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Quality and Innovation Since 1963
Printed in Canada



AP1212 AP1216 AP1220

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SERVICE MANUAL

smap12xx.pdf v.2.0 11/99
prev. rev. 06/93

AP12XX GENERAL PARTS LIST

YSL PART	DESCRIPTION	QTY	YSL PART	DESCRIPTION	QTY	YSL PART	DESCRIPTION	QTY	YSL PART	DESCRIPTION	QTY	YSL PART	DESCRIPTION	QTY
2438	12.0 AMP SLO-BLO .25X1.25 F	2	4606	249R 2# 1/8W RES T&R FLPR	11	5207	18N 100V 5% CAP T&R RPE .2"	3	5631	22U 50V CAP T&R .2" 6.3X7	8	6477	100K 5% 1/4W THERMISTOR T&R 0.	1
2449	1.0 AMP SLO-BLO .25X1.25 F	1	4609	1K 2# 1/8W RES T&R FLPR	4	5208	2N2 400V 5% CAP T&R RPE .2"	3	5632	470U 63V RAD CAP LOW ESR BLK	4	6737	MTF12P10 TO220 P CHAN MOSFE	2
2484	15.0 AMP SLO-BLO .25X1.25 F	2	4639	4K99 1# 1/4W RES T&R	60	5209	4N7 250V 5% CAP T&R RPE .2"	6	5816	680P 100V 5% CAP RCE .2" NPO O	2	6745	LM13600N IC XCONDUCTANCE AMP 1	2
3414	INTERNATIONAL PC MOUNT FUSEHOLDR	10	4639	4K99 1# 1/4W RES T&R	2	5210	22N 100V 10% CAP T&R RPE .2"	4	5819	470P 160V 1% CAP T&R AX	2	6752	MTF10N12L TO220 N CHAN MOSFE	2
3422	THERMO SW N/CLOSED OP/140F CL/12	1	4639	4K99 1# 1/4W RES T&R	2	5210	22N 100V 10% CAP T&R RPE .2"	12	5859	4700U 50V CAP REL SNAP-	2	6777	MTR2955 TO220 P CHAN MOSFE	1
3437	DPDT PUSH SW PCMT V MINIATURE	5	4698	471R0 1# 1/8 RES T&R FLPROOF	4	5210	22N 100V 10% CAP T&R RPE .2"	7	5861	407 63V AX CAP T&R	1	6778	MTA3055E TO220 N CHAN MOSFE	1
3439	SP SERIES VERTICAL MOM PCB SWITC	2	4699	1K5 5# 10W RES WEAVER	4	5210	22N 100V 10% CAP T&R RPE .2"	3	5865	100N 250V CAP	1	6788	BD238 TO126 PNP TRANS	1
3448	REAN JACK NUT WHITE	3	4733	5R6 5# 5W RES BLK	2	5222	33N 100V 10% CAP T&R RPE .2"	6	5868	4700U 16V 10% CAP REL	1	6798	MC4741CP IC QUAD OP AMP	2
3449	REAN JACK NUT RED	3	4745	0R1 10# 5W RES BLK	8	5224	47N 100V 10% CAP T&R RPE .2"	2	5876	1U 63V AX CAP T&R	2	6811	MJF15031 TO220 PNP TRANS	1
3482	3/16 AWG SJT LINE CORD 3 PRONG	1	4748	3R9 5# 2W RES BLK	4	5224	47N 100V 10% CAP T&R RPE .2"	3	5879	100U 16V CAP T&R .2" 8X7MM	12	6824	1N5246B 16V0 0W5 ZENER 5% T	6
3498	M203-92 PLAIN PC MNT JK SKT	12	4762	9K760 1/4W RES T&R 0.1#****	8	5226	68N 100V 5% CAP T&R .2"	3	5883	150U 100V RAD CAP	2	6824	1N5246B 16V0 0W5 ZENER 5% T	1
3498	M203-92 PLAIN PC MNT JK SKT	1	4766	11R3 1# 1/4W RES T&R PRF	4	5227	82N 100V 5% CAP T&R RPE .2"	3	5888	2200U 25V CAP REL	2	6825	1N4148 75V 0A45 DIODE T&R	42
3501	B52200F006 COMP WASH #4 SMALL	1	4767	36K 1# 1/4W RES T&R PRF	4	5228	100N 100V 5% CAP T&R RPE .2"	4	5889	5600U 100V CAP REL	4	6825	1N4148 75V 0A45 DIODE T&R	96
3521	SIDE ENTRY PCB CONN .156 SPOS	3	4770	249R 1# 1/4W RES T&R	12	5228	100N 100V 5% CAP T&R RPE .2"	2	5914	100U 63V CAP REL	1	6825	1N4148 75V 0A45 DIODE T&R	9
3521	SIDE ENTRY PCB CONN .156 SPOS	1	4770	249R 1# 1/4W RES T&R	24	5228	100N 100V 5% CAP T&R RPE .2"	24	5936	15N 400V CAP	2	6840	MC33078P IC DUAL OP AMP	18
3523	M203-92A GOLD TIP PC MNT JK SKT	12	4775	14K0 1# 1/4W RES T&R	36	5228	100N 100V 5% CAP T&R RPE .2"	19	5945	10U 50V CAP REL	2	6840	MC33078P IC DUAL OP AMP	5
3545	ANGLE BRACKET .5" X .5" X .5"	3	4775	14K0 1# 1/4W RES T&R	14	5228	100N 100V 5% CAP T&R RPE .2"	1	5945	10U 50V CAP REL	1	6855	NJM7805FA 5V0 POS REGULATOR	1
3548	SIDE ENTRY PCB CONN .156 APOS	1	4799	562R 1# 1/4W RES T&R	24	5230	180N 63V 5% CAP T&R RPE .2"	3	5961	33U 16V NP CAP T&R RAD 6X7MM	15	6856	NJM7815FA 15V0 POS REGULATOR	1
3552	NYLON SPRING CLAMP	1	4800	10K0 1# 1/4W RES T&R	4	5231	220N 63V 10% CAP T&R RPE .2"	8	5961	33U 16V NP CAP T&R RAD 6X7MM	2	6857	NJM7915FA 15V0 NEG REGULATOR	1
3590	12.0 AMP SWITCH BREAKER WHITE	1	4800	10K0 1# 1/4W RES T&R	14	5231	220N 63V 10% CAP T&R RPE .2"	1	5992	9 PIN SINGLE-IN-LINE IC SOCKET	2	6869	4N25 OPTO-COUPLER	4
3596	36PIN BREAKAWAY .15GOLD .100	1	4801	6K98 1# 1/4W RES T&R	16	5233	330N 63V 5% CAP T&R RPE .2"	7	5996	RED 1.5 LED 0V0 00MA TSEG DISP	1	6873	MJE340 TO126 NPN TRANS	1
3597	PCB CONN 12 CIR BOTTOM .100	1	4801	6K98 1# 1/4W RES T&R	24	5240	680N 63V 10% CAP T&R RPE .2"	3	5998	GREEN 3MM LED 1V7 20MA RAD T&R	20	6880	4N35 OPTO-COUPLER	2
3598	16 PIN 25SQ 100 DIL VOIDAL	1	4805	2K87 1# 1/4W RES T&R	6	5254	1U 63V 20% CAP T&R REL .2" 4	2	5999	RED 3MM LED 1V9 20MA RAD T&R	9	6882	TL072CP IC FET DUAL OP AMP	2
3599	16 SKT 25SQ 100 DIL DUAL-ENTRY	1	4883	2K49 1# 1/4W RES T&R	2	5255	1U 63V 20% CAP T&R REL .2"	2	6120	100K 5% 1/4W RES T&R MINI	6	6882	TL072CP IC FET DUAL OP AMP	18
3611	TELEPHONE JACK 8 CIR 90 LP	1	4917	31K6 1# 1/4W RES T&R	6	5255	1U 63V 20% CAP T&R REL .2"	1	6122	33K 5% 1/4W RES T&R MINI	12	6882	TL072CP IC FET DUAL OP AMP	5
3613	TELEPHONE JACK 8 CIR TOP ENT	1	4919	2K05 1# 1/4W RES T&R -NO SUBS	6	5256	1U 63V 5% CAP T&R RPE .2"	3	6403	ORANGE3MM LED 1V7 5MA	12	6882	TL072CP IC FET DUAL OP AMP	4
3614	16X 8CIR TELEPHONE CABLE	1	4920	11R3 1# 1/4W RES T&R	4	5258	407 63V RAD CAP T&R .2" 8X7M	12	6403	ORANGE3MM LED 1V7 5MA	8	6884	NE5532N IC DUAL OP AMP	1
3625	4.5X5 CIR CABLE.100	1	4921	100R 5# M1/4 RES 0.2" U	2	5258	407 63V RAD CAP T&R .2" 8X7M	1	6419	BRIDGE 35A 400V WIRE LEAD GI3504	2	6889	TL074 IC QUAD OP AMP YORK	1
3631	PCB CONN 9 CIR BOTTOM .156	1	4941	30K 5# M1/4 RES 0.2" U	2	5259	407 63V 20% CAP T&R REL .2"	2	6425	BAV21 200V 0A25 DIODE T&R	4	6894	LM3916 IC LED DISPLAY DRIV	2
3637	16 PIN DUAL 90 BREAKAWAY .100	1	5101	BC550C TO92 NPN TRANS. T&R	18	5259	407 63V 20% CAP T&R REL .2"	5	6425	BAV21 200V 0A25 DIODE T&R	4	6900	MJ15022 TO3 NPN TRANS.	8
3638	12 CIR CABLE HOLDER .098	2	5101	BC550C TO92 NPN TRANS. T&R	16	5260	22U 50V 20% CAP T&R RAD .2"	4	6425	BAV21 200V 0A25 DIODE T&R	4	6913	BD649 TO220 NPN TRANS.	1
3660	FEMALE PC MOUNT XLR NTRX.NC3FPR-	12	5101	BC550C TO92 NPN TRANS. T&R	1	5260	22U 50V 20% CAP T&R RAD .2"	24	6425	BAV21 200V 0A25 DIODE T&R	4	6921	BD651 TO220 NPN DARLINGTON	1
3674	9 CIR CABLE HOLDER .098	1	5102	BC560C TO92 PNP TRANS. T&R	12	5260	22U 50V 20% CAP T&R RAD .2"	3	6426	1N5254B 27V0 0W5 ZENER 5%	2	6922	BD652 TO220 PNP DARLINGTON	1
3678	14X4 CIR CABLE	1	5102	BC560C TO92 PNP TRANS. T&R	21	5260	22U 50V 20% CAP T&R RAD .2"	1	6429	1N4747A 20V0 1W0 ZENER 5% T	4	6927	MJ15023 TO3 PNP TRANS.	8
3679	6 X 12 CIR CABLE RIBBON	2	5103	MPSA06 TO92 NPN TRANS. T&R	1	5266	68U 16V 20% CAP T&R 0.2"	1	6432	1N5248B 18V0 0W5 ZENER 5% T	2	6930	MTH8P20 TO218 P CHAN MOSFE	2
3692	HEATSINK THERMALLOY 6079-PB	2	5103	MPSA06 TO92 NPN TRANS. T&R	5	5267	100U 25V 20% CAP T&R REL 0.2"	7	6432	1N5248B 18V0 0W5 ZENER 5% T	1	6931	MTH8N35 TO218 N CHAN MOSFE	2
3692	HEATSINK THERMALLOY 6079-PB	3	5104	MPSA56 TO92 PNP TRANS. T&R	5	5273	1N5 200V 5% CAP T&R RCE .2"	12	6435	22N 400V AC CAP PANASONIC	1	6934	MR854 400V 3A0 DIODE FAST RE	12
3700	RELAY: AROMAT DS2YE-S-DC24V	1	5105	MPSA13 TO92 NPN DARLINGTON	12	5281	10U 16V NP CAP T&R REL .2"	2	6436	1N753ARL 6V2 0W5 ZENER 5% T	1	6945	745188 PROM IC PREPROG. FOR AD/	1
3739	CUSTOM .4 LED SPACER	12	5105	MPSA13 TO92 NPN DARLINGTON	6	5299	22AWG SOLID SC WIR RAD	20	6438	1N4004 400V 1A0 DIODE T&R YOR	5	6959	4052 IC DUAL 1/4 CMOS SW	1
3739	CUSTOM .4 LED SPACER	8	5106	MPSA63 TO92 PNP DARLINGTON	1	5299	22AWG SOLID SC WIR RAD	15	6438	1N4004 400V 1A0 DIODE T&R YOR	18	6960	4017 IC DECADE CNT/DIVID	2
3759	40H COIL 14AWG ZOBEL VERTICA	2	5109	MPSA43 TO92 NPN TRANS.	1	5299	22AWG SOLID SC WIR RAD	2	6440	1N750ARL 4V7 0W5 ZENER 5% T	2	8492	#4 SPLIT/INTERNAL TOOTH LOCHWASH	5
3995	20K SLD WHT KB V 30M DT S	9	5111	MPSA17 TO92 NPN TRANS. T&R	4	5299	22AWG SOLID SC WIR RAD	12	6440	1N750ARL 4V7 0W5 ZENER 5% T	5	8559	AUDIOPRO GABLE ABS PLASTIC	1
3996	20K SLD WHT KB V 30M DT M	9	5116	BC264D TO92 N CHAN J FET	2	5314	100N 50V BD CAP T&R	7	6444	MAC224-4 TO220 40A TRIAC 200	2	8638	AP MIXER SERIES PUSH SW BUTTN G	7
4401	50K ROT 1B V 16M	12	5190	MBS4992 TO92 00A DIAC T&R	2	5314	100N 50V BD CAP T&R	12	6450	1N5242A 12V0 0W5 ZENER 5% T	2	8682	#4 TEFLON WASHER .125ID .281OD	10
4402	10K ROT 3B D SFT S V 16M DET	36	5196	150P 100V 2# CAP T&R RCE .2"	1	5314	100N 50V BD CAP T&R	4	6451	4N7 250V AC CAP BLK X .6" RAT	1	8690	BLACK FADER KNOB - MICROMIX	17
4522	4K7 TRIM POT	2	5199	100P 100V 2# CAP T&R RCE .2" N	5	5314	100N 50V BD CAP T&R	2	6460	1N5260B 43V0 0W5 ZENER 5% T	1	8702	GREEN KNOB FOR *NEW* M.MIX/A.PRO	28
4559	20K ROT 5C D SFT V 16M	12	5201	470P 100V 5% CAP T&R RCE .2"	4	5410	100P 100V TUB CAP T&R	4	6461	1N5240BRL 10V0 0W5 ZENER 5% T	5	8703	BLUE KNOB FOR *NEW* M.MIX/A.PRO	38
4561	10K ROT 1B D SFT S V 16M	48	5201	470P 100V 5% CAP T&R RCE .2"	12	5420	680P 50V TUB CAP T&R	4	6465	1N5250B 20V0 0W5 ZENER 5% T	4	8704	RED KNOB FOR *NEW* M.MIX/A.PRO	27
4561	10K ROT 1B D SFT S V 16M	2	5201	470P 100V 5% CAP T&R RCE .2"	4	5422	1N 50V TUB CAP T&R	4	6466	1N5256B 30V0 0W5 ZENER 5% T	2	8705	GREY KNOB FOR *NEW* M.MIX/A.PRO	26
4563	50K ROT 1B D SFT V 16M	4	5203	47P 100V 2# CAP T&R RCE .2"	3	5423	1N2 50V BD CAP T&R	24	6466	1N5256B 30V0 0W5 ZENER 5% T	1			
4564	20K ROT 1B D SFT V 16M S	4	5204	10N 100V 10% CAP T&R RPE .2"	8	5600	220N 100V CAP	4	6472	4K7 3# 0W0 THERMISTOR	1			
4574	10K SLD 1B S V 60M WHT	12	5204	10N 100V 10% CAP T&R RPE .2"	1	5621	470U 63V CAP REL	6	6474	10R 3# 0W0 PTC THERMISTO	1			
4577	20K SLD 20A V 60M M	1	5206	1N 400V 5% CAP T&R RPE .2"	2	5621	470U 63V CAP REL	1	6474	10R 3# 0W0 PTC THERMISTO	7			
4581	ROTARY ENCODER 4-BIT VER PCB DSH	1	5206	1N 400V 5% CAP T&R RPE .2"	4	5623	330U 16V CAP	1	6475	1N5262B 51V0 0W5 ZENER 5% T	2			
4582	50K SLD V 60M M	4	5206	1N 400V 5% CAP T&R RPE .2"	2	5627	47U 10V CAP RNP	6	6477	100K 5% 1/4W THERMISTOR T&R 0.	2			

AP1212 SERVICE MANUAL

SPECIFICATIONS

FREQUENCY RESPONSE:	
-Tone and graphic flat...	20Hz - 20KHz: +/- 3dB
TOTAL HARMONIC DISTORTION:	
-At MAIN out with -10dB input...	0.02% or less.
INPUT NOISE:	
-At channel insert, 150 ohm ...	-122 dBv, at any gain (!).
INSERT LEVEL:	
-Output & input...	0dBm nominal, -10 to +4 OK
LINE INPUT Z...	
-Balanced...	5k ohms
-Unbalanced...	10k ohms
PHANTOM POWER...	48 volts.
CHANNEL EQ...	LO, MID, HI.
MAX GAIN to LINE OUT:	
-Microphone input...	90 dB.
-Line input...	70 dB.
-Insert input...	30 dB.
DIGITAL SIGNAL PROCESSOR EFFECT...	16 bits, 16 sounds.
GRAPHIC EQUALIZER...	9 band, ISO 64Hz - 16KHz
SPEAKER PROCESSOR...	50Hz, 3dB ; 80Hz, 5dB
POWER OUTPUT:	
-Measured at 0.1% THD and 1KHz, continuous average power, -One channel driving the following loads:	
8 ohms...	345 watts
4 ohms...	590 watts
2 ohms...	850 watts
-Measured at 0.1% THD and 1KHz, continuous average power, -Both channels driving the following loads:	
8 : 8 ohms...	310 : 310 watts
8 : 4 ohms...	275 : 530 watts
8 : 2 ohms...	240 : 800 watts
4 : 4 ohms...	480 : 480 watts
4 : 2 ohms...	420 : 740 watts
2 : 2 ohms...	650 : 650 watts
TOTAL HARMONIC DISTORTION:	-1KHz, 1dB below full power... 0.005% or better
POWER REQUIREMENTS:	-mixer and power amplifier...less than 1440 watts avg.
WEIGHT...	20 Kg, 44 lb.

SPECIAL NOTES

M1061 Alesis Digital Effects Processor

A replacement board is available, order Yorkville Sound part number **M1061**

Identifying Defective Boards for AP-1200 and 1200 Watt AP Series Mixers Identifying Defective Boards in the AP-1200

STEP 1: VISUAL INSPECTION OF FRONT PANEL AND FAN

a) Check to see whether the green power LED is lit. If not, the amplifier has a power supply (**M1051** board), transformer, A.C. switch or line cord problem.

b) If the red protect LED stays on or samples off and on, this usually indicates a problem with the **M1048** current amplifier module or possibly the **M1049** voltage amplifier board. More often than not, both modules are usually damaged.

Note: Do not rule out a problem with the **M1050** boards. If an IC has shorted or become defective, the amplifier will go into protect. If the ribbon cable between the M1050 boards gets pinched or the DIP header is not inserted properly into its socket, protect mode will occur and R1 or R4 (47W/ 1/2W) may burn on the **M1049** board.

c) The fan running at full speed on power up usually indicates a problem on the **M1051** power supply board or a problem with the Molex ribbon cable to the **M1048** board. Erratic fan behaviour can be caused by a thermistor shorting to a heat sink.

d) No output on either or both channels can be caused by intermittent push switches at the input.

STEP 2: VISUAL INSPECTION OF INTERNAL CHASSIS

a) After removing the lid, look for any signs of smoke, charring or burnt components. If the **M1049** board has such damage, the **M1048** board may also be damaged or blown (even if there is no similar charring on its components). If R43L or R43R on **M1049** are burnt, the **M1048** is definitely damaged. If there is no sign of damage to **M1049**, any needed repairs to the **M1048** should be fairly simple to perform. Check all solid state devices and the R1 5W emitter resistors for opens.

Note: **Never** leave the rubber caps off of Q8, Q9, Q10 or Q11 on **M1049**. Also please note there is no power up procedure for the AP-1200 with either the **M1048** or **M1049** boards disconnected, so **do not power them up unless both boards are completely connected to their proper terminals.**

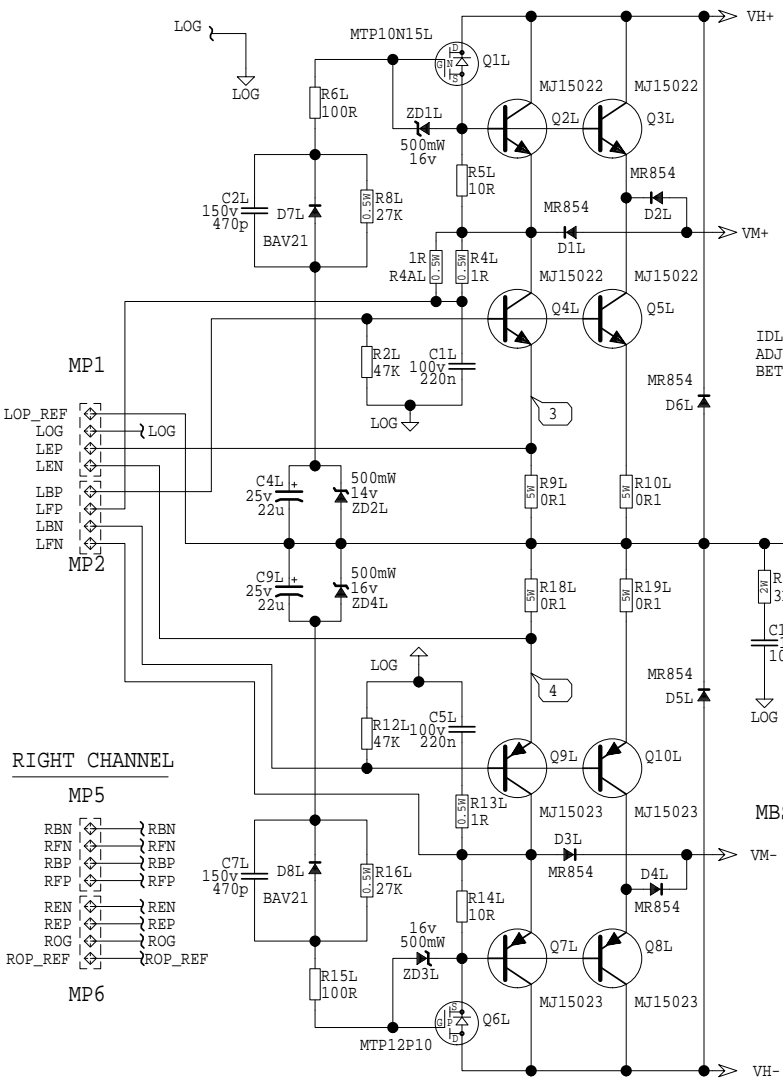
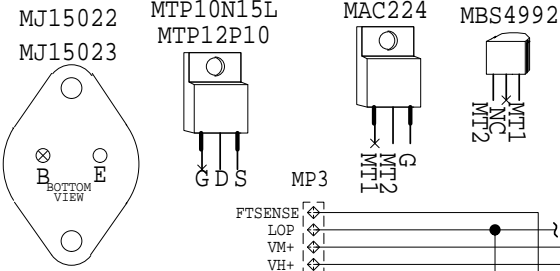
STEP3: DISMANTLING AND REASSEMBLY PRECAUTIONS

a) When removing power supply wires or resoldering wires to eyelets on the **M1048**, **M1049**, **M1050** or **M1051** boards, double check that there are no solder bridges or icicles bridging traces or other eyelets. Failure to do so could result in the destruction of newly installed boards as well as other boards in the unit. Also check that wire color codes are correctly oriented in their proper eyelets, and be careful that ribbon cables don't get pinched or cut under the **M1049**, **M1050** or **M1051** boards as this could result in destruction of more boards.

b) When reinstalling **M1048** and **M1049** boards, make sure the heatsinks have properly applied thermal compound and ensure they are tightened properly to the large heat spreader. Check that all Molex pins are properly aligned and inserted on the **M1049** board.

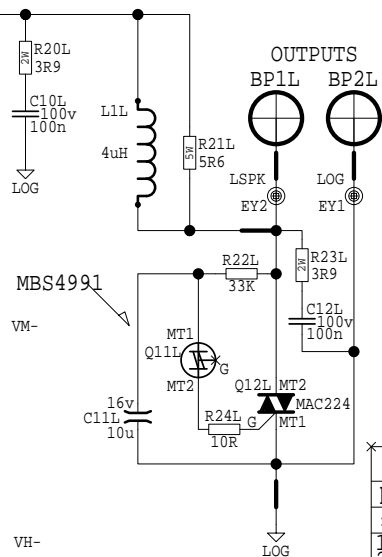
WARNING: 200 VDC IS BETWEEN THE POWER SUPPLIES. THIS PRESENTS A SIGNIFICANT SHOCK HAZARD. PLEASE, USE EXTREME CAUTION WHEN SERVICING!

CURRENT AMPLIFIER

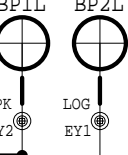


IDLE CURRENT:
ADJUST FOR 2 TO 3 MILLIVOLTS
BETWEEN TESTPOINTS 3 & 4

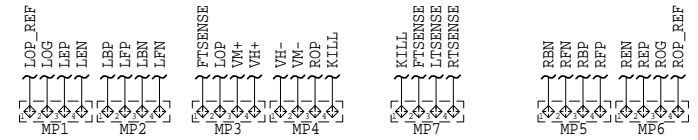
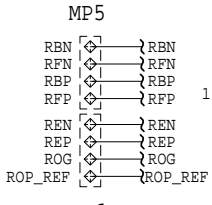
DC PROTECTION



OUTPUTS



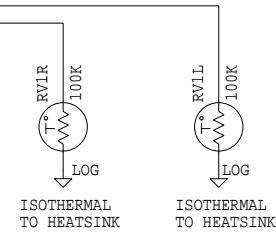
RIGHT CHANNEL



NOTE THAT THE CAPACITOR VOLTAGES SHOWN ARE
THE MINIMUM REQUIRED FOR PROPER OPERATION.
ACTUAL VOLTAGE RATINGS MAY BE HIGHER.

ALL UNMARKED DIODES ARE 1N4148.

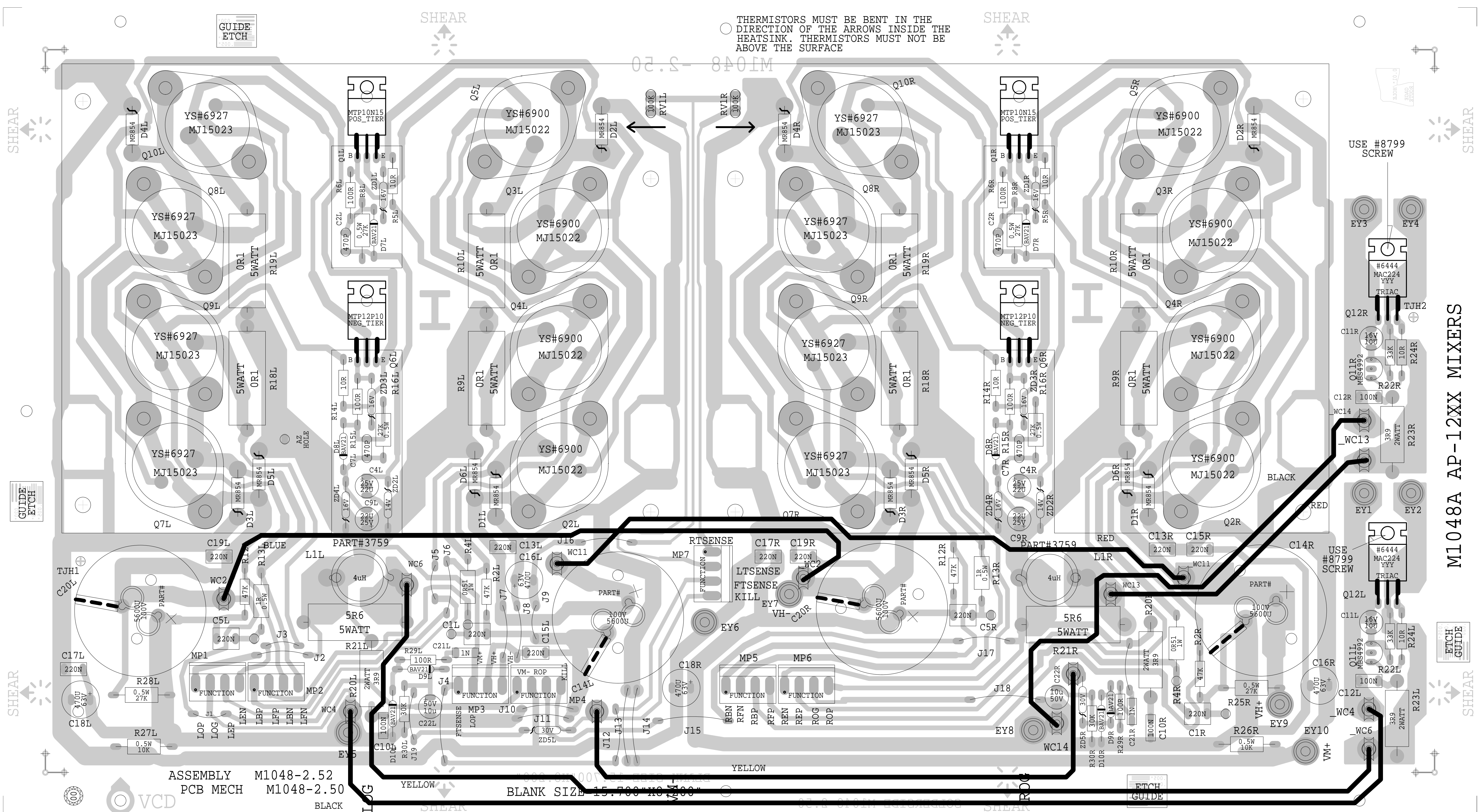
TEMPERATURE SENSORS



NOTE: PART NUMBERS WITH A "L"
SUFFIX WILL HAVE A "R"
SUFFIX FOR THE RIGHT CHANNEL
CURRENT AMPLIFIER.

M1048A.SCH_DATABASE_HISTORY

MODEL(S):- AP-1212/AP-1216			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	AUG/16/94	1.40	PC#4638 ZD2L/R 12V-->14V
2			1R 1/2W ADDED ACROSS R4L/R
3	FEB/23/94	1.50	PC#4557 MTP10N12L-->MTP10N15L
4	JUL/09/97	1.60	CORRECTION_C7L_WAS_NAMED_C8L
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N



ASSEMBLY M1048-2.52
PCB MECH M1048-2.50

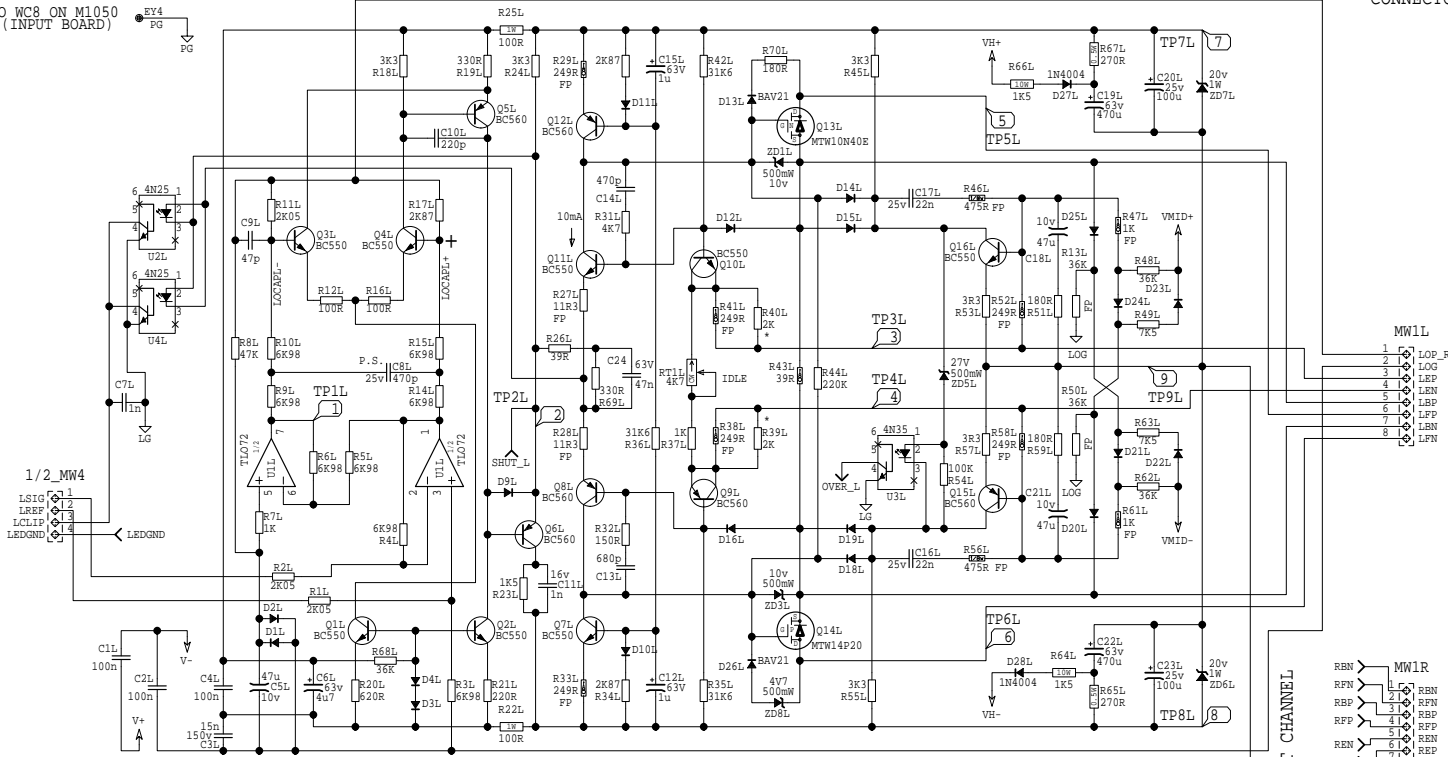
BLANK SIZE 15.700" X 0.700"

M1048.PCB_DATABASE_HISTORY			
MODEL(S):- AP-1200/AP-1212			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	FEB/23/94	2.40	PC#4557 Q1L/Q1R MTP10N12L TO MTP10N15L
2	APR/04/95	2.40	PC#4746 HEATSINKS REMOVED FROM Q12R/Q12L
3	OCT/19/95	2.50	PC#4924 PADS FOR OUTPUT TRANSISTOR COLLECTORS ENLARGED TO AID ROBOT ASSEMBLY
4			
5	NOV/28/95	2.50	PC#4969 HOLES FOR 1/2W FROM .040" TO .047"
6	AUG/17/94	2.51	PC#4638 ZD2L,ZD2R FROM 12V TO 14V
7			ADD 1R 1/2W ACROSS R4L,R4R
8	AUG/19/96	2.52	PC#5187 AMP-INS-->SOCKET_EYELET
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N
14	D	V	N
15	D	V	N
16	D	V	N
17	D	V	N
18	D	V	N
19	D	V	N
20	D	V	N

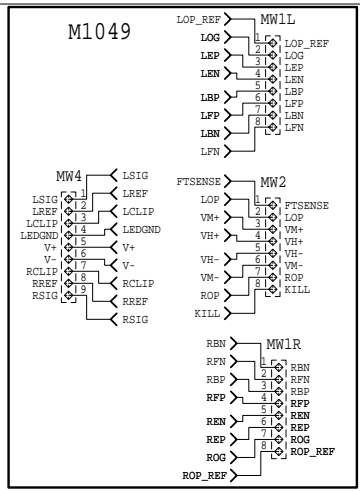
PRODUCTION NOTES

- 1 BE SURE THE VALUE OF C22L/C22R IS 10U 50V AND R30L/R30R IS 30K
- 2 TORQUE FOR TO'3 IS 8 INCH/LB AT ASSEMBLY AND RETORQUED TO 8 INCH/LB AFTER WAVE SOLDER
- 3 THERMISTORS RV1L/RV1R MUST BE BENT IN THE DIRECTION OF THE ARROWS INSIDE THE HEATSINK. THERMISTORS MUST NOT BE ABOVE THE SURFACE
- 4 APPROVED SUBSTITUTE FOR PT#6737 MTP12P10 Q6L/Q6R IS IRF9530

TO WC8 ON M1050
(INPUT BOARD)

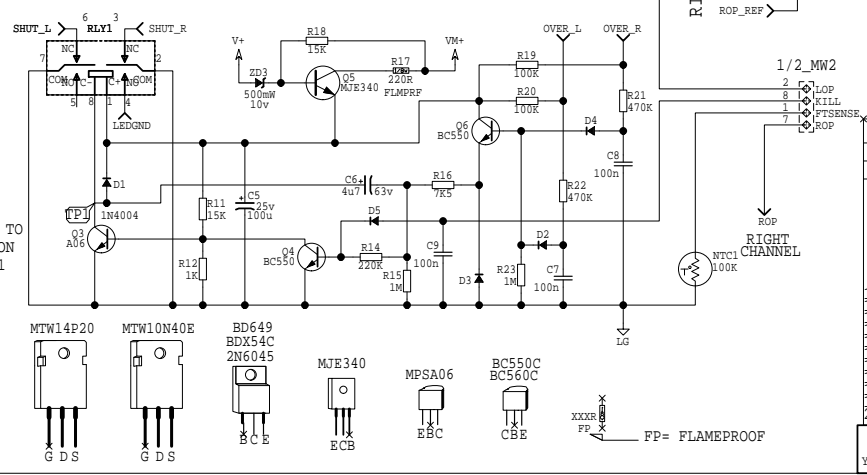


CONNECTOR LAYOUT



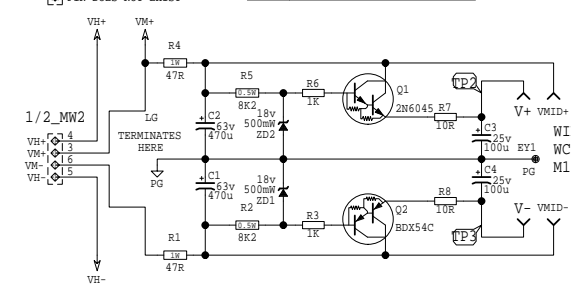
- TEST POINTS**
- 1 INVERTING OP AMP DRIVE SIGNAL
 - 2 DRIVE SIGNAL TO CURRENT AMP
 - 3 EMITTER OF THE POSITIVE OUTPUT TRANSISTOR
 - 4 EMITTER OF THE NEGATIVE OUTPUT TRANSISTOR
 - 5 FLOATING POSITIVE SUPPLY
 - 6 FLOATING NEGATIVE SUPPLY
 - 7 POSITIVE BATTERY SUPPLY
 - 8 NEGATIVE BATTERY SUPPLY
 - 9 POWER AMPLIFIER'S OUTPUT
 - TP1 RELAY DRIVE (0 VOLTS UNDER THE NORMAL OPERATING ON CONDITION)
 - TP2 V+ (+16VDC)
 - TP3 V- (-16VDC)

RELAY CONTROL CIRCUIT



RESISTORS MARKED '*' SHOULD BE CUT OUT IF IDLE CURRENT CANNOT BE ADJUSTED BELOW 40 mA. (8 mV BETWEEN TP3 & TP4)
IDLE CURRENT: ADJUST RT1 FOR 2 TO 3 mV BETWEEN TP3 & TP4. (RESULTS IN 15mA)

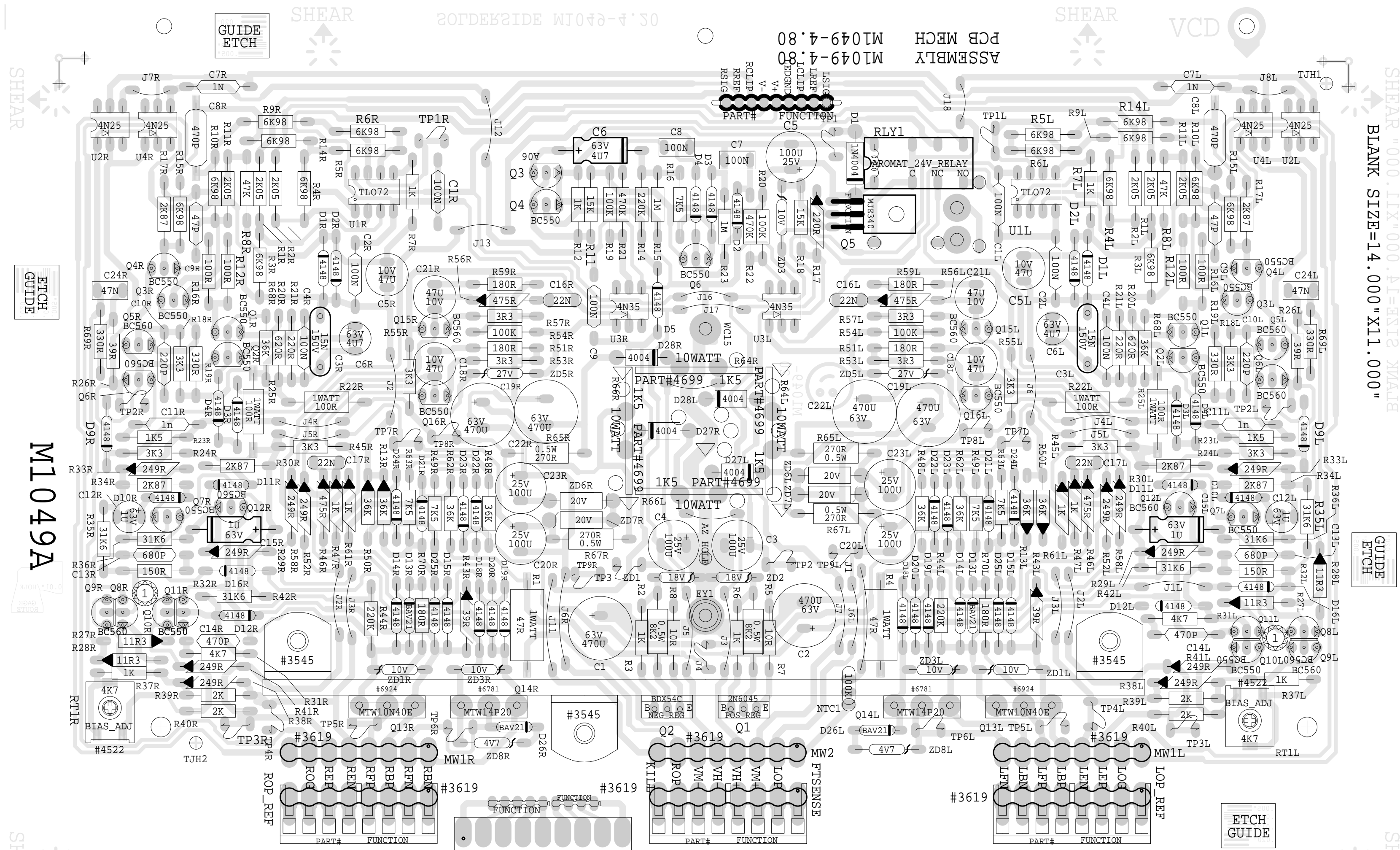
+/- 16VDC POWER SUPPLY



NOTE: PART NUMBERS WITH A "L" SUFFIX WILL HAVE A "R" SUFFIX FOR THE RIGHT CHANNEL VOLTAGE AMPLIFIER.

M1049.SCH DATABASE HISTORY

MODEL(S) :- AP1212		DESCRIPTION OF CHANGE	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	JUN/22/94	1	PCH4528-BD652-->BDX54C
2	AUG/16/94	2	PCH4638-C9L/R 100P->47P C14L/R 680P->47P-R31L/R 150R->4K7-C10L/R 100P->220P
3	SEP/02/96	2	PCH4655-DELETE R9 R10,EY2,EY3
4	SEP/19/96	2	PCH5095-R37L/R 2K48->3K
5	MAR/17/97	2	CORRECTION R17-1/8W_FLAMEPROOF
6		N	N
7		N	N
8		N	N
9		N	N
10		N	N
11		N	N
12		N	N
13		N	N
14		N	N
15		N	N
16		N	N
17		N	N
18		N	N
19		N	N
20		N	N



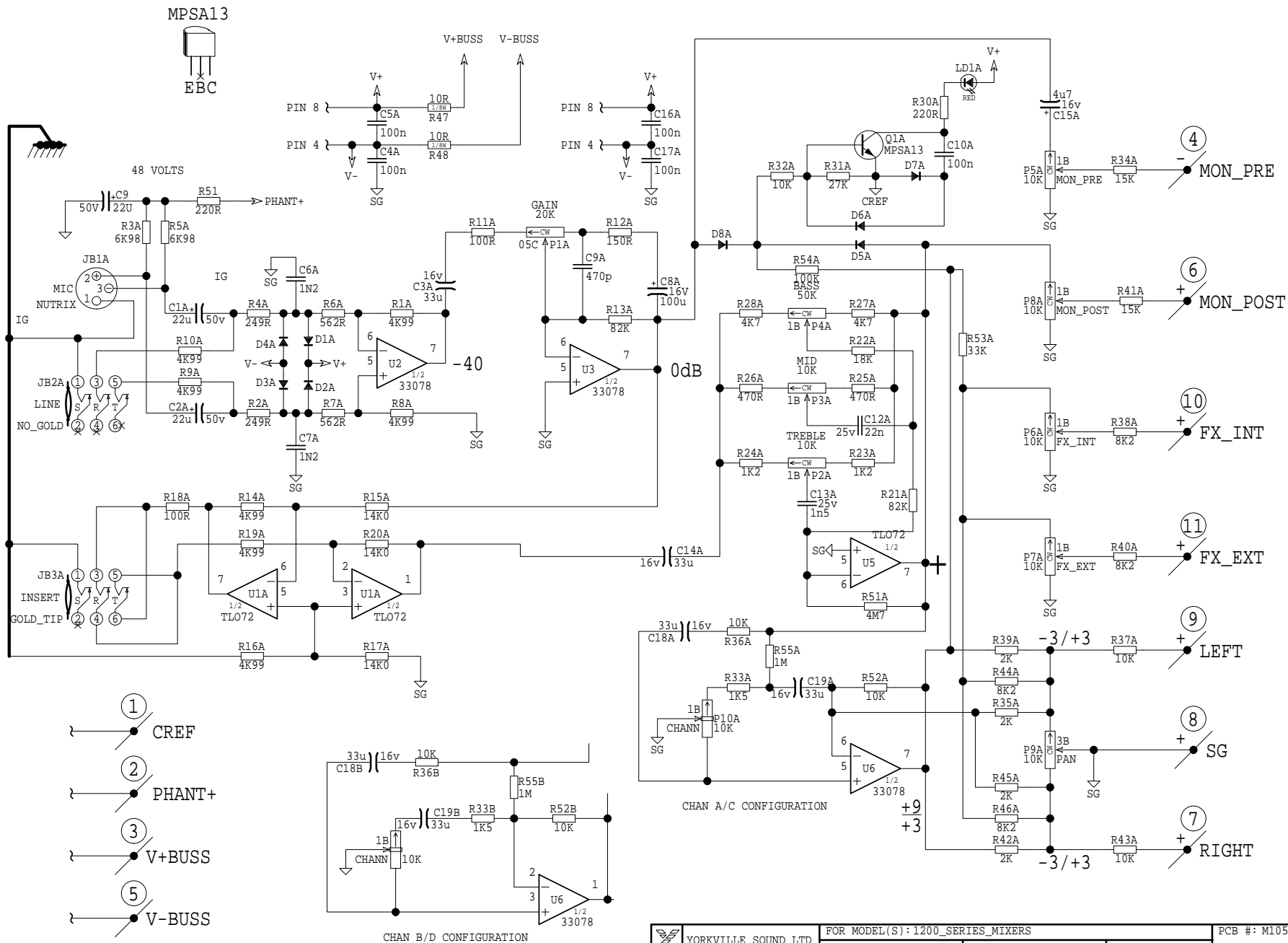
M1049A

M1049.PCB_DATABASE_HISTORY			
MODEL(S):- AP-1200-AP1212			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	MAR/15/94	4.20	PC#4512_Q14R/L_MTH8P20->MTW14P20
2	APR/14/94	4.30	PC#4330_R70R/L_330R->180R
3	JUN/06/94	4.40	BD649 REPLACED BY 2N6045
4	JUN/22/94	4.50	PC#4529_BD652_TO_BDX54C
5	AUG/16/94	4.60	PC#4638_C9L/R_100P->47P
6	.	.	C14L/R_680P->470P
7	.	.	R31L/R_150R->4K7
8	.	.	C10L/R_100P->220P
9	AUG/30/94	4.70	PC#4557_Q13L/R_MTH8N35->MTW10N40E
10	.	.	PC#5187_AMP-IN->SOCKET EYELET
11	AUG/19/96	4.70	PC#5187_AMP-IN->SOCKET EYELET
12	AUG/96	4.80	PC#5095_R37L/R_2K49->1K
13	DEC/18/96	4.80	PC#5281_4004_HOLE_59->52
14	JUN/11/97	4.80	WC15_EYELET-->AMP-IN
15	D	N	
16	D	N	
17	D	N	
18	D	N	
19	D	N	
20	D	N	

PRODUCTION NOTES

- 1 Q8R,Q11R,Q9L AND Q10LARE HAND INSERTED
- 2 FOR PAIRS Q9,Q8L/R Q10,Q11L/R TO_HOLD_IN_PLACE. SOLDERING_USE_A_SMALL_DAB_OF_RTV WITH_#8609_VINYL_CAP_BEFORE_WAVE NOTE-CAP_EACH_PAIR_OF_TRANSISTORS

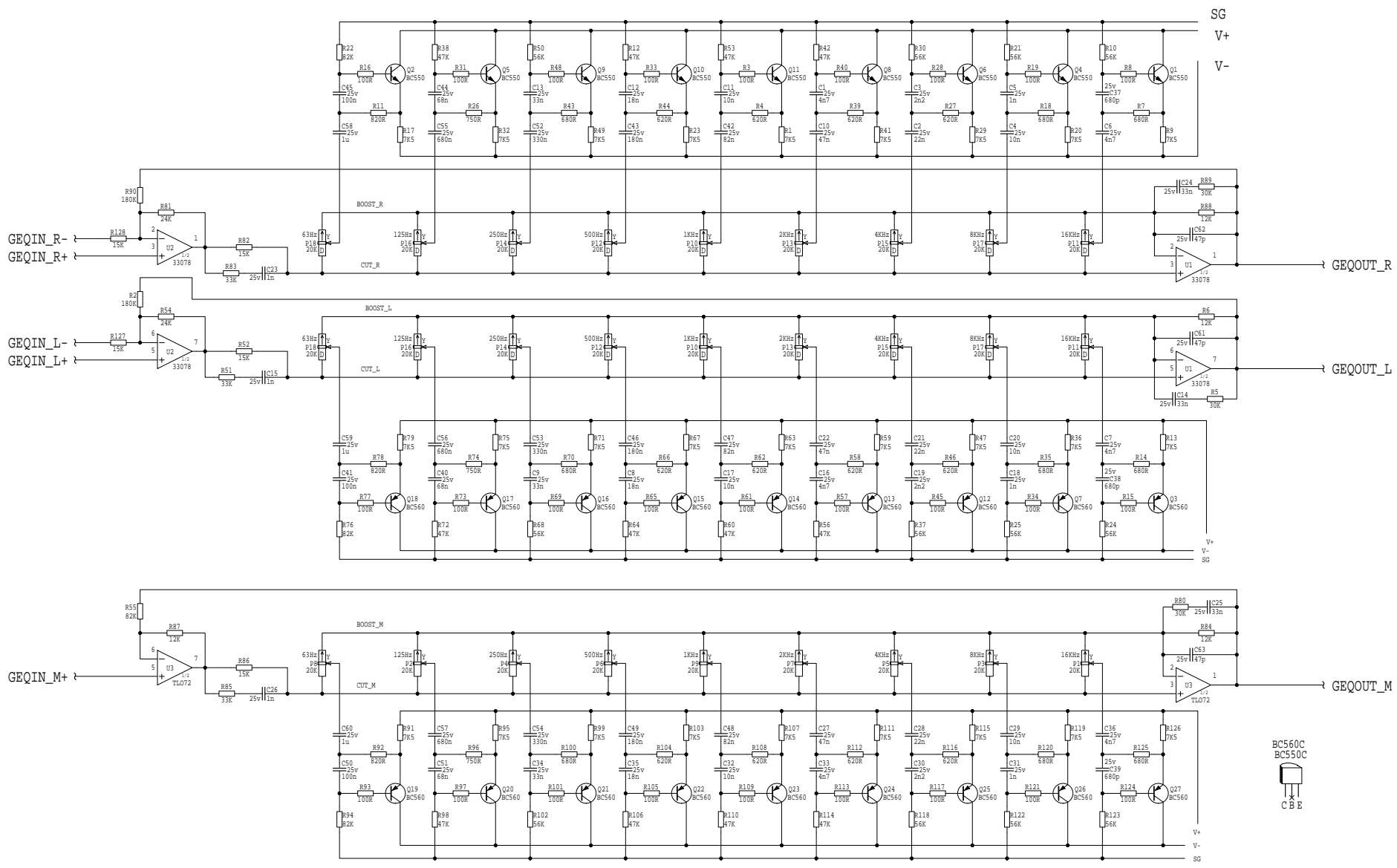




- ① CREF
 - ② PHANT+
 - ③ V+BUSS
 - ⑤ V-BUSS
 - ⑦ RIGHT
 - ⑧ SG
 - ⑨ LEFT
 - ⑩ FX_INT
 - ⑪ FX_EXT
 - ⑫ MON_PRE
 - ⑬ MON_POST
- # BUSS PIN NUMBER

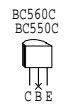
CHAN B/D CONFIGURATION

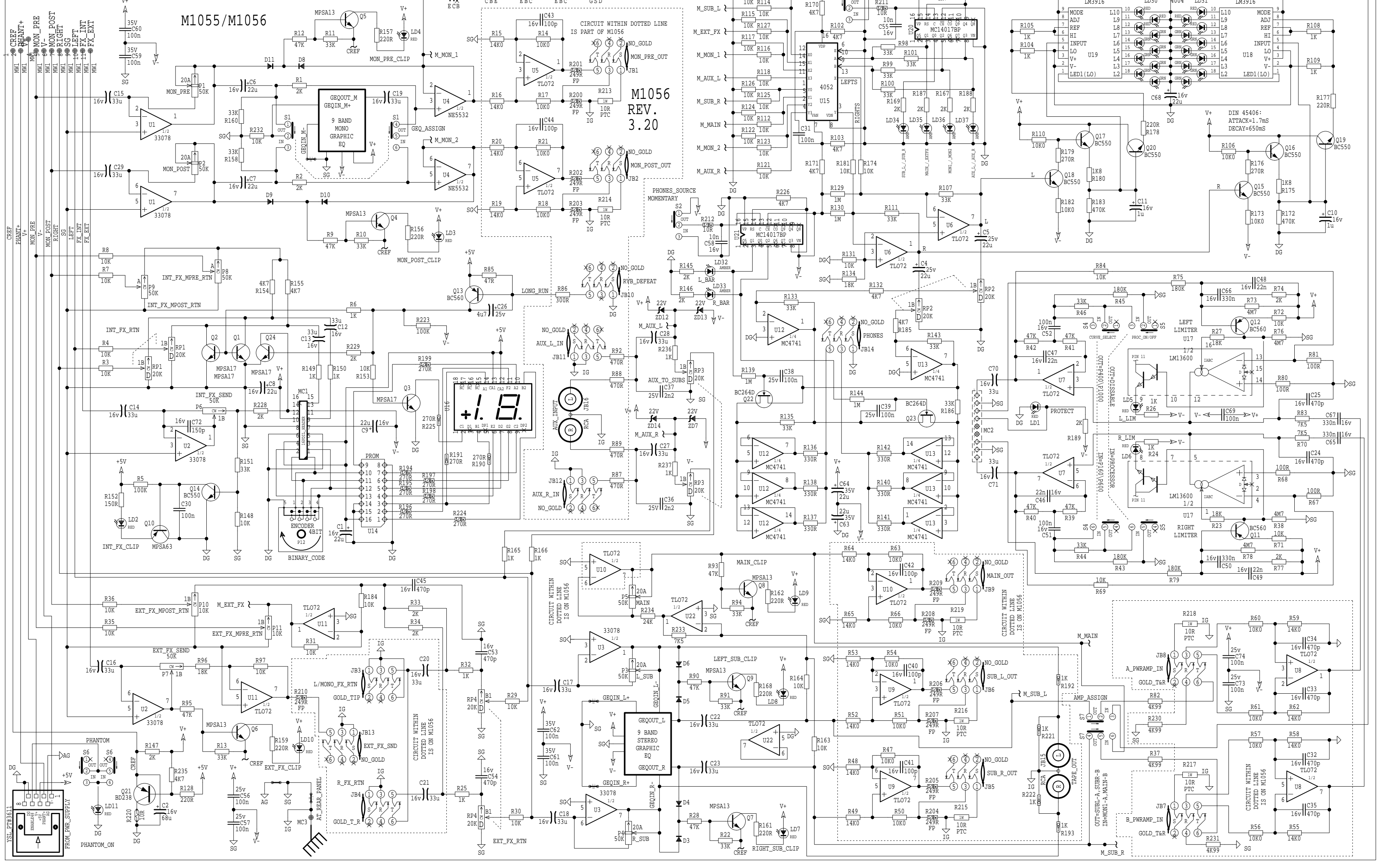
YORKVILLE SOUND LTD		FOR MODEL(S): 1200_SERIES_MIXERS			PCB #: M1054
CAD FILE NAME:		DESIGN BY: PFI & GA	DRAWN BY: PFI	SCH ISSUE: DATE:	TITLE: DWG #: 1 OF 1
C:\PCAD\EXE\M1054.SCH		PCB VER: M1054-3.10	X	2.00	MAR/25/97
		CHAN A/C CONFIGURATION			

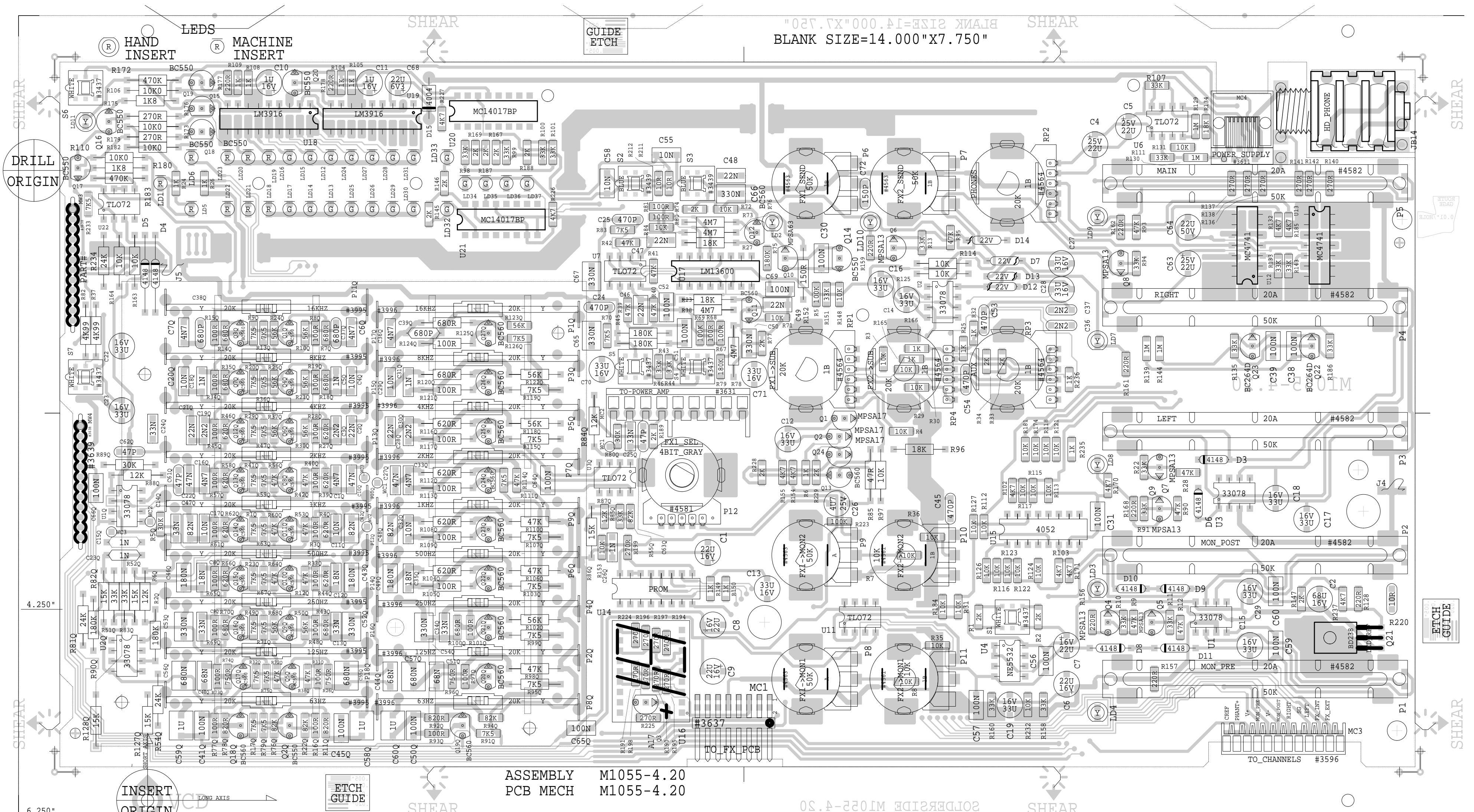


NOTE: PART NUMBERS ON THIS SCHEMATIC WILL HAVE A 'Q' SUFFIX ON THE M1055 PCB

YORKVILLE SOUND LTD	FOR MODEL(S):	PROTO-GEQ	PCB #:	M1055	
DESIGN BY:	PFI	DRAWN BY:	PFI/TC	ENG #:	1 OF 1
CAD FILE NAME:	C:\PCAD\EXE\ M1055BQ	PCB VER:	1.00	SCW ISSUE:	1.20
				DATE:	FEB/18/92
				TITLE:	SP-MASTER_DQ







ASSEMBLY M1055-4.20
PCB MECH M1055-4.20

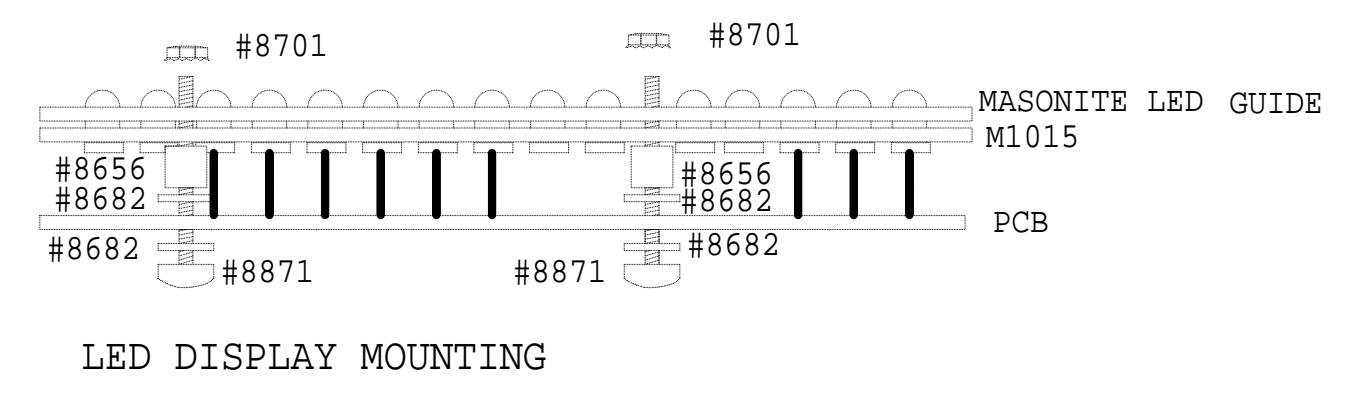
M1055.PCB_DATABASE_HISTORY

MODEL(S) :- AP-MIXERS

#	DATE	VER#	DESCRIPTION OF CHANGE
1	JAN/25/96	4.10	PC#4960 ALL RADIAL PART HOLES TO 0.040" RADIAL RESISTORS
2			TO.190 Z. MOVED SHORTING TRACES
3			PC#4979 POT SPACING CORRECTED
4	MAR/12/96	4.20	PC#XXXX RADIAL RESISTORS TO .200 SPACING
5			N
6			N
7			N
8			N
9			N
10			N
11			N
12			N
13			N
14			N
15			N
16			N
17			N
18			N
19			N
20			N

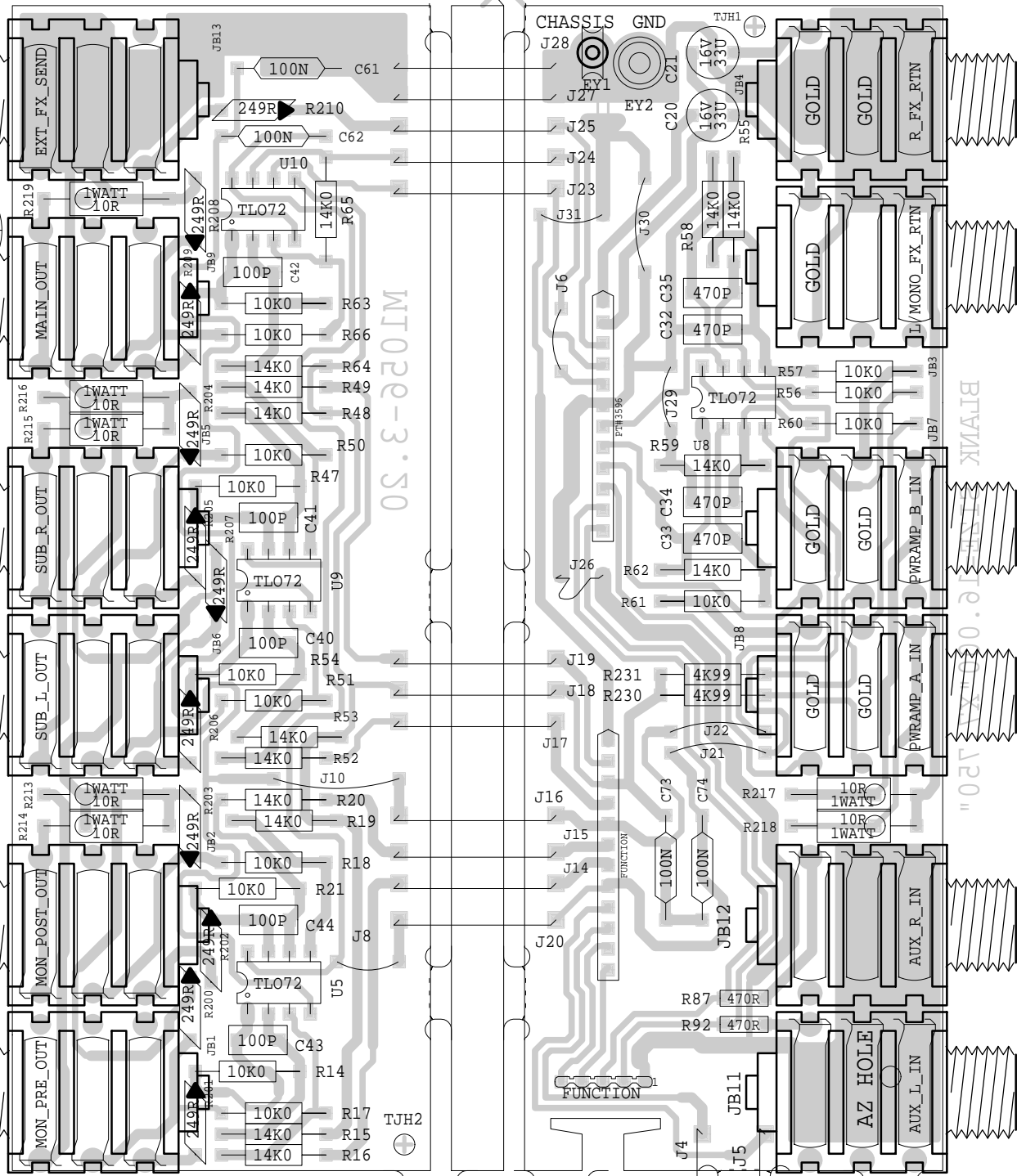
PRODUCTION NOTES

- Q21 MOUNTING
 - #3501 #8793
 - #8861 #8492
- PCB TO CHASSIS MOUNTING
 - #8701
 - #8871 #8682



LED DISPLAY MOUNTING

DRILL ORIGIN



BLANK SIZE=16.000"X7.750"

4.250"

SHORT AXIS

INSERT ORIGIN

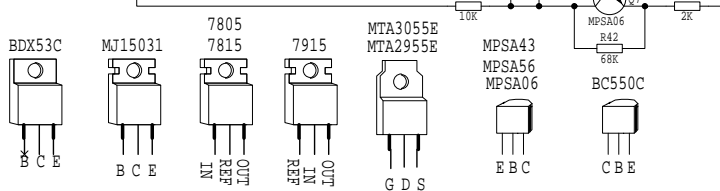
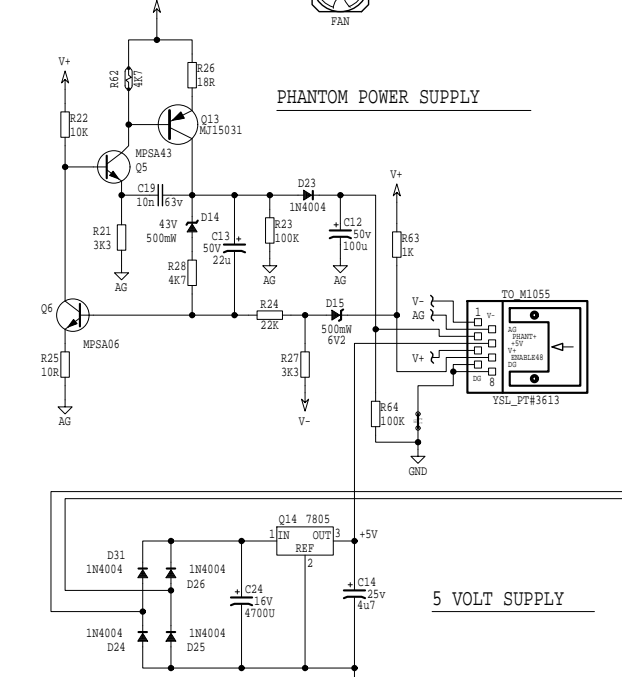
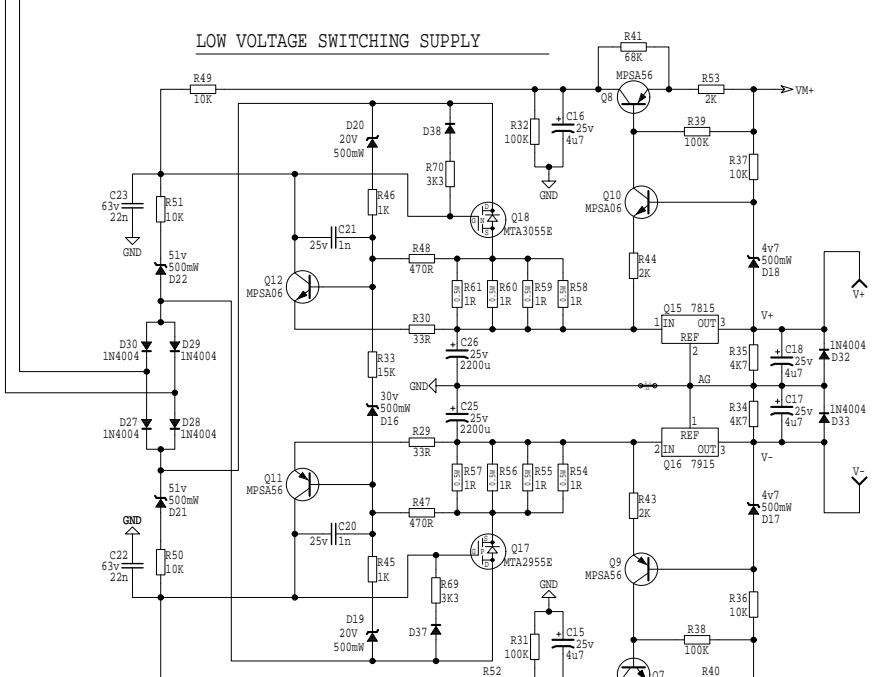
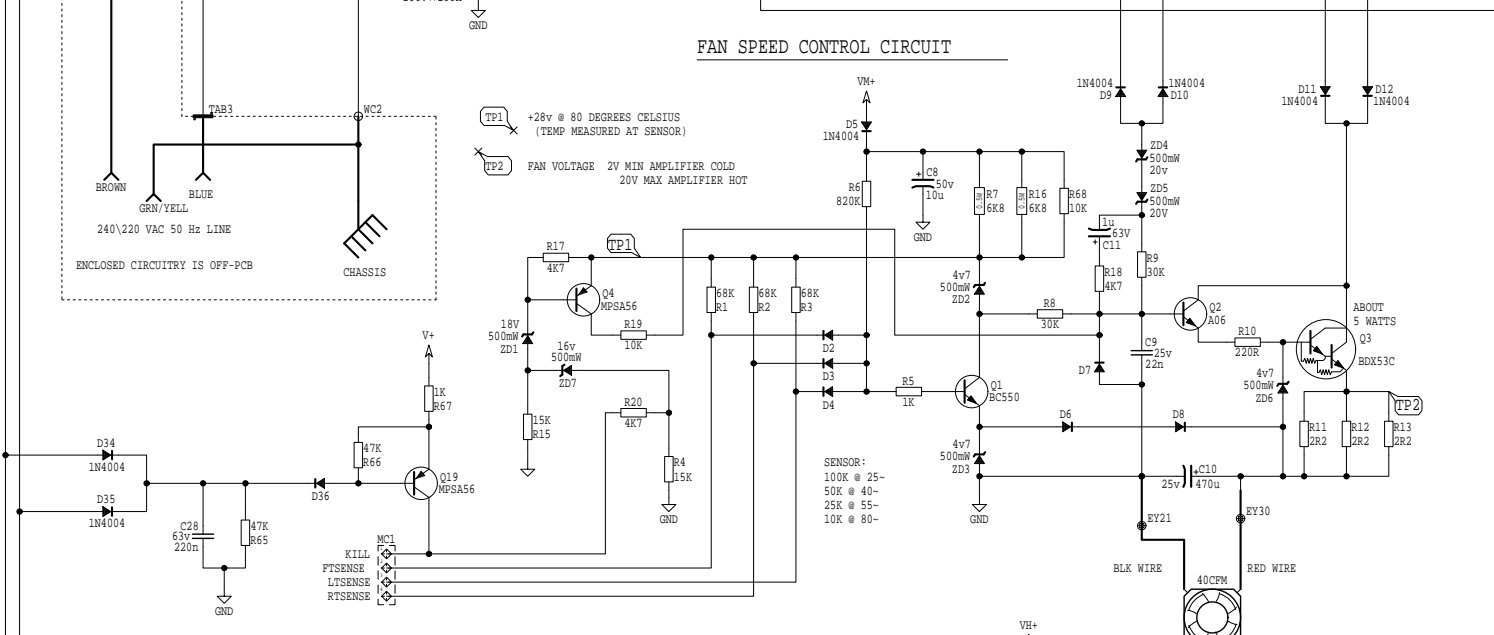
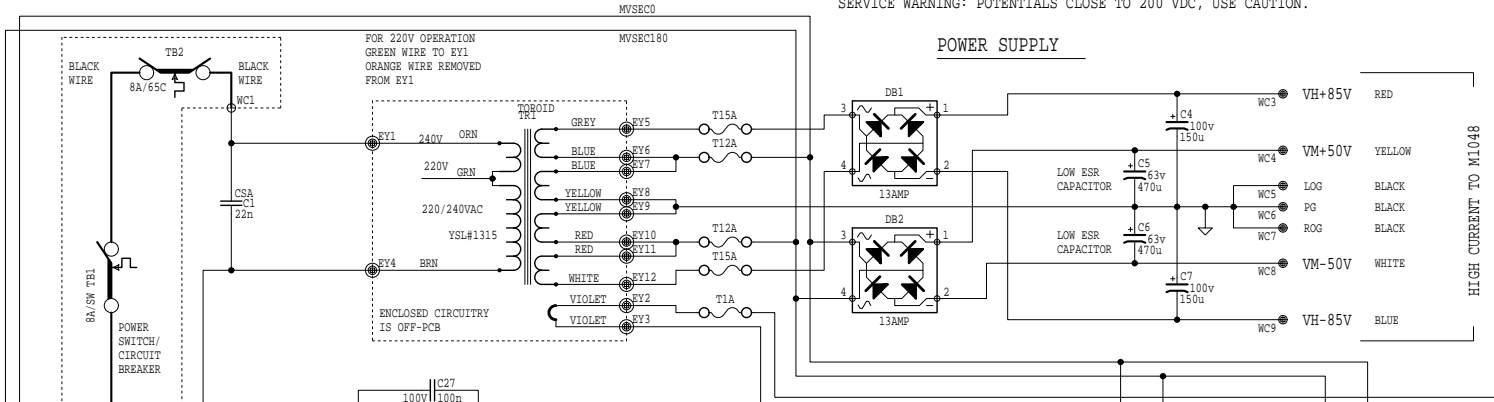
LONG AXIS

6.250"

SOLDSIDE M1056-3.20

SHEAR

SERVICE WARNING: POTENTIALS CLOSE TO 200 VDC, USE CAUTION.



NOTE: CAPACITOR VOLTAGE RATINGS SHOWN ARE MINIMUM REQUIRED.
ACTUAL PARTS MAY HAVE HIGHER VOLTAGE RATINGS.
ALL UNMARKED DIODES ARE 1N4148.

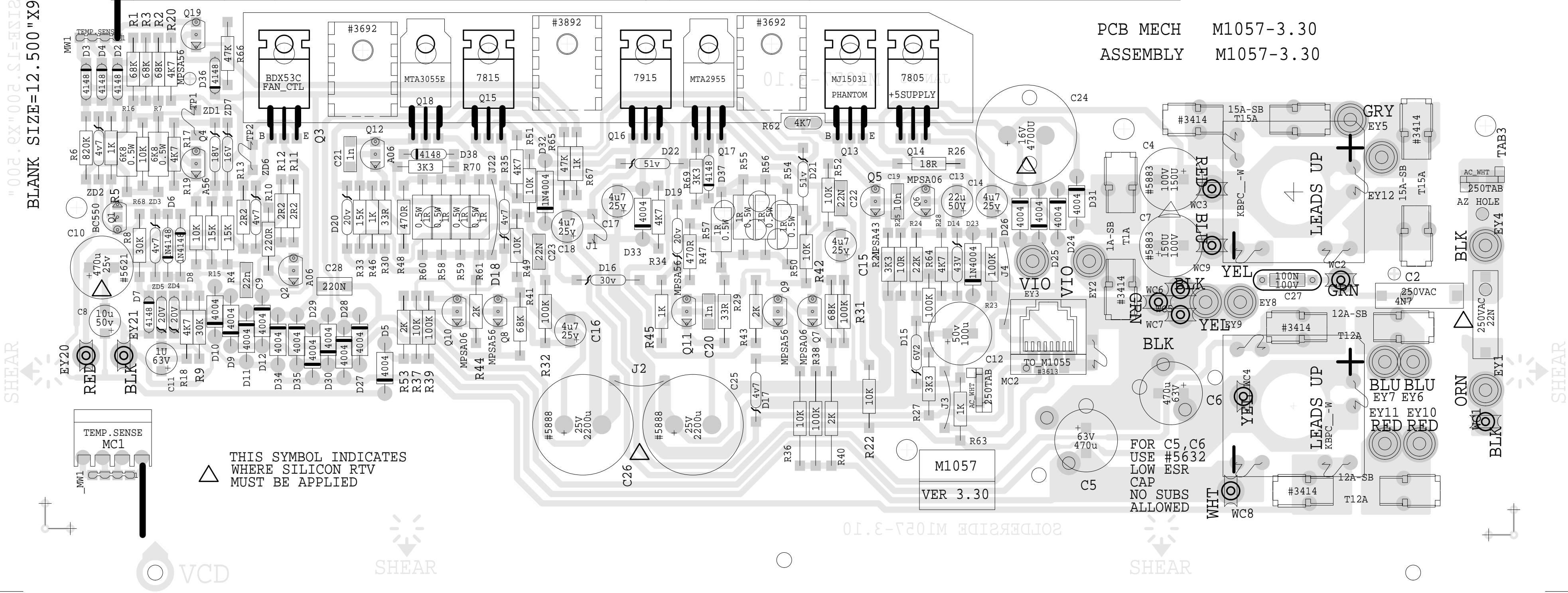
DATE: SEP/27/94	MODELS: AUDIOPRO_1212E/1216E_MIXERS	SCH ISSUE: 2.20
YORKVILLE NAME: M1057E.SCH	PCB#&VER: M1057-3.21	TITLE: SUPPLY/FAN_PCB

BLANK SIZE=12.500"X9.500"

M1057.PCB_DATABASE_HISTORY				#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S):- AP-MIXERS				12	D	V	Z
				13	D	V	Z
				14	D	V	Z
				15	D	V	Z
				16	D	V	Z
				17	D	V	Z
				18	D	V	Z
				19	D	V	Z
				20	D	V	Z
				21	D	V	Z
				22	D	V	Z
				23	D	V	Z
				24	D	V	Z
				25	D	V	Z
				26	D	V	Z

- PRODUCTION NOTES
- HEAT SINK PT #3692 MOUNTED WITH #8861 SCREW AND #8701 NUT
 - ADD THERMAL COMPOUND UNDER Q18 Q15 Q16 Q17 Q13 AND Q14 THESE DEVICES ARE MOUNTED WITH #8742 THREAD FORMING SCREW AND #3501 BELL WASHER
 - C5,C6 USE PT #3692 ONLY
 - FOR EUROPEAN ONLY CHANGE 1A-SB TO T1A PT#2471

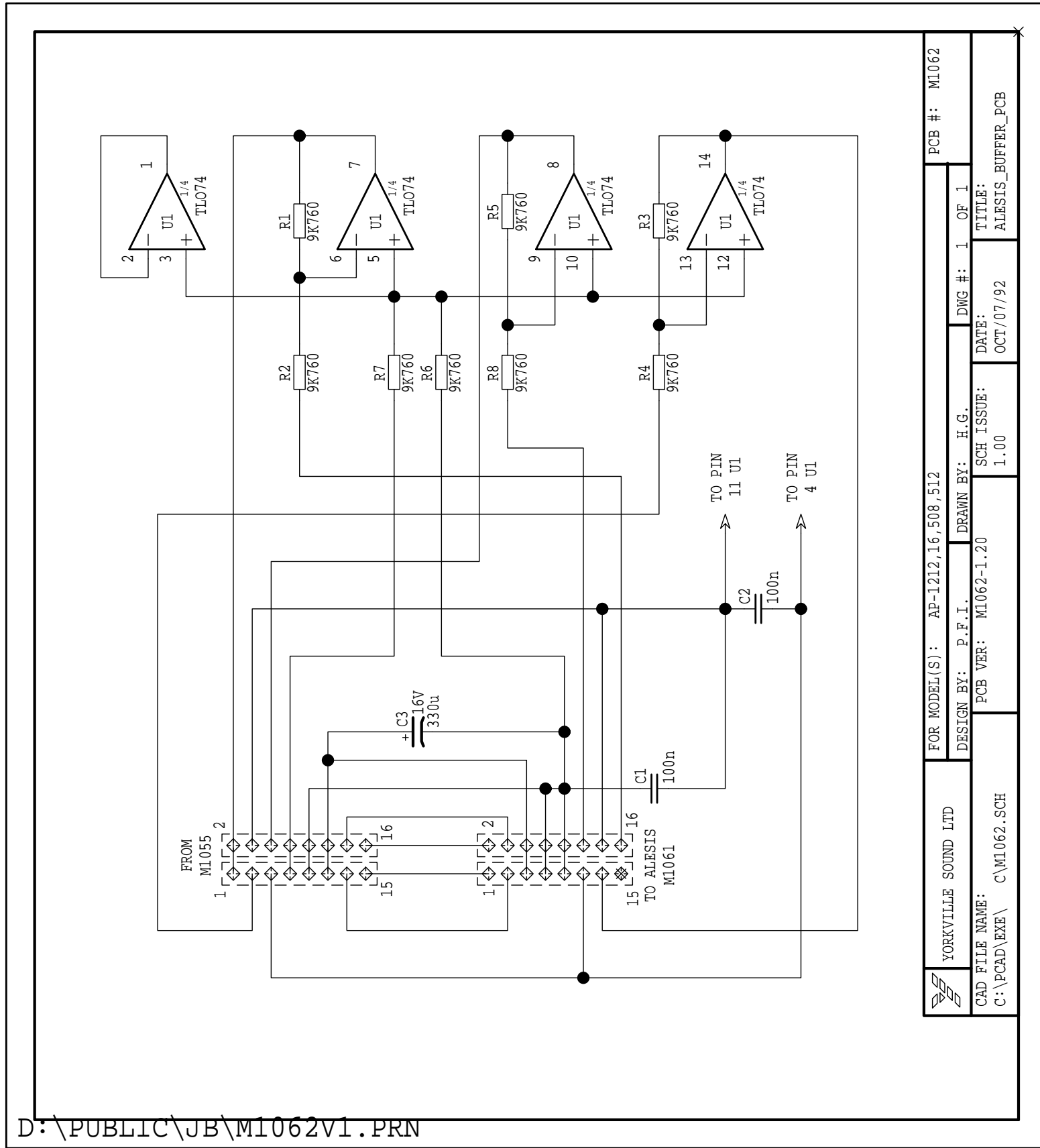
PCB MECH M1057-3.30
ASSEMBLY M1057-3.30



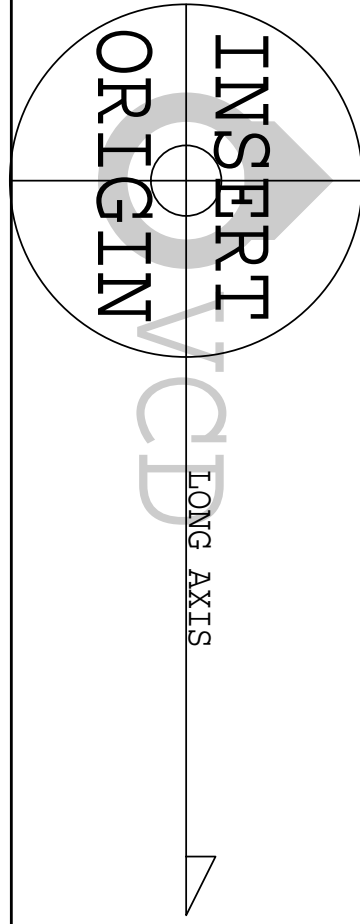
△ THIS SYMBOL INDICATES WHERE SILICON RTV MUST BE APPLIED

FOR C5, C6 USE #5632 LOW ESR CAP NO SUBS ALLOWED

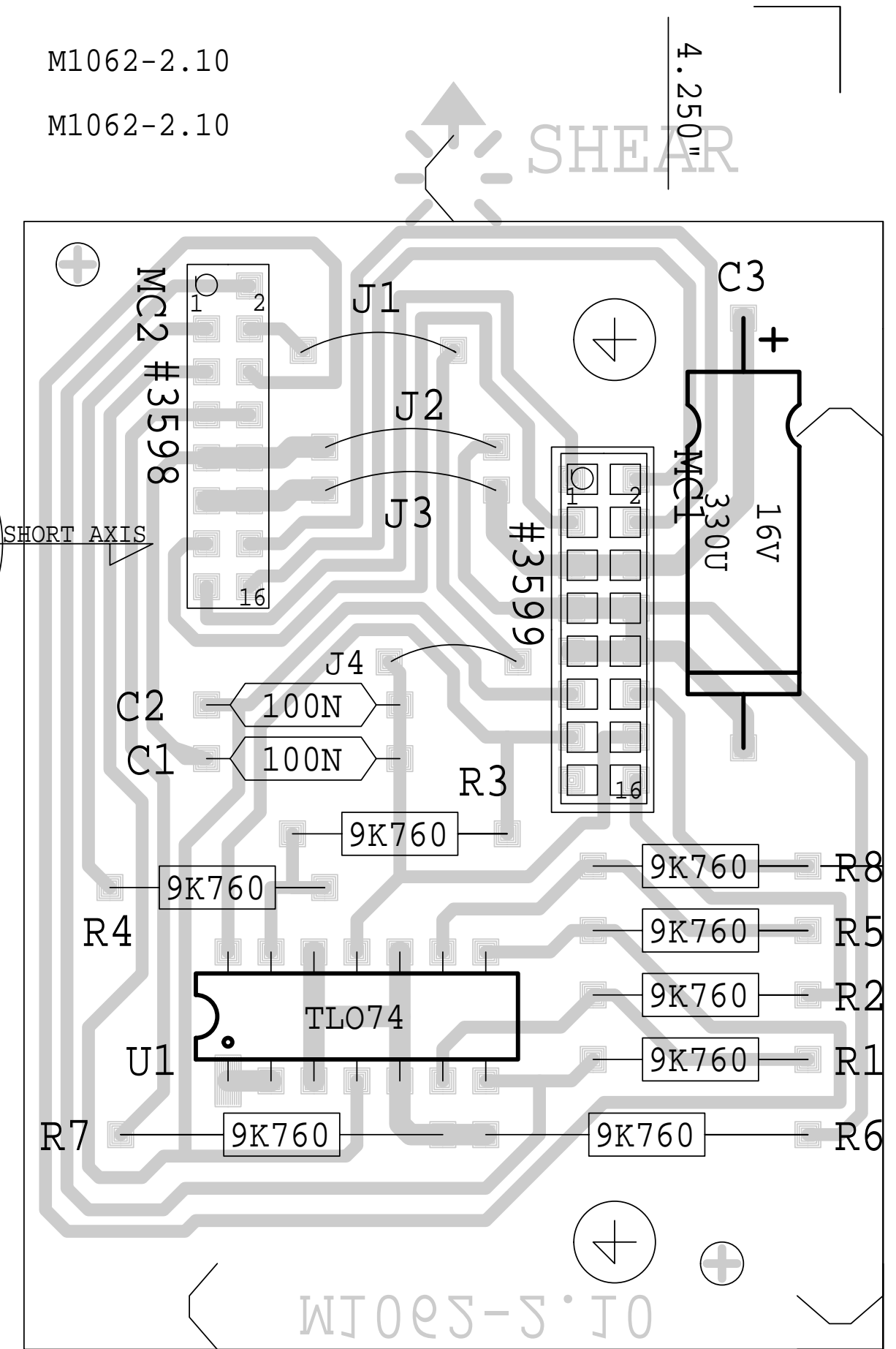
SOLDSIDE M1057-3.10



D:\PUBLIC\JB\M1062V1.PRN

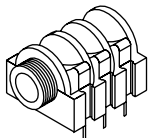


6.250" ASSEMBLY M1062-2.10
 6.250" PCB MECH M1062-2.10

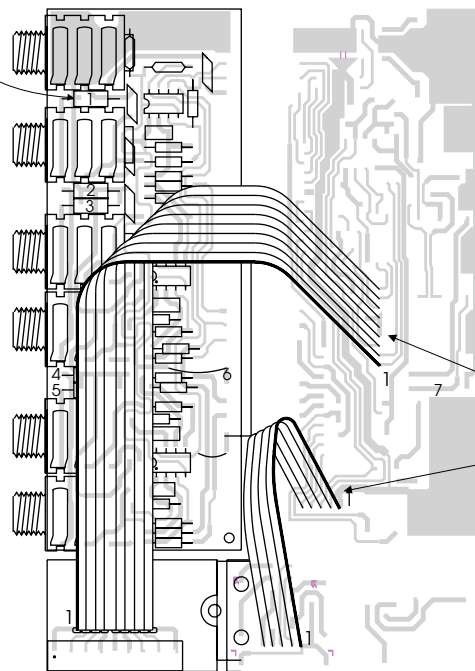


WJ0ES-S JO

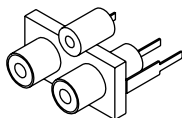
ALL THERMISTORS (1-7) MUST BE PUSHED AWAY FROM JACKS. IN OTHER WORDS, THEY MUST STAND UP STRAIGHT (THEY HAVE BEEN LABELLED ACCORDINGLY)



NOTE
CHECK THAT JACK IS MOUNTED FLAT ON THE PCB.
BEND A LEG OVER ON EITHER SIDE TO HOLD THE JACK IN PLACE
WHEN BENDING THE LEG MAKE SURE IT IS NOT SHORTING TO ANOTHER TRACE



SOLDERSIDE M1081-1.00



BEND OVER THE TWO OUTSIDE LEGS TO HOLD JACK IN PLACE
THE CENTER LEG IS TO BE TRIMMED

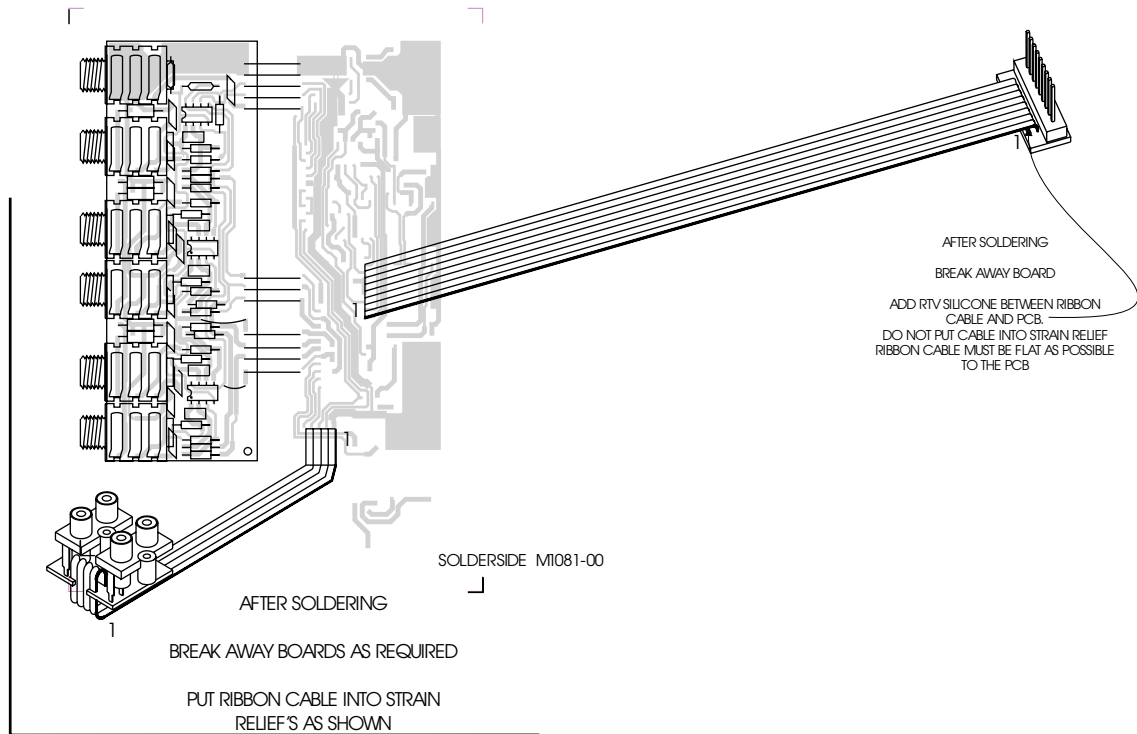
MOLEX CABLES

CHECK THAT THE ORIENTATION IS CORRECT

MAKE SURE THAT CABLE IS PUT IN STRAIGHT

BEND OVER THE TWO OUTSIDE LEGS, CHECKING THAT THEY DONT SHORT TO ANOTHER TRACE

TRIM ALL OTHER LEGS



AFTER SOLDERING
BREAK AWAY BOARD
ADD RTV SILICONE BETWEEN RIBBON CABLE AND PCB.
DO NOT PUT CABLE INTO STRAIN RELIEF
RIBBON CABLE MUST BE FLAT AS POSSIBLE TO THE PCB

SOLDERSIDE M1081-00

AFTER SOLDERING

BREAK AWAY BOARDS AS REQUIRED

PUT RIBBON CABLE INTO STRAIN RELIEF'S AS SHOWN

NOTE
SOME OF THESE ILLUSTRATIONS DO NOT NECESSARILY AFFECT BOARD ASSEMBLY, BUT WIRING INSTEAD

NOTE:
THIS IS NOT A COMPONENT LAYOUT AND SHOULD NOT BE USED AS ONE



YORKVILLE SOUND
550 GRANITE COURT
PICKERING, ONTARIO, CANADA L1W 3Y8
PHONE: 905-837-8481 FAX: 905-837-8746

PRODUCTION LAYOUT VERSION NO: 1.00	PCB NO: M1081 - 1.10
MODEL(S) AFFECTED:	FILE NAME: M1081.CDR
DESIGN BY: IERYMENKO/ATTWOOD	DATE: OCT 13, 1993
DRAWN BY: A. POLLARD	



Yorkville Sound
 550 Granite Court
 Pickering, Ontario, Canada L1W 3Y8
 Tel: (905) 837-8481 Fax: (905) 837-8746

Yorkville Sound Inc.
 4625 Witmer Industrial Estate
 Niagara Falls, New York, U.S.A. 14305
 Tel: (716) 297-2920 Fax: (716) 297-3689

Service Bulletin
 AP-1212, AP1216

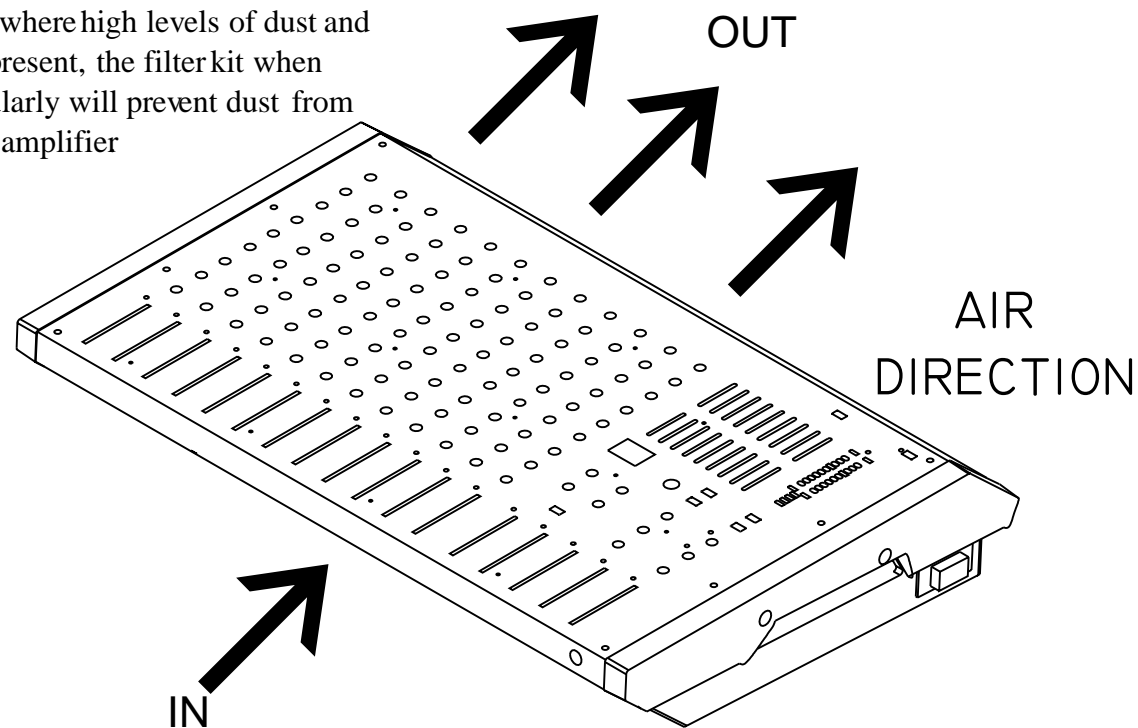
Aug. 25, 1992

FAN AIR FILTER INSTALLATION

FOR
 AUDIOPRO 508
 AUDIOPRO 512
 AUDIOPRO 1212
 AUDIOPRO 1216
 AUDIOPRO 1220

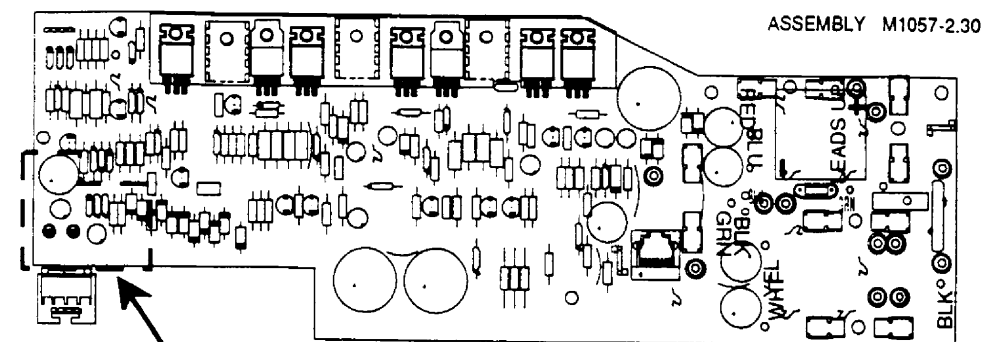
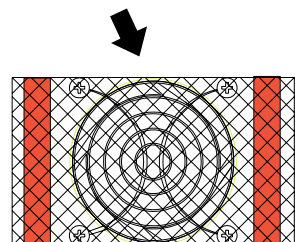
WHEN RE-ORDERING ASK FOR
 FILTER KIT
 KIT CONTAINS:
 2 - VELCRO STRIPS
 5 - FOAM FILTERS

In locations where high levels of dust and smoke are present, the filterkit when cleaned regularly will prevent dust from entering the amplifier



(Extra pieces of foam have been included with this product)

Apply 1 piece of foam as shown. Inspect regularly as a clogged filter will cause the amplifier to overheat. Replace or



ASSEMBLY M1057-2.30

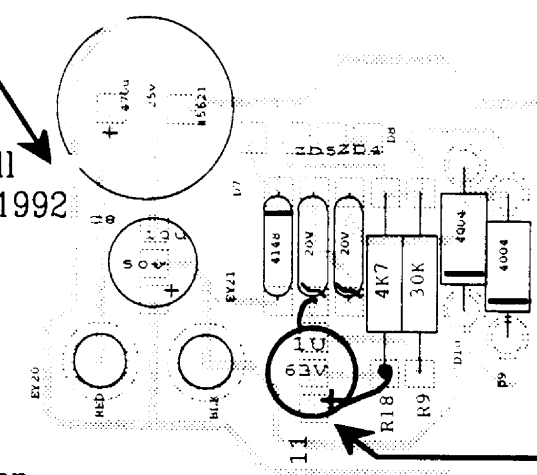
ENLARGED VIEW OF ENCLOSED AREA

Due to a schematic error 'all units produced before Aug. 1992 (serial #208XXXX) have C11 backwards.

The eventual failure of this capacitor will reduce the maximum fan speed, possibly causing the amplifier to overheat.

Please replace with a new cap wired in correctly.

PLEASE DO THIS ON ALL UNITS THAT COME IN FOR SERVICE!



Clip out and replace as shown by tacking on to the leads of R18 and ZD5. No need to remove the circuit board.

C11 SHOWN WITH CORRECTED POLARITY

