



# **SERVICE MANUAL**

MODEL TYPE: YS1011

## **PM16 / PM22**

WEB ACCESS: <http://www.yorkville.com>

### **WORLD HEADQUARTERS CANADA**

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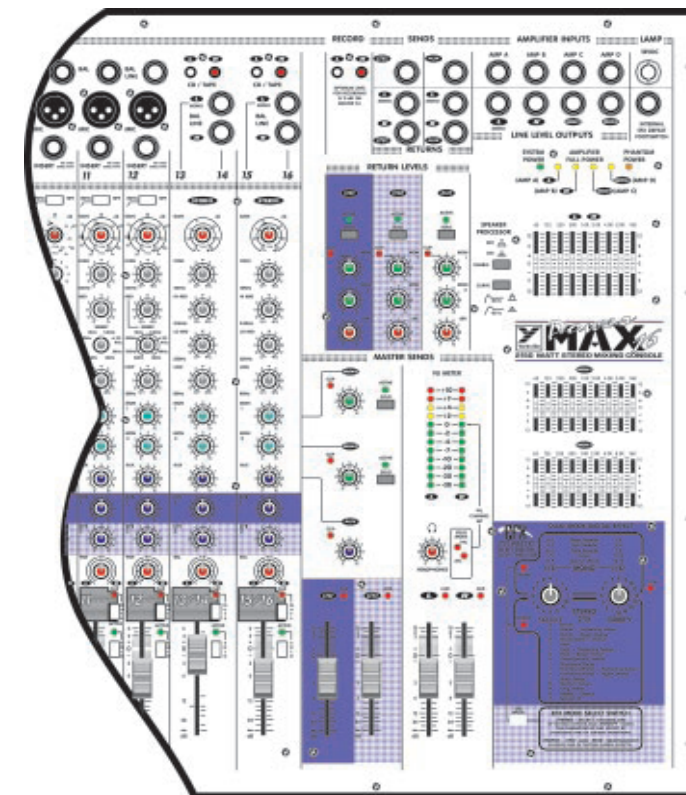
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Printed in Canada



# IMPORTANT SAFETY INSTRUCTIONS



This lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Ce symbole d'éclair avec tête de flèche dans un triangle équilatéral est prévu pour alerter l'utilisateur de la présence d'un « voltage dangereux » non-isolé à proximité de l'enceinte du produit qui pourrait être d'ampleur suffisante pour présenter un risque de choc électrique.



## CAUTION AVIS

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**

**RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR**



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Le point d'exclamation à l'intérieur d'un triangle équilatéral est prévu pour alerter l'utilisateur de la présence d'instructions importantes dans la littérature accompagnant l'appareil en ce qui concerne l'opération et la maintenance de cet appareil.

### FOLLOW ALL INSTRUCTIONS

**Instructions pertaining to a risk of fire,  
electric shock, or injury to a person**

**CAUTION: TO REDUCE THE RISK OF ELECTRIC  
SHOCK, DO NOT REMOVE COVER (OR BACK).**

**NO USER SERVICEABLE PARTS INSIDE.**

**REFER SERVICING TO QUALIFIED  
SERVICE PERSONNEL.**

### SUIVEZ TOUTES LES INSTRUCTIONS

**Instructions relatives au risque de feu,  
choc électrique, ou blessures aux personnes**

**AVIS: AFIN DE REDUIRE LES RISQUE DE CHOC  
ELECTRIQUE, N'ENLEVEZ PAS LE COUVERT (OU LE  
PANNEAU ARRIERE) NE CONTIENT AUCUNE PIECE**

**REPARABLE PAR L'UTILISATEUR.**

**CONSULTEZ UN TECHNICIEN QUALIFIE  
POUR L'ENTRETIEN**

**Read Instructions:** The Owner's Manual should be read and understood before operation of your unit. Please, save these instructions for future reference and heed all warnings.

Clean only with dry cloth.

**Packaging:** Keep the box and packaging materials, in case the unit needs to be returned for service.

**Warning:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. *Do not use this apparatus near water!*

**Warning:** When using electric products, basic precautions should always be followed, including the following:

#### Power Sources

Your unit should be connected to a power source only of the voltage specified in the owners manual or as marked on the unit. This unit has a polarized plug. Do not use with an extension cord or receptacle unless the plug can be fully inserted. Precautions should be taken so that the grounding scheme on the unit is not defeated. An apparatus with CLASS I construction shall be connected to a Mains socket outlet with a protective earthing ground. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

#### Hazards

Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious personal injury and serious damage to the product. Use only with cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer. Only use attachments/accessories specified by the manufacturer

Note: Prolonged use of headphones at a high volume may cause health damage on your ears.

The apparatus should not be exposed to dripping or splashing water; no objects filled with liquids should be placed on the apparatus.

Terminals marked with the "lightning bolt" are hazardous live; the external wiring connected to these terminals require installation by an instructed person or the use of ready made leads or cords.

Ensure that proper ventilation is provided around the appliance. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

#### Power Cord

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. The AC supply cord should be routed so that it is unlikely that it will be damaged. Protect the power cord from being walked on or pinched particularly at plugs. If the AC supply cord is damaged DO NOT OPERATE THE UNIT. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle. The mains plug of the power supply cord shall remain readily operable.

Unplug this apparatus during lightning storms or when unused for long periods of time.

#### Service

The unit should be serviced only by qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

**Veillez Lire le Manuel:** Il contient des informations qui devraient être comprises avant l'opération de votre appareil. Conservez. Gardez S.V.P. ces instructions pour consultations ultérieures et observez tous les avertissements.

Nettoyez seulement avec le tissu sec.

**Emballage:** Conservez la boîte au cas où l'appareil devait être retourner pour réparation.

**Avertissement:** Pour réduire le risque de feu ou la décharge électrique, n'exposez pas cet appareil à la pluie ou à l'humidité. *N'utilisez pas cet appareil près de l'eau!*

**Attention:** Lors de l'utilisation de produits électrique, assurez-vous d'adhérer à des précautions de bases incluant celle qui suivent:

#### Alimentation

L'appareil ne doit être branché qu'à une source d'alimentation correspondant au voltage spécifié dans le manuel ou tel qu'indiqué sur l'appareil. Cet appareil est équipé d'une prise d'alimentation polarisée. Ne pas utiliser cet appareil avec un cordon de raccordement à moins qu'il soit possible d'insérer complètement les trois lames. Des précautions doivent être prises afin d'éviter que le système de mise à la terre de l'appareil ne soit désengagé. Un appareil construit selon les normes de CLASS I devrait être raccordé à une prise murale d'alimentation avec connexion intacte de mise à la masse. Lorsqu'une prise de branchement ou un coupleur d'appareils est utilisée comme dispositif de débranchement, ce dispositif de débranchement devra demeurer pleinement fonctionnel avec raccordement à la masse.

#### Risque

Ne pas placer cet appareil sur un chariot, un support, un trépied ou une table instables. L'appareil pourrait tomber et blesser quelqu'un ou subir des dommages importants. Utiliser seulement un chariot, un support, un trépied ou une table recommandés par le fabricant ou vendus avec le produit. Suivre les instructions du fabricant pour installer l'appareil et utiliser les accessoires recommandés par le fabricant. Utilisez seulement les attachments/accessoires indiqués par le fabricant

Note: L'utilisation prolongée des écouteurs à un volume élevé peut avoir des conséquences néfastes sur la santé sur vos oreilles. .

Il convient de ne pas placer sur l'appareil de sources de flammes nues, telles que des bougies allumées.

L'appareil ne doit pas être exposé à des égouttements d'eau ou des éclaboussures et qu'aucun objet rempli de liquide tel que des vases ne doit être placé sur l'appareil.

Assurez que l'appareil est fourni de la propre ventilation. Ne procédez pas à l'installation près de source de chaleur tels que radiateurs, registre de chaleur, fous ou autres appareils (incluant les amplificateurs) qui produisent de la chaleur.

Les dispositifs marqués d'une symbole "d'éclair" sont des parties dangereuses au toucher et que les câblages extérieurs connectés à ces dispositifs de connexion extérieure doivent être effectués par un opérateur formé ou en utilisant des cordons déjà préparés.

#### Cordon d'Alimentation

Ne pas enlever le dispositif de sécurité sur la prise polarisée ou la prise avec tige de mise à la masse du cordon d'alimentation. Une prise polarisée dispose de deux lames dont une plus large que l'autre. Une prise avec tige de mise à la masse dispose de deux lames en plus d'une troisième tige qui connecte à la masse. La lame plus large ou la tige de mise à la masse est prévu pour votre sécurité. La prise murale est désuète si elle n'est pas conçue pour accepter ce type de prise avec dispositif de sécurité. Dans ce cas, contactez un électricien pour faire remplacer la prise murale. Évitez d'endommager le cordon d'alimentation. Protégez le cordon d'alimentation. Assurez-vous qu'on ne marche pas dessus et qu'on ne le pince pas en particulier aux prises. **N'UTILISEZ PAS L'APPAREIL** si le cordon d'alimentation est endommagé. Pour débrancher complètement cet appareil de l'alimentation CA principale, déconnectez le cordon d'alimentation de la prise d'alimentation murale. Le cordon d'alimentation du bloc d'alimentation de l'appareil doit demeurer pleinement fonctionnel.

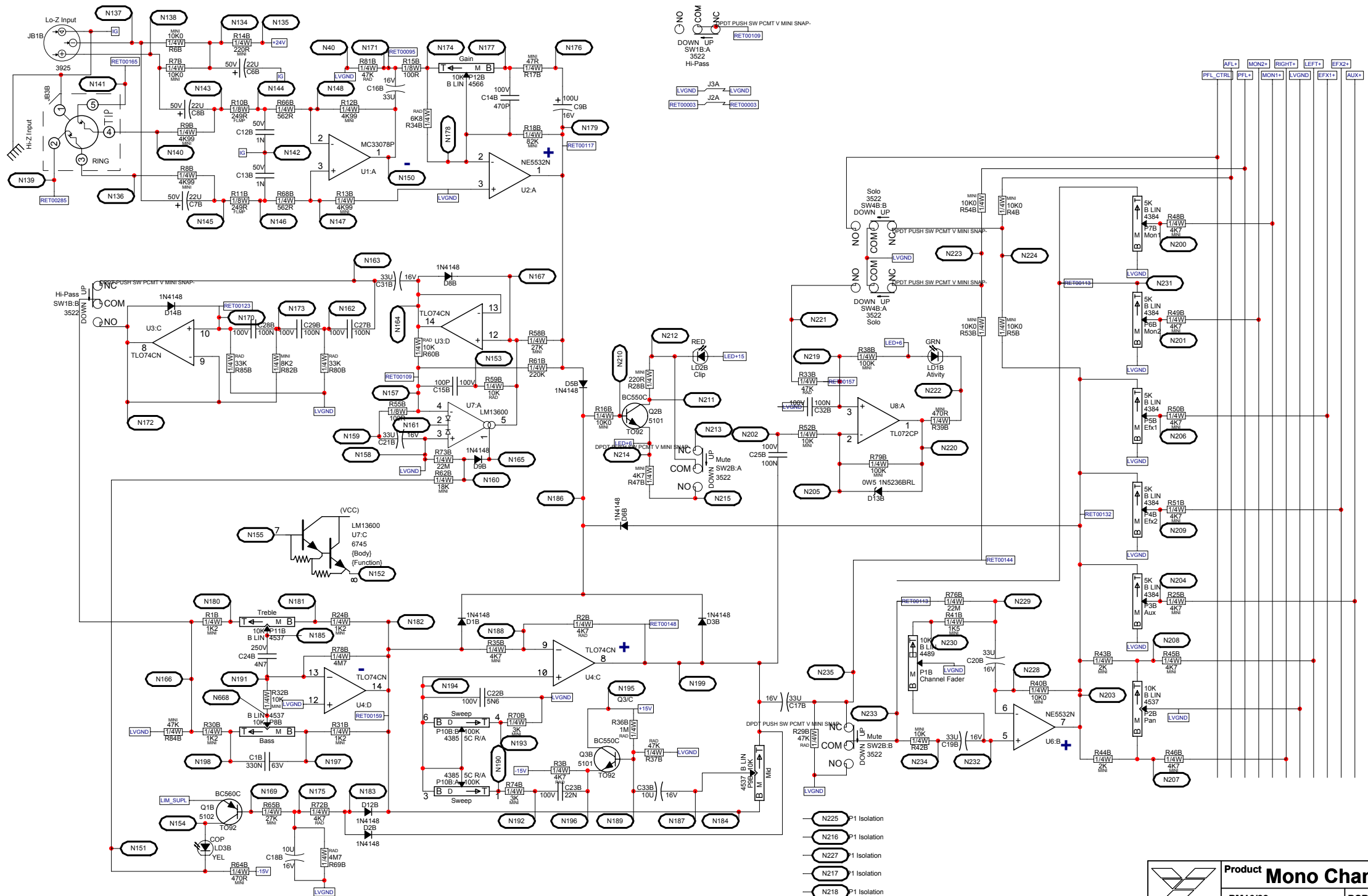
Débranchez cet appareil durant les orages ou si inutilisé pendant de longues périodes.

#### Service

Consultez un technicien qualifié pour l'entretien de votre appareil. L'entretien est nécessaire quand l'appareil a été endommagé de quelque façon que se soit. Par exemple si le cordon d'alimentation ou la prise du cordon sont endommagés, si il y a eu du liquide qui a été renversé à l'intérieur ou des objets sont tombés dans l'appareil, si l'appareil a été exposé à la pluie ou à l'humidité, si il ne fonctionne pas normalement, ou a été échappé.

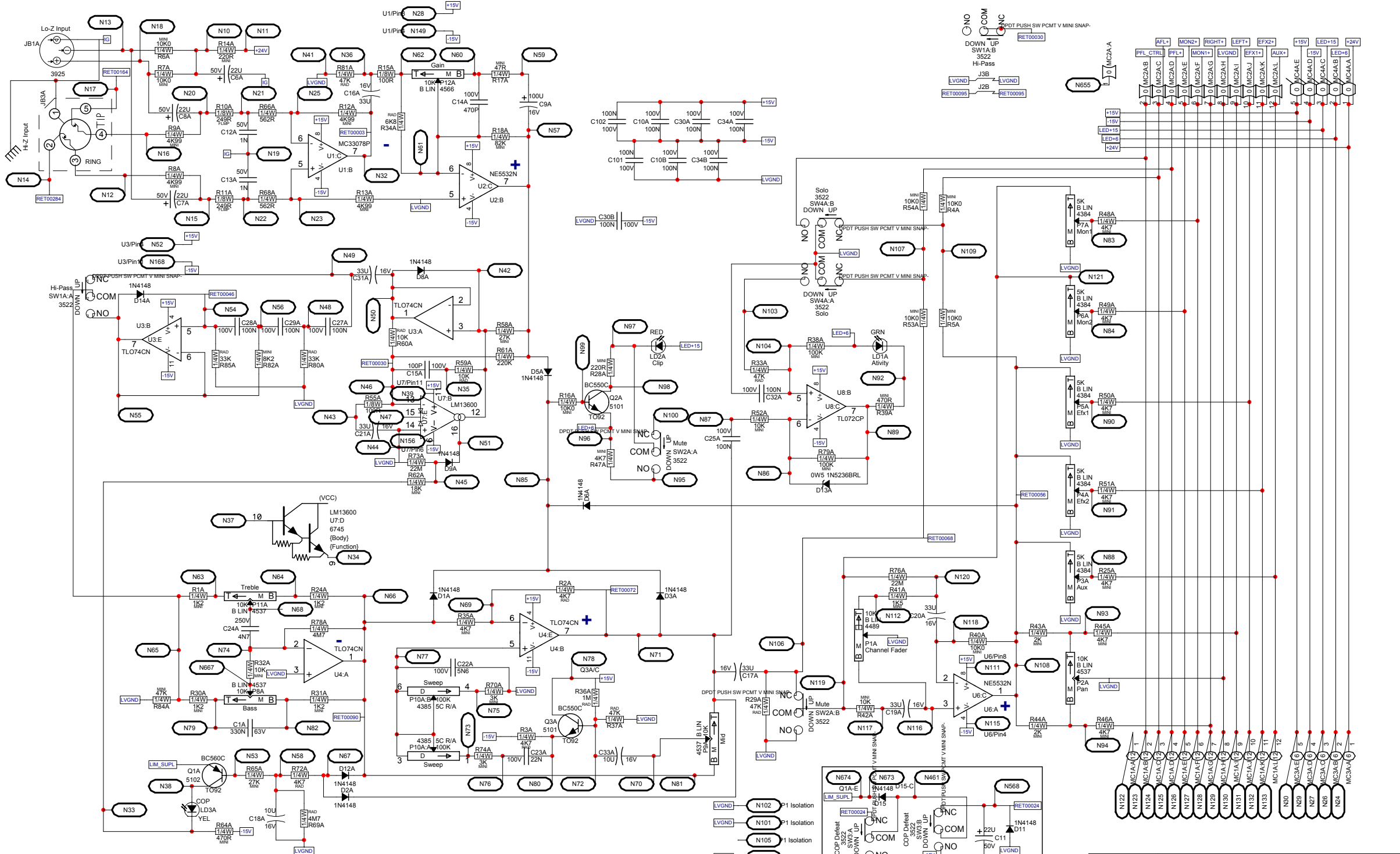




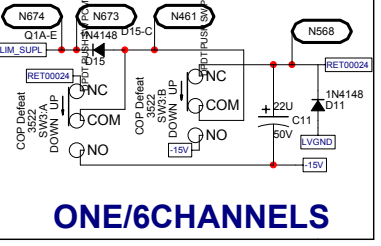


- N225 P1 Isolation
- N216 P1 Isolation
- N227 P1 Isolation
- N217 P1 Isolation
- N218 P1 Isolation
- N226 P1 Isolation

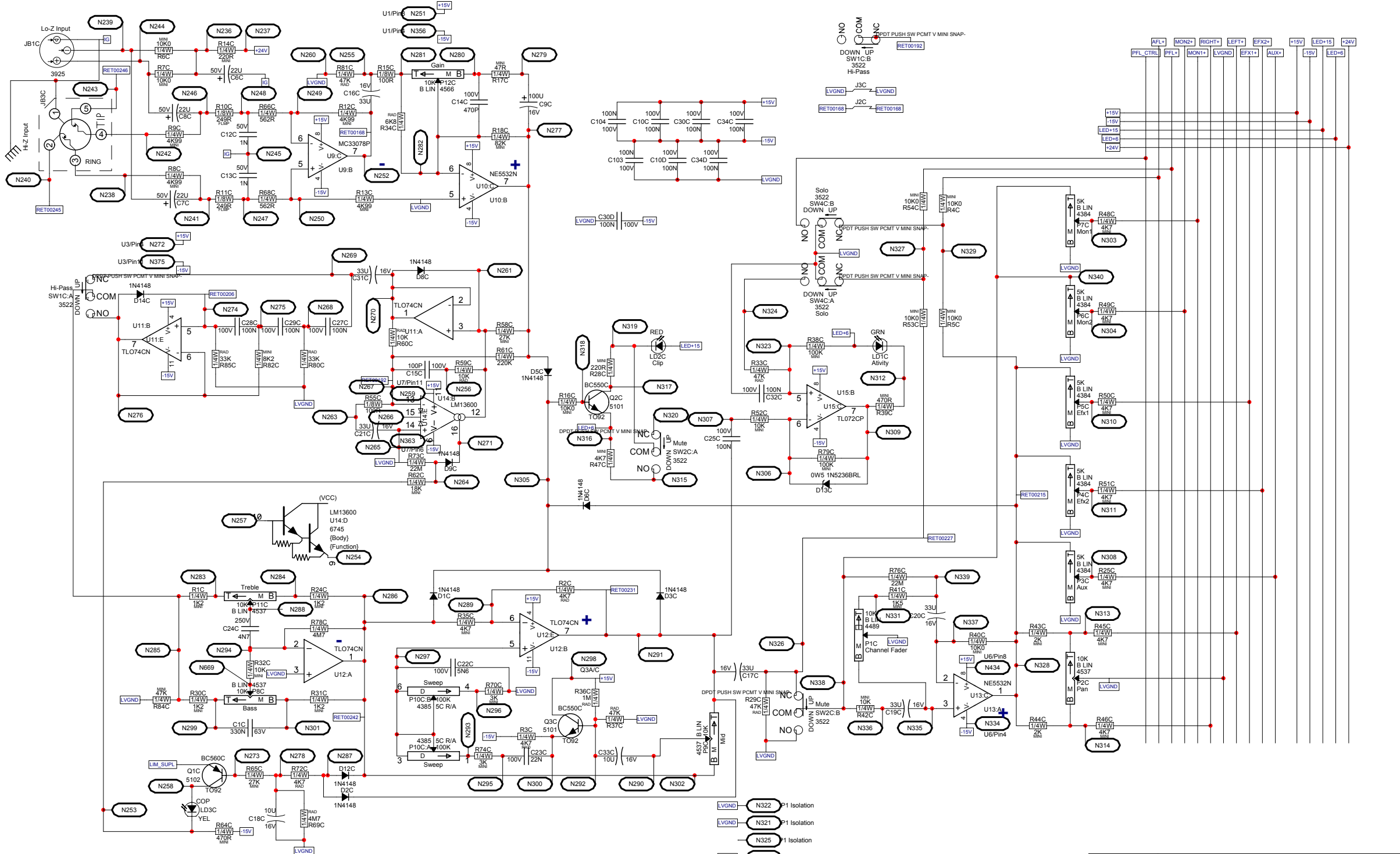




- LVGND N102 P1 Isolation
- LVGND N101 P1 Isolation
- LVGND N105 P1 Isolation
- LVGND N110 P1 Isolation
- LVGND N114 P1 Isolation
- LVGND N113 P1 Isolation



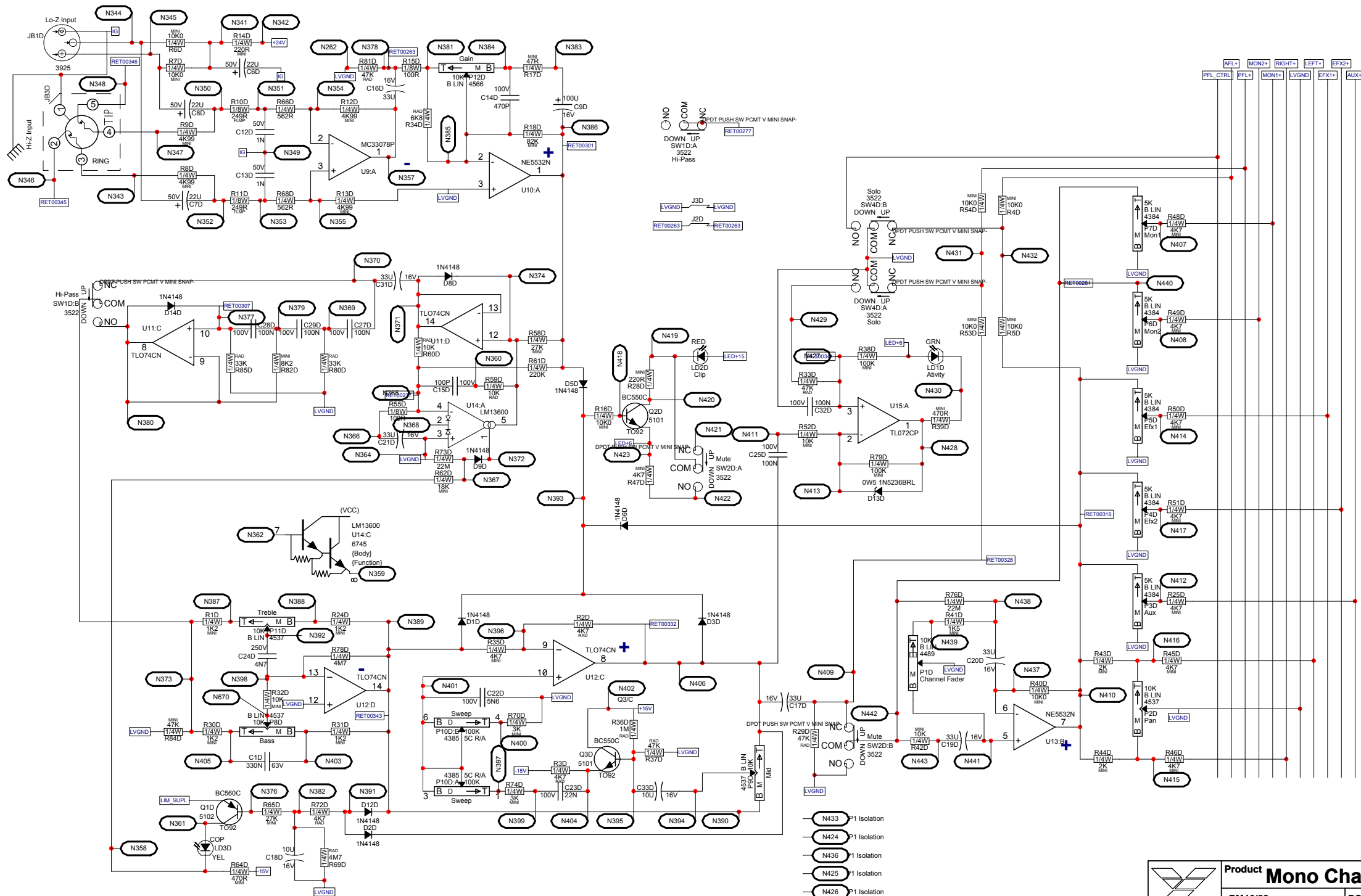
**ONE/6CHANNELS**



- LVGND N322 P1 Isolation
- LVGND N321 P1 Isolation
- LVGND N325 P1 Isolation
- LVGND N330 P1 Isolation
- LVGND N333 P1 Isolation
- LVGND N332 P1 Isolation



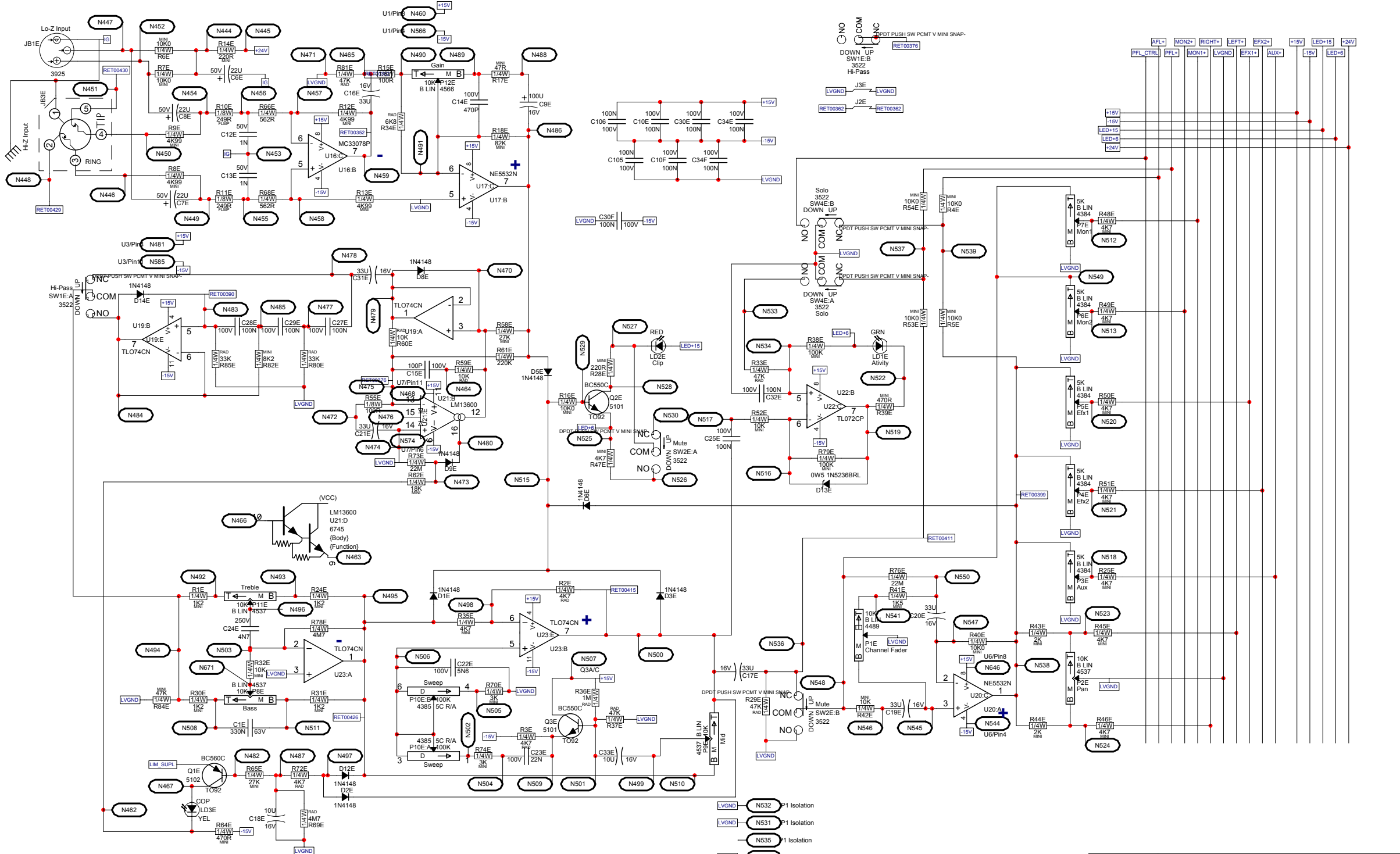
Product <b>Mono Channels</b>		
PM16/22	PCB# M1117	Sheet 3 of 7
Date: Thu May 02, 2002	Rev: 1.20	
Filename: m1117-1V2.sch2001		



- N433 P1 Isolation
- N424 P1 Isolation
- N436 P1 Isolation
- N425 P1 Isolation
- N426 P1 Isolation
- N435 P1 Isolation



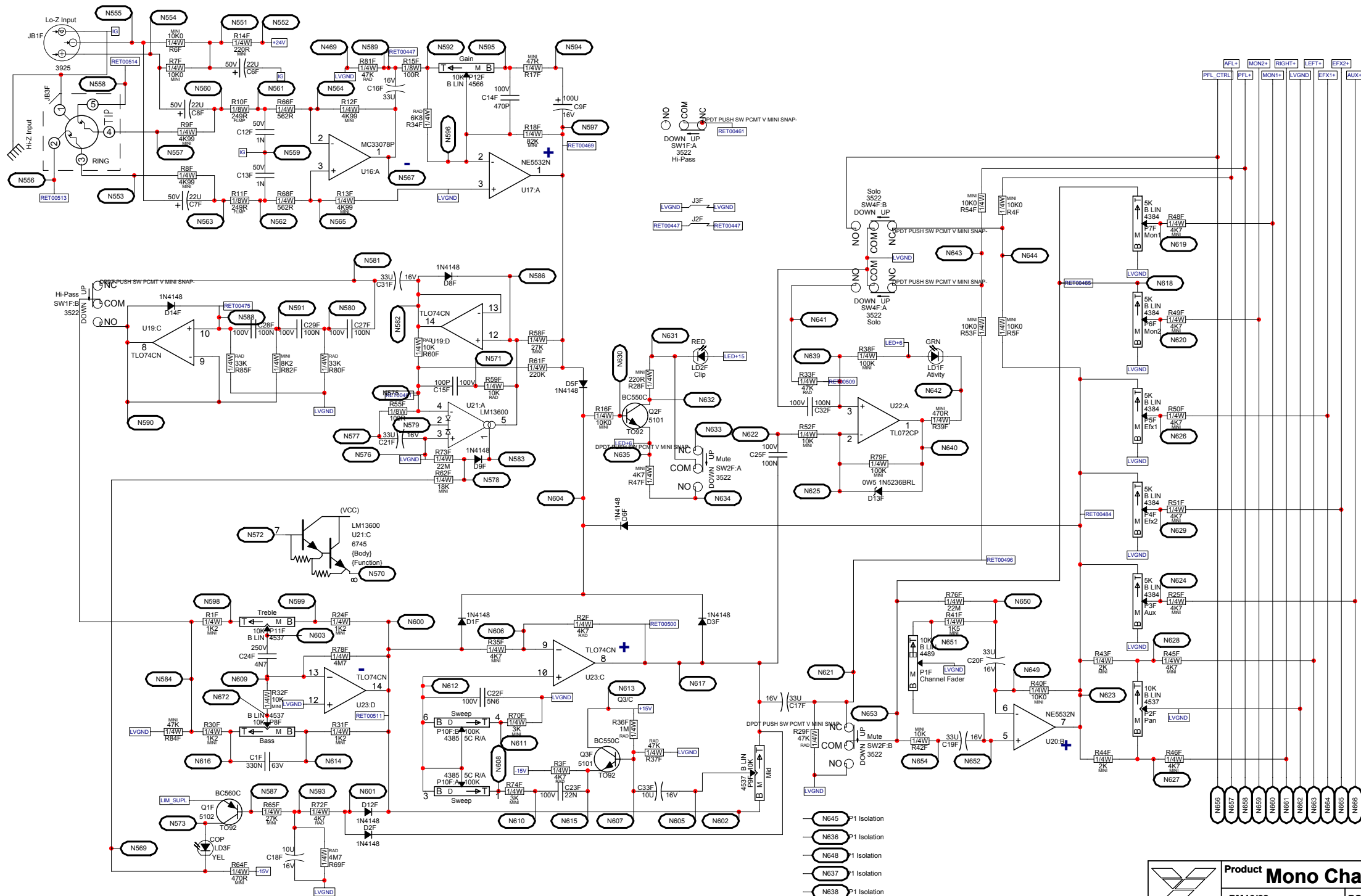




- LVGND N532 P1 Isolation
- LVGND N531 P1 Isolation
- LVGND N535 P1 Isolation
- LVGND N540 P1 Isolation
- LVGND N543 P1 Isolation
- LVGND N542 P1 Isolation

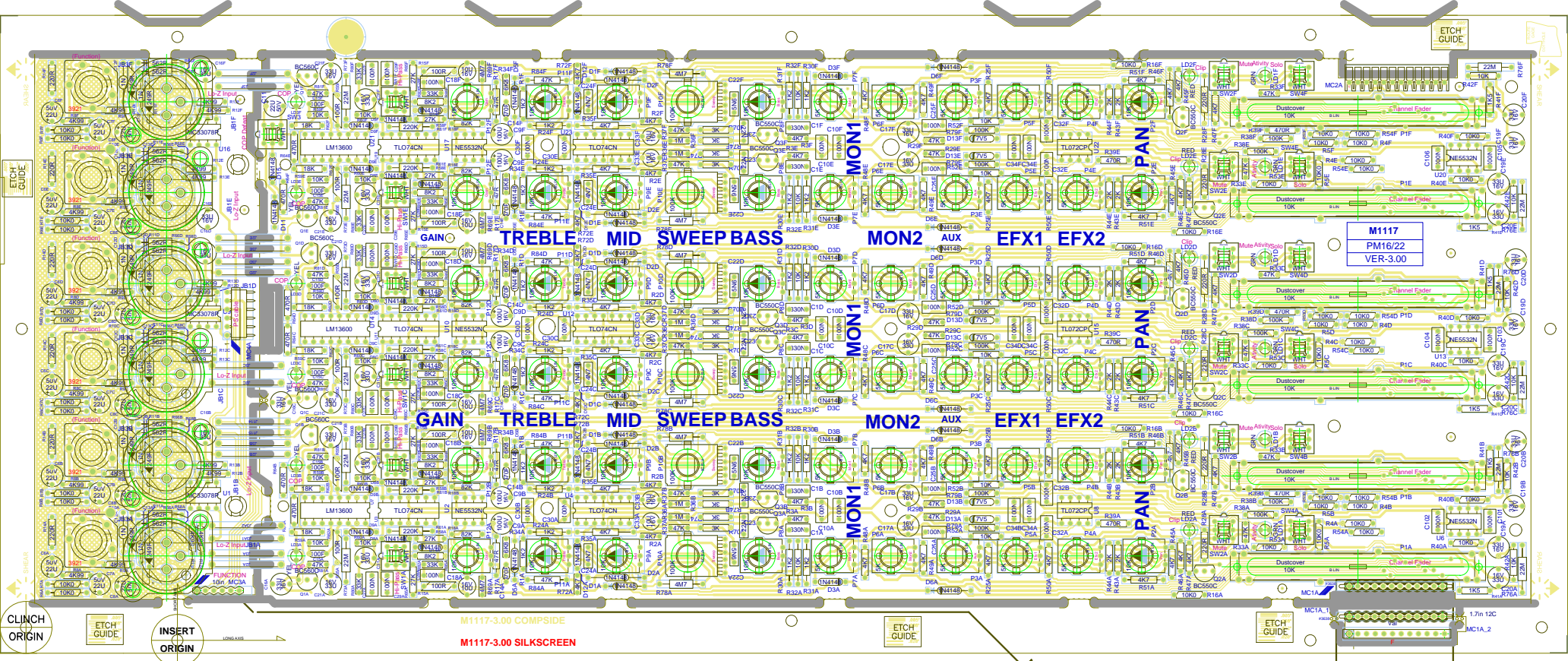


Product <b>Mono Channels</b>		
PM16/22	PCB# M1117	Sheet 5 of 7
Date: Thu May 02, 2002	Rev: 1.20	
Filename: m1117-1V2.sch2001		



- N645 P1 Isolation
- N636 P1 Isolation
- N648 P1 Isolation
- N638 P1 Isolation
- N647 P1 Isolation

- AF1+
- MON2+
- RIGHT+
- LEFT+
- EFX2+
- AUX+



M1117-3.00 COMPSIDE

M1117-3.00 SILKSCREEN



SEE LAYOUT DOCUMENTATION



THESE MOLEX PARTS STUFFED FOR M1117B ONLY

CLINCH ORIGIN

ETCH GUIDE

INSERT ORIGIN

ETCH GUIDE

ETCH GUIDE

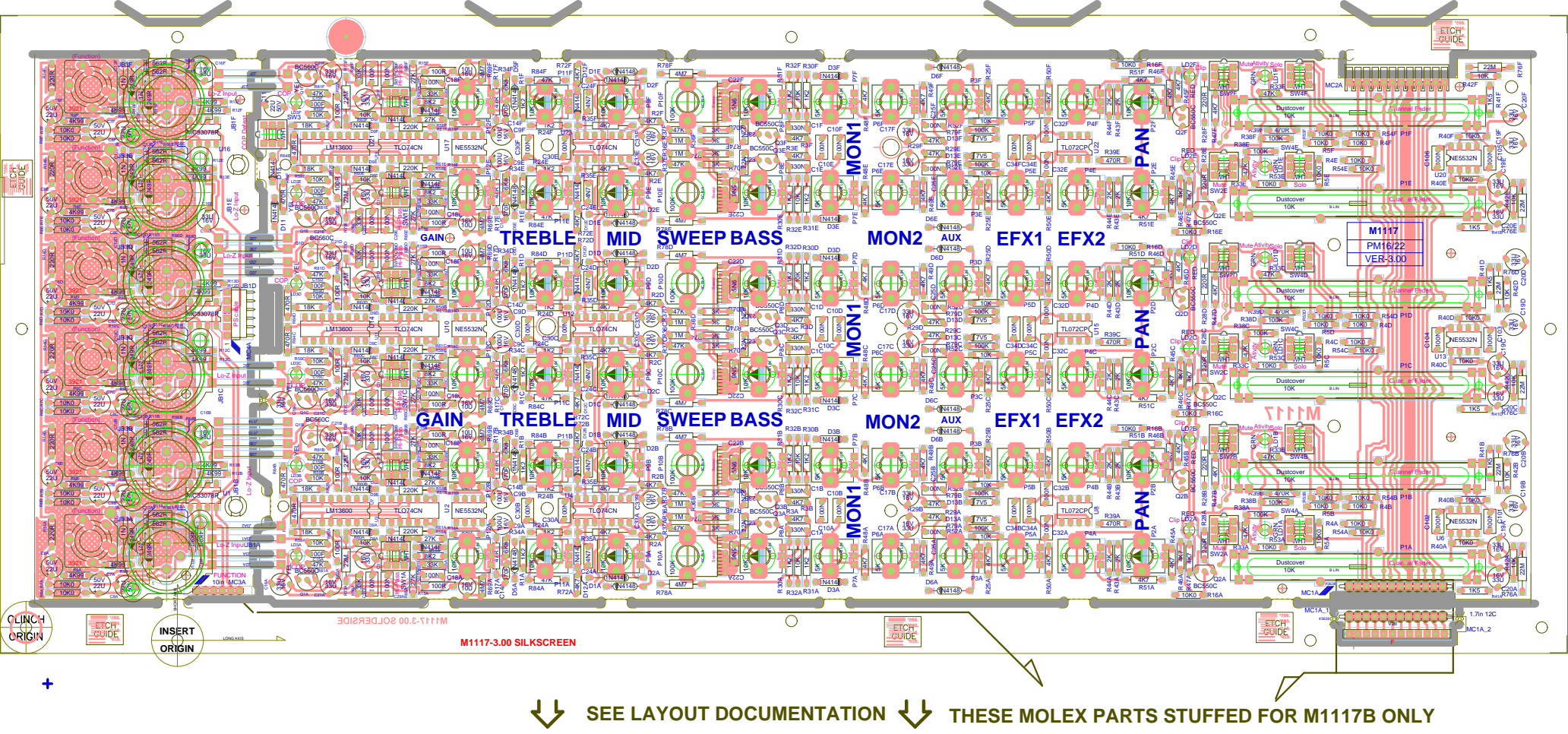
ETCH GUIDE

M1117  
PM16/22  
VER-3.00

1.7in 12C

MC1A\_1

MC1A\_2



ETCH GUIDE

ETCH GUIDE

M1117  
PM16/22  
VER.3.00

M1117-3.00 SILKSCREEN

ETCH GUIDE

ETCH GUIDE



SEE LAYOUT DOCUMENTATION



THESE MOLEX PARTS STUFFED FOR M1117B ONLY

1.7in 12C

MC1A\_1

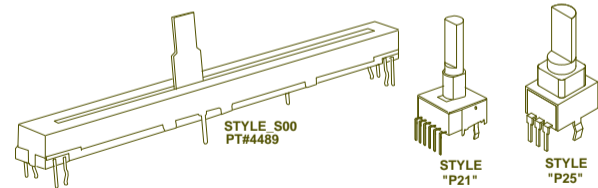
MC1A\_2



SEE LAYOUT DIAGRAM



### PRODUCTION NOTES



M1120.PCB_POT_LIST				
MODEL(S):-		MODEL		
REF	FUNCTION	PART#	KNOB	AS_OF
P12A-F	GAIN	#4385	#8302	JAN2000
P11A-F	HIGH	#4337	#8303	-
P9A-F	MID	#4337	#8303	-
P10A-F	SWEEP	#4385	#8303	-
P8A-F	LOW	#4337	#8303	-
P7A-F	MON1	#4384	#8304	-
P6A-F	MON2	#4384	#8304	-
P3A-F	AUX	#4384	#8305	-
P5A-F	EFX1	#4384	#8305	-
P4A-F	EFX2	#4384	#8305	-
P2A-F	PAN	#4337	#8302	-
P1A-F	VOLUME	#4489	#8300	-

M1117.PCB DATABASE HISTORY				#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S):-		MODEL		24	D	V	N
#	DATE	VER#	DESCRIPTION OF CHANGE	25	D	V	N
1	Sept 28,2000	1.00P1	First production run	26	D	V	N
2	Dec 1, 2000	2.00	Moved copper pours away from board edge	27	D	V	N
3			Moved traces away from fader mtg legs.	28	D	V	N
4			Moved ps traces away from board edge	29	D	V	N
5			Removed component side pad from pot legs	30	D	V	N
6			Swapped top pins of sweep control on ch's 1,3,5	31	D	V	N
7			Add copy to draw solder from dual pot legs	32	D	V	N
8	Jan 18, 2001		Moved legend for R64E and F to correct locations.	33	D	V	N
9	NOV 26 2001	2.10	PC#6473 C22A-F 6N8 TO 5N6 C23A-F 47N TO 22N	34	D	V	N
10			R70A-F 1K2 TO 3K	35	D	V	N
11	MAY 02,2002	2.20	PC#6536 R74A-F 1K2 TO 3K	36	D	V	N
12	Nov 13, 2002	3.00	#3921 jacks to slotted holes	37	D	V	N
13	D	V	N	38	D	V	N
14	D	V	N	39	D	V	N
15	D	V	N	40	D	V	N
16	D	V	N	41	D	V	N
17	D	V	N	42	D	V	N
18	D	V	N	43	D	V	N
19	D	V	N	44	D	V	N
20	D	V	N	45	D	V	N
21	D	V	N	46	D	V	N
22	D	V	N	47	D	V	N
23	D	V	N	48	D	V	N
				49	D	V	N
				50	D	V	N

ETCH GUIDE

ETCH GUIDE

BEC  
LOC

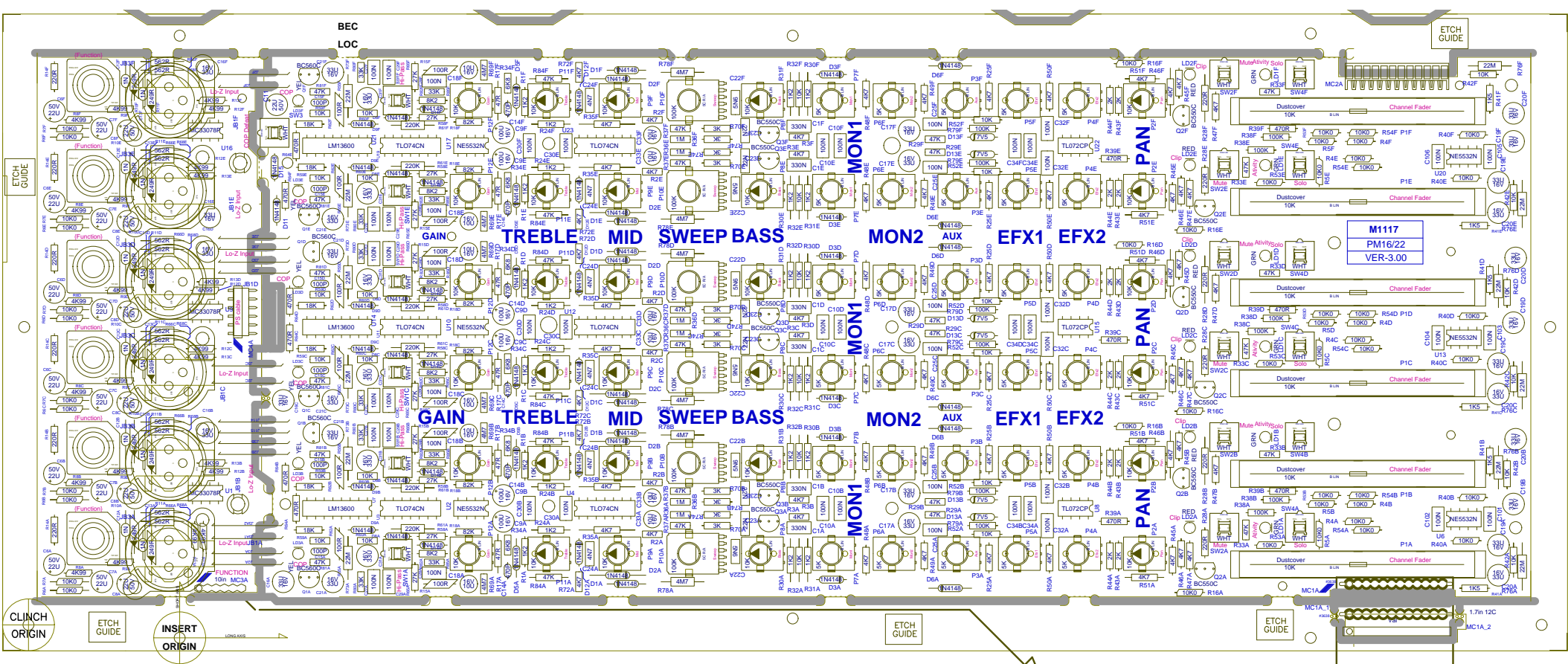
CLINCH ORIGIN

ETCH GUIDE

INSERT ORIGIN

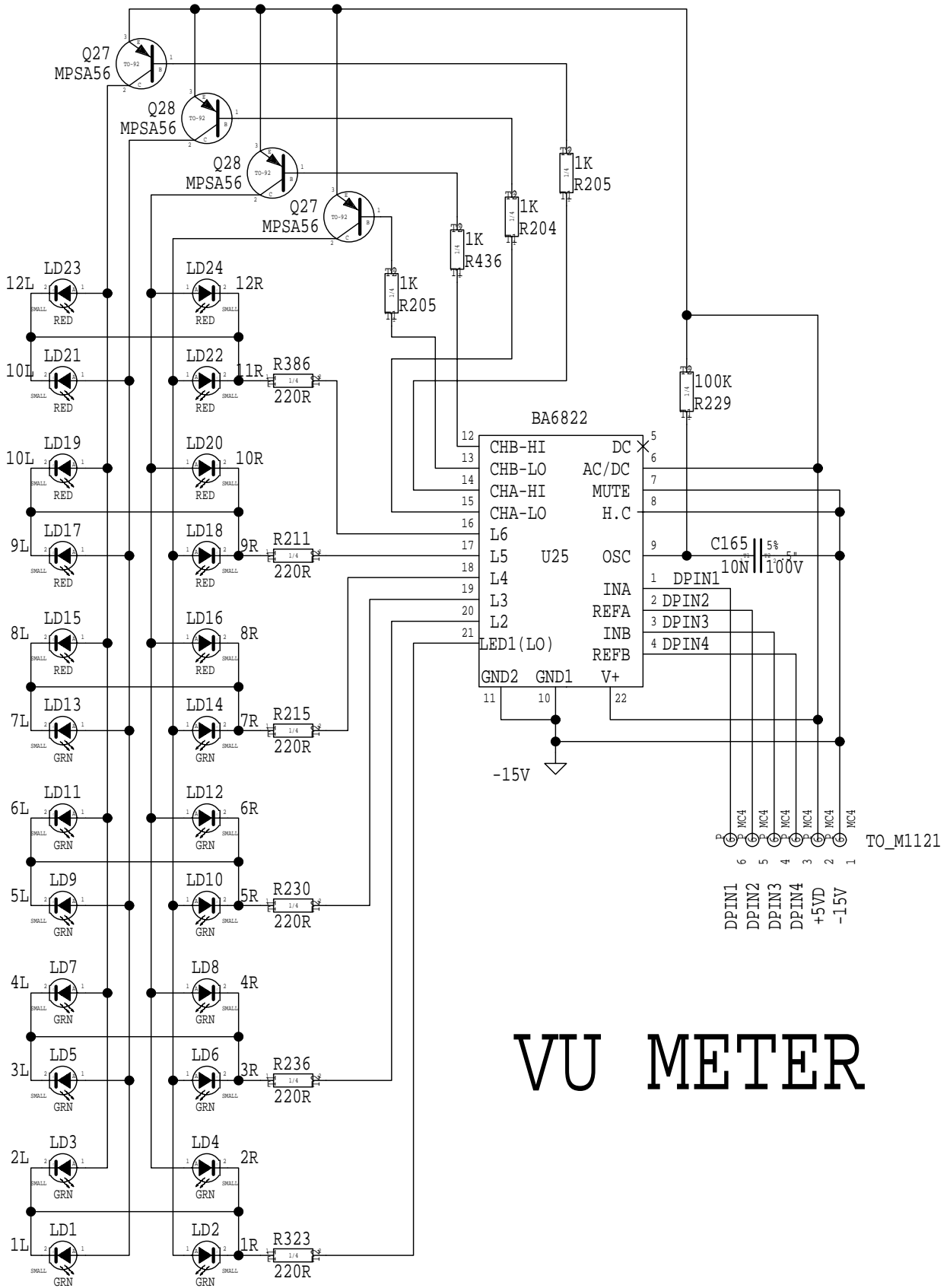
ETCH GUIDE

ETCH GUIDE

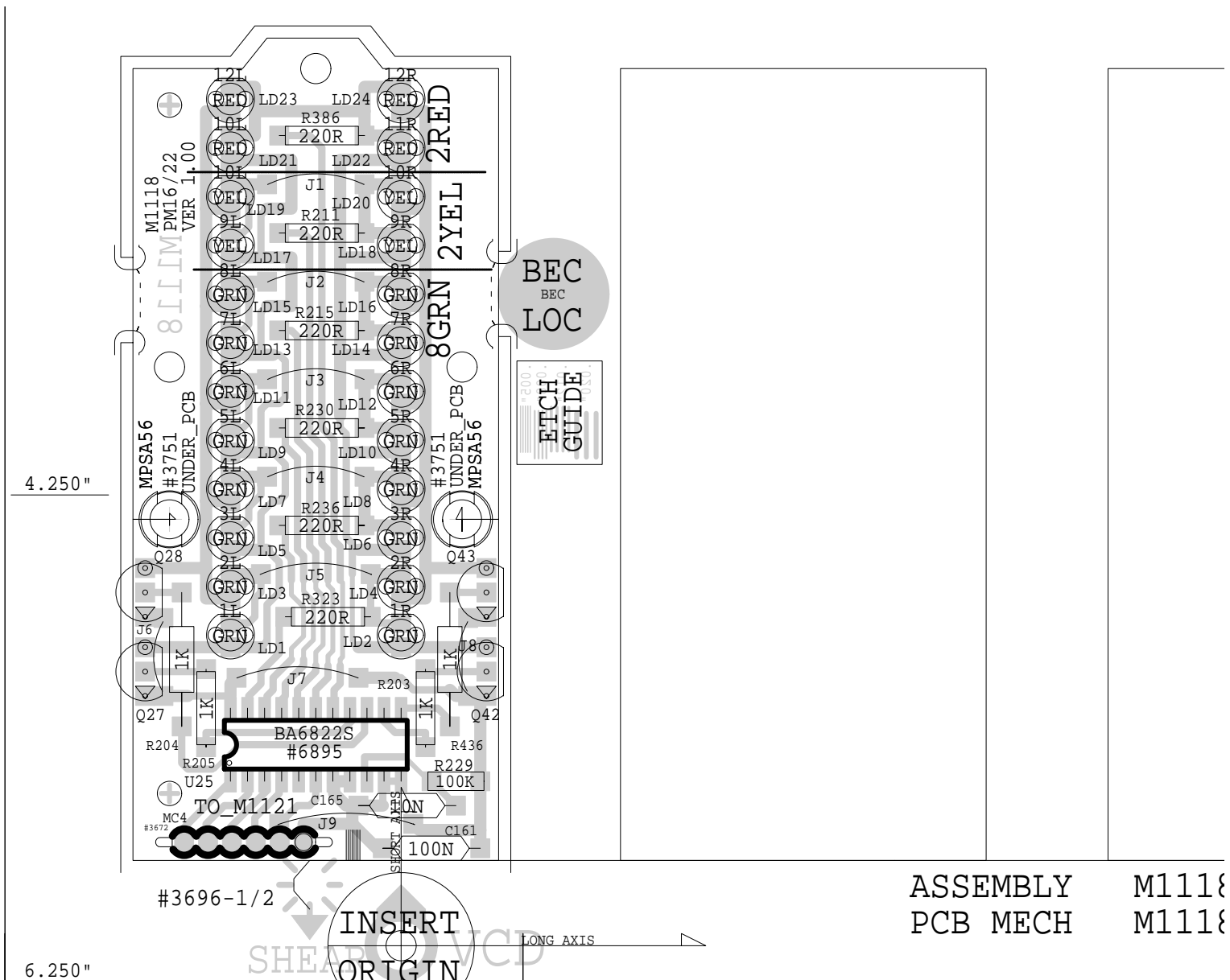


M1117  
PM16/22  
VER-3.00

1.7in 12C



# VU METER



## PRODUCTION NOTES

- 1) USE JIG TO HOLD LED'S BEFORE TRIMMING
- 2) AFTER TEST, INSERT TWO #3751 SPACERS UNDER PCB.
- 3) BEND TRANSISTORS OVER PCB EDGE AFTER FINISHING
- 4)

### M1118.PCB\_DATABASE\_HISTORY

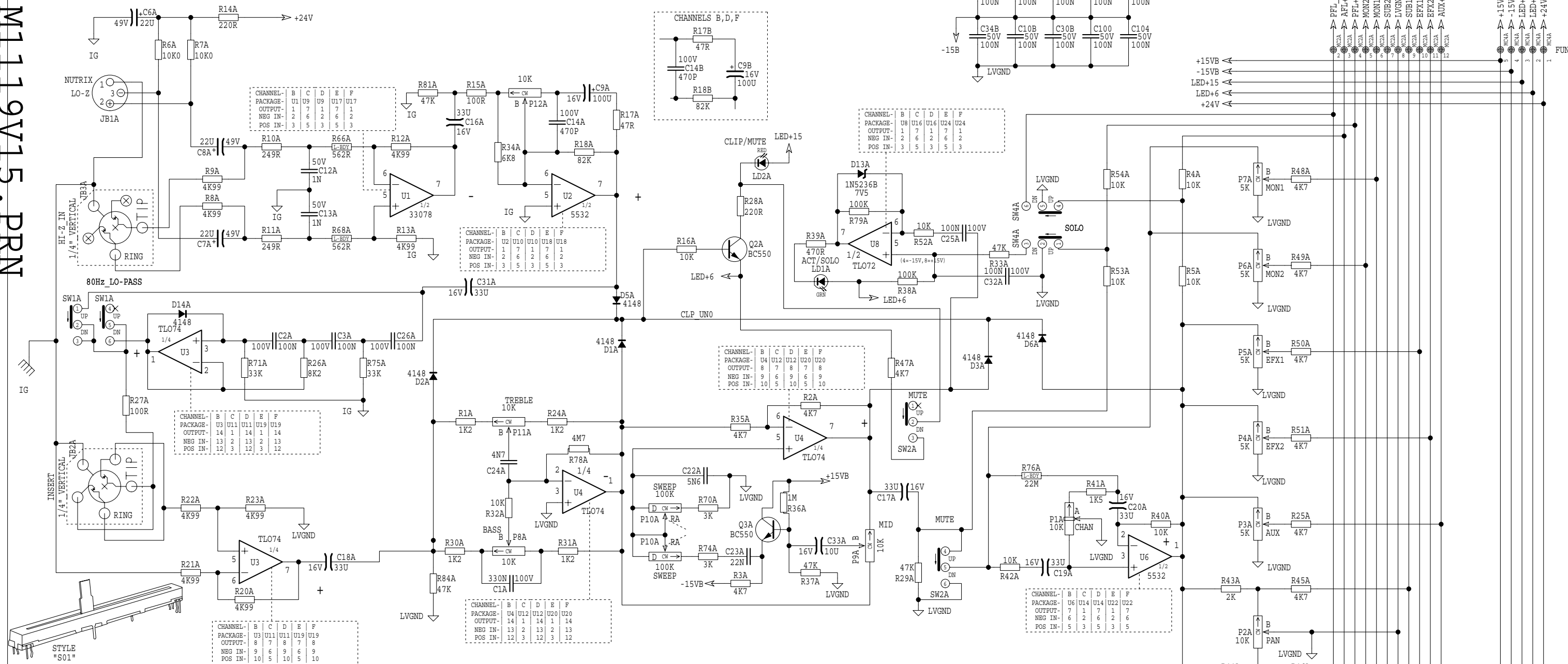
MODEL(S) :- PM16/22

#	DATE	VER#	DESCRIPTION OF CHANGE
1	MAY/21/98	1.0P1	SECOND_PROTOTYPE
2	D	V	N
3	D	V	N
4	D	V	N



U: M1119V15.PRN

# MONO INPUT WITH INSERT

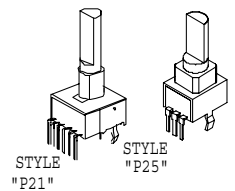
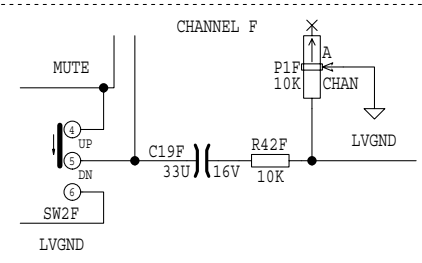


M1119.PCB POT LIST

#	REF	FUNCTION	PART#	KNOB	AS OF
1	P12A	GAIN	#4566	#8392	JAN/2000
2	P11A	TREBLE	#4537	#8393	.
3	P9A	MID	#4537	#8393	.
4	P10A	SWEEP	#4585	#8393	.
5	P8A	BASS	#4537	#8393	.
6	P7A	MON1	#4384	#8394	.
7	P6A	MON2	#4384	#8394	.
8	P3A	AUX	#4384	#8395	.
9	P5A	EFX1	#4384	#8395	.
10	P4A	EFX2	#4384	#8395	.
11	P2A	PAN	#4537	#8392	.
12	P1A	VOLUME	#4489	#8680	.

M1119.SCH DATABASE HISTORY

#	DATE	VER#	DESCRIPTION OF CHANGE
1	APR/15/99	1.20	PC#5899 C2A,C3A,C26A 180N->100N
2	.	.	R71A,R75A 18K->33K R81A,R84A 4K7->
3	.	.	47K R26A 4K7->8K2 R37A 10K->47K
4	NOV/26/01	1.30	PC#6473 C22A 6N8->5N6 R70A_1K2->3K
5	MAY/02/02	1.40	PC#6536 R74A_1K2->3K
6	MAY/23/02	1.50	PC#6473_C23A_47N->22N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N

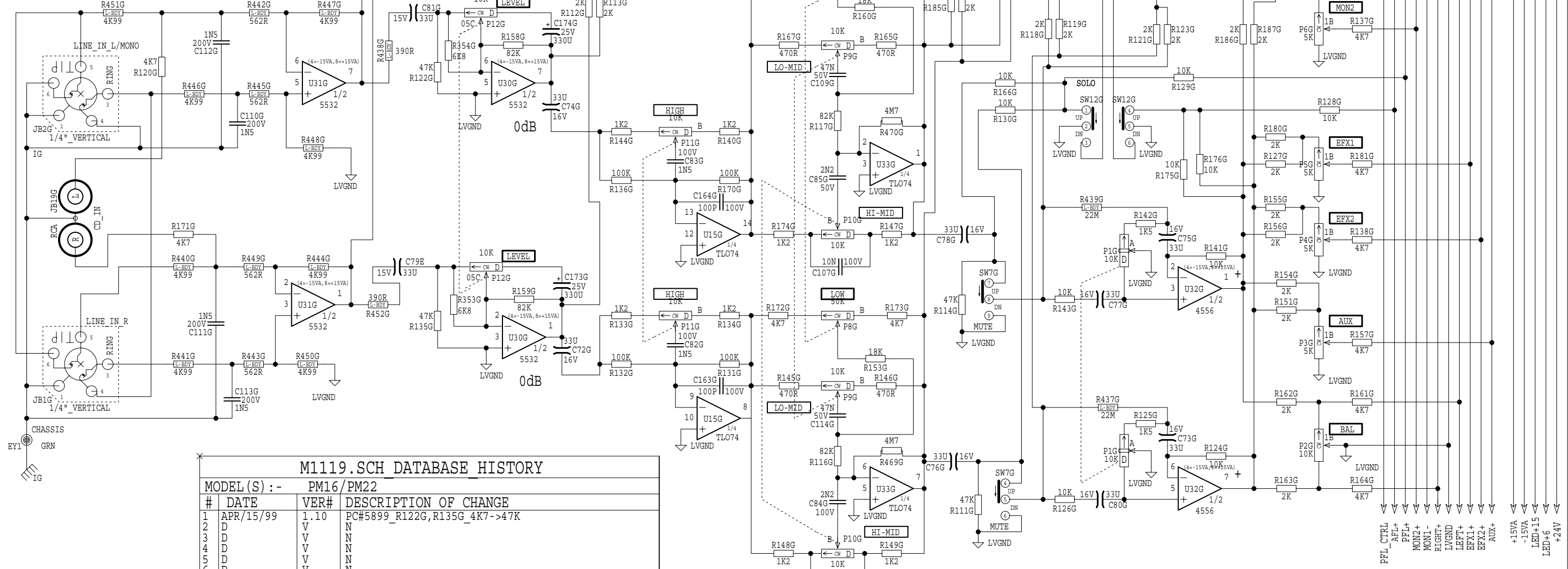
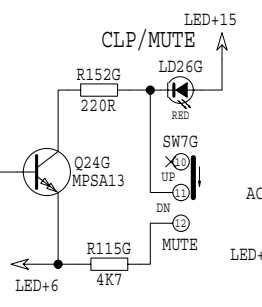
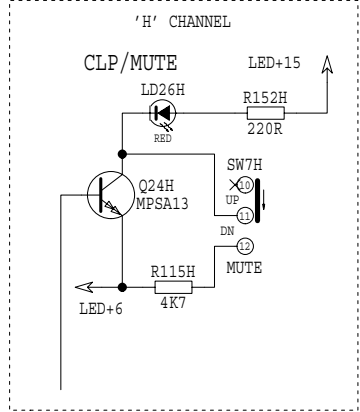
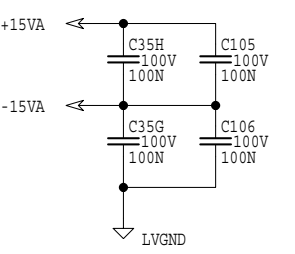
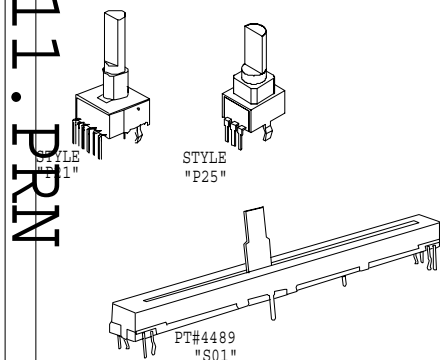


M1119.PCB POT LIST

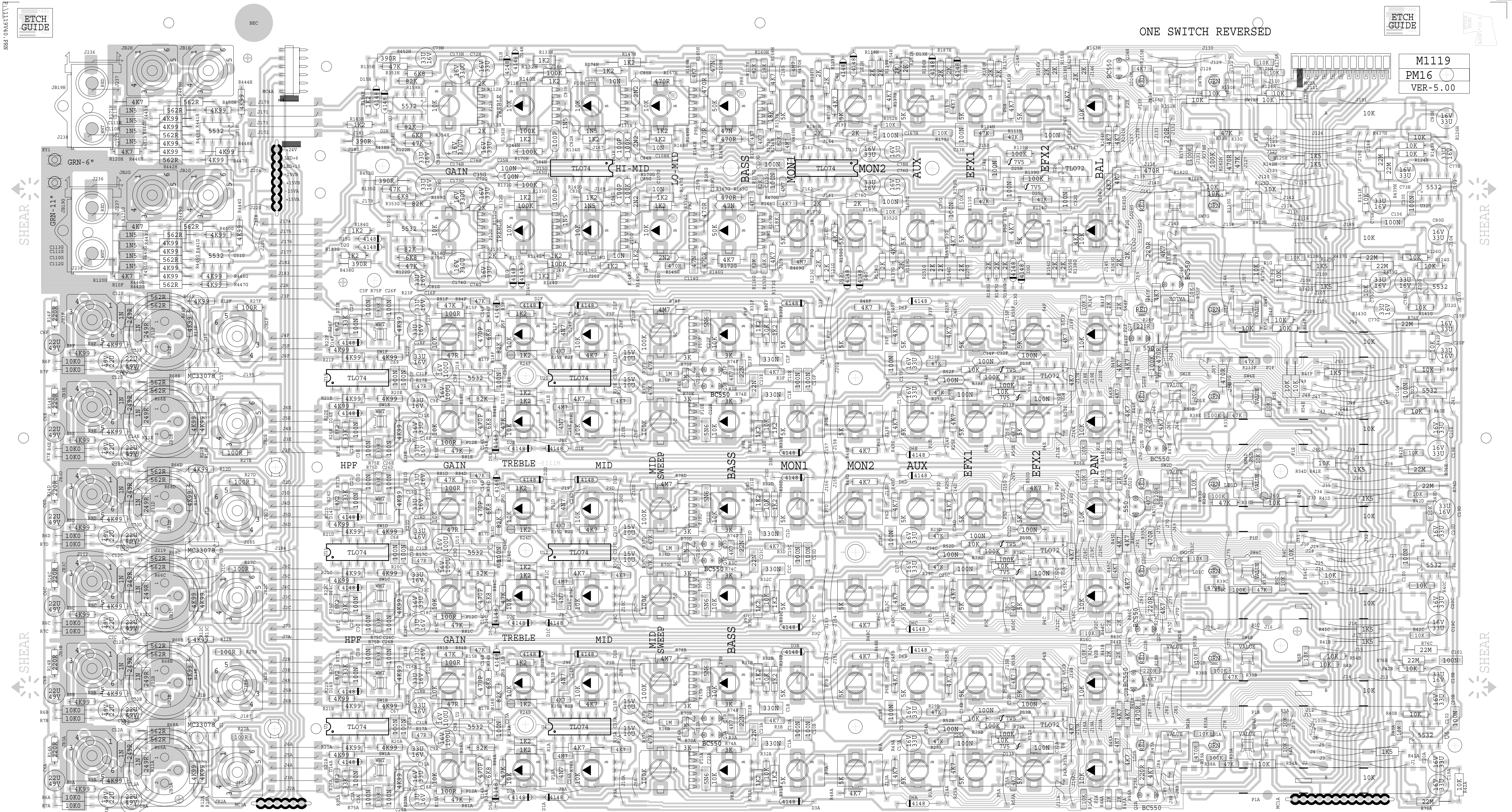
M1119S11.PRN

#	REF	FUNCTION	PART#	KNOB	AS OF
P12G		GAIN P21	#4569	#8392	JAN/2000
P11G		HIGH P21	#4562	#8393	.
P9G		HI-MID P21	#4562	#8393	.
P10G		LO-MID P21	#4562	#8393	.
P8G		LOW P21	#4545	#8393	.
P7G		MON1 P25	#4384	#8394	.
P6G		MON2 P25	#4384	#8394	.
P3G		AUX P25	#4384	#8395	.
P5G		EFX1 P25	#4384	#8395	.
P4G		EFX2 P25	#4384	#8395	.
P2G		BALANCE P25	#4537	#8392	
P1G		VOLUME S01	#4489	#8680	

# STEREO INPUTS



M1119.SCH DATABASE HISTORY				
#	DATE	VER#	DESCRIPTION OF CHANGE	
1	APR/15/99	1.10	PC#5899_R122G,R135G_4K7->47K	
2	D	V	N	
3	D	V	N	
4	D	V	N	
5	D	V	N	
6	D	V	N	
7	D	V	N	
8	D	V	N	
9	D	V	N	
10	D	V	N	



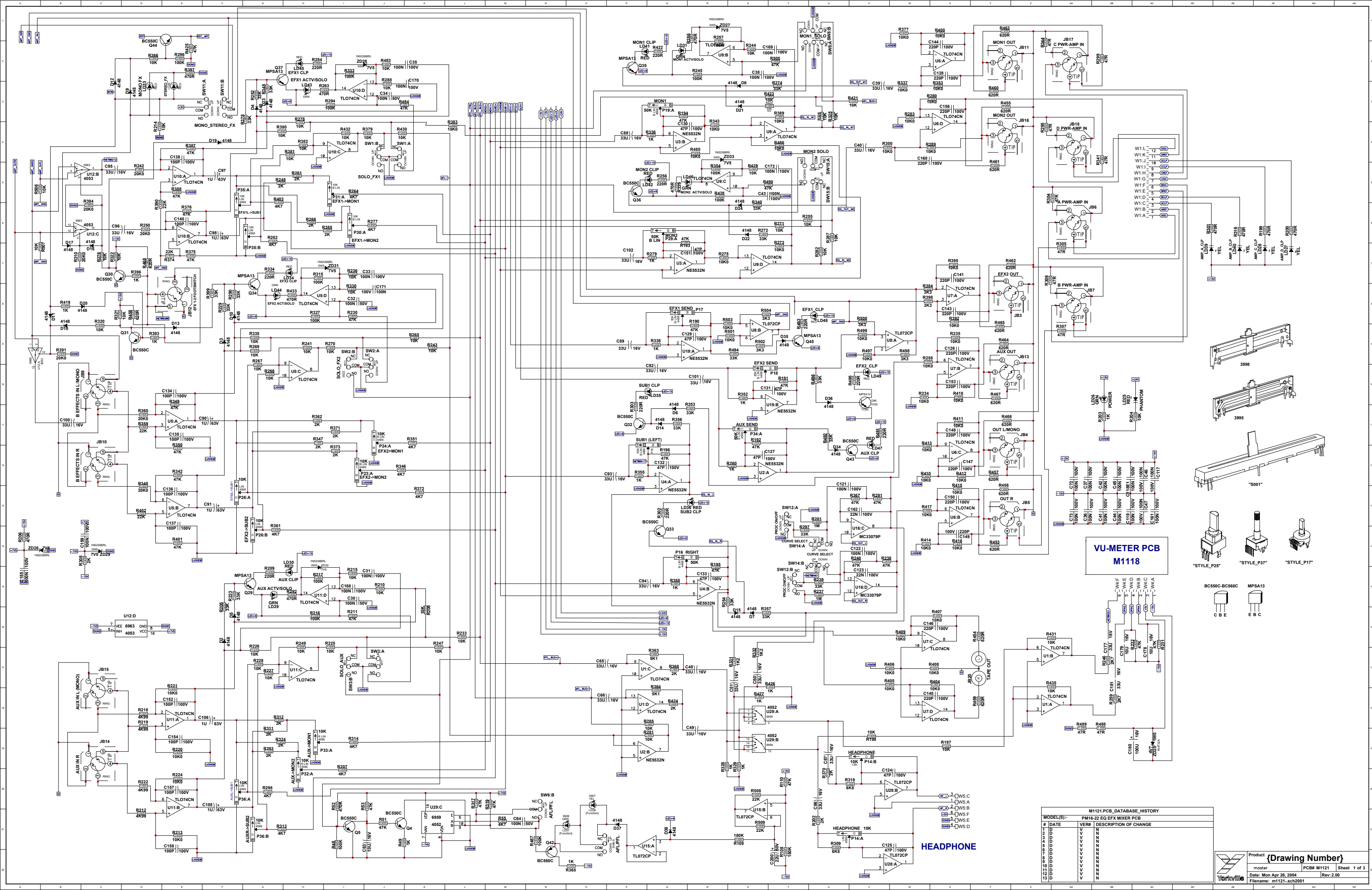
BLANK SIZE=18.125"X10.375" ASSEMBLY M1119-5.00  
 PCB MECH M1119-5.00

SOLDSIDE M1119-5.00

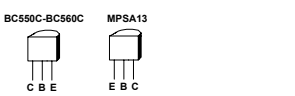
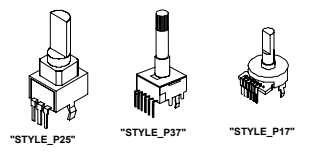
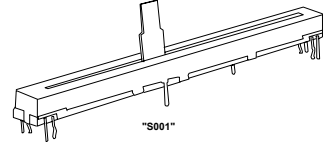
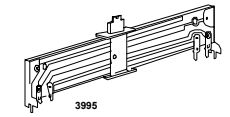
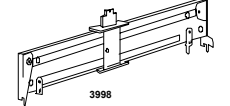
M1119 PCB DATABASE HISTORY			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	06/APR/98	1.00	FIRST PROTOTYPE
2	27/MAY/98	1.0P1	MOVED XLR'S .025" AWAY FROM 1/4"
3	1/JUN/98		SECOND PROTOTYPE
4	18/NOV/98	1.10	CHG C33A-F FROM 220N TO 33U/16V
5	04/DEC/98	1.20	ENLARGED SOME PADS, FILL IN BETWEEN PADS THAT ARE CLOSE
6			
7	17/DEC/98		MOVED R78F AWAY FROM POT (J200 MOVED ALSO)
8			
9	10/FEB/99	2.00	ROTATE LEDS FOR AUTO INSERT
10			MOVED PARTS TO ELIMINATE SHORTS
11	11/FEB/99		ADDED C67, 87, 9 FOR RF SUPPRESSION
12	2/MAR/99	2.01	FIXED SHORT@LD26H
13	14/APR/99	2.10	PC#5899 R122G, H, R135G, H 4K7->47K
14			ALL A, B, C, D, E, F
15			R71, R75 18K->33K R81, R84 4K7->47K
16			R26 4K7->8K2 R37 10K->47K
17			C2, C3, C26 180N->100N
18	MAY/18/00		PC#6244 RCA-JK HOLE SIZE 070"->059"
19	NOV/26/01	2.20	PC#6473 C22A-F 6N8->5N6 R70A-F 1K2->3K
20			
21	APR/24/02	3.00	UPDATE #3921 JACKS
22	MAY/02/02	3.10	PC#6536 R74A-F 1K2->3K
23	MAY/23/02	3.20	PC#6473 C23A-F 47N->22N

## PRODUCTION NOTES

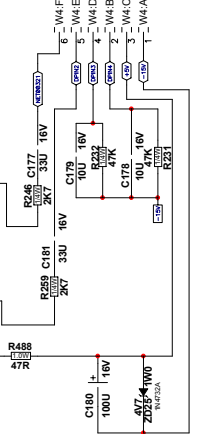
- NOTE THAT THE LAST MUTE SWITCH IS OPPOSITE TO ALL THE OTHERS. (SW7H)



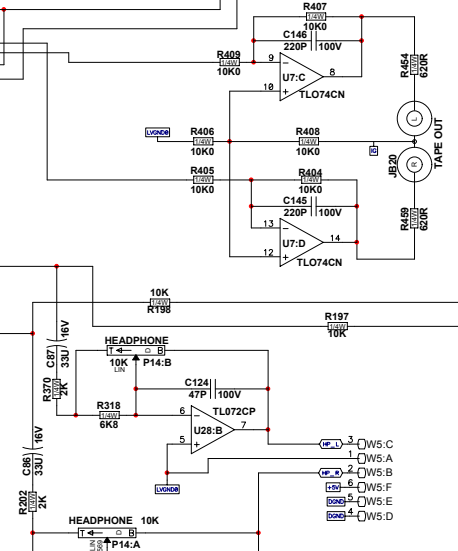
- W1K - 12
- W1K - 11
- W1K - 8
- W1K - 7
- W1K - 6
- W1K - 5
- W1K - 4
- W1K - 3
- W1K - 2
- W1K - 1



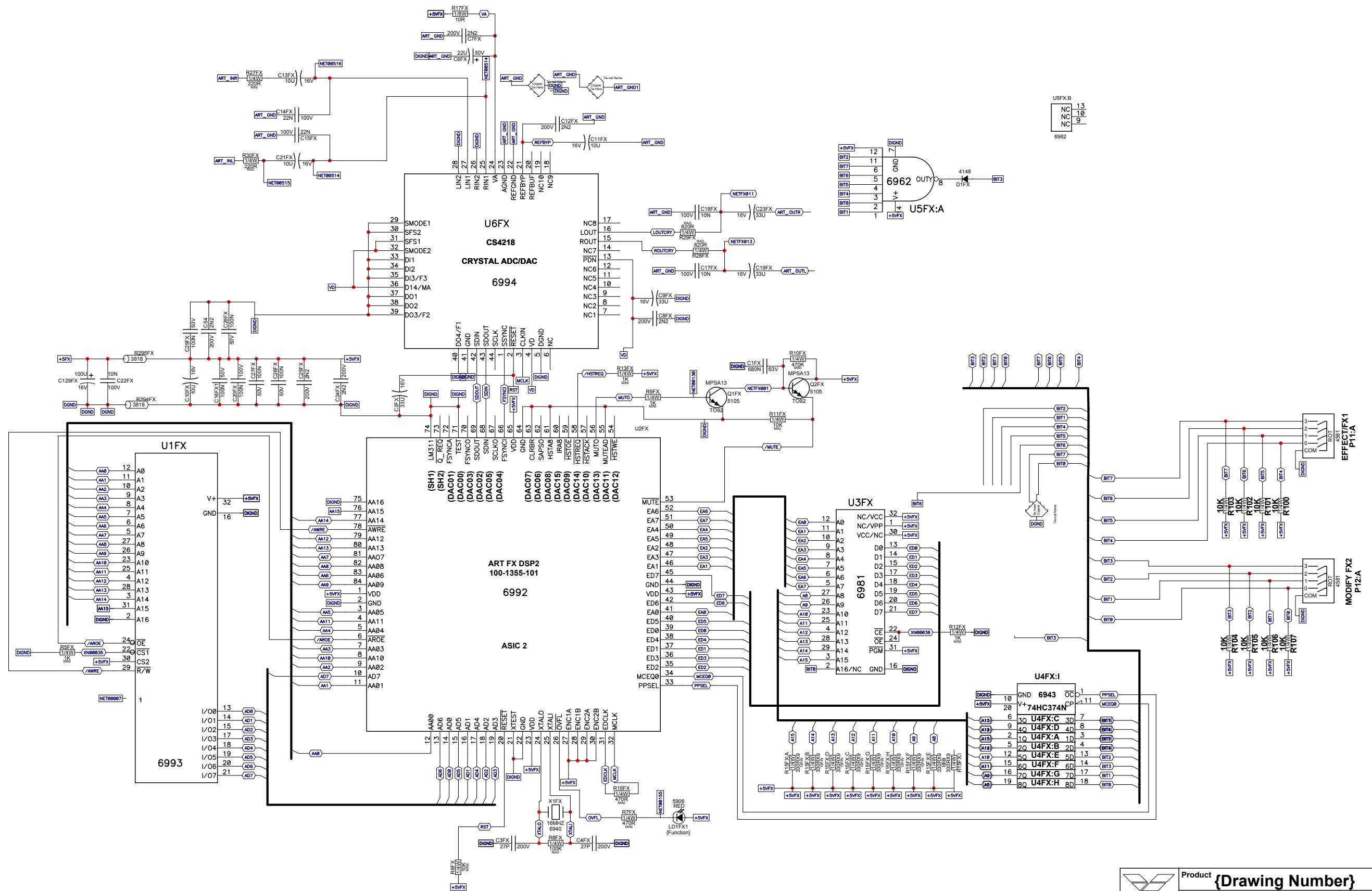
**VU-METER PCB  
M1118**

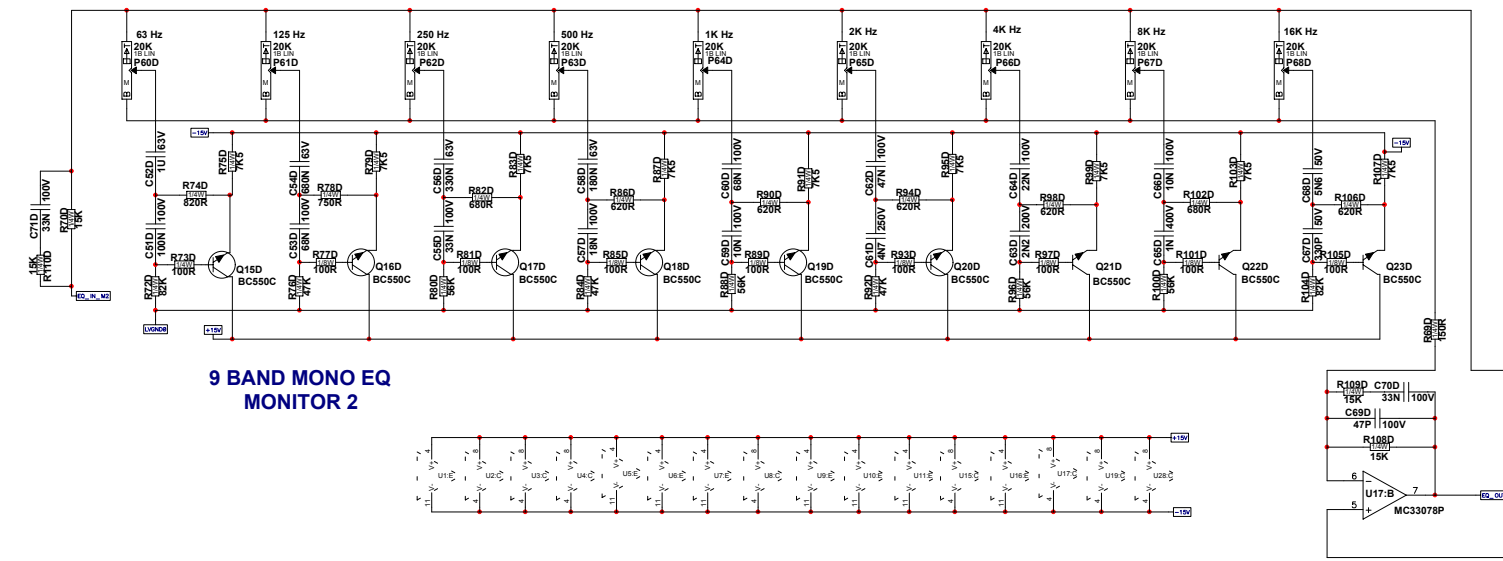
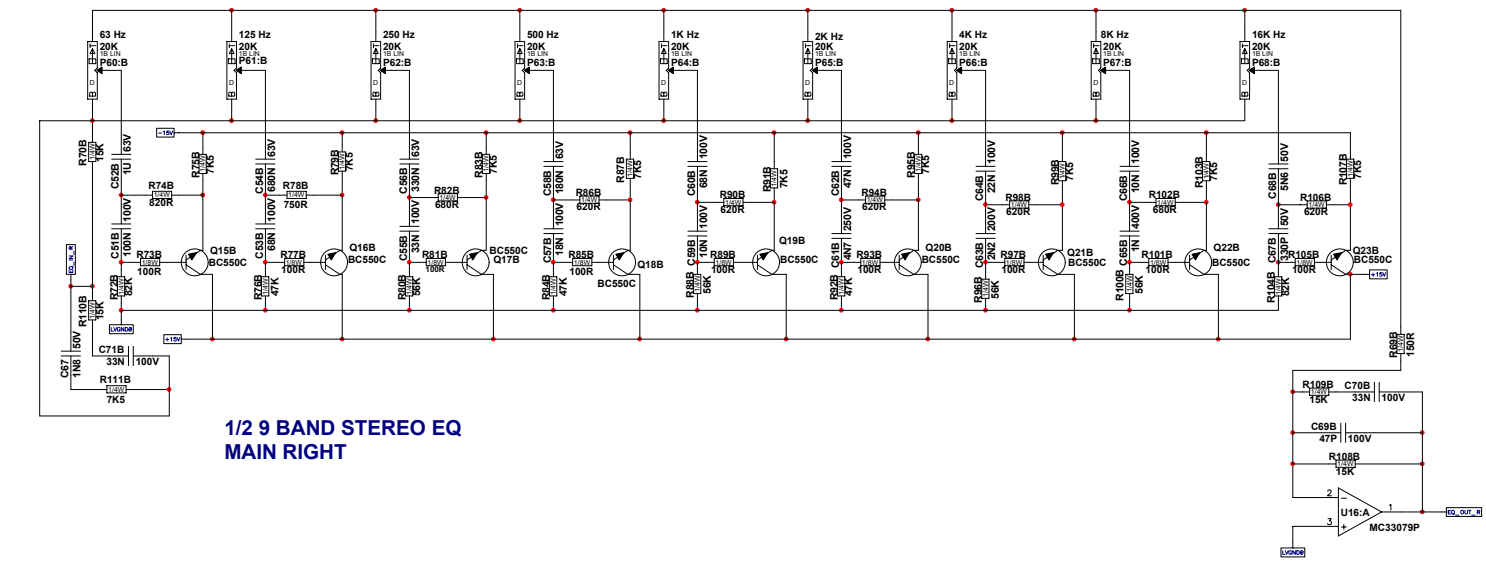
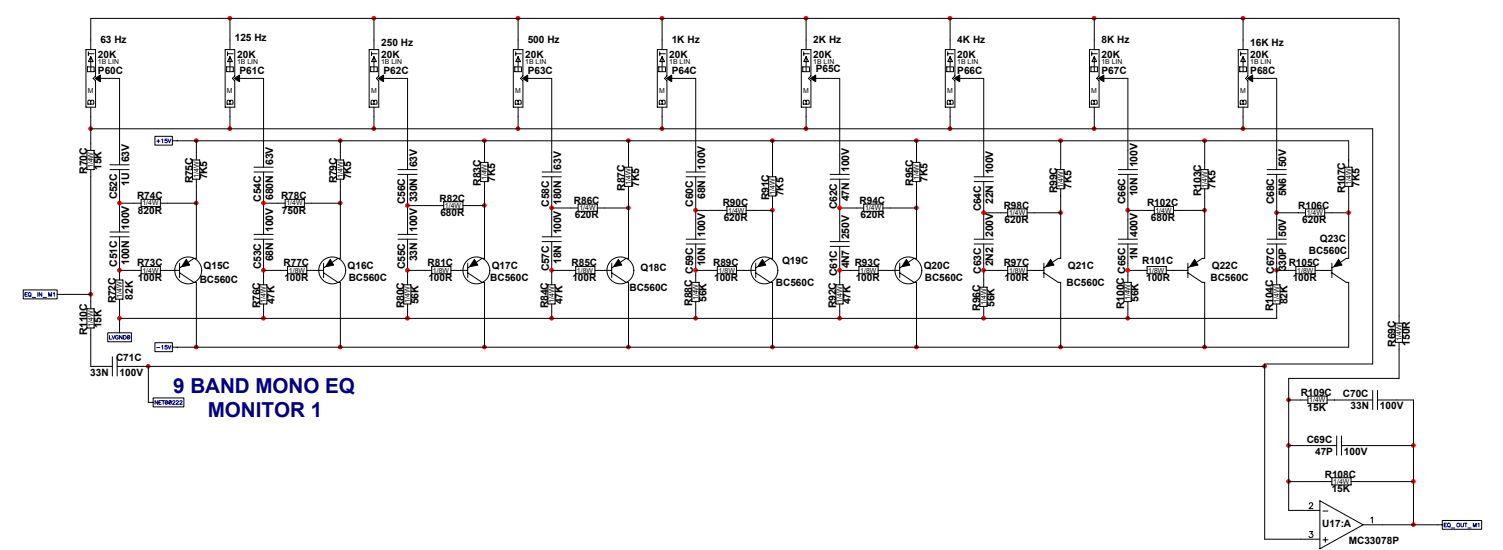
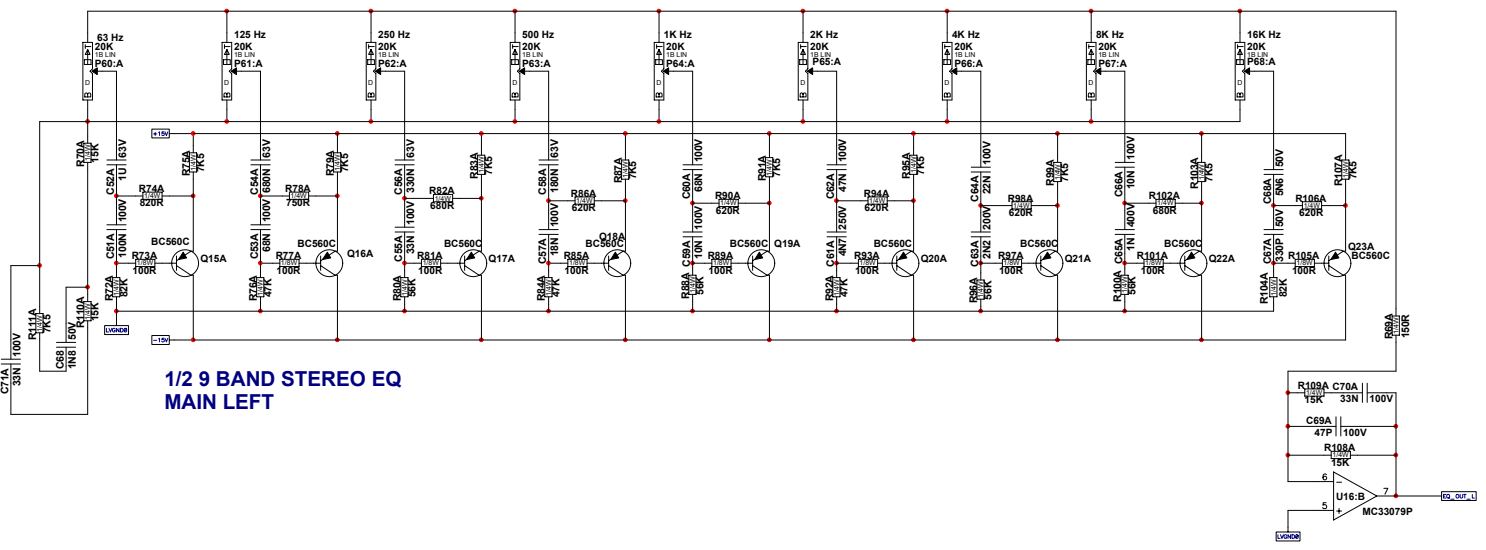


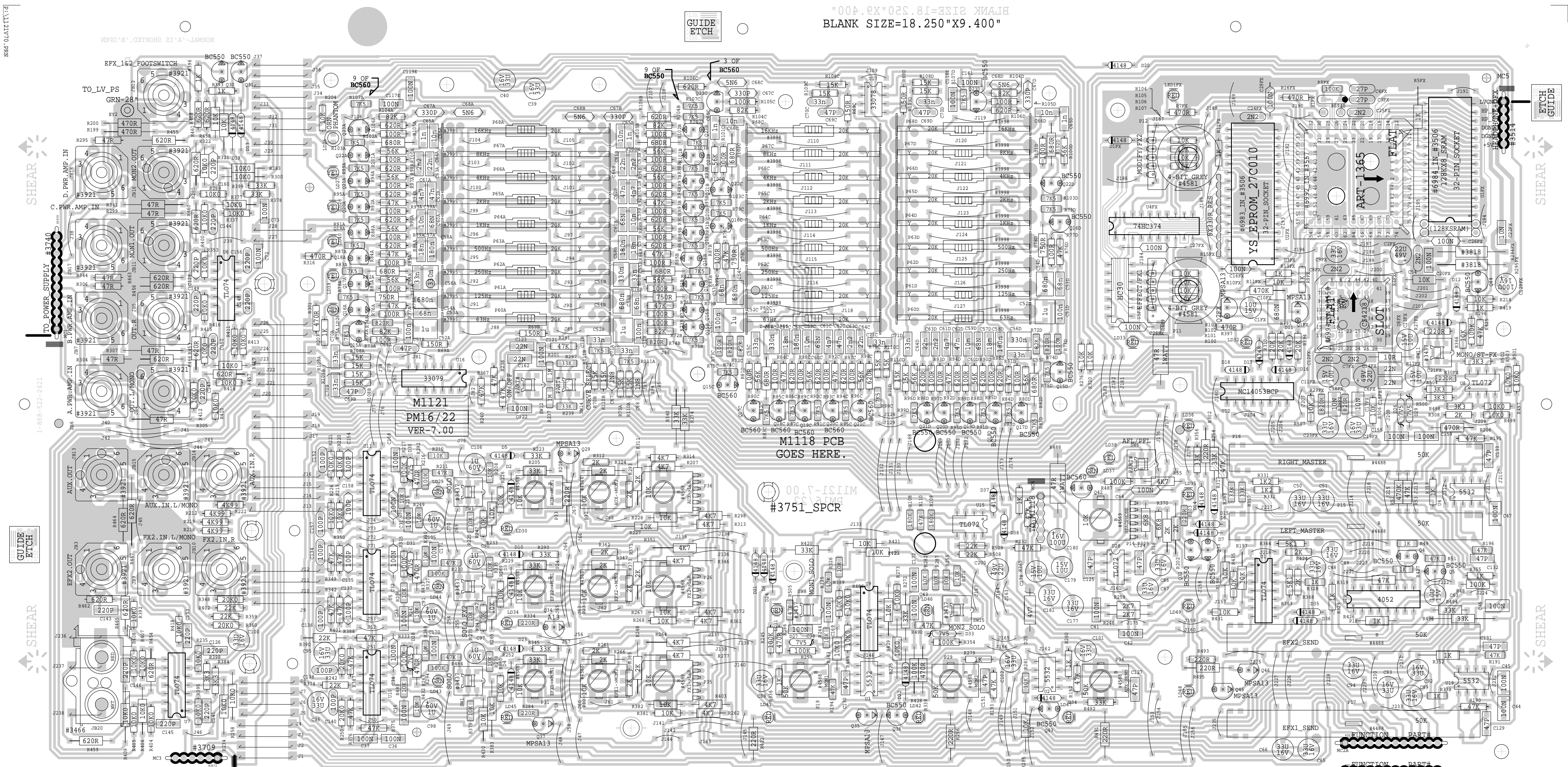
**HEADPHONE**



M1121.PCB_DATABASE_HISTORY			
MODEL(S)-	DATE	VER#	DESCRIPTION OF CHANGE
PM16-22 EQ EFX MIXER PCB			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			







GUIDE ETCH BLANK SIZE=18.250"X9.400"

SHEAR

SHEAR

SHEAR

SHEAR

M1121.PCB\_DATABASE\_HISTORY

MODEL(S):- PM16/22

#	DATE	VER#	DESCRIPTION OF CHANGE
1	21/MAY/98	1.0P0	FIRST PROTOTYPE
2	21/AUG/98	1.00	FIXED PFLCTRL_POP, ADDED_SOLO_FLASH
3	.	.	MOVED_XTAL&J194, FIXED_SHORTS
4	.	.	CHANGED_FX-RET_GAIN
5	OCT/09/98	1.01	\$FFFP_PULLDOWN_DIODE_TO_BIT3
6	16/NOV/98	2.00	FLIPPED_PROCESSOR_SWITCHES
7	03/FEB/99	.	ROTATED_LEDS_TO_ALLOW_AUTO_INS
8	.	.	MOVED_SOME_JUMPERS_TO_STOP_SHORTS
9	15/FEB/99	.	R304-7, R341, R344, R295, R299
10	.	.	4K99->47R
11	23/FEB/99	.	R424, R368 1K2->2K
12	1/MAR/99	2.01	FIXED_SHORT@LD30
13	OCT/22/99	2.10	PC#6144 R204 1K->10K
14	OCT/16/00	2.20	PC#6292 R16FX 620R->470R_DEL_C5FX
15	DEC/05/01	3.00	PC#6487 RELOCATE_C148
16	APR/24/02	4.00	MOVE_TRACES_TO_ELIMINATE_SHORTS
17	OCT/04/02	5.00	MOVE_C66B_TO_ELIMINATE_SHORT
18	NOV/30/04	6.00	PC#6775 MOVE_TRACES_AWAY_FROM_PADS
19	.	.	IN_EQ_SECTION_CAUSING_SHORTS
20	OCT/13/05	7.00	ADD_TARGETS

M----.PCB\_POT\_LIST

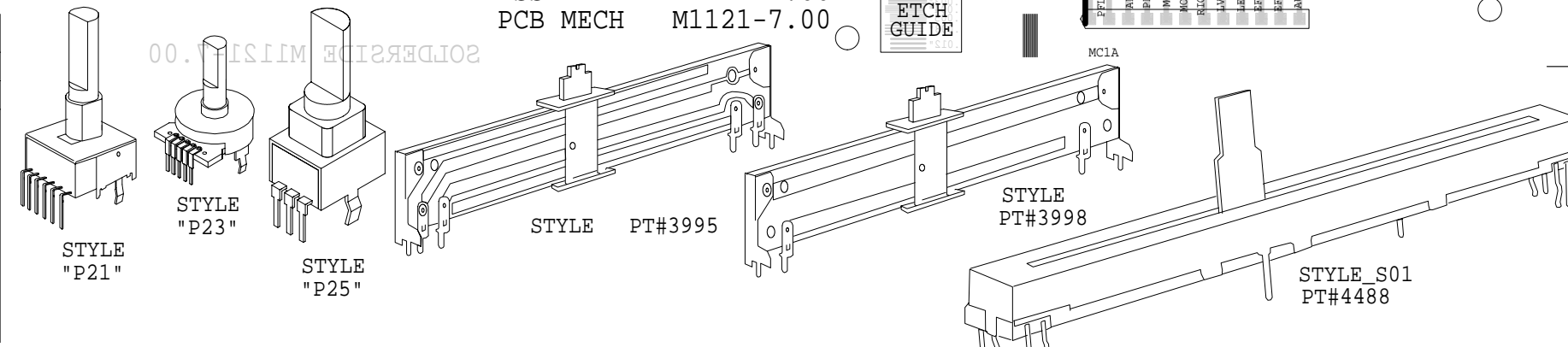
MODEL(S):- PM16/22

REF	FUNCTION	PART#	KNOB	AS OF
P60	68C/D	#3998	NO_KNOB	JAN/2000
P60	68A	#3995	NO_KNOB	.
P31	EFX1-MON1	#4566	#8394	.
P30	EFX1-MON2	#4566	#8394	.
P35	EFX1-L-R	#4569	#8392	.
P24	EFX2-MON1	#4566	#8394	.
P23	EFX2-MON2	#4566	#8394	.
P26	EFX2-L-R	#4569	#8392	.
P33	AUX-MON1	#4566	#8394	.
P32	AUX-MON2	#4566	#8394	.
P36	AUX-L-R	#4569	#8392	.
P19	MON1	#4568	#8394	.

M1121.PCB\_POT\_LIST

MODEL(S):- PM-16/22

REF	FUNCTION	PART#	KNOB	AS OF
P29	MON2	#4568	#8394	JAN/2000
P34	AUX-SEND	#4568	#8395	.
P17	EFX1-SEND	#4488	#8680	.
P18	EFX2-SEND	#4488	#8680	.
P16	LEFT-MASTER	#4488	#8680	.
P15	RIGHT-MASTER	#4488	#8680	.
P11	SELECT	#4581	#8397	.
P12	MODIFY	#4581	#8397	.
P14	HEADPHONE	#4569	#8392	.
R	F	K	K	.
R	F	K	K	.
R	F	K	K	.
R	F	K	K	.



ASSEMBLY M1121-7.00 PCB MECH M1121-7.00

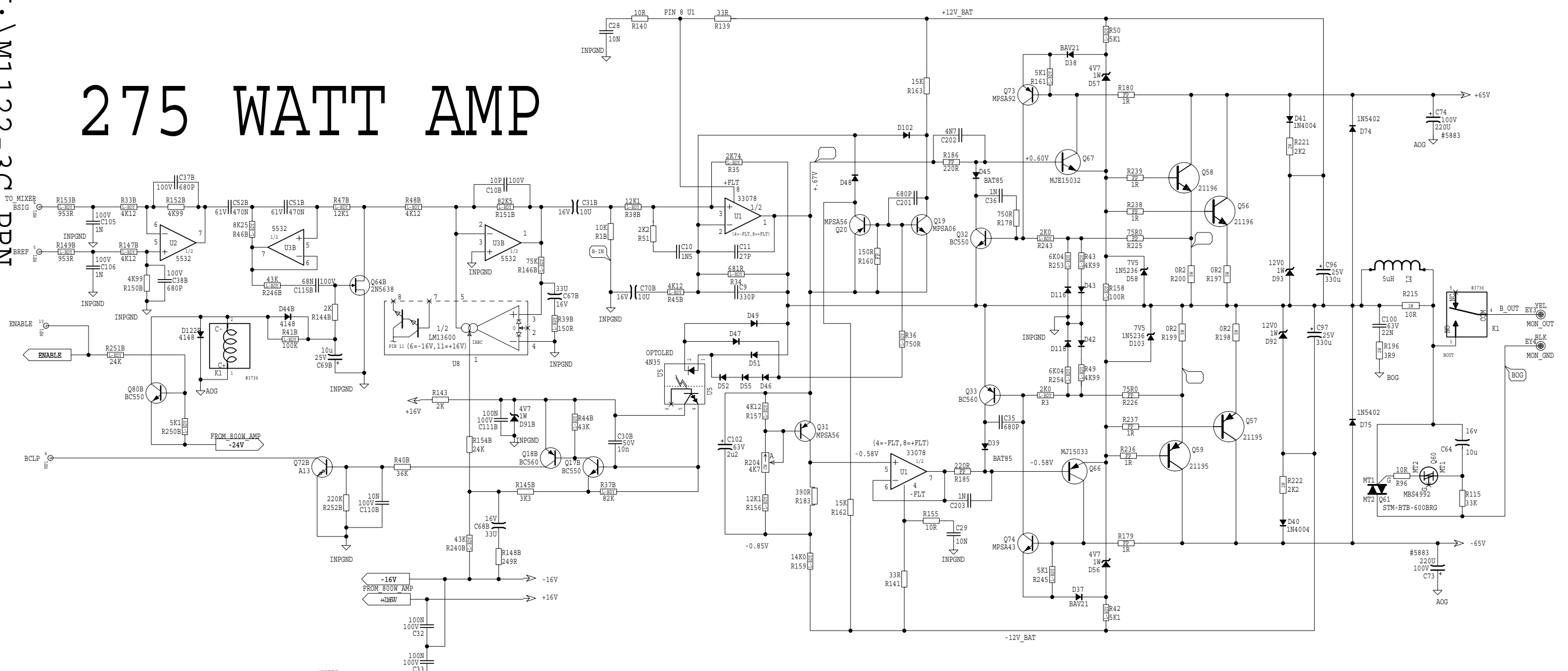
ETCH GUIDE



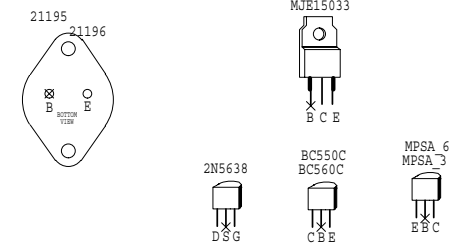
ETCH GUIDE

# 275 WATT AMP

U: M1122-3C.DRN



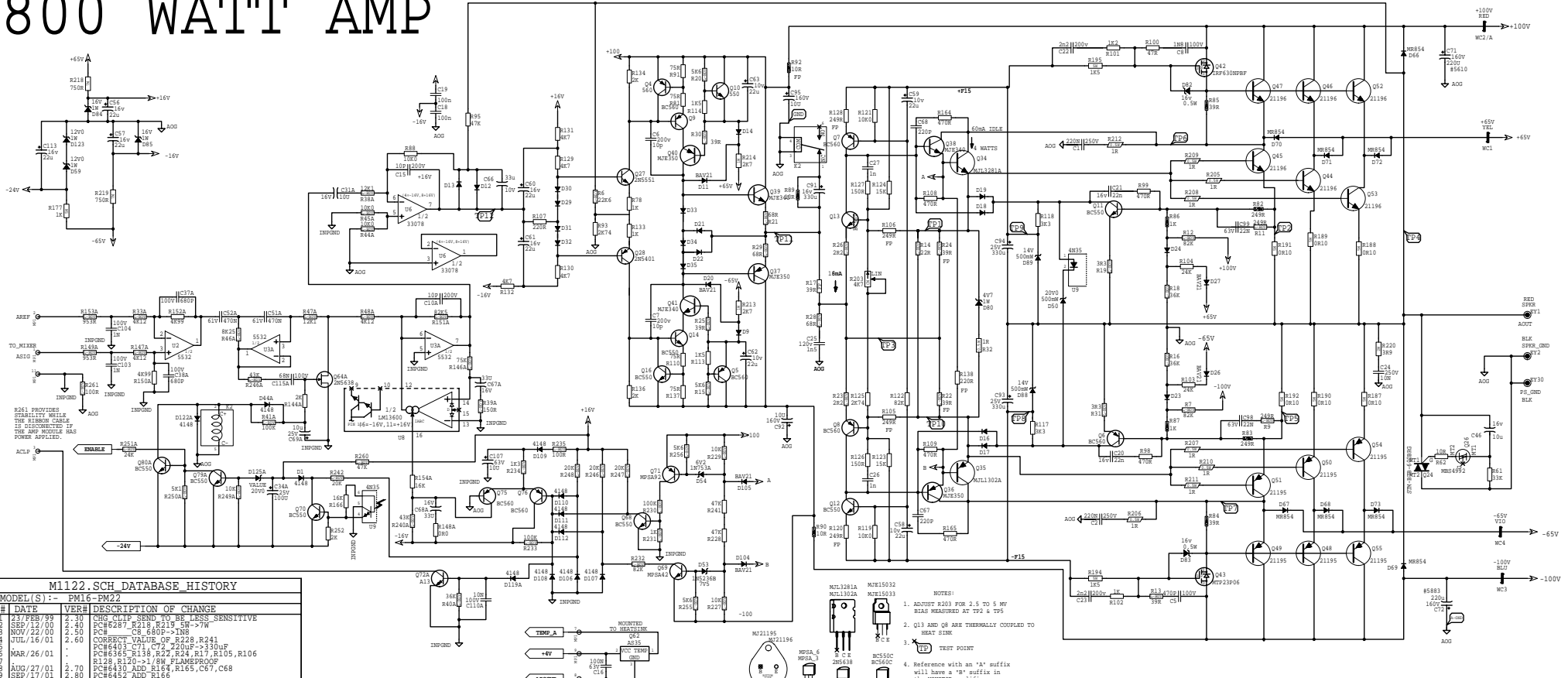
- NOTES:
1. ADJUST R204 FOR 3.5MV +/-0.5 BIAS ACROSS R199 AND R200 COLD.
  2. Q31 IS THERMALLY COUPLED TO HEAT SINK
  3. TEST POINT
  4. Reference with a "B" suffix will have an "A" suffix for the main amplifier.
  5. ALL UNMARKED DIODES IN4148



M1122-3C.SCH DATABASE HISTORY			
MODEL(S) :-		PM16/22	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	23/FEB/99	2.10	CHG CLIP SEND TO BE LESS SENSITIVE
2	NOV/27/00	2.20	PC#6308_DEL_C200(100N_PIN6_U5->PIN_
3			
4	DEC/06/01	2.30	PC#6483 ADD R51, C10 AT U1
5	SEP/08/2003	2.40	PC#6621_Q73 MPSA93->MPSA92
6	APR/24/06	2.50	PC#7007 MAC-224-4 TO SIM-BTB-600BRG
7	N	V	N
8	D	V	N
9	D	V	N
10	D	V	N

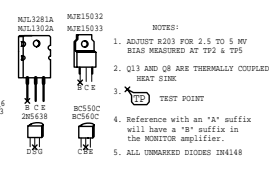


# 800 WATT AMP



**M1122.SCH DATABASE HISTORY**

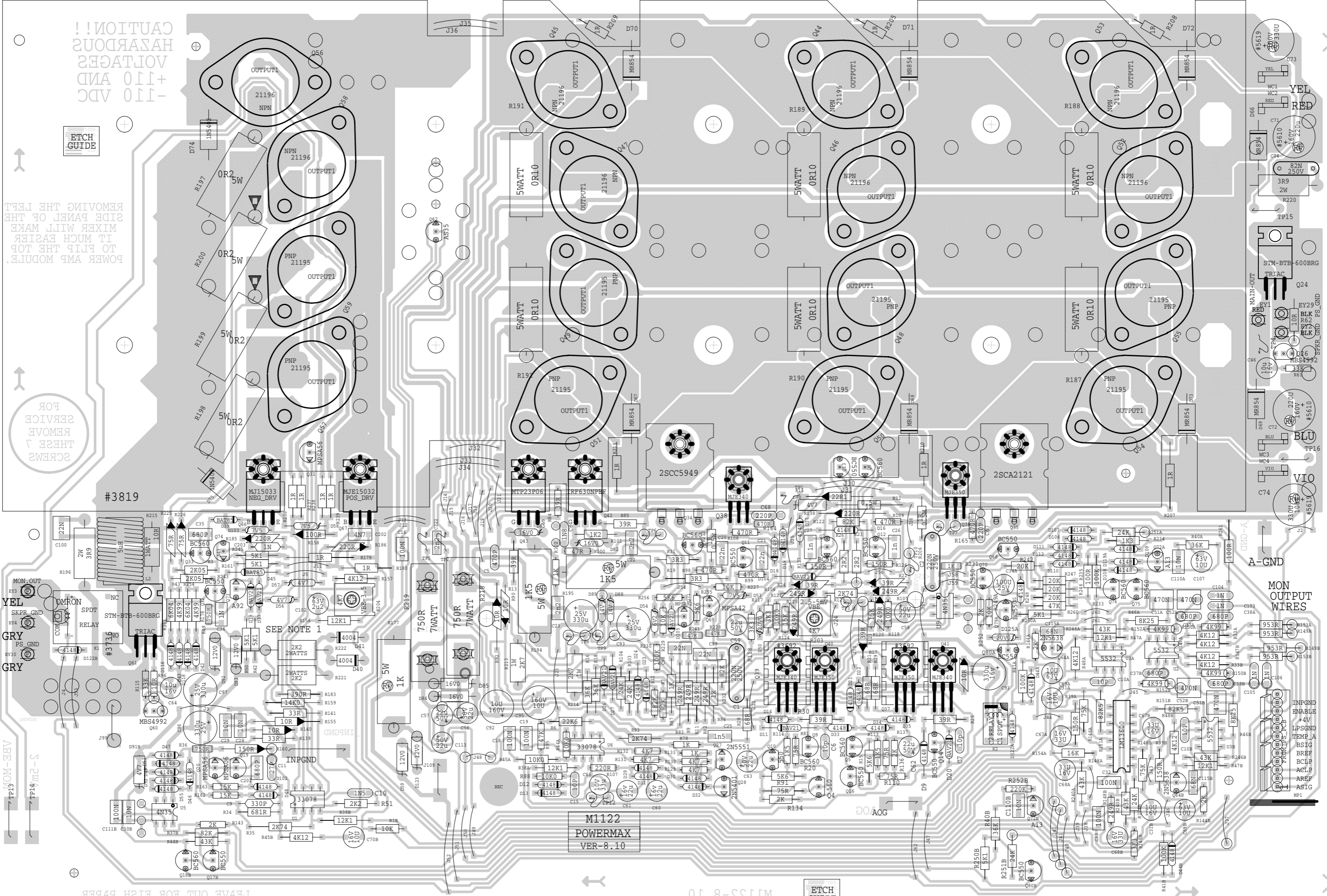
MODEL(S) :-	FW16-PM22		
#	DATE	VER#	DESCRIPTION OF CHANGE
1	23/FEB/99	2.30	CHG C1,P SEND TO BE LESS SENSITIVE
2	SEP/12/00	2.40	PC#6287_R218 R219 5R->7R
3	NOV/22/00	2.50	PC# C8 680P->1NG
4	JUL/16/01	2.60	CORRECT VALUE OF R228 R241
5	MAR/26/01	2.70	PC#6403 C71 C72 220UF->330UF
6	AUG/27/01	3.00	PC#6430 ADD R154 R155 R165,C67,C68
7	SEP/17/01	2.80	PC#6452 ADD R166
8	JAN/27/04	2.90	PC#6648 C71,C72_330u->220u/160V
9	APR/24/06	3.00	PC#700V_MC7247->SPM-FTH-S00BRG
10	MAY/03/06		PC#7083_MF10N15->SFM30N05P



- NOTES:
1. ADJUST R203 FOR 2.5 TO 5 MV BIAS MEASURED AT TP2 & TP5
  2. Q13 AND Q9 ARE THERMALLY COUPLED TO HEAT SINK
  3. TEST POINT
  4. Reference with an "A" suffix will have a "B" suffix in the MOTORIFIER suffix.
  5. ALL UNMARKED DIODES 2N4148



SOZ COBBLE



CAUTION!!  
HAZARDOUS  
VOLTAGES  
+110 AND  
-110 VDC

ETCH GUIDE

REMOVING THE LEFT  
SIDE PANEL OF THE  
MIXER WILL MAKE  
IT MUCH EASIER  
TO FLIP THE TOP  
POWER AMP MODULE.

FOR  
SERVICE  
REMOVE  
THESE 7  
SCREWS

#3819

SEE NOTE 1

M1122  
POWERMAX  
VER-8.10

ASSEMBLY M1122-8.10  
PCB MECH M1122-8.10

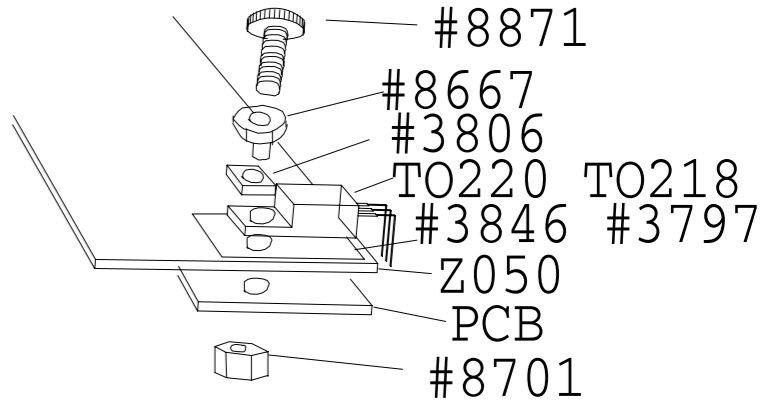
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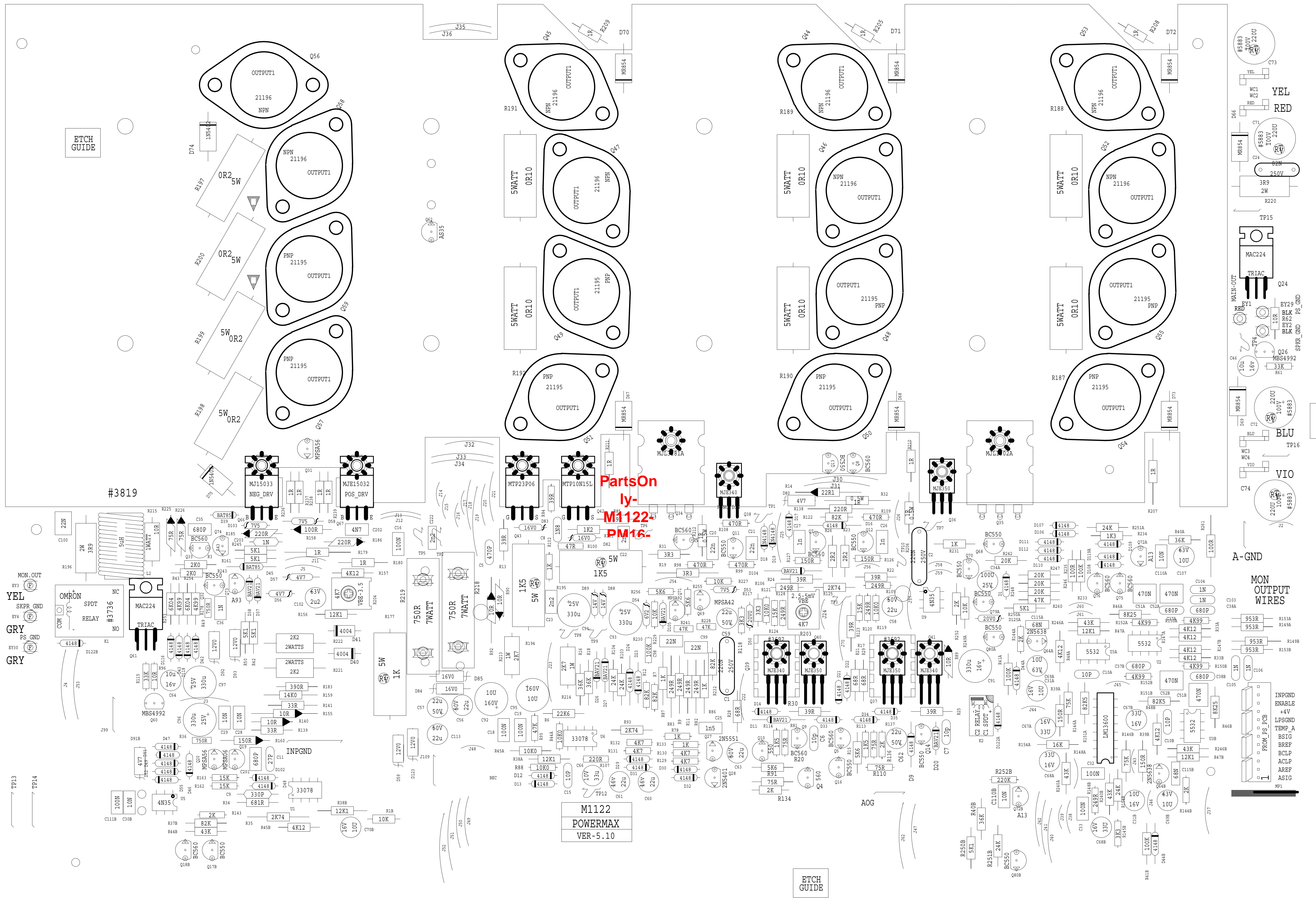
TO220 MOUNTING

M1122.PCB_DATABASE_HISTORY		#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S) :-	MODEL	24	MAR/14/02	7.00	TABS TO STARPADS
1	10/NOV/98	2.00	UN/25/02	7.10	PC#6483 ADD R51 C10 AT U1
2	17/NOV/98	2.10	SEP/08/03	7.20	PC#6226 ADD STAND-OFFS TO R221,R222
3	18/NOV/98	2.20	JAN/27/04	7.30	PC#6621 Q73 MPSA93->MPSA92
4	26/NOV/98	2.20	MAR/31/05	8.00	PC#6648 C71-72 330u/100V->220u/160V
5	30/NOV/98	2.30	APR/24/06	8.10	PC#7004 MAC-224-4 TO STM BTB 600BRG
6	04/DEC/98	2.30			PC#7083 MTP10N15L TO IRF630NPBF
7	13/JAN/99				
8	25/JAN/99				
9	23/FEB/99				
10	MAR/29/99	3.00			
11	SEP/12/00	4.00			
12	OCT/17/00	5.00			
13	NOV/22/00	5.10			
14	NOV/27/00				
15	MAR/26/01	5.20			
16	AUG/27/01	6.00			
17					
18					
19					
20					
21					
22					
23					
24	DEC/06/01	6.10			

PRODUCTION NOTES

- 1) MOUNTING FOR R177,R194,R195
- 2) C8 PT#5425 IS HAND INSERTED
- 3) HAND INSERT R22,R24 AS SHOWN
- 4) C71,C72 MUST BE HAND INSERTED AFTER WAVE SOLDERING





ETCH GUIDE

ETCH GUIDE

PartsOn  
ly-  
M1122-  
PM16-

M1122  
POWERMAX  
VER-5.10

ETCH GUIDE

MON\_OUT  
YEL  
SKPR GND  
GRY  
PS GND  
GRY

A-GND

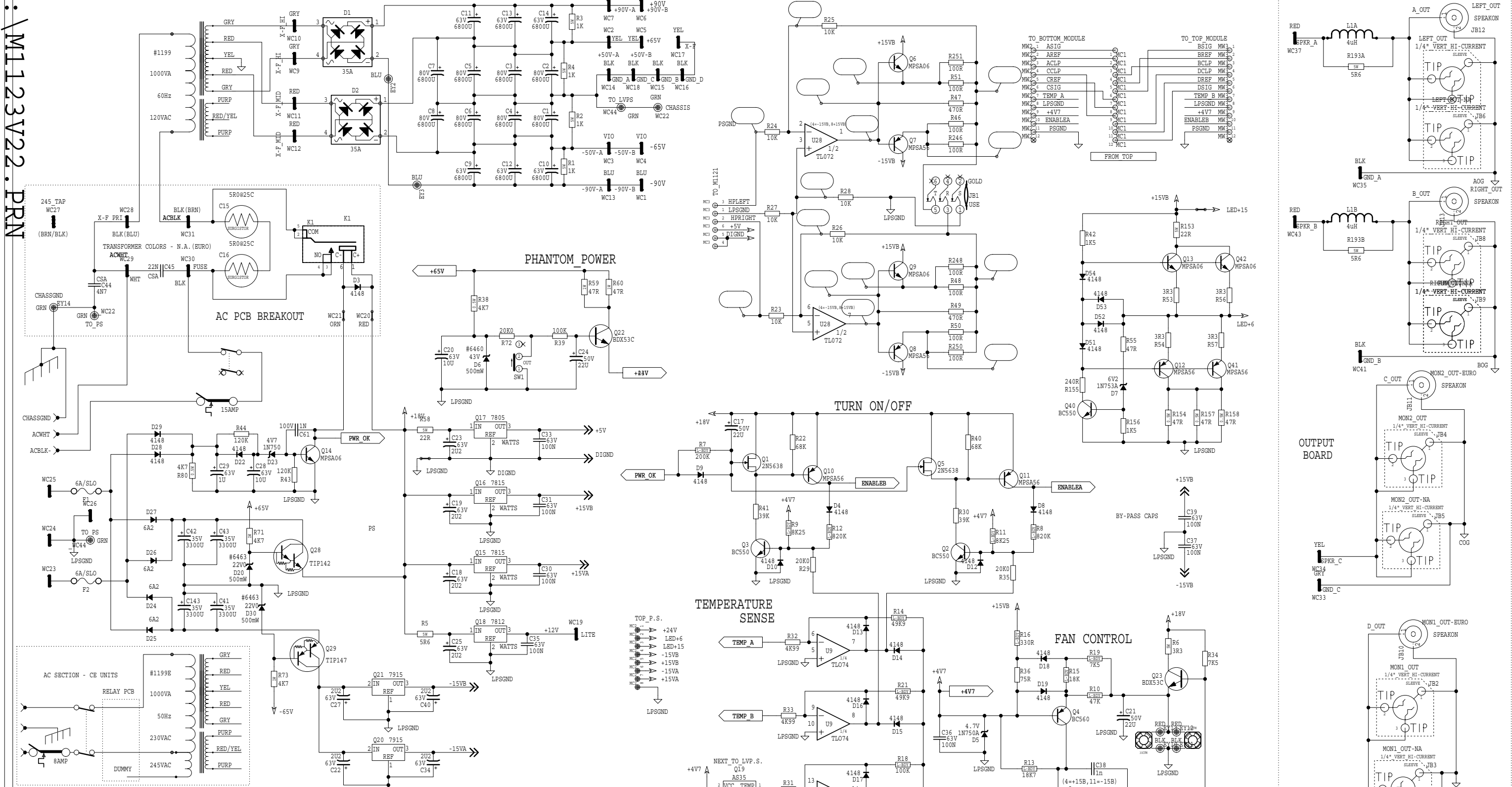
MON  
OUTPUT  
WIRES

INPGND  
ENABLE  
+4V  
LPSGND  
TEMP A  
BSIG  
BREF  
BCLP  
ACLP  
AREF  
ASIG

ASSEMBLY M1122-5.10  
PCB MECH M1122-5.10

BLANK SIZE=17.000"X11.750"

U: M1123V22.PRN



**M1123.SCH DATABASE HISTORY**

#	DATE	VER#	DESCRIPTION OF CHANGE
1	OCT/21/99	2.10	PC#6144 D6_27V->43V R59,R60_470R-47R
2			
3	APR/18/00	2.20	PC#6106 Q28 BDV65B->TIP142 Q29_BDV64B->TIP147
4			
5			
6			
7			
8			
9			
10			

PA11137010.DEN

INSTALL REGULAR EYELET WHERE INDICATED

SEE NOTES FOR JACK LAYOUT

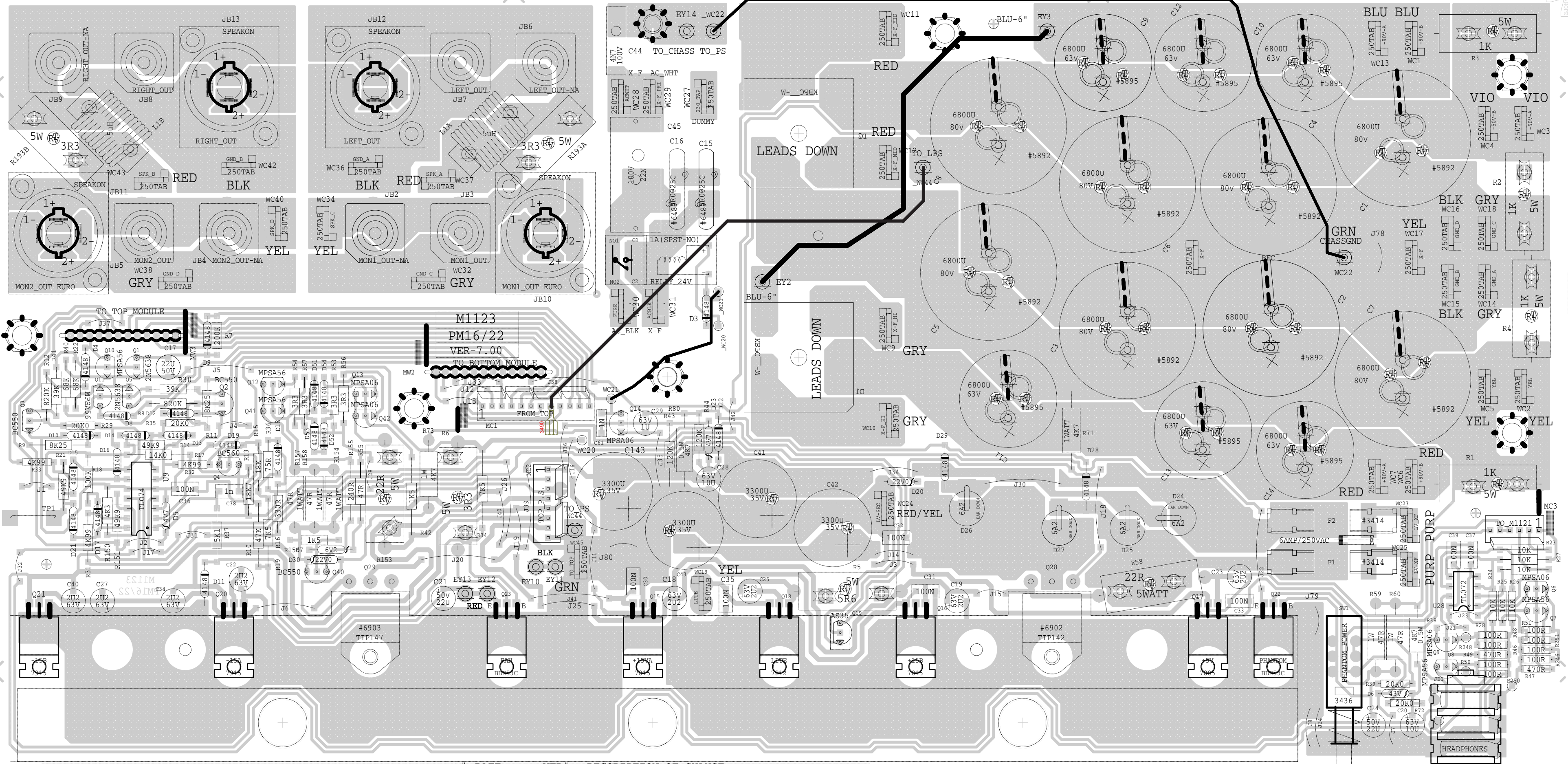
SHEAR

SHEAR

SHEAR

ETCH GUIDE

SHEAR



M1123.PCB_DATABASE_HISTORY			#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S) : PM16/22						
1	22/JUN/98	1.0P0	24	D	V	N
2	JUL/17/98	1.0P1	25	D	V	N
3	.	.	26	D	V	N
4	SEP/04/98	.	27	D	V	N
5	.	.	28	D	V	N
6	.	.	29	D	V	N
7	26/NOV/98	1.10	30	D	V	N
8	04/DEC/98	1.20	31	D	V	N
9	11DEC/98	2.00	32	D	V	N
10	20/JAN/99	.	33	D	V	N
11	.	.	34	D	V	N
12	MAR/23/99	3.00	35	D	V	N
13	.	.	36	D	V	N
14	.	.	37	D	V	N
15	AUG/25/99	4.00	38	D	V	N
16	OCT/21/99	.	39	D	V	N
17	.	.	40	D	V	N
18	APR/07/00	5.00	41	D	V	N
19	APR/18/00	.	42	D	V	N
20	.	.	43	D	V	N
21	NOV/22/00	5.10	44	D	V	N
22	MAR/15/02	6.00	45	D	V	N
23	MAR/31/05	7.00	46	D	V	N
			47	D	V	N
			48	D	V	N
			49	D	V	N
			50	D	V	N

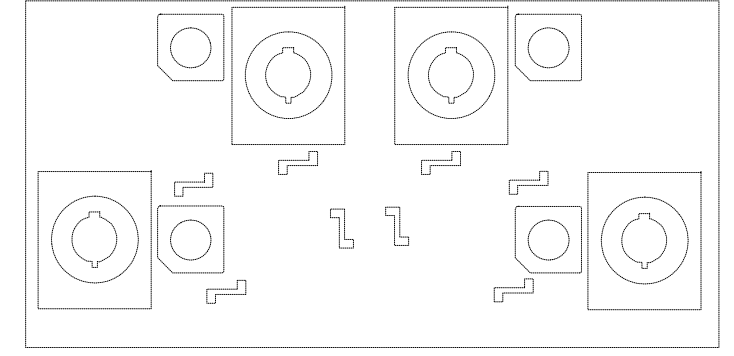
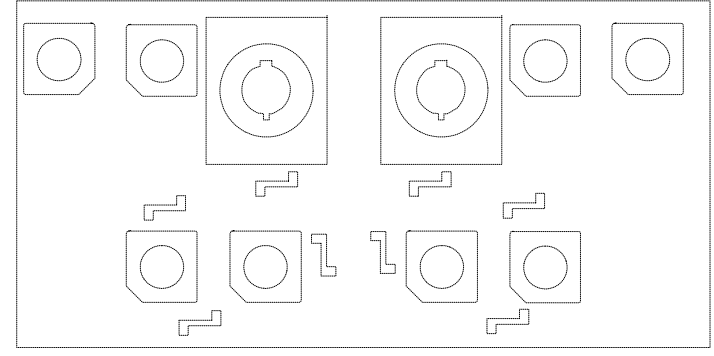
PCB MECH M1123-7.00 "17.000X8.750" BLANK SIZE=17.000"X8.750"  
 ASSEMBLY M1123-7.00 BLANK SIZE=17.000"X8.750"  
 SOLETSIDE M1123-7.00

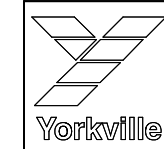
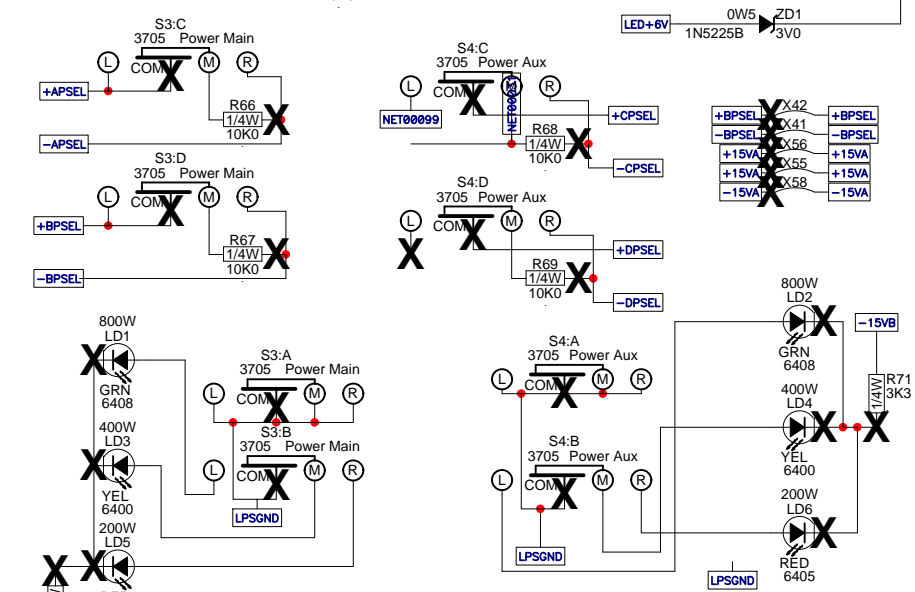
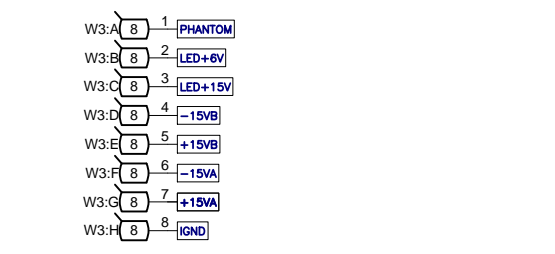
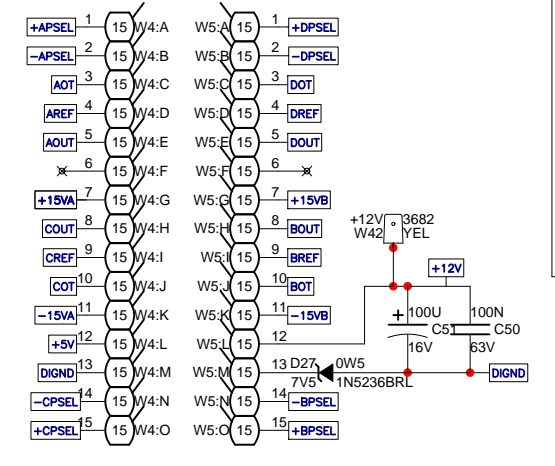
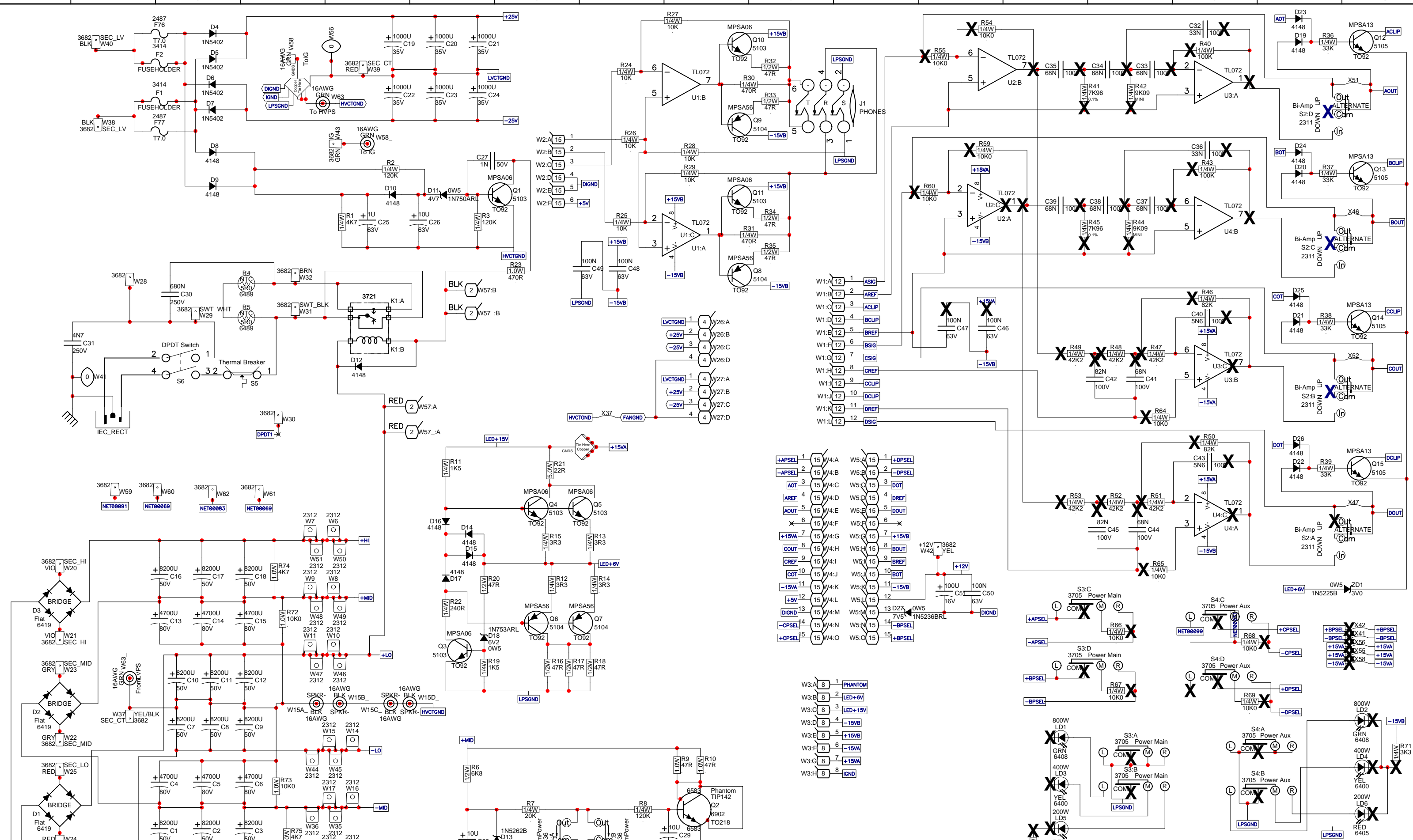
### PRODUCTION NOTES

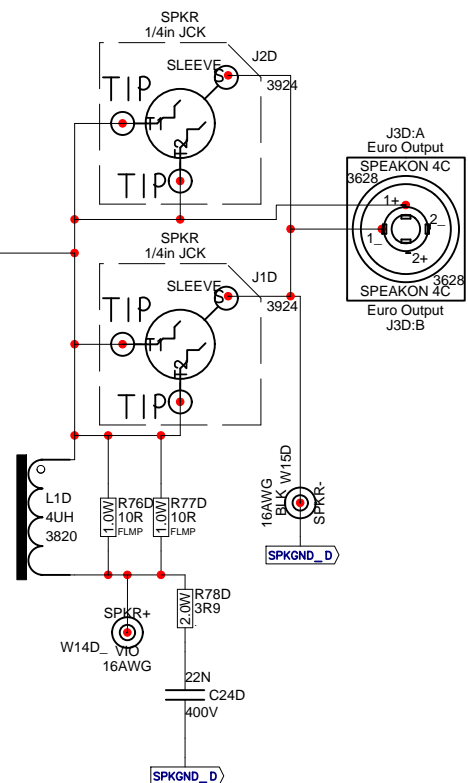
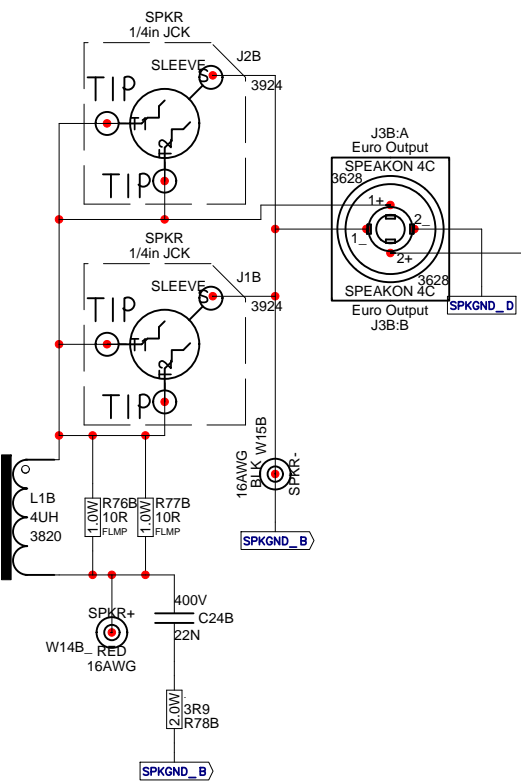
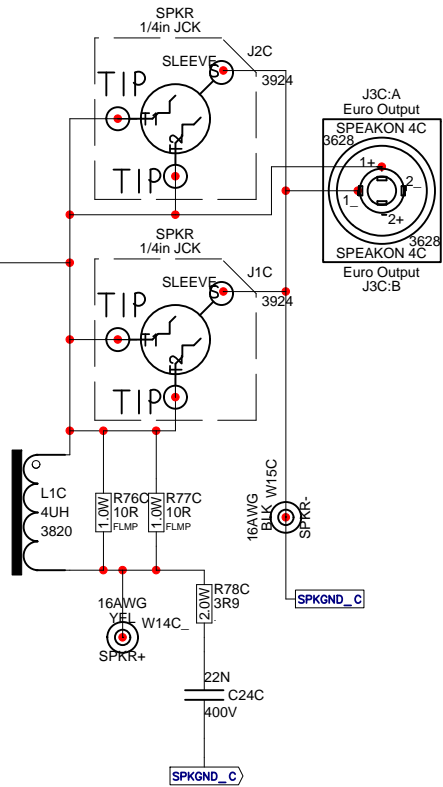
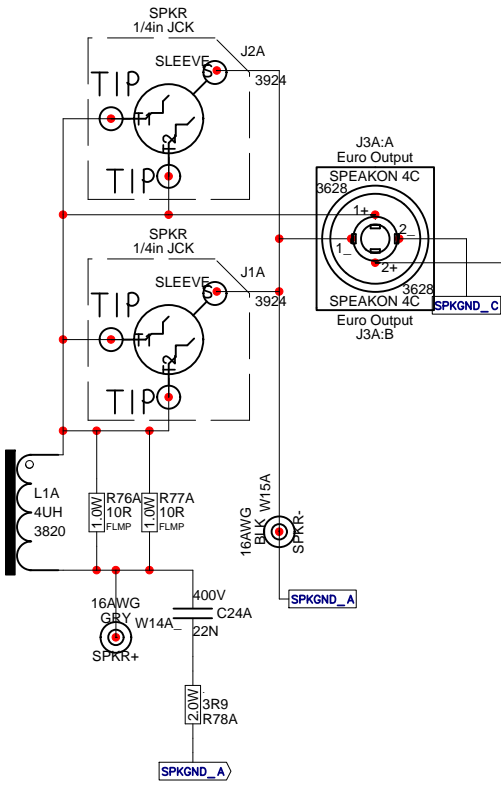
- 1) MOUNT BRIDGES ON THE BOARD WITH GOOP AND 2 #8828 6-32 SCREWS TO Z050 HEATSINK
- 2) BEND THE LEADS OF THE BRIDGES FLAT AGAINST THE BOARD
- 3) MOUNT Z051 REGULATOR HEATSPREADER WITH 2 #8829, 6320 SCREWS
- 4)

#### NORTH AMERICAN JACK LAYOUT

#### EUROPEAN JACK LAYOUT







Product <b>PM16/22</b>		
SignalProcessing	PCB# M1358	Sheet 2 of 2
Date: Fri Nov 20, 2009	Rev:1.00	YsType:YsType
Filename: M1386v100sch.sch2002		

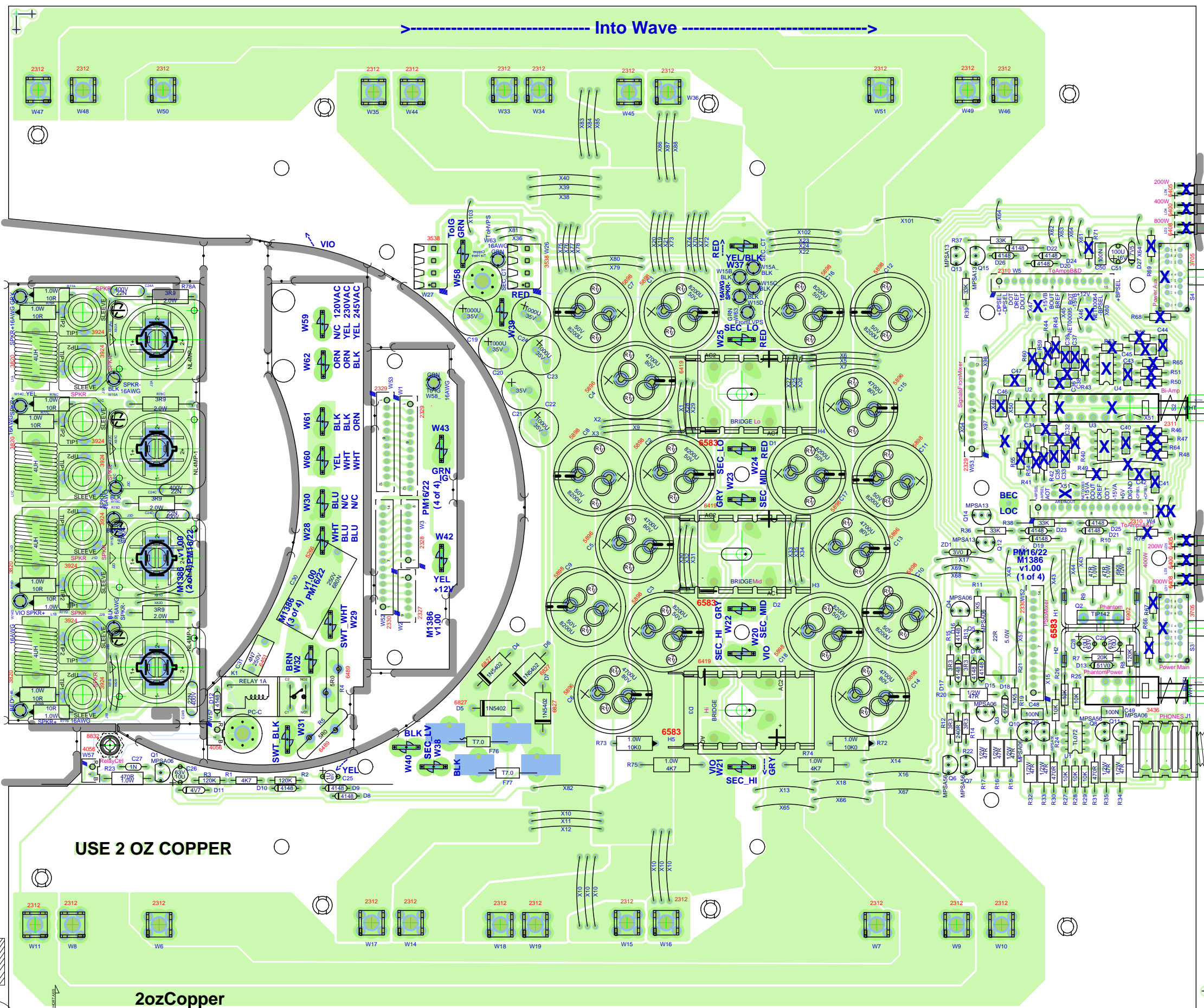
Into Wave

Keep on for wave soldering.

Keep on for wave soldering.

Keep on for wave soldering.

Keep on for wave soldering.



Remove before wave soldering.

BlankSize - 16225x13850

Remove before wave soldering.

SEE LAYOUT DOCUMENTATION

BlankSize - 16225x13850 2ozCopper





SEE LAYOUT DIAGRAM



M1386.PCB_DATABASE_HISTORY			
MODEL(S):- PM12-2, PM22-2			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	2008/12/10	1.00p1	First proto.
2	2009/05/12	1.00p2	2nd proto.
3	2009/07/28	1.00p3	Chg W58 from eyelet to tab. Disconnected S4, pin9.
4	2009/11/23	V1	First Production Run
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

M1386 PENDING CHANGES		
MODEL(S):- PM12-2, PM22-2		
#	PC#	PENDING CHANGE
1	PC	X
2	PC	X
3	PC	X
4	PC	X
5	PC	X
6	PC	X

\*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY

# PRODUCTION NOTES

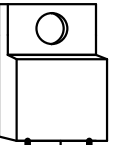
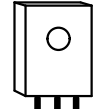


1. Mount the three heatsinks on the bridges after all the large caps are in place.

IRF720  
 MTP23P06  
 IRF830  
 IRF822  
 IRF5210  
 IRL2910  
 MTP2P50E  
 MTP8P20  
 MTP10N15  
 MTP12P10  
 IRF720

BD139  
 BD238  
 BD140  
 BD237  
 MJE271  
 MJE270  
 MJE340  
 MJE350

2N5401  
 2N5551  
 MPSA06  
 MPSA13  
 MPSA43  
 MPSA56  
 MPSA63

BC550C  
 BC560C

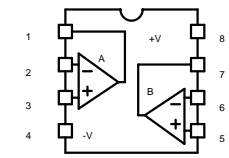
**G D S**  
 TO-220

**E C B**  
 TO-126

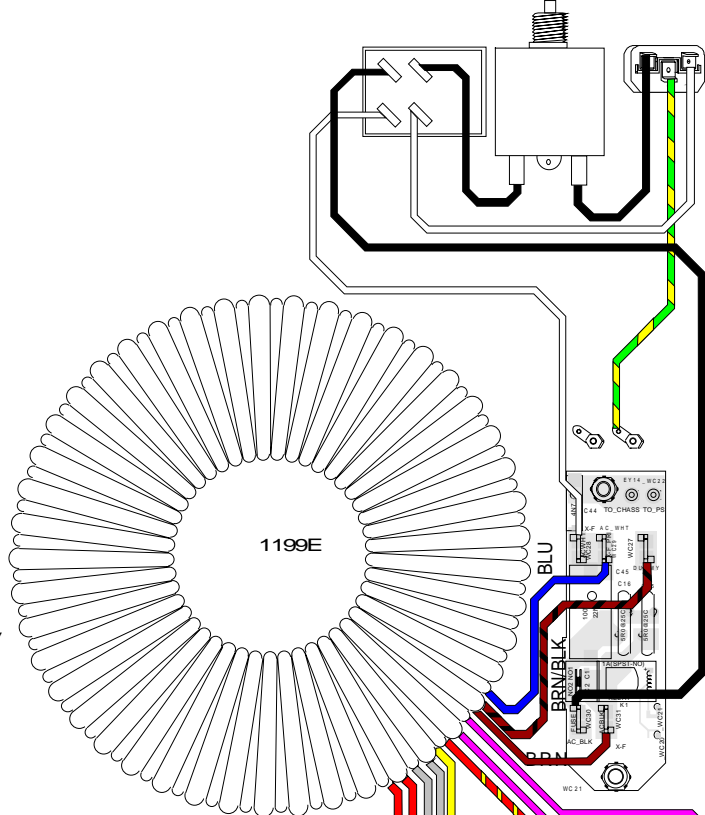
**E B C**  
 TO-92

**C B E**  
 TO-92

LEAD/PIN REFERENCE

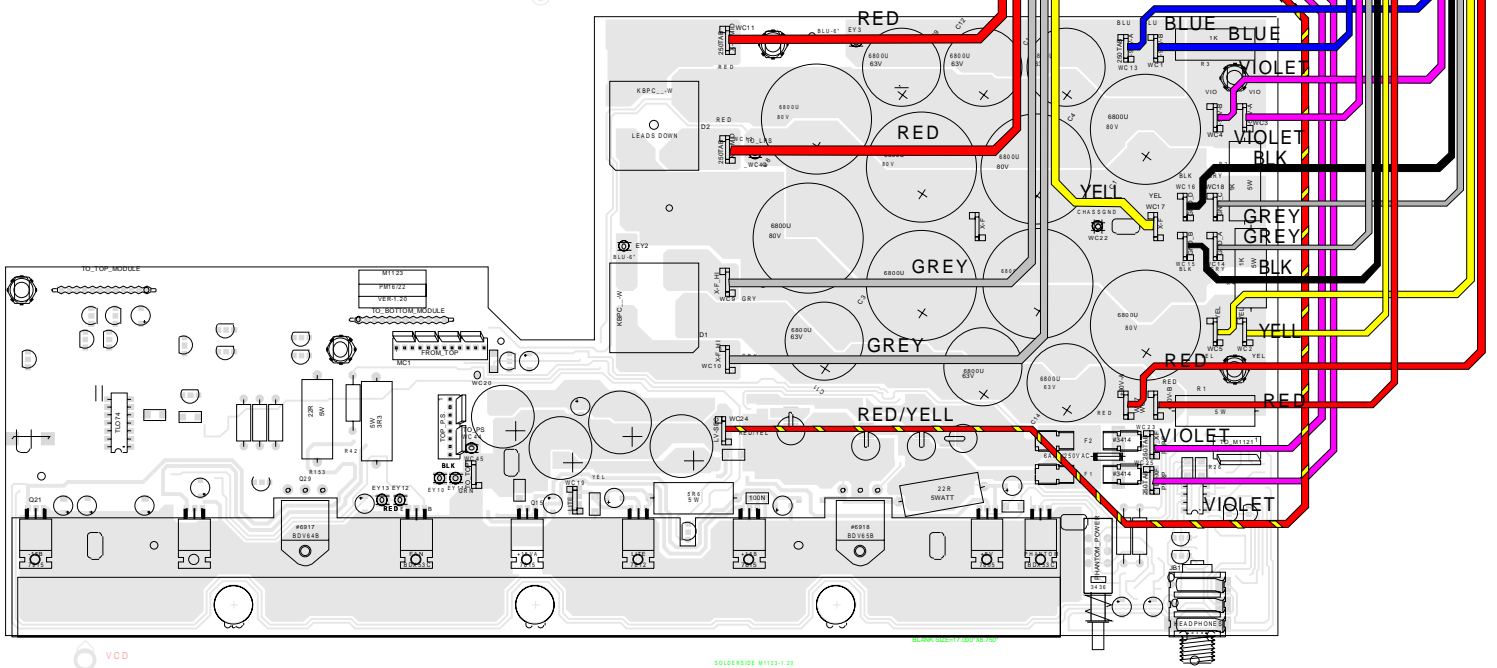


PM16 CE AC  
MAY. 09, 02  
SHOWN WIRED FOR 230V



HARNES WIRES

HARNES WIRES

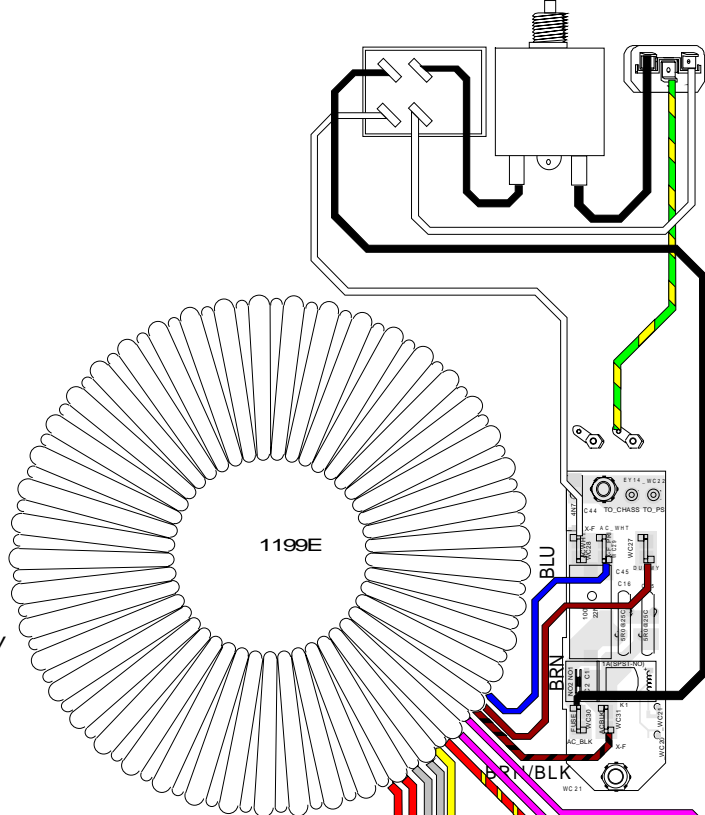


VCD

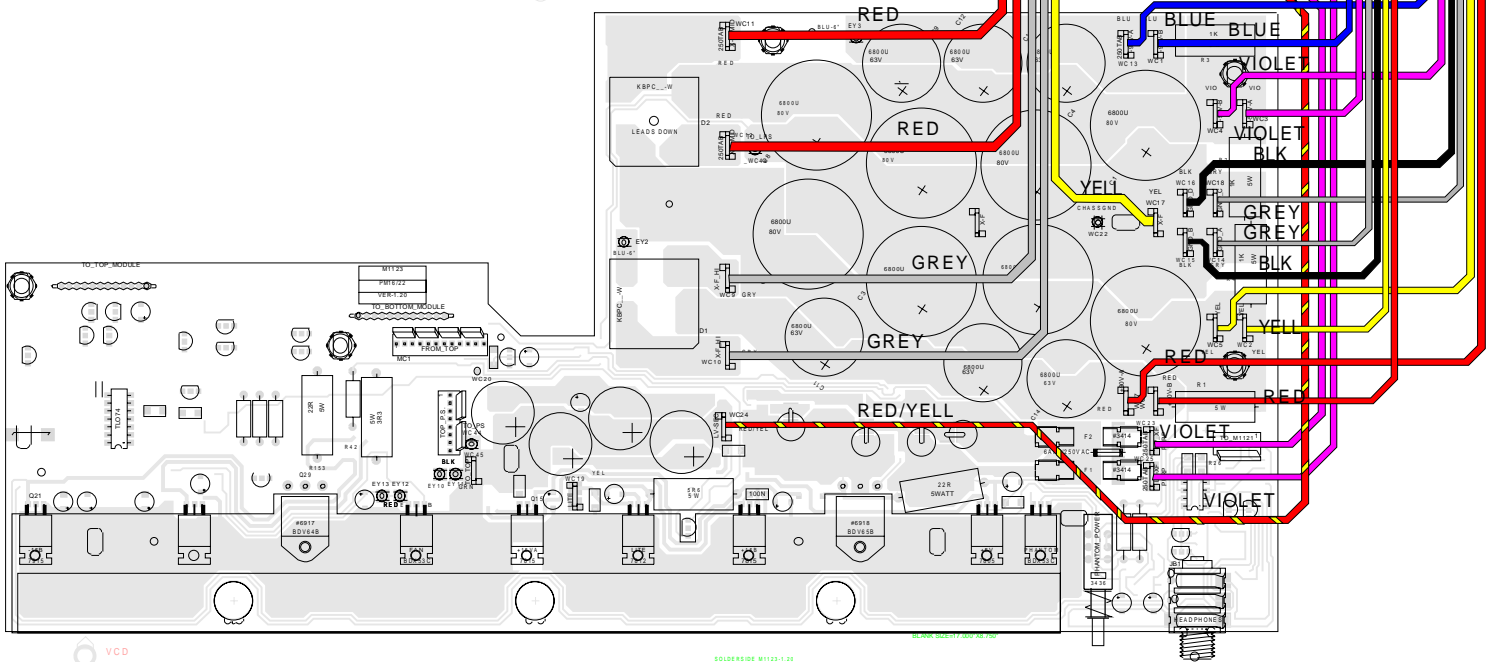
SOLDER SIDE M1123-1-21

BLK-102/17-000-00-10P

PM16 CE AC  
MAY. 09, 02  
SHOWN WIRED FOR 245V



HARNES WIRE  
HARNES WIRE

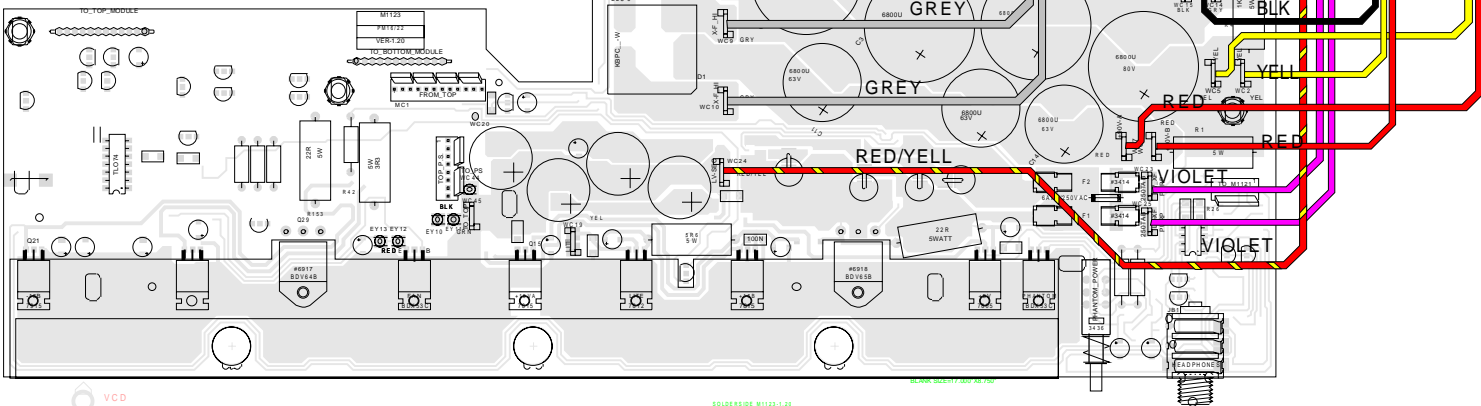


VCD

SOLDER SIDE M123-1.21

BLK/GRN 117.000-01-01

PM16 NORTH AMERICAN AC  
MAY. 09, 02



VCD

SOLDERSIDE M1125-1-25

USE WIRE SIZES M1125-2E-WP