon Dr., San Jose, CA 95131 Fax: (408) 441-8085

MODEL:
 1000/2000RB

CUSTOMER: Gallien Krueger
 DESC.: 1000/2000 RB Power amp
 ASSY#'s: 206-0100-C Old Rev: _____
 (See below) New Rev: _____

Level: System
 Board
 Fab

DATE: 11/25/96
 ORIGINATOR:
M. Johns
 Checked by: _____

EFFECTIVE PENDING
 Next production Run
 All in Process
 All in Stock
 All being serviced

RELATED ECO'S FOR:
 Raw Board: _____
 Loaded Board: _____
 Sheet Metal: _____
 Heatsink: _____
 Main Assy: _____

REASON FOR CHANGE:
 To fix problem with second breakdown of power amp.

 Continued on ECO Supplement Page _____

AFFECTED AREA:	By:	Date:
<input checked="" type="checkbox"/> Schematic	MJ	11/25/96
<input type="checkbox"/> Board Artwork		
<input type="checkbox"/> Board BOM		
<input type="checkbox"/> Reference Des.		
<input checked="" type="checkbox"/> Main Asy BOM		
<input type="checkbox"/> Comp cntrl frm.		
<input type="checkbox"/> Assembly Dwg.		
<input type="checkbox"/> Test Procedure		
<input type="checkbox"/> Fab Drawing		
<input type="checkbox"/> Silkscreen		
<input type="checkbox"/> Punch Program		
<input type="checkbox"/> Auto Insert Pgm		

DESCRIPTION OF CHANGE:
 1) a. Wire a 2SC4793 in parallel with Q534 and a 2SA1837 in parallel with Q539.
 b. Their bases and collectors get tied directly together.
 c. Their emitters get tied together with 1 ohm resistors and then connect to their respective diodes.
 2) Use the TO220 clip to clamp the two transistors to the side of the heatsink.
 3) Put some silicone in and around the clamp to hold in place.

 Continued on ECO Supplement Page _____

DISTRIBUTION:
 Engineering
 Purchasing
 Main Assembly
 P.C. Assy
 Q.A.
 Fabrication
 Service Centers

PAGE 1 OF 2
 Drawing(s) attached (schem.)

TOTAL PARTS ADDED:			
Part #:	Description	Qty.	Ref. Designator
012-0002-0	2sc4793 (npn)	1	
012-1002-0	2sa1837 (pnp)	1	
051-0100-0	1ohm 1/4w res	4	
100-0004-0	TO220 clip	2	
These quantities are per amplifier module. They are therefore doubled for a 2000RB. The main assembly BOMs are the ones that have actually been modified since these parts will be added in main assembly.			
(302-0000-0, 302-0010-0, 302-1000-0, 302-1010-0, 302-2000-0, 302-2010-0)			

TOTAL PARTS DELETED:			
Part #:	Description	Qty.	Ref. Designator

ENGINEERING CHANGE ORDER

ECO#: 40

GALLIEN TECHNOLOGY
 2240 Paragon Dr., San Jose, CA 95131
 Tel: (408) 441-8081
 Fax: (408) 441-8085

MODEL:
 2000/1000RB

CUSTOMER: GALLIEN KRUEGER
DESC.: 2000/1000RB Pre Amp Board
ASSY#'s: 206-0098-D/206-0099-D
 Old Rev: _____
 New Rev: _____


Level:
 System
 Board
 Fab

DATE: 4/8/98
ORIGINATOR:
 H Fahmi
Checked by: *[Signature]*

EFFECTIVE
 PENDING
 Next production Run
 All in Process
 All in Stock
 All being serviced

RELATED ECO'S FOR:
 Raw Board:
 Loaded Board: ECO #39,41
 Sheet Metal:
 Heatsink:

REASON FOR CHANGE:
 Fixes customer complaint: "Amplifier is not loud enough,
 "lacks power"
 Eliminates high gain oscillation, reduces HUM from
 input stage.


 RELEASED FOR
 MANUFACTURE
 BY *QA* DATE *4-13-98*

Continued on ECO Supplement Page

AFFECTED AREA:	By:	Date:
<input checked="" type="checkbox"/> Schematic	KR	
<input type="checkbox"/> Board Artwork		
<input checked="" type="checkbox"/> Board BOM	HF	1/16/98
<input type="checkbox"/> Reference Des.		
<input type="checkbox"/> Main Asy BOM		
<input type="checkbox"/> Comp cntrl frm.		
<input type="checkbox"/> Assembly Dwg.		
<input checked="" type="checkbox"/> Test Procedure		
<input type="checkbox"/> Fab Drawing		
<input type="checkbox"/> Silkscreen		
<input type="checkbox"/> Punch Program		
<input checked="" type="checkbox"/> Auto Insert Pgm		
<input type="checkbox"/> _____		

DESCRIPTION OF CHANGE:

- Update BOM's: 206-0098-D, 206-0099-D
- Modify PCB': a) Change value of R26,R27
 b) Add one capacitor and one resistor
 on top of PC board
 See attached Modification instructions.
- Update Schematics drawings 406-0098-C, 406-0097-C.

Beginning Serial Numbers:

1C9806E41148208	1000RB	120 volt.
2C9803E41147388	1000RB	230 volt.
1D9812E41148444	2000RB	120 volt.
2D9811E41148128	2000RB	230 volt.

Continued on ECO Supplement Page

DISTRIBUTION:

Engineering *[Signature]* 4-16-98
 Purchasing
 Main Assembly *[Signature]* 4/16/98
 P.C. Assy *[Signature]*
 Q.A.
 Fabrication
 Service Centers *[Signature]*
 Stock Room, Shipping *CK*
 Cost Accounting

TOTAL PARTS ADDED:				TOTAL PARTS DELETED:			
Part #:	Description	Qty.	Ref. Designator	Part #:	Description	Qty.	Ref. Designator
050-4701-0	Res,470 ohm 1/8W	3	R26,R27	050-0000-0	Res 0 ohm	2	R26,27
031-0107-0	Cap Rad 107 16V	1					

6/25/99 **1000RB- INDENTED BILL OF MATERIALS**

NOTE: *-Level 1 refers to main assembly parts
 Level 2 refers to board level parts.
 Main assembly numbers are in boldface, while commonly
 needed parts are italicized.

LVL*	PART#	DESCRIPTION	QTY	REF.DESIG.
1	010-0003-0	2SC3502-F,NPN,200V,100MA,TO-126	3	
1	010-1003-0	2SA1380-F,PNP,200V,100MA,TO-126	1	
1	012-0002-0	2SC4793 NPN 200V 1.5A 2-10R1A	3	Q213
1	012-1002-0	2SA1837 PNP 200V 1.5A 2-10R1A	3	Q221
1	025-0101-0	LED,GRN,3MM,565NM,6MCD,10MA,40DEG	2	
1	051-0100-0	RES,CARBON FILM,1 OHM,1/4W,5%	4	
1	<i>080-0017-0</i>	<i>TRANSFORMER 1000RB,115V/230V</i>	1	
1	086-0000-0	FAN, 24V DC, 160MA, 80X80MM, HIGH SPEED	1	
1	<i>090-0000-0</i>	<i>SWITCH,ROCKER,DPST,16A/125V,QUICK-TERM</i>	1	<i>on/off switch</i>
1	090-0001-0	A SWITCH,FOOT CHROME,SP-PP,6A,SLDR-TERM2		
1	<i>091-0027-0</i>	<i>FUSE,1/4,15A,250V,FAST,CER,UL/CSA</i>	1	
1	092-0005-0	A JACK SW-12B,1/4",O-TIP,O-RING,SLDR TERM	1	
1	092-0064-0	FASTON,F,V,.250X.032X.135,18-22GA,RED	18	
1	093-0506-0	HSG,.1X2,LOCKING,CRIMP 093-0909	1	
1	093-0909-0	TERM,CRIMP,.1,22GA,093-0509	2	
1	093-1000-0	HSG,2MMX2,26GA,IDC	2	
1	093-1001-0	HSG,2MMX3,26GA,IDC	2	
1	094-0018-0	LUG,#4,SOLDER,STANDARD	1	
1	<i>095-0005-0</i>	<i>CORD,IEC,3X18GA,10A,6',DOM</i>	1	
1	095-0302-0	WIRE,18GA,RED,600V	28	
1	095-0309-0	WIRE,18GA,WHITE,600V	28	
1	100-0004-0	CLIP,TO-220 MOUNTING CLIP	2	

LVL.	PART#	DESCRIPTION	QTY	REF. DESIG.
1	100-0020-0	BUMPER,ROUND RUBBER,1/2"X.14"	5	
1	100-0026-0	HANDLE,METAL,4",B.O.,OVAL	2	
1	100-0033-0	CABLE TIE - PLT 1M-M,SMALL	3	
1	100-0051-0	INSULATOR,THERMALSIL,1.5" X 12",ADHESIVE	1	
1	100-0076-0	FOOT,RUBBER,ROUND,5/8DIA. X 5/8"	4	
1	100-0083-0	FAN,3.15"X1",24V	1	
1	100-0098-0	<i>KNOB,GRAY,6X15MM SPLINE SHAFT</i>	14	
1	100-0116-0	SPACER,PLASTIC,.250 DIA X .625,#4,BLK	4	
1	100-0126-0	HOLDER,CABLE TIE .75" SQUARE,ADHESIVE BK	2	
1	105-0002-0	INSULATOR TAPE,2.5"X7MIL,ADHESIVE BACK	0	
1	111-0041-0	BOLT,4-40,1/4,PHP,CAD	4	
1	111-0060-0	BOLT,4-40,3/8,PHP,B.Z.	4	
1	111-0361-0	BOLT,4-40,2 1/4,PHP,ZINC	4	
1	111-4060-0	SCREW,4AB,3/8,FHP 82^,B.Z.	4	
1	111-5040-0	SCREW,#4,1/4,PLASTITE,PHP,B.Z.	5	
1	111-6001-0	NUT,4-40,KEP SMALL	5	
1	111-6090-0	STANDOFF,4-40,1 3/4",AMATOM	2	
1	111-6096-0	STANDOFF,4-40,2",AMATOM	2	
1	111-7011-0	WASHER,#4,SPLIT	24	
1	111-8061-0	TR-BOLT,4-40,3/8,PHP,CAD	6	
1	111-8081-0	TR-BOLT,4-40,1/2,PHP,CAD	12	
1	112-7001-0	WASHER,#6,FLAT,CAD	4	
1	112-8030-0	TR-BOLT,6-32,3/16,PHP,B.Z.	6	
1	112-8040-0	TR-BOLT,6-32,1/4,PHP,B.Z.	9	
1	112-8060-0	TR-BOLT,6-32,3/8,PHP,B.Z.	4	

LVL.	PART#	DESCRIPTION	QTY	REF. DESIG.
1	112-9060-0	TR-BOLT,6-32,3/8,FHP,B.Z.	6	
1	114-1060-0	BOLT,10-32,3/8,FHP 82^,B.Z.	4	
1	115-2480-0	BOLT,5/16-18,3 1/4,CARRIAGE,B.Z.	1	
1	115-6000-0	NUT,5/16-18,HEX,CAD	1	
1	115-7002-0	WASHER,5/16,LOCK,CAD	1	
1	115-7021-0	WASHER,3/8,INT STAR,LARGE,ZINC	1	
1	130-0076-0	RUBBER WASHER 3.0"	2	
1	132-0001-0	TOROID PLATE 3.0"	1	
2	120-0010-0	STEEL,14 GA.074 EGC 48X120	20	
1	132-0028-A	2000RB HEATSINK	1	
2	129-0028-0	EXTRUSION,HEAT SINK 2000RB	1	
1	132-0028-B	2000RB HEATSINK	1	
2	129-0028-0	EXTRUSION,HEAT SINK 2000RB	1	
1	132-0541-B	RF2 FOOTSWITCH TOP, FOR 2000RB	1	
2	120-0011-0	STEEL,18 GA.048 EGC.48X120	45	
1	132-0542-A	RF2 FOOTSWITCH BOTTOM	1	
2	120-0011-0	STEEL,18 GA.048 EGC.48X120	36	
1	132-0583-A	1000/2000RB FAN BOX	1	
2	120-0011-0	STEEL,18 GA.048 EGC.48X120	75	
1	132-0586-0	2000RB TOP COVER	1	
2	120-0011-0	STEEL,18 GA.048 EGC.48X120	288	
1	132-0589-0	1000RB MID PANEL	1	
2	111-6010-0	STANDOFF,SO-440-10	2	
2	120-0008-0	STEEL,16 GA.EGC. 48X120	64	
1	132-0590-A	1000RB CHASSIS	1	

LVL.	PART#	DESCRIPTION	QTY	REF. DESIG.
2	111-6035-0	STUD,FH-440-6	5	
2	112-8030-0	TR-BOLT,6-32,3/16,PHP,B.Z.	2	
2	112-8040-0	TR-BOLT,6-32,1/4,PHP,B.Z.	2	
2	120-0010-0	STEEL,14 GA.074 EGC 48X120	540	
1	132-0591-0	1000RB FRONT PANEL	1	
2	120-0020-0	STEEL,.104 12 GAGE CRS 48X120	144	
1	150-0023-0	BAG,POLY 10 X 16 1 1/2 MILL	1	
1	150-0087-0	2000RB CARTON	1	
1	150-0088-0	2000RB END CAP	2	
1	150-0089-0	BAG POLY 24X30 3 MIL WITH VENT HOLES	1	
1	153-0007-0	LABEL,GK SERIAL NO.	1	
1	202-0027-0	CBL,.1"RIB,2X13PIN,15" LONG,SKT TO SKT	1	
1	205-2001-0	STEREO CORD,18 FEET,W/O BOX	1	
1	206-0097-C	1000RB I/O BOARD	1	
2	001-1030-0	LF353N DUAL JFET OP AMP	1	U202
2	001-1042-0	RC5532NB BI-POLAR OP-AMP	1	U201
2	020-1103-0	1N914 ,RECT-FAST,75MA,100V,4NS,DO-35	4	D211,212,219,220
2	020-5352-0	1N5352,ZENER,15V,5%,5W,17-02	2	D214,215
2	022-0003-0	THERMISTOR,NTC,.5 OHM,16A,CL100	1	TH287
2	030-2271-0	CAP,CER AXIAL,271,10%,50V,NPO	8	C237A,248A,249A,275A 275B,276A,276B,276C
2	030-2474-0	CAP,CER AXIAL,474,20%,50V,Z5U	1	C235
2	031-1227-0	CAP,ELEC,RAD,227,-10%+50%,25V	4	C210,217,224,231
2	031-2106-0	CAP,ELEC,RAD,106,-10%+50%,50V	2	C229,230
2	031-2107-0	CAP,ELEC,RAD,107,-10%+50%,50V	2	REF: ECO # 41
2	034-7103-0	CAP,CERAMIC DISK,103,10%,X-250V	1	C277

LVL.	PART#	DESCRIPTION	QTY.	REF. DESIG.
2	038-2335-0	CAP,ELEC,AXIAL TR,335,50V	2	C238,240
2	039-7102-0	CAP,MET PAPER Y-CAP,102,20%,250V	2	C288,289
2	050-0000-0	RES,METAL WIRE,0 OHM,1/8W	2	D225,D226
2	050-2202-0	RES,CARBON FILM,2.2K OHM,1/8W,5%	1	R234
2	050-4302-0	RES,CARBON FILM,4.3K OHM,1/8W,5%	2	R216,222
2	050-4701-0	RES,CARBON FILM,470 OHM,1/8W,5%	2	R208,209
2	053-0180-0	RES,CARBON FILM,1.8 OHM,1/2W,5%	2	R218,223
2	060-1213-0	RES,METAL FILM,12.1 K OHM,1/8W,1%	2	R243,246
2	060-4701-0	RES,METAL FILM,470 OHM,1/8W,1%	2	R242,244
2	070-0525-0	POT,2X50KA,9MM,KNURL,.1W	1	R245
2	090-0012-0	SWITCH,MINI PP,DPDT,.1A BRK/MAKE,PC TERM	2	S241,247
2	092-0001-0	CON,IECX3,10A,250V,PC TERM	1	J290
2	092-0010-0	FASTON,M,PC,.25"	10	P278,279,280,281,282,283 284,285,286,291
2	092-0079-0	JACK,1/4" STEREO,PC,NON GRNDING	2	J275,276
2	092-0081-0	JACK,1/4",MONO,PC,NON GROUNDING	3	J237,248,249
2	092-0084-0	CON,XLR,MALE,PC,PL,SCREW MNT	1	J239
2	093-0043-0	HDR,2MMX3,VERT,MALE LOCK	1	P2
2	093-0051-0	HDR,2MMX2,VERT,MALE,LOCK	1	P4
2	093-0106-0	HDR,.1X2X13,VERT,MALE,GOLD	1	P1
2	094-0004-0	FUSE CLIP,5MM, P.C. MOUNT	2	
2	094-0015-0	FUSE CLIP,PC MOUNT,.250,15A	2	P292,297
2	145-0101-C	2000 RB IN/OUT / AC-REC BOARD	1	
2	153-0105-0	LABEL,BLANK,.9"X.25"	1	
1	206-0098-D	1000RB PREAMP	1	
2	001-0008-0	MC4053	1	U7

LVL.	PART#	DESCRIPTION	QTY	REF. DESIG.
2	001-1030-0	LF353N DUAL JFET OP AMP	5	U2,3,4,5,6
2	001-1042-0	RC5532NB BI-POLAR OP-AMP	1	U9
2	010-1013-0	MPSA56 PNP 80V 500MA TO-92	1	Q10
2	010-2010-0	J113 N-JFET 35V 2MA TO-92	2	Q162,170
2	010-2040-0	J406 DUAL N-CH JFET 8PIN DIP	1	U1
2	020-0120-0	1N759A,ZENER,12V,5%,400MW,DO-35	6	D4,5,41,43,158,163
2	020-1103-0	1N914 ,RECT-FAST,75MA,100V,4NS,DO-35	9	D22,38,47,62,85,87,94,105 118
2	025-0101-0	LED,GRN,3MM,565NM,6MCD,10MA,40DEG	2	D32,157
2	025-0116-0	LED,RED,3MM,635NM,6MCD,10MA,40 DEG	2	D18,55
2	030-2100-0	CAP,CER,AX,10 PF,10%,50V,NPO	3	C42,80,96A
2	030-2101-0	CAP,CER,AX,101,10%,50V,NPO	1	C8
2	030-2103-0	CAP,CER,AX,103,10%,50V,X7R	4	C36,63,112,114
2	030-2104-0	CAP,CER,AX,104,10%,50V,X7R	3	C103,113,123
2	030-2222-0	CAP,CER,AX,222,10%,50V,X7R	5	C51,53,91,93,100
2	030-2223-0	CAP,CER AXIAL 223,10%,50V,X7R	2	C126,142
2	030-2224-0	CAP,CER AXIAL,224,20%,50V,Z5U	6	C74,88,124,153,150,175
2	030-2270-0	CAP,CER AXIAL,27 PF,10%,50V,NPO	1	C73
2	030-2271-0	CAP,CER AXIAL,271,10%,50V,NPO	2	C84,188
2	030-2470-0	CAP,CER AXIAL,47 PF,10%,50V,NPO	5	C15,52,109,120,195
2	030-2474-0	CAP,CER AXIAL,474,20%,50V,Z5U	2	C57,76
2	030-2561-0	CAP,CER AXIAL,561,10%,50V,X7R	1	C78
2	031-0107-0	CAP,ELEC,RAD,107,+/-20%,16V,LOW LEAKAGE	1	REF: ECO # 40
2	031-1227-0	CAP,ELEC,RAD,227,-10%+50%,25V	2	C148,149
2	031-2107-0	CAP,ELEC,RAD,107,-10%+50%,50V	2	C20,21
2	032-3104-0	CAP,PE,104,5%,63V	1	C3

LVL.	PART#	DESCRIPTION	QTY	REF. DESIG.
2	038-0106-0	CAP,ELEC,AXIAL TR,106,20%,16V	9	C13,31,33,45,65,161,169, 184,71
2	038-0225-0	CAP,ELEC AXIAL TR,225,20%,16V	1	C186
2	038-0336-0	CAP,ELEC,AXIAL TR,336,20%,25V	2	C167,172
2	038-2335-0	CAP,ELEC,AXIAL TR,335,50V	5	C130,138,140,197
2	050-0000-0	RES,METAL WIRE,0 OHM,1/8W	2	R148A
2	050-1001-0	RES,CARBON FILM,100 OHM,1/8W,5%	2	R165,174
2	050-1002-0	RES,CARBON FILM,1K OHM,1/8W,5%	6	R29,66,70,152,166,173
2	050-1003-0	RES,CARBON FILM,10K OHM,1/8W,5%	1	R25
2	050-1004-0	RES,CARBON FILM,100K OHM,1/8W,5%	7	R14,121,122,132,141,147, 196
2	050-1005-0	RES,CARBON FILM,1M OHM,1/8W,5%	1	R6
2	050-1203-0	RES,CARBON FILM,12K OHM,1/8W,5%	16	R2,35,37,46,59,60,90,95, 110,115,125,143,144,154, 159,187
2	050-1503-0	RES,CARBON FILM,15K OHM,1/8W,5%	1	R28
2	050-2202-0	RES,CARBON FILM,2.2K OHM,1/8W,5%	10	R12,17,34,58,64,119,129, 131,139,146
2	050-2203-0	RES,CARBON FILM,22K OHM,1/8W,5%	6	R106,171,182,190,193,194
2	050-2204-0	RES,CARBON FILM,220K OHM,1/8W,5%	1	R24
2	050-2205-0	RES,CARBON FILM,2.2M OHM,1/8W,5%	3	R39,54,61
2	050-3303-0	RES,CARBON FILM,33K OHM,1/8W,5%	1	R134
2	050-3304-0	RES,CARBON FILM,330K OHM,1/8W,5%	3	R49,72,75
2	050-3904-0	RES,CARBON FILM,390K OHM,1/8W,5%	1	R23
2	050-4701-0	RES,CARBON FILM,470 OHM,1/8W,5%	4	R 7,26,27 + ECO #40
2	050-4702-0	RES,CARBON FILM,4.7K OHM,1/8W,5%	6	R19,68,133,137,164,189
2	050-4703-0	RES,CARBON FILM,47K OHM,1/8W,5%	5	R89,104,117,168,128
2	050-4704-0	RES,CARBON FILM,470K OHM,1/8W,5%	8	R40,44,82,86,92,96,107,111

LVL.	PART#	DESCRIPTION	QTY	REF. DESIG.
2	050-5602-0	RES,CARBON FILM,5.6K OHM,1/8W,5%	9	R99,101,102,108,135,155, 156,67,77
2	050-5603-0	RES,CARBON FILM,56K OHM,1/8W,5%	2	R50,56
2	050-8202-0	RES,CARBON FILM,8.2K OHM,1/8W,5%	3	R11,79,81
2	070-1513-0	POT,50K-15A,7MM,KNURL,.1W	1	R48-volume pot
2	070-1514-0	POT,50KB,7MM,KNURL,.1W	8	R69,116,127,136,145,151, 160,176- all other pots
2	070-1522-0	POT,2KB,7MM,KNURL,.1W	2	R83,200-contour/master pot
2	070-1523-0	POT,2X50KB,7MM,KNURL,.1W	2	R98,191-presence,aux level
2	090-0012-0	SWITCH,MINI PP,DPDT,.1A BRK/MAKE,PC TERM	2	S16,30
2	092-0081-0	JACK,1/4",MONO,PC,NON GROUNDING	1	J1
2	093-0106-0	HDR,.1X2X13,VERT,MALE,GOLD	1	P1
2	145-0099-D	2000RB PREAMP BRD	1	
2	153-0105-0	LABEL,BLANK,.9"X.25"	1	
1	206-0100-C	2000/1000RB POWER AMP	1	
2	010-0000-0	2SC3381BL,NPNX2,80V,100MA,2-10M1B	1	Q484
2	010-0001-0	2SC3478,NPN,180V,100MA	1	Q445
2	010-0012-0	MPSA06 NPN 80V 500MA TO-92	7	Q435,450,486,489,492,514, 515
2	010-1001-0	2SA1349BL,PNPX2,80V,100MA,2-10M1B	1	Q485
2	010-1013-0	MPSA56 PNP 80V 500MA TO-92	8	Q431,444,487,488,490,491, 513,547A
2	012-0003-0	2SC5242,NPN,230V,15A,2-16C1A	6	Q560,561,569,571,581,583
2	012-1003-0	2SA1962,PNP,230V,15A,2-16C1A	6	Q564,565,574,577,586,589
2	020-0007-0	1N4733,ZENER,5V,10%,1W,DO-35	2	D519,530
2	020-0036-0	1N747A,ZENER,3.6V,5%,400MW,DO-35	2	D522,527
2	020-0050-0	1N751,ZENER,5V,10%,400MW,DO-35	1	D451

LVL.	PART#	DESCRIPTION	QTY	REF. DESIG.
2	020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35	18	
2	020-1120-0	MUR120,RECT-FAST,1A,200V,25NS,59-04 D518,531	2	
2	020-1122-0	MUR410,RECT-FAST,4A,100V	6	D570,575,582,587,593,594
2	020-2106-0	1N4004,RECT,1A,150V,DO-41	4	D416A,447,463,464
2	022-0042-0	THERMISTOR,PTC,50DEG C	1	TR551
2	023-0110-0	BRIDGE,25A,200V,HORZ,PC,KBPC25-02W	2	B423,424
2	025-0024-0	LED,AMBER,T1,580NM	1	D602
2	025-0117-0	LED,RED,3MM,660NM,45MCD,20MA,20DEG	1	D601
2	025-0120-0	LED,GRN,3MM,555NM,12MCD,20MA,20DEG	1	D603
2	030-2102-0	CAP,CER,AX,102,10%,50V,X7R	2	C403,404
2	030-2104-0	CAP,CER,AX,104,10%,50V,X7R	1	
2	030-2271-0	CAP,CER AXIAL,271,10%,50V,NPO	1	C465
2	030-2472-0	CAP,CER AXIAL,472,10%,50V,X7R	3	C457,552,559
2	031-0477-0	CAP,ELEC,RAD,477,20%,10V	1	REF: ECO #39
2	031-1336-0	CAP,ELEC,RAD,336,-10%+50%,25V	1	C497
2	031-2107-0	CAP,ELEC,RAD,107,-10%+50%,50V	5	C434A,495,496,512,516
2	031-2159-0	CAP,ELEC,RAD,159,20%,50V	4	C426,427,429,430
2	031-2226-0	CAP,ELEC,RAD,226,-10%+10%,25V	1	C448
2	032-4102-0	CAP,PE,102,10%,100V	2	C499,507
2	032-4104-0	CAP,PE,104,10%,100V	1	C409
2	035-8100-0	CAP,MICA,10PF,5%,500V	1	C471
2	035-8131-0	CAP,MICA,130PF,5%,500V	2	C509,510
2	038-0106-0	CAP,ELEC,AXIAL TR,106,20%,16V	2	C452,523
2	038-0107-0	CAP,ELEC AX TR,107,20%,6.3V,5X11MM	2	C455,456

LVL.	PART#	DESCRIPTION	QTY	REF.	DESIG.
2	050-0000-0	RES,METAL WIRE,0 OHM,1/8W	1	R474	
2	050-0101-0	RES,CF,10,1/8W,5%	4	R482,483,532,533	
2	050-1004-0	RES,CARBON FILM,100K OHM,1/8W,5%	3	R453,460,481	
2	050-1203-0	RES,CARBON FILM,12K OHM,1/8W,5%	3	R432,454,458	
2	050-1501-0	RES,CARBON FILM,150 OHM,1/8W,5%	1	R502	
2	050-1504-0	RES,CARBON FILM,150K OHM,1/8W,5%	1	R436	
2	050-2201-0	RES,CARBON FILM,220 OHM,1/8W,5%	1		
2	050-2203-0	RES,CARBON FILM,22K OHM,1/8W,5%	3	R434,442,542	
2	050-2204-0	RES,CARBON FILM,220K OHM,1/8W,5%	2	R433,449	
2	050-3301-0	RES,CARBON FILM,330 OHM,1/8W,5%	1	R547D,462	
2	050-3302-0	RES,CARBON FILM,3.3K OHM,1/8W,5%	1		
2	050-4703-0	RES,CARBON FILM,47K OHM,1/8W,5%	1	R441	
2	050-8202-0	RES,CARBON FILM,8.2K OHM,1/8W,5%	1	R466	
2	051-0330-0	RES,CARBON FILM,3.3 OHM,1/4W,5%	1	R544	
2	052-0100-0	RES,METAL FILM,1.00 OHM,1/4W,1%	2	R517,529	
2	054-1501-0	RES,CARBON FILM,150 OHM,1W,5%	1	R446	
2	054-2702-0	RES,CARBON FILM,2.7K OHM,1W,5%	4	R596,597,599,600	
2	055-.100-0	RES,WW,.1 OHM,2W,5%	6	R562,563,572,573,584,585	
2	055-0101-0	RES,METAL OXIDE,10 OHM,2W,5%	2	R410,411	
2	056-0100-0	RES,WIRE WOUND,1.0 OHM,5W,10%	1	R412	
2	060-1002-0	RES,METAL FILM,1.00K,1/8W,1%	7	R461,467,498,520,525,528 REF: + ECO # 39	
2	060-1003-0	RES,METAL FILM,10.0K OHM,1/8W,1%	2	R508,511	
2	060-1213-0	RES,METAL FILM,12.1 K OHM,1/8W,1%	1	R469	
2	060-2200-0	RES,METAL FILM,22.0 OHM,1/8W,1%	4	R467,468,472,473	
2	060-2371-0	RES,METAL FILM,237 OHM,1/8W,1%	4	R475,477,493,494	

LVL.	PART#	DESCRIPTION	QTY	REF. DESIG.
2	060-3323-0	RES,METAL FILM,33.2K OHM,1/8W,1%	2	R459,470
2	060-4530-0	RES,METAL FILM,45.3 OHM,1/8W,1%	5	R500,503,506,521,526
2	060-4701-0	RES,METAL FILM,470 OHM,1/8W,1%	10	R478,501,505,566,567,578, 579,590,591,598
2	060-6340-0	RES,METAL FILM,63.4 OHM,1/8W,1%	1	R504
2	060-6652-0	RES,METAL FILM,6.65K OHM,1/8W,1%	1	R537
2	070-0520-0	POT,500 OHM TRIM,VERT	1	R524
2	081-0055-0	INDUCTOR,2UH,20A,AIR CORE	1	L405
2	090-0011-0	RELAY,SPDT,20 AMP,24V INPUT	1	S408
2	091-0020-0	FUSE,5MM,15A,125V,FAST	4	F416,418,420,422
2	091-1001-0	THRM BRKR 85C +/-5,0-DIFF,PC	1	TB540
2	092-0010-0	FASTON,M,PC,.25"	8	P413,414,415,417,419,421, 425,428
2	092-0070-0	JACK,SPEAKON,PC MOUNT, NEUTRIK NL4MD-H	2	J406,407-send,return jacks
2	092-0082-0	JACK,1/4",MONO,PC,GROUNDING	2	J401,402
2	093-0025-0	HDR,.1X2,VERT,MALE,LOCK,GOLD	2	P541,547
2	093-0043-0	HDR,2MMX3,VERT,MALE LOCK	1	P2(4)
2	093-0051-0	HDR,2MMX2,VERT,MALE,LOCK	2	P3(5),550
2	094-0004-0	FUSE CLIP,5MM, P.C. MOUNT	8	
2	100-0105-0	SPACER NYLON, .187" #4	13	
2	111-6030-0	STANDOFF,SO-440-6	8	
2	145-0100-C	2000RB POWER AMP BRD	1	
2	153-0105-0	LABEL,BLANK,.9"X.25"	1	
1	602-0007-0	GK WARRANTY CARD	1	
1	160-0000-0	GK SAFETY SHEET	1	