



SERVICE MANUAL

MODEL TYPE: YS1011

PM16 / PM22

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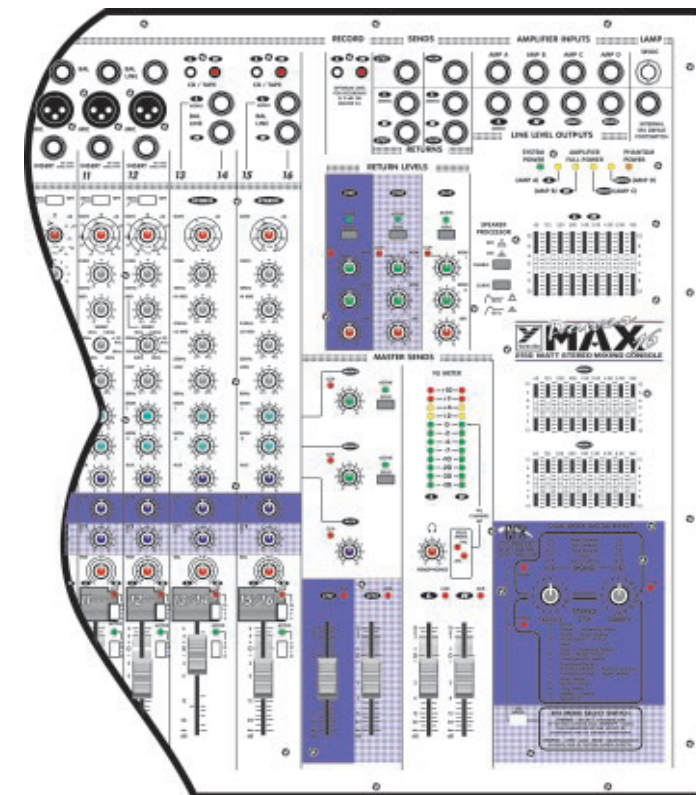
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Quality and Innovation Since 1963
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IMPORTANT SAFETY INSTRUCTIONS



INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

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.

Read Instructions:

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

Packaging:

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

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.

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.

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.

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

Power Cord:

The AC supply cord should be routed so that it is unlikely that it will be damaged. If the AC supply cord is damaged **DO NOT**

OPERATE THE UNIT.

Service:

The unit should be serviced only by qualified service personnel.

INSTRUCTIONS RELATIVES AU RISQUE DE FEU, CHOC ÉLECTRIQUE, OU BLESSURES AUX PERSONNES.

AVIS:

N'ENLEVEZ PAS LE COUVERT (OU LE PANNEAU ARRIERE). NE CONTIENT AUCUNE PIECE REPARABLE PAR L'UTILISATEUR.

CONSULTEZ UN TECHNICIEN QUALIFIE POUR L'ENTRETIEN.

Veillez lire le manuel:

Il contient des informations qui devraient étre comprises avant l'opération de votre appareil. Conservez S.V.P. ces instructions pour consultations ultérieures

Emballage:

Conservez la boîte au cas où l'appareil devait étre retourner pour réparation.

Warning:

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 étre 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 étre prises afin d'éviter que le système de mise à la terre de l'appareil ne soit désengagé.

Hazard:

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.

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

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

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

Cordon d'alimentation:

Évitez d'endommager le cordon d'alimentation. **N'UTILISEZ PAS L'APPAREIL** si le cordon d'alimentation est endommagé.

Service:

Consultez un technicien qualifié pour l'entretien de votre appareil.



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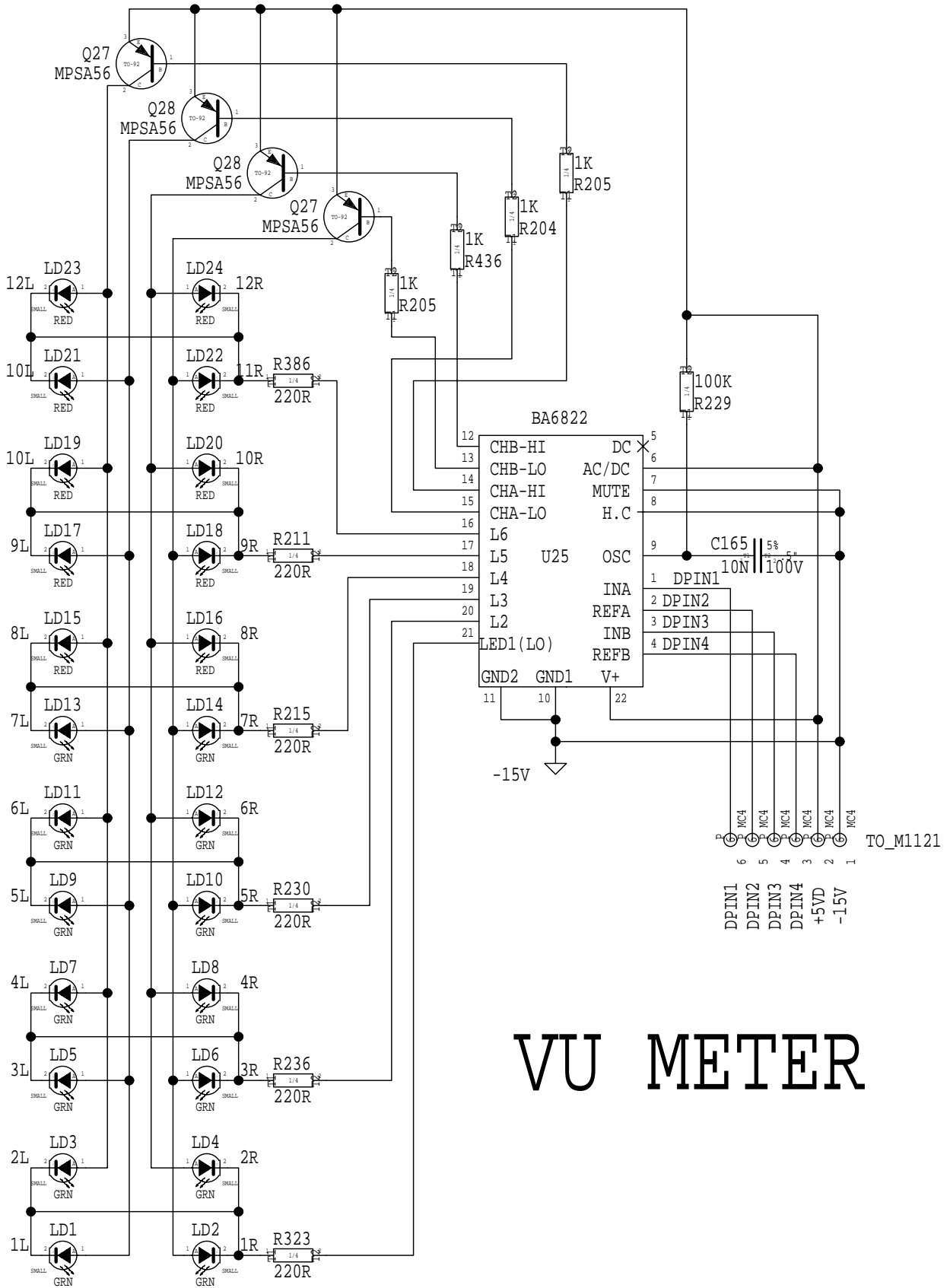
- m1123a schematic
- m1123a layout

PM16 Parts List 3/3/99

YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.
3506	32 PIN X .6" I.C DEEP SOCKET	2	5203	.47P 100V 2%CAP T&R RAD CER.2"NPO	17	3601	RING TERMINAL 16AWG WIRE & #8 SCREW	1
3550	44PIN PLCC SOCKET	1	5199	100P 100V 2%CAP T&R RAD CER.2"NPO	14	3682	250 MALE PCB TAB BULK ON CATRIGE	44
3557	84PIN PLCC SOCKET	1	5410	100P 100V 10%CAP T&R BEAD NPO	6	3926	BNC FEMALE PANEL MNT NON-INSUL	1
6994	CRYSTAL CODEC 44PIN PLCC	1	5197	220P 100V 2%CAP T&R RAD CER.2"NPO	12	3498	M203-02 PLAIN PC MNT JK SKT	1
6940	16MHZ CRYSTAL VERT 2-PIN .25"CASE	1	5412	220P 100V 10%CAP T&R BEAD NPO	2	3921	1/4" VERT JACK PC MNT R&T SWT	37
5906	RED 3MM LED 1V9 20MA .4 SPACER T&R	30	5417	330P 50V 10%CAP T&R BEAD NPO	6	3924	1/4" VERT JACK PC MNT 2XTIP HICURNT	8
5907	YEL 3MM LED 1V9 20MA .4 SPACER T&R	11	5201	470P 100V 5%CAP T&R RAD CER.2"NPO	8	3466	MOULDED DUAL RCA SOCKET GOLD LEADS	3
5908	GRN 3MM LED 1V9 20MA .4 SPACER T&R	21	5416	470P 50V 10%CAP T&R BEAD NPO	6	3628	PC-MOUNT 250TAB SPEAKON #4SCREW GRY	2
6403	ORANGE3MM LED 1V7 5MA	1	5816	680P 100V 5%CAP T&R RAD CER.2"NPO	14	3925	NC3FAV-0 FEM VRT XLR PC MT	12
6405	RED 3MM LED 1V7 5MA BRIGHT PACE	18	5206	.1N 400V 5%CAP T&R RADIAL.2"FILM	20	3451	0.089 OD SMALL EYELET ELECTROPLATED	94
6407	YELLOW3MM LED 1V8 5MA EVRLITE204YD	15	5422	.1N 50V 10%CAP T&R BEAD NPO	26	3414	INTERNATIONAL PC MOUNT FUSEHOLDER	4
6408	GREEN 3MM LED 1V9 5MA FROSTED	37	5273	.1N5 200V 5%CAP T&R RAD CER.2"NPO	10	2428	6.0 AMP SLO-BLO .25X1.25 FUSE	2
6419	BRIDGE 35A 400V WIRE LEAD G13504	2	5424	.1N5 50V 10%CAP T&R TUBULAR Y5P	4	3863	FAN 80MM X 80MM 39CFM 12VDC 173MA	2
6425	BAV21 200V 0A25 DIODE T&R	16	5208	.2N2 400V 5%CAP T&R RADIAL.2"FILM	2	3692	HEATSINK THERMALLOY 6079-PB	4
6434	6A2 200V 6A0 DIODE	4	5274	.2N2 200V 5%CAP T&R RAD CER.2"NPO	14	3501	B52200F006 COMP WASH #4 SMALL	20
6438	1N4004 400V 1A0 DIODE T&R	4	5426	.2N2 50V 10%CAP T&R TUBULAR Y5R	4	3806	RECTANGULAR WASHER FOR TRANS SUPPRT	10
6825	1N4148 75V 0A45 DIODE T&R	257	5209	.4N7 250V 5%CAP T&R RADIAL.2"FILM	18	8682	#4 TEFLON WASHER .125ID .281OD .031	7
6827	1N5402 200V 3A0 DIODE	4	6451	.4N7 250V 20%CAP AC Y ONLY RAD10MM	1	3798	8" NYLON CABLE TIE	2
6934	MR854 400V 3A0 DIODE FAST RECOV	16	5433	.5N6 50V 10%CAP T&R BEAD X7R	4	3810	4" NYLON CABLE TIE	20
6733	BAT85/11330V 0A2 DIODE SCHTKY T&R	4	5272	.6N8 100V 5%CAP T&R RADIAL.2"FILM	12	3852	STICK ON CABLE WRAP ANCHOR	2
6440	1N750ARL 4V7 0W5 ZENER 5% T&R	6	5204	.10N 100V 10%CAP T&R RADIAL.2"FILM	21	8392	RED STYLE 1 KNOB	32
6459	1N4732A 4V7 1W0 ZENER 5% T&R	9	5300	.10N 50V 10%CAP T&R BEAD X7R	1	8393	GREY STYLE 1 KNOB	56
6436	1N753ARL 6V2 0W5 ZENER 5% T&R	3	5207	.18N 100V 5%CAP T&R RADIAL.2"FILM	4	8394	GREEN STYLE 1 KNOB	36
6488	1N5236BRL 7V5 0W5 ZENER 5% T&R	27	5210	.22N 100V 10%CAP T&R RADIAL.2"FILM	18	8395	BLUE STYLE 1 KNOB	43
6807	1N4742A 12V0 1W0 ZENER 5%	8	5222	.33N 100V 10%CAP T&R RADIAL.2"FILM	12	8397	GREY STYLE 2 KNOB	2
6486	1N5244B 14V0 0W5 ZENER 5% T&R	4	5224	.47N 100V 10%CAP T&R RADIAL.2"FILM	18	8638	AP MIXER SERIES PUSH SW BUTTON GREY	50
6822	1N4745A 16V0 1W0 ZENER 5% T&R	8	5308	.47N 50V 10%CAP T&R BEAD X7R	2	8661	BUTTON KNOB FLAT GREY	1
6465	1N5250B 20V0 0W5 ZENER 5% T&R	4	5226	.68N 100V 5%CAP T&R RADIAL.2"FILM	12	8680	GREY FADER KNOB - AP-812	18
6463	1N5251BRL 22V0 0W5 ZENER 5% T&R	2	5511	.82N 400V 10%CAP RAD POLYFILM BULK	2	3471	8? 3/16 SUT AC LINE CORD 250 CLIPS	1
6426	1N5254B 27V0 0W5 ZENER 5% T&R	1	5228	100N 100V 5%CAP T&R RADIAL.2"FILM	121	3821	HEYCO #1200 STRAIN RELIEF	1
6738	MC7805CT TO220 POS 5V0 REG	1	5314	100N 50V 10%CAP T&R BEAD X7R	30	3596	36PIN BREAKAWAY .15GOLD .100	0.66
6756	REGULATOR TO220 POS 12V0 500MA	1	5230	180N 63V 5%CAP T&R RADIAL.2"FILM	40	3597	12 CIR HDR BOT ENTRY 0.1" GOLD	2
6871	MC7815CT TO220 NEG 15V0 REG	2	5882	220N 250V 10%CAP RAD POLYFILM BULK	4	3638	12 CIR CABLE HOLDER .098	7
6872	MC7815CT TO220 POS 15V0 REG	2	5233	330N 63V 5%CAP T&R RADIAL.2"FILM	16	3661	.6 CIR WAFER W/LCK RA 0.1" GOLD	2
5101	BC550C TO92 NPN TRANS. T&R	82	5234	470N 63V 10%CAP T&R RADIAL.2"FILM	8	3662	.6 CIR WAFER W/LCK VT 0.1" GOLD	1
5102	BC560C TO92 PNP TRANS. T&R	46	5240	680N 63V 10%CAP T&R RADIAL.2"FILM	5	3672	6 CIR CABLE HOLDER .098	3
5103	MPSA06 TO92 NPN TRANS. T&R	7	5266	680N 250V 20%CAP AC X2 RAD 30.0MM	1	3676	8 CIR CABLE HOLDER .098	1
5104	MPSA56 TO92 PNP TRANS. T&R	14	5254	.1U 63V 20%CAP T&R RAD EL.2"4X7M	6	8701	4-40 KEPS NUT ZINC	34
5107	2N5551 TO92 NPN TRANS. T&R	2	5255	.1U 63V 20%CAP T&R RADIAL ELE.2"	1	8760	6-32 KEPS NUT TIN PLATED	64
5108	2N5401 TO92 PNP TRANS. T&R	2	5256	.1U 63V 5%CAP T&R RADIAL.2"FILM	4	8800	6-32 KEPS NUT ZINC	9
5109	MPSA43 TO92 PNP TRANS.	2	5257	.2U2 63V 20%CAP T&R RADIAL ELE.2"	10	8787	8-32 KEPS NUT ZINC	16
5110	MPSA93 TO92 PNP TRANS.	2	5281	.10U 16V 20%CAP NONPOLAR T&R .2"	10	8797	5/16-18 KEPS NUT JS500	1
5113	MPSA42 TO92 NPN TRANS. T&R	2	5282	.10U 16V 20%CAP NP 5X7MM T&R .2"	25	3797	TO-247 THERMO CONDUCTIVE PAD	6
5114	MPSA92 TO92 PNP TRANS. T&R	2	5629	.10U 160V 20%CAP RADIAL ELECT BULK	4	3815	TO3 PREGREASED MICA 56-03-2AP	32
5105	MPSA13 TO92 NPN DARLINGTON&T&R	12	5945	.10U 63V 20%CAP T&R RADIAL ELECTR	8	3823	TO-220 THERMO PAD SMALL HOLE	8
5119	2N5638 TO92 N CHAN J FETT&R	6	5260	.22U 50V 20%CAP T&R RADIAL ELE.2"	21	3846	TO220 THERMO PAD LARGE HOLE 56359B	12
6808	MJE15032 221D NPN TRANS	2	5631	.22U 50V 20%CAP T&R RAD 7MM EL.2"	40	8529	BUMPER,PM16 POWERED MIXER 25.275"	2
6809	MJE15033 221D- PNP TRANS	2	5961	.33U 16V 20%CAP NONPOLAR T&R RAD	127	8568	GABLE, 4-HOLE PM MIXER STYLE 3	2
6873	MJE340 TO126 NPN TRANS	6	5267	100U 25V 20%CAP T&R RADIAL ELE.2"	2	3580	12 CIR WAFER W/LCK VT 0.1"	3
6874	MJE350 TO126 PNP TRANS.	6	5879	100U 16V 20%CAP T&R RAD EL.2"8X7M	14	3583	8 CIR WAFER W/LCK 0.1"	1
6912	BDX53C TO220 NPN DARLINGTON	2	5883	220U 100V 20%CAP RADIAL ELECT BULK	8	3818	EMI SUPPRESSION FERRITE BEAD T&R	2
6917	BDV64B TO218 PNP DARLINGTON	1	5630	330U 25V 20%CAP RADIAL ELECT BULK	14	4597	22AWG STRAN TC WIR	124
6918	BDV65B TO218 NPN DARLINGTON	1	5860	3300U 35V 20%CAP RADIAL ELECT	4	4599	22AWG SOLID SC WIR T&R	763
6752	MTP10N15L TO220 N CHAN MOSFET	2	5892	6800U 80V 10%CAP RADIAL ELECT BULK	8	5299	24AWG SOLID SC WIR RAD	40
6933	MTP23P06 TO220 P CHAN MOSFET	2	5895	6800U 63V 20%CAP RADIAL ELECT BULK	6	4745	5.0W 0R1 5% BLK RES	12
6909	MJ21196 TO3 NPN TRANS.	16	4522	4K7 TRIM POT	4	4715	5.0W 0R20 5% BLK RES	8
6989	MJL1302A TO3P PNP TRANS PWR	2	4489	.10K B-LINEAR STYLE"COV"60MM	12	4677	1/2W 1R 5% T&R RES	6
6990	MJL3281A TO3P NPN TRANS PWR	2	4537	.10K B-LIN-DETENT STYLE"P25" 9MM	50	4877	1/4W 1R 5% T&R RES	24
6910	MJ21195 TO3 NPN TRANS.	16	4562	.10K STEREO/LIN DT STYLE"P21	6	4911	1/4W 2R2 5% T&R RES	4
6804	MC33079P IC QUAD OP AMP	1	4569	.10K STEREO/LINEAR STYLE"P21"12MM	6	4669	5.0W 3R3 5% BLK RES	1
6840	MC33078P IC DUAL OP AMP	11	3995	20K SLD ST WHT KB V 30M DT	9	4918	1/4W 3R3 5% T&R RES	8
6882	TL072CP IC FET DUAL OP AMP	11	3998	20K SLD MON WHT KB V 20M DT	18	4748	2.0W 3R9 5% BLK RES	4
6884	NE5532N IC DUAL OP AMP	28	4384	.5K B-LINEAR STYLE"P25" 9MM	70	4733	5.0W 5R6 5% BLK RES	3
6889	TLO74CN IC QUAD O/A T.I ONLY	22	4566	.10K B-LINEAR STYLE"P25" 9MM	18	4594	1/8W 10R0 2%FLAME PROOF T&R RES	14
6895	BA6822S IC LED VU METER C	1	4545	.50K STEREO/LIN DT STYLE"P21"12MM	2	4686	1.0W 10R 5%FLAME PROOF T&R RES	2
6745	LM13600N IC XCONDUCTANCE AMP	5	4568	.50K B-LINEAR STYLE"P25" 9MM	3	4875	1/4W 10R 5% T&R RES	1
6959	4052 IC DUAL 1/4 CMOS SWITC	1	4581	ROTARY ENCODER 4-BIT VER PCB DSHAFT	2	4591	1/8W 22R1 1%FLAME PROOF T&R RES	2
6963	4053 IC 3 1 OF 2 CMOS	1	4487	.10K 10A-STER/AUDIO STYLE"COV"60MM	2	4709	5.0W 22R 5% BLK RES	2
6943	74HC374N IC OCTAL DTYPE LATCH	1	4488	.50K B-LINEAR STYLE"COV"60MM	4	4816	1/4W 33R 5% T&R RES	4
6962	74HC30 IC 8-INPUT NAND GATE	1	4385	100K STEREO 5C-R/A STYLE"P21	12	4607	1/8W 39R 2%FLAME PROOF T&R RES	2
6983	PROM 27C010 - YS STEREO/MONO	1	2448	15.0 AMP CIRCUIT BREAKER	1	4899	1/4W 39R 5% T&R RES	14
6984	IC SRAM 128KX8 70NS	1	714	1.5 MIL X 36" CLEAR POLY SHEETING	4	4613	1.0W 47R 5% T&R RES	5
6992	1365-102 IC DIGITAL REVERB ASIC	1	3820	4UH COIL 14AWG ZOBEL HORIZONTAL	2	4817	1/4W 47R 5% T&R RES	4
5190	MBS4992 TO92 8V5 DIAC T&R	4	3819	5UH COIL 18AWG R000 AIR CORE	2	4957	1/4W 47R 5% .2"U T&R RES	3
6444	MAC224-4 TO220 40A TRIAC 200V	4	8547	PLASTIC FOOT BLACK	4	6134	1/4W 47R 5%MINI T&R RES	8
6880	4N35 OPTO-COUPLER	4	3485	CLIP 250X032 18-22AWG RIGHT ANGLE	8	4811	1/4W 68R 5% T&R RES	6
6478	AS35FN-TO92 TEMPERATURE SENSOR	5	3486	CLIP 250X032 22-18AWG DISCO-LOK	18	4608	1/8W 75R 2%FLAME PROOF T&R RES	12
6489	5R0 20% NTC THERMISTOR	2	3489	CLIP 250X032 18-22AWG DISCO/INSL	16	4912	1/4W 75R 5% T&R RES	1
5200	.10P 200V 5%CAP T&R RAD CER.2"NPO	10	3490	CLIP 250X032 14-16AWG DISCO/INSL	4	4590	1/8W 100R0 1%FLAME PROOF T&R RES	6
5405	.27P 200V 5%CAP T&R RAD CER.2"NPO	5	3529	CLIP 250X032 TN 18-22AWG MALE	12	4602	1/8W 100R 5% T&R RES	56

PM16 Parts List 3/3/99 Continued

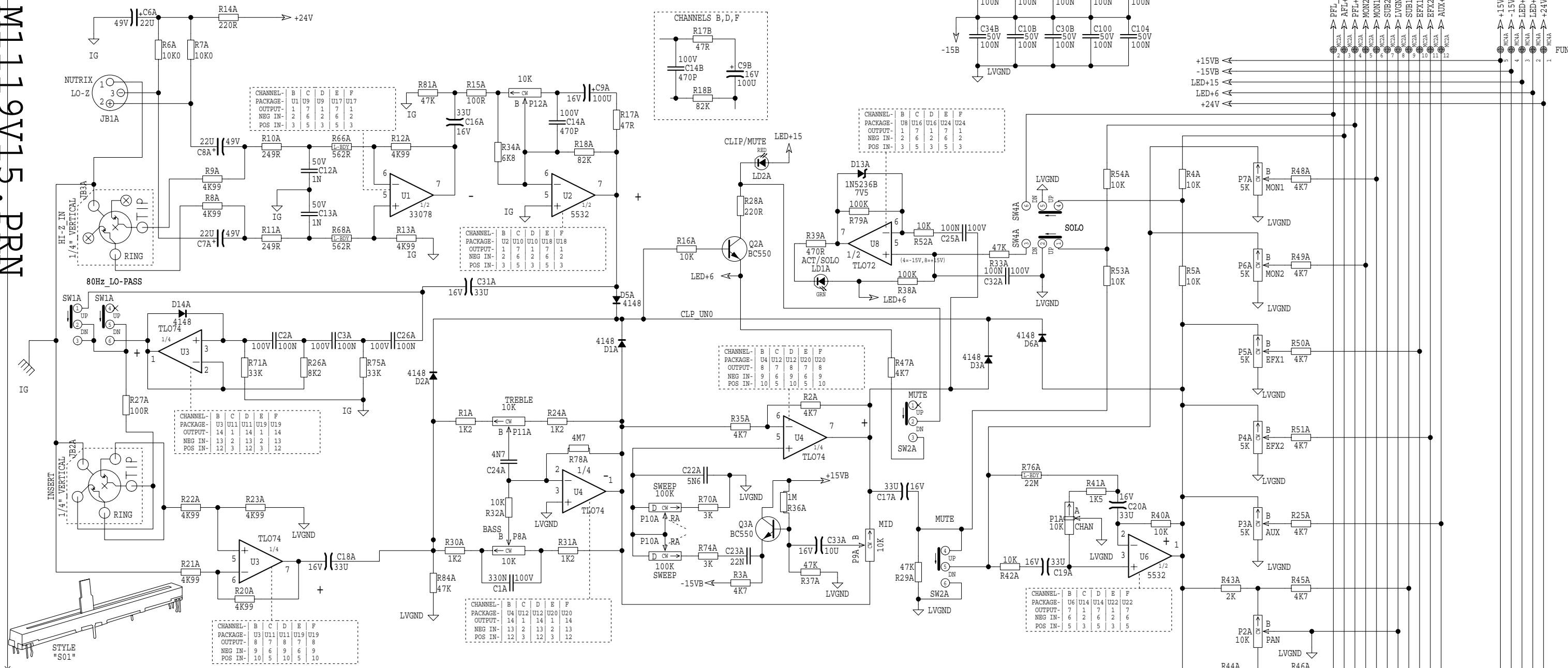
YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.
4921	1/4W 100R 5% .2"U T&R RES	12	4853	1/4W 39K 5% T&R RES	2	3968	BLUE 16AWG PREFUSED WIRE	6.083
4593	1/8W 150R 2%FLAME PROOF T&R RES	10	4878	1/4W 43K 5% T&R RES	10	3970	BLACK 16AWG PREFUSED WIRE	10.333
4984	1/4W 150R 5%MINI T&R RES	4	4834	1/4W 47K 5% T&R RES	1	3971	YELLOW 16AWG PREFUSED WIRE	11.75
4645	1/8W 220R0 1%FLAME PROOF T&R RES	4	4927	1/4W 47K 5% .2"U T&R RES	39	3972	GREY 16AWG PREFUSED WIRE	13.833
4944	1/4W 220R 5% .2"U T&R RES	10	6119	1/4W 47K 5%MINI T&R RES	43	3973	VIOLET 16AWG PREFUSED WIRE	6.083
4977	1/4W 220R 5%MINI T&R RES	38	4803	1/4W 49K9 1% T&R RES	3	1199	PM16/22 T?RD	1
4884	1/4W 240R 5% T&R RES	1	5018	1/4W 56K 5%MINI T&R RES	16			
4606	1/8W 249R 2%FLAME PROOF T&R RES	42	4836	1/4W 68K 5% T&R RES	2			
4855	1/4W 330R 5% T&R RES	1	4760	1/4W 75K 5% T&R RES	4			
5010	1/4W 330RX8 5% 10PIN SIP RES	1	4586	1/4W 82K 5%MINI T&R RES	29			
4872	1/4W 390R 5% T&R RES	6	4929	1/4W 82K 5% .2"U T&R RES	9			
4713	1.0W 470R 5% T&R RES	2	4772	1/4W 82K5 1% T&R RES	4			
4933	1/4W 470R 5% .2"U T&R RES	11	4838	1/4W 100K 5% T&R RES	1			
4980	1/4W 470R 5%MINI T&R RES	39	4942	1/4W 100K 5% .2"U T&R RES	16			
4799	1/4W 562R 1% T&R RES	32	6120	1/4W 100K 5%MINI T&R RES	43			
5019	1/4W 620R 5%MINI T&R RES	37	4851	1/4W 120K 5% T&R RES	2			
4781	1/8W 681R 1%FLAME PROOF T&R RES	2	4949	1/4W 180K 5% .2"U T&R RES	2			
4873	1/4W 680R 5% T&R RES	8	6137	1/4W 200K 5%MINI T&R RES	1			
4716	5.0W 750R 5% BLK RES	4	4841	1/4W 220K 5% T&R RES	6			
4869	1/4W 750R 5% T&R RES	4	6127	1/4W 470K 5%MINI T&R RES	2			
4924	1/4W 750R 5% .2"U T&R RES	4	4861	1/4W 820K 5% T&R RES	2			
4925	1/4W 820R 5% .2"U T&R RES	6	4948	1/4W 1M 5% .2"U T&R RES	14			
5025	5.0W 910R 5% BLK RES	2	4888	1/4W 4M7 5% T&R RES	9			
4758	1/4W 953R 1% T&R RES	8	4951	1/4W 4M7 5% .2"U T&R RES	13			
4726	5.0W 1K 5% BLK RES	4	4751	1/4W 22M 5% T&R RES	22			
4934	1/4W 1K 5% .2"U T&R RES	4	3696	RELAY 1C 02AMP DC24 006MA PC-S	2			
4981	1/4W 1K 5%MINI T&R RES	34	3721	RELAY 1A 16AMP DC24 022MA PC-C	1			
4685	1/4W 1K2 5%MINI T&R RES	96	3736	RELAY 1C				



VU METER

U:\M1119V15.PRN

MONO INPUT WITH INSERT

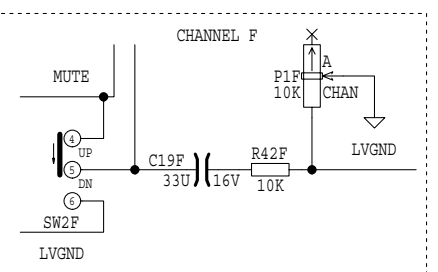


M1119.PCB POT LIST

MODEL(S) :- PM16/22					
#	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

MODEL(S) :- PM16/PM22			
#	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->47K
3	.	.	PC#6473 C22A 6N8->5N6 R70A_1K2->3K
4	NOV/26/01	1.30	PC#6536 R74A_1K2->3K
5	MAY/02/02	1.40	PC#6473_C23A_47N->22N
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



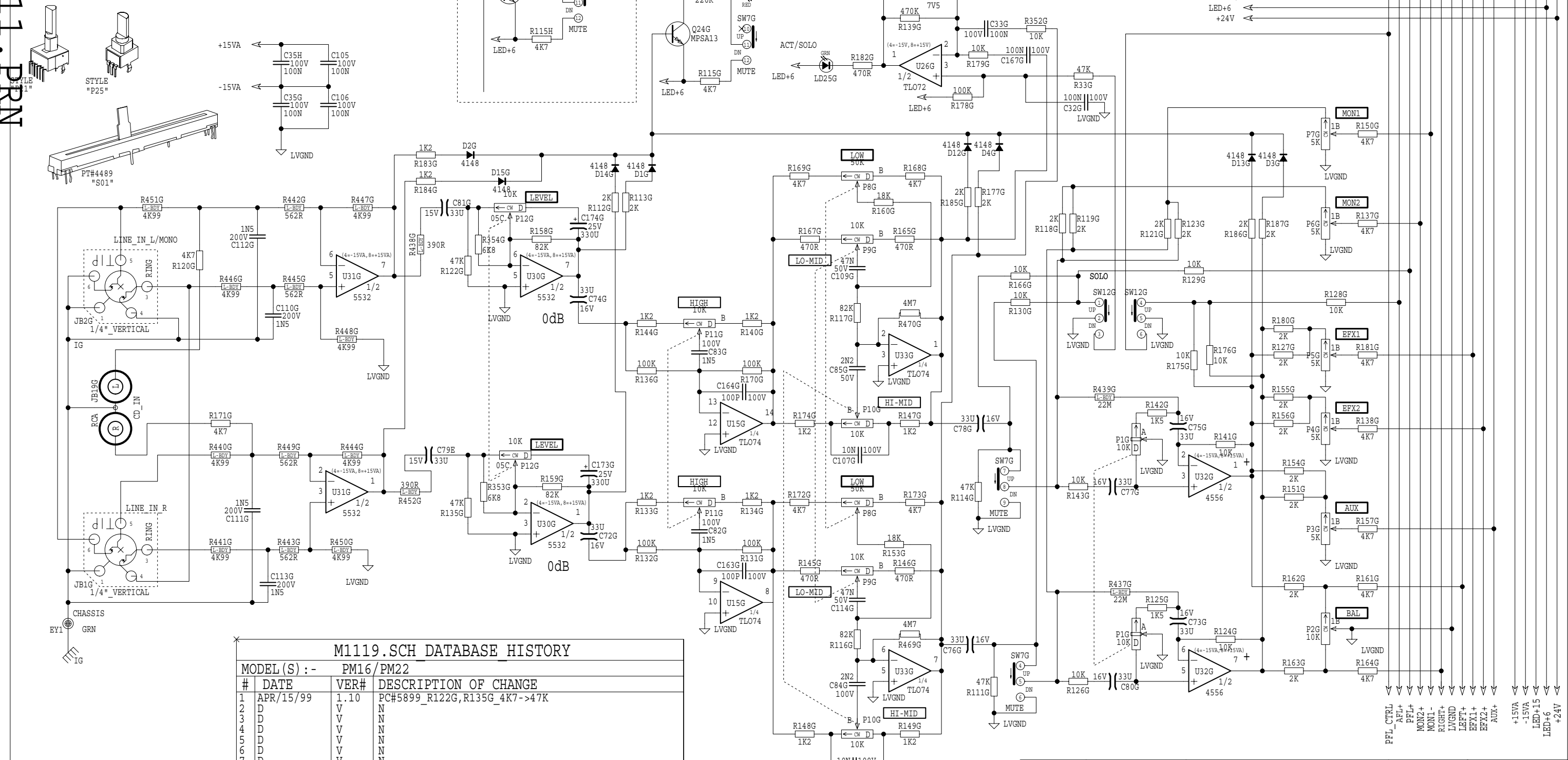
YORKVILLE	DATE: MAY/23/2002	MODELS: PM16/22	SHEET OF 1	SCH VERSION: 1.50
	NAME: M1119.SCH	PCB#&VER: M1119-1.00	TITLE: MONO_CHAN_W/INSERT	

M1119S11.PRN

M1119.PCB POT LIST

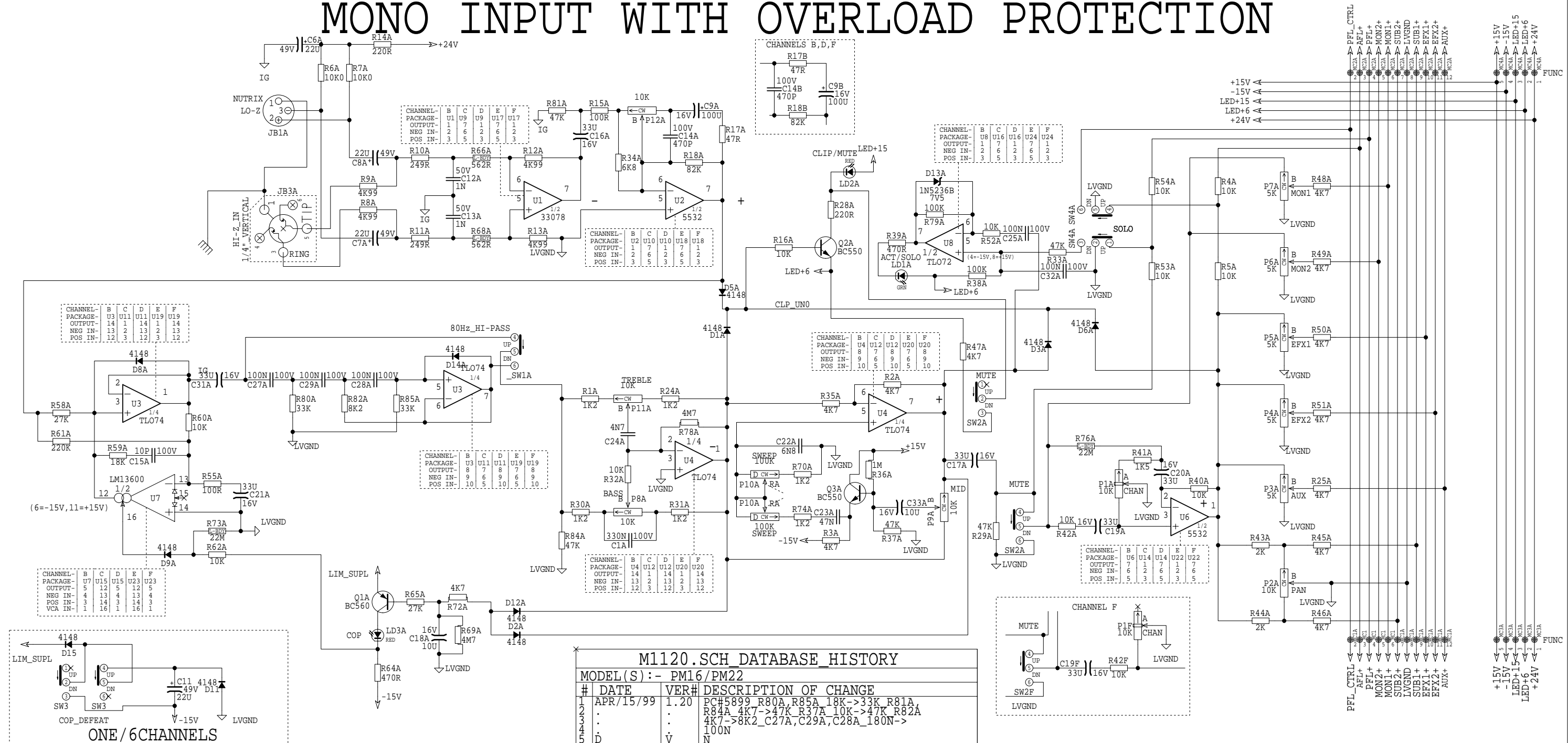
#	REF	FUNCTION	PART#	KNOB	AS OF
P12G		GAIN P21	#4569	#8392	JAN/2000
P11G		HIGH P21	#4562	#8393	.
P9G		HI-MID P21	#4562	#8393	.
P10G		LO-MID P21	#4562	#8393	.
P8G		LOW P21	#4545	#8393	.
P7G		MON1 P25	#4384	#8394	.
P6G		MON2 P25	#4384	#8394	.
P3G		AUX P25	#4384	#8395	.
P5G		EFX1 P25	#4384	#8395	.
P4G	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

MONO INPUT WITH OVERLOAD PROTECTION



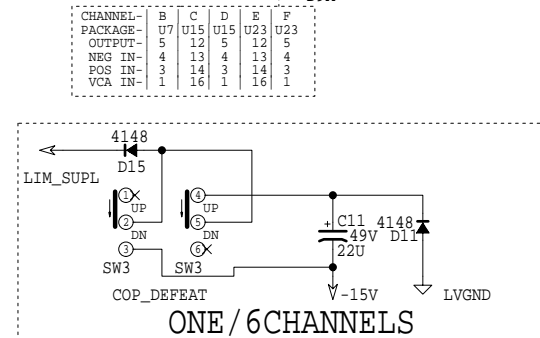
CHANNEL-PACKAGE-	B	C	D	E	F
OUTPUT-	14	1	14	1	14
NEG IN-	13	2	13	2	13
POS IN-	12	3	12	3	12

CHANNEL-PACKAGE-	B	C	D	E	F
OUTPUT-	8	7	8	7	8
NEG IN-	9	6	9	6	9
POS IN-	10	5	10	5	10

CHANNEL-PACKAGE-	B	C	D	E	F
OUTPUT-	1	7	1	7	1
NEG IN-	2	6	2	6	2
POS IN-	3	5	3	5	3

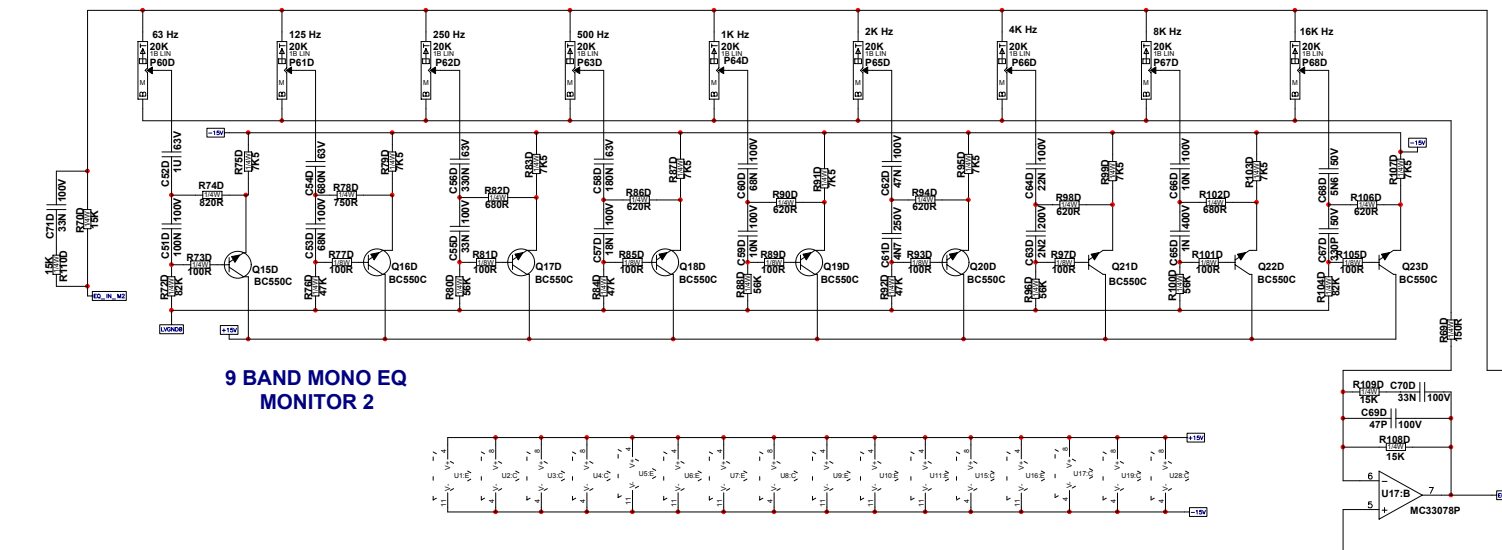
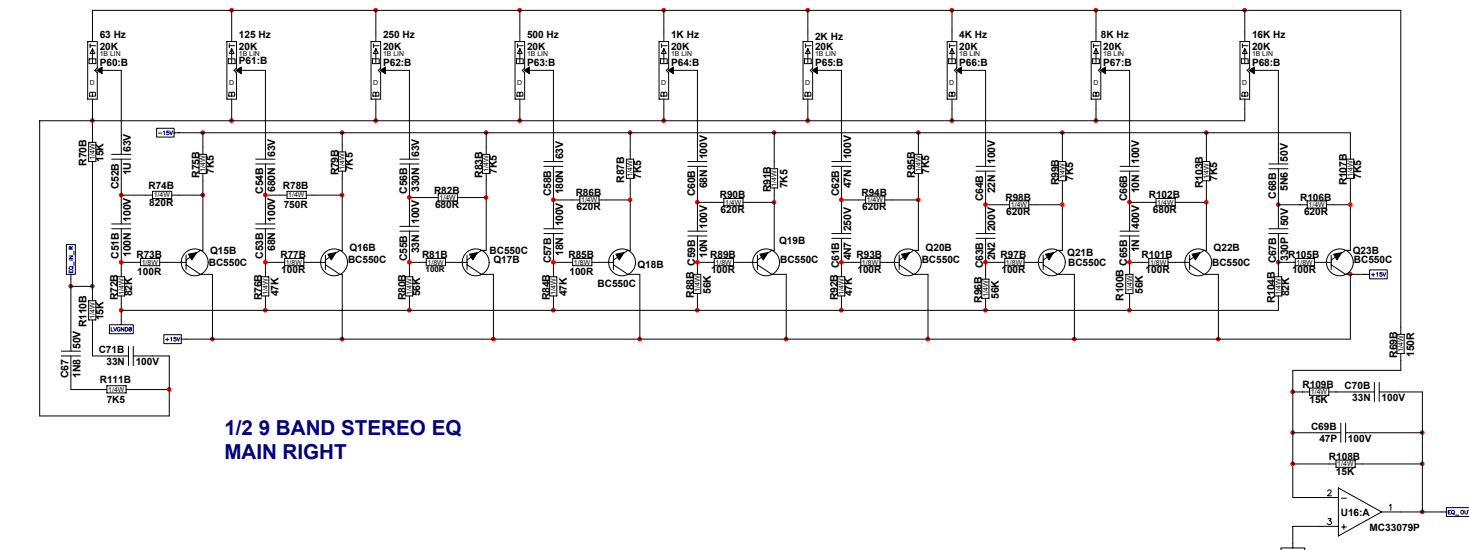
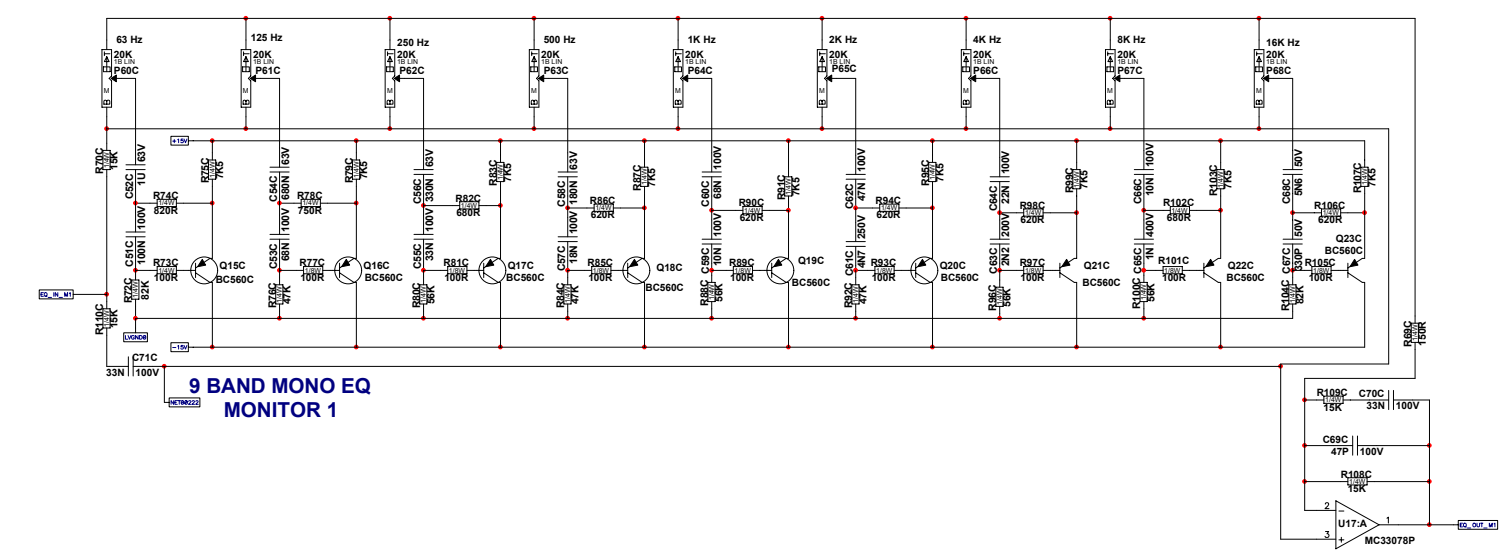
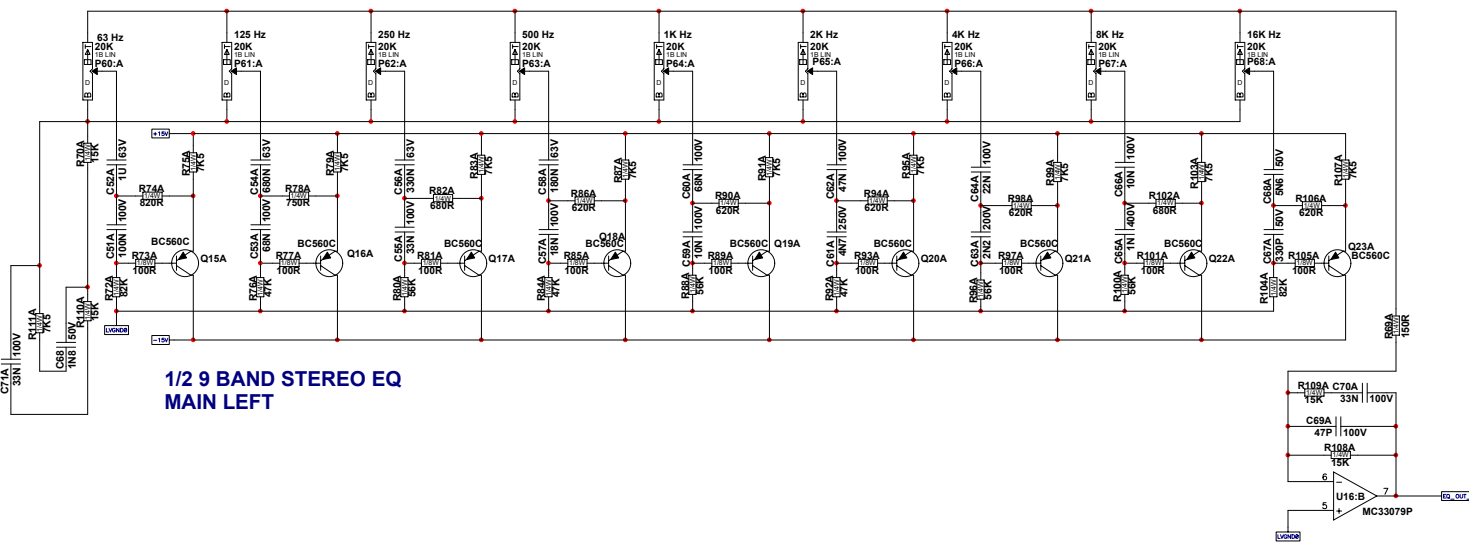
CHANNEL-PACKAGE-	B	C	D	E	F
OUTPUT-	8	7	8	7	8
NEG IN-	9	6	9	6	9
POS IN-	10	5	10	5	10

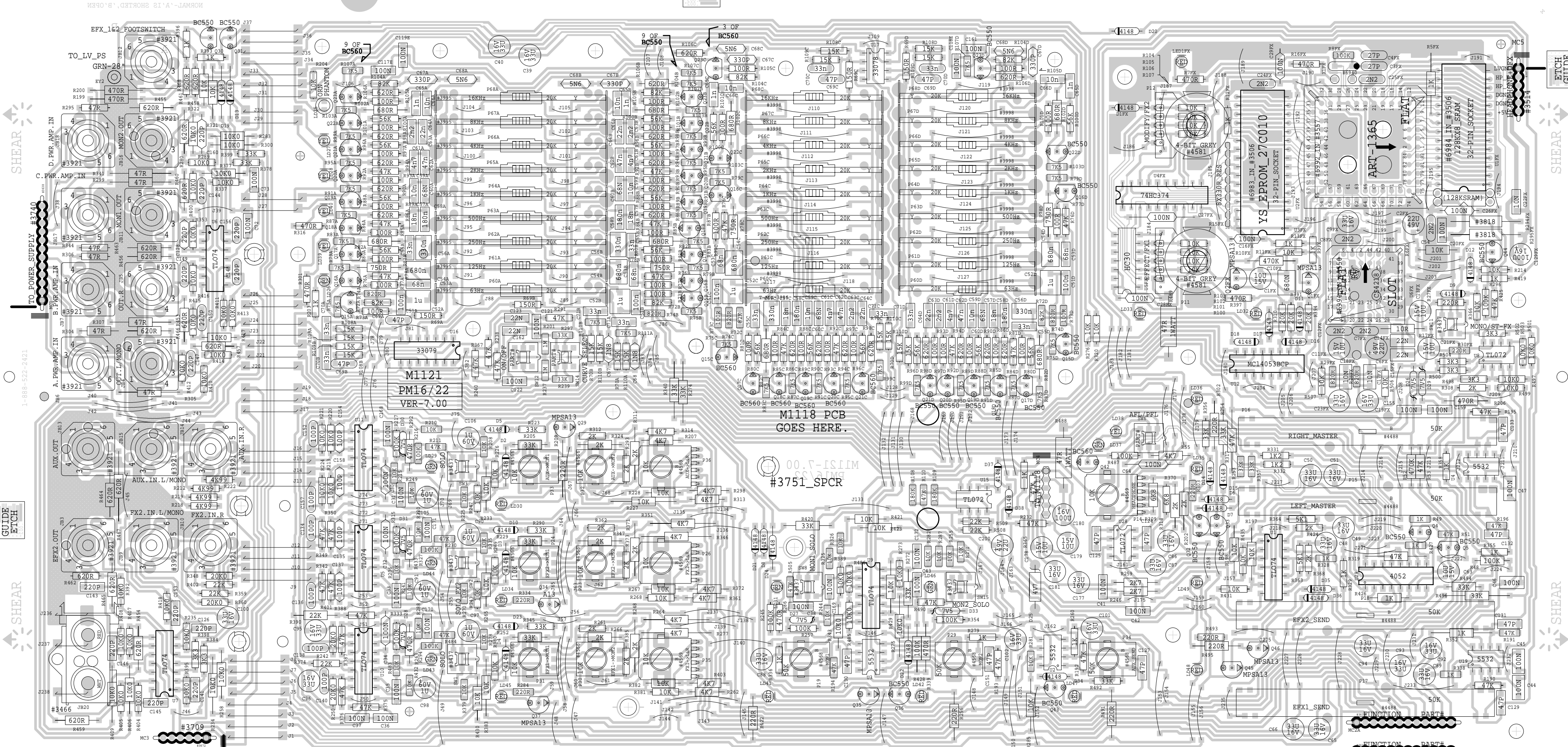
CHANNEL-PACKAGE-	B	C	D	E	F
OUTPUT-	7	1	7	1	7
NEG IN-	6	2	6	2	6
POS IN-	5	3	5	3	5



M1120.SCH_DATABASE_HISTORY			
MODEL(S) :- PM16/PM22			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	APR/15/99	1.20	PC#5899 R80A,R85A 18K->33K R81A,R84A 4K7->47K R37A 10K->47K R82A 4K7->8K2_C27A,C29A,C28A_180N->100N
2	.	.	.
3	.	.	.
4	.	.	.
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N

YORKVILLE	DATE: APR/15/99	MODELS: PM16/22	SHEET OF 1	SCH VERSION: 1.20
	NAME: M1120.SCH	PCB#&VER: M1120-1.00	TITLE: MONO_CHAN_W/COP	





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	\$FFFF 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

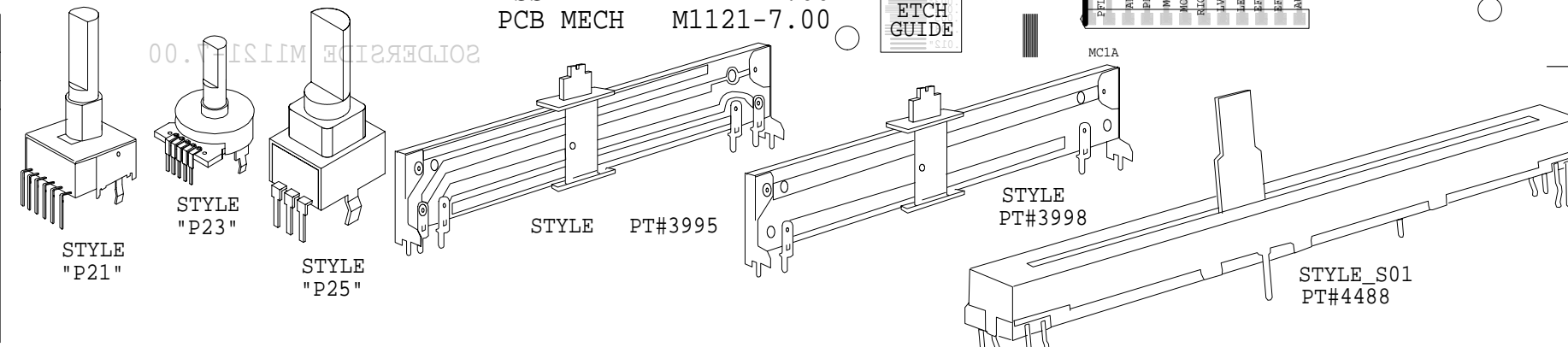
MODEL(S):- PM16/22

REF	FUNCTION	PART#	NOB	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#	NOB	AS OF
P29	MON2	#4568	#8394	JAN/2000
P34	AUX-SEND	#4568	#8395	.
P17	EFX1-SEND	#4488	#8680	.
P18	EFX2-SEND	#4488	#8680	.
P15	LEFT-MASTER	#4488	#8680	.
P16	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	.



TO M1119

ASSEMBLY M1121-7.00 PCB MECH M1121-7.00

ETCH GUIDE

FUNCTION PARTH

STYLE "P21"

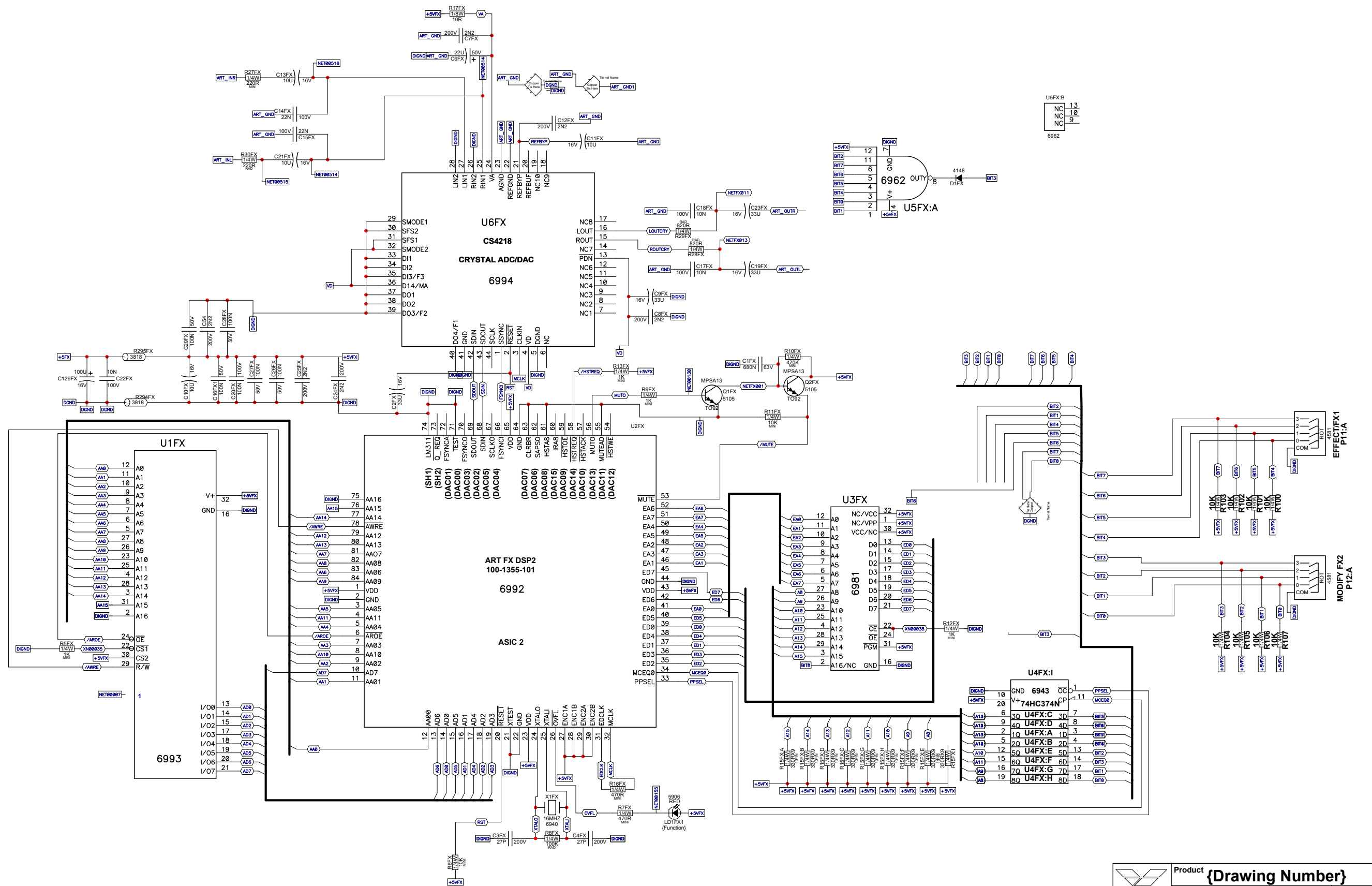
STYLE "P23"

STYLE "P25"

STYLE PT#3995

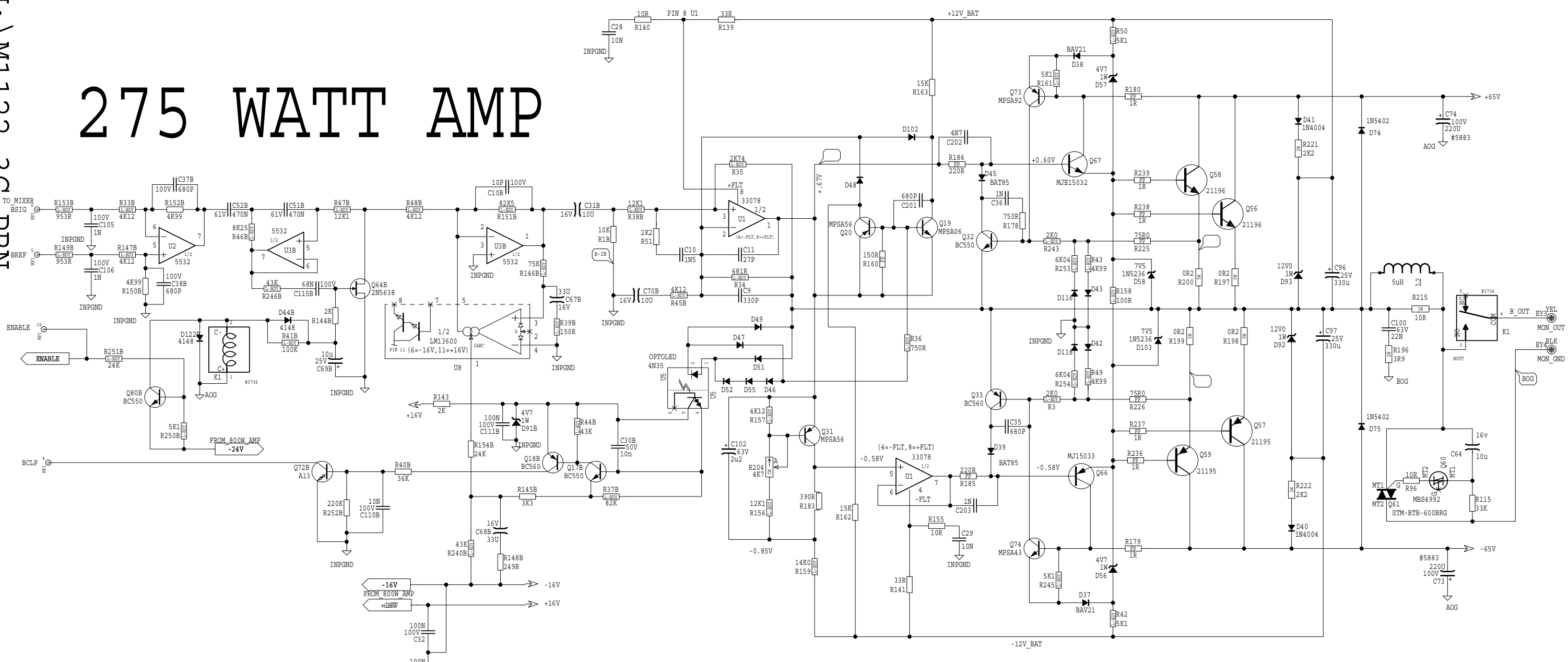
STYLE PT#3998

STYLE_S01 PT#4488

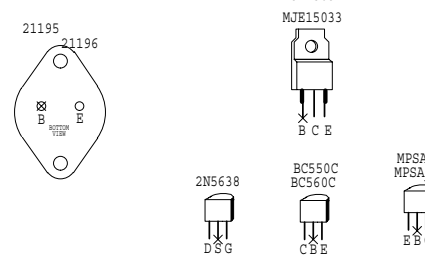


U:M1122-3C.PRN

275 WATT AMP

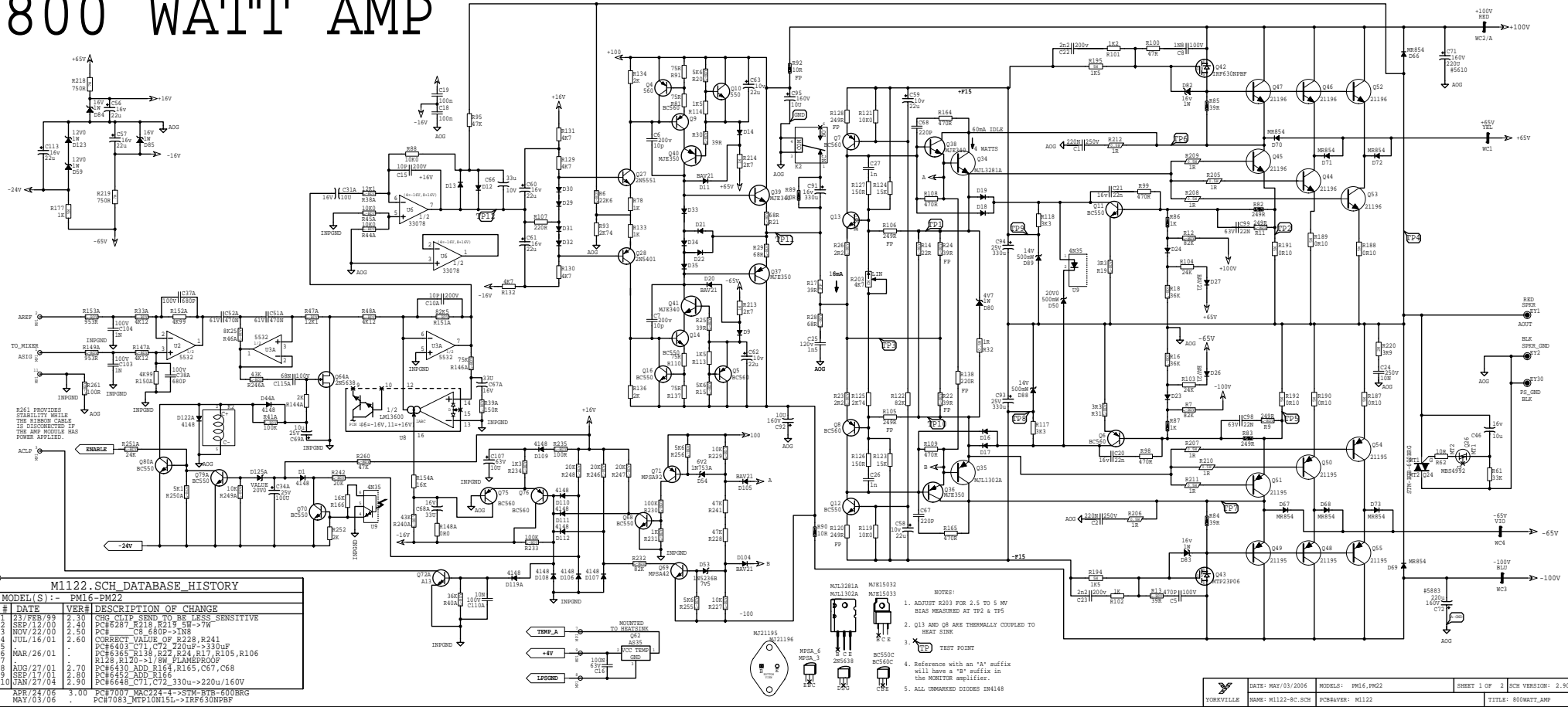


- NOTES:
- ADJUST R204 FOR 3.5mV +/-0.5 BIAS ACROSS R199 AND R200 COLD.
 - Q31 IS THERMALLY COUPLED TO HEAT SINK
 - TP TEST POINT
 - Reference with a "B" suffix will have an "A" suffix for the main amplifier.
 - ALL UNMARKED DIODES IN4148



M1122-3C.SCH DATABASE HISTORY			
MODEL(S) :-	PM16/22	VER#	DESCRIPTION OF CHANGE
#	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_4
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 STM-BTB-600BRG
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N

800 WATT AMP



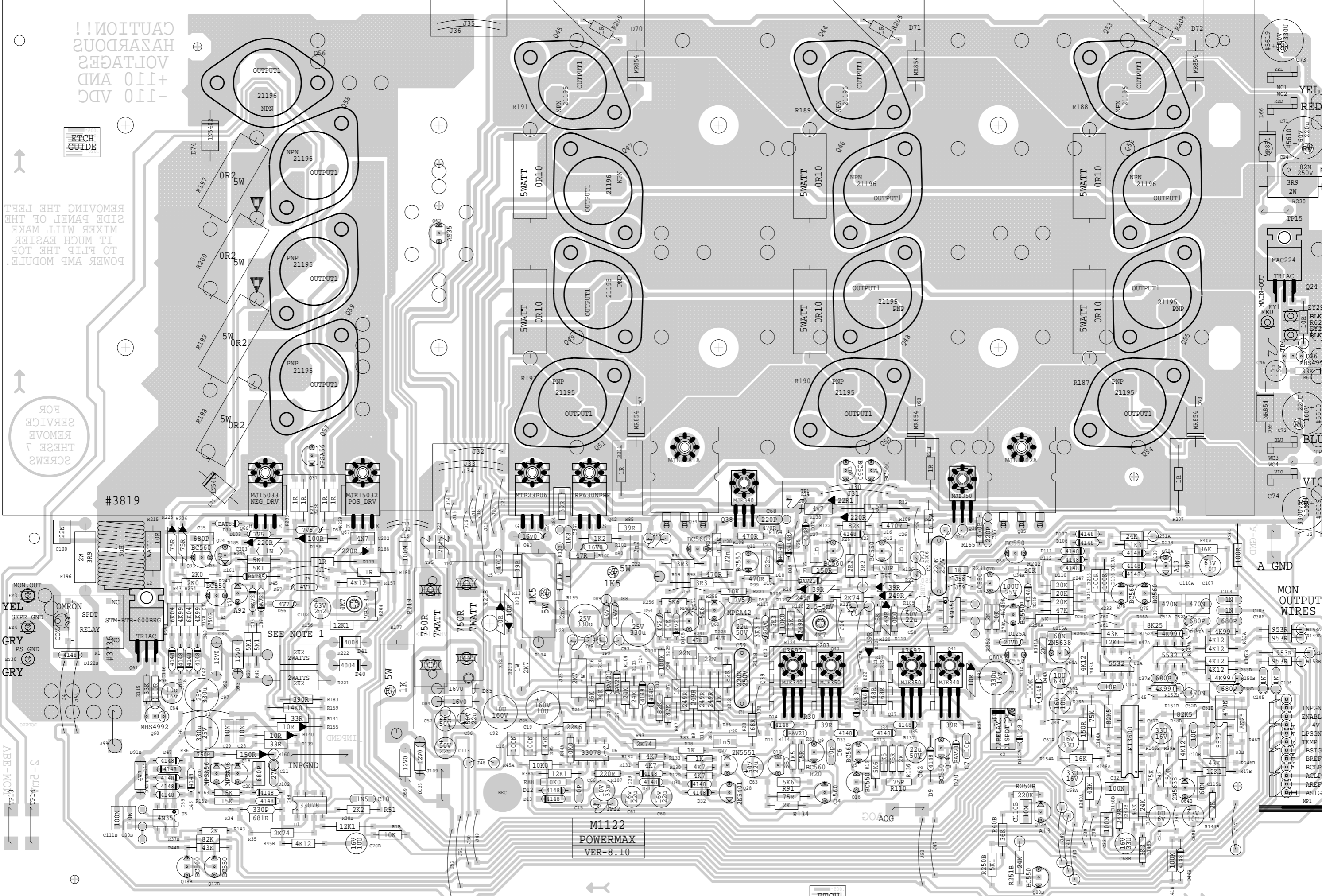
M1122_SCH_DATABASE_HISTORY

#	DATE	VER#	DESCRIPTION OF CHANGE
1	23/FEB/99	2.30	CHG CLIP SEND TO BE LESS SENSITIVE
2	SEP/12/00	2.40	PC#6287 R219 R219 5K->7K
3	NOV/22/00	2.50	PC# CB 680P->1N8
4	JUL/16/01	2.60	CORRECT VALUES OF R228 R241 PC#E403 C11,C72 220P->330uP PC#E365 R138,R22,R24,R17,R105,R106 R128,R190->1.8W,FILMBROOK
5	MAR/26/01	.	PC#E430 ADD R164,R165,C67,C68 PC#E452 ADD R166 PC#E648 C11,C72 330u->220u/160V
6	AUG/27/01	2.70	PC#7007 MCF224->S4M-B7E-608BRG
7	SEP/17/01	2.80	PC#E452 ADD R166
8	JAN/27/04	2.90	PC#E648 C11,C72 330u->220u/160V
9	APR/24/06	3.00	PC#7007 MCF224->S4M-B7E-608BRG
10	MAY/03/06	.	PC#7085_MCF1015L->1RFP30NRP

- NOTES:**
1. ADJUST R203 FOR 2.5 TO 5 WY BEAN MOUNTED AT TP3 & TP5
 2. Q13 AND Q8 ARE THERMALLY COUPLED TO HEAT SINK
 3. TP TEST POINT
 4. Reference with an "A" suffix will have a "B" suffix in the MONITOR amplifier.
 5. ALL UNMARKED DIODES 1N4148



SHEAR



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

SOZ COBBERS

LEAVE OUT FOR FISH PAPER

M1122-8.10

ETCH GUIDE

LEAVE OUT FOR FISH PAPER

VCD



SHEAR

ASSEMBLY M1122-8.10
PCB MECH M1122-8.10

BLANK SIZE=17.000"X11.750"



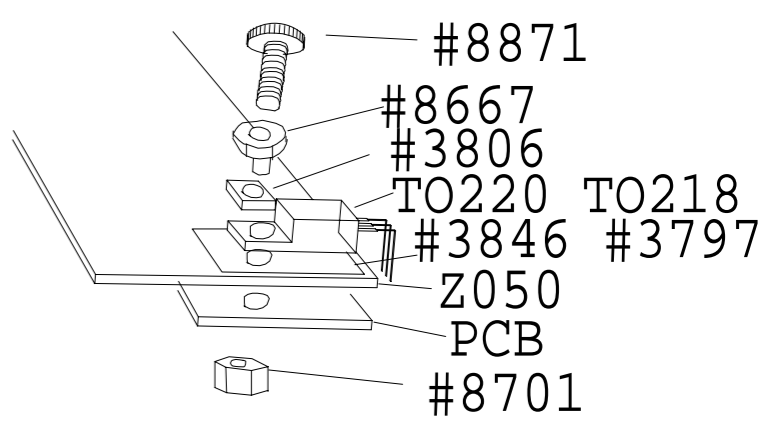
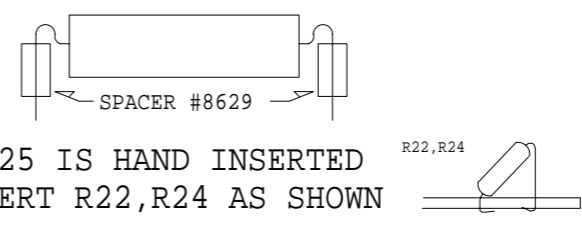
SHEAR

TO220 MOUNTING

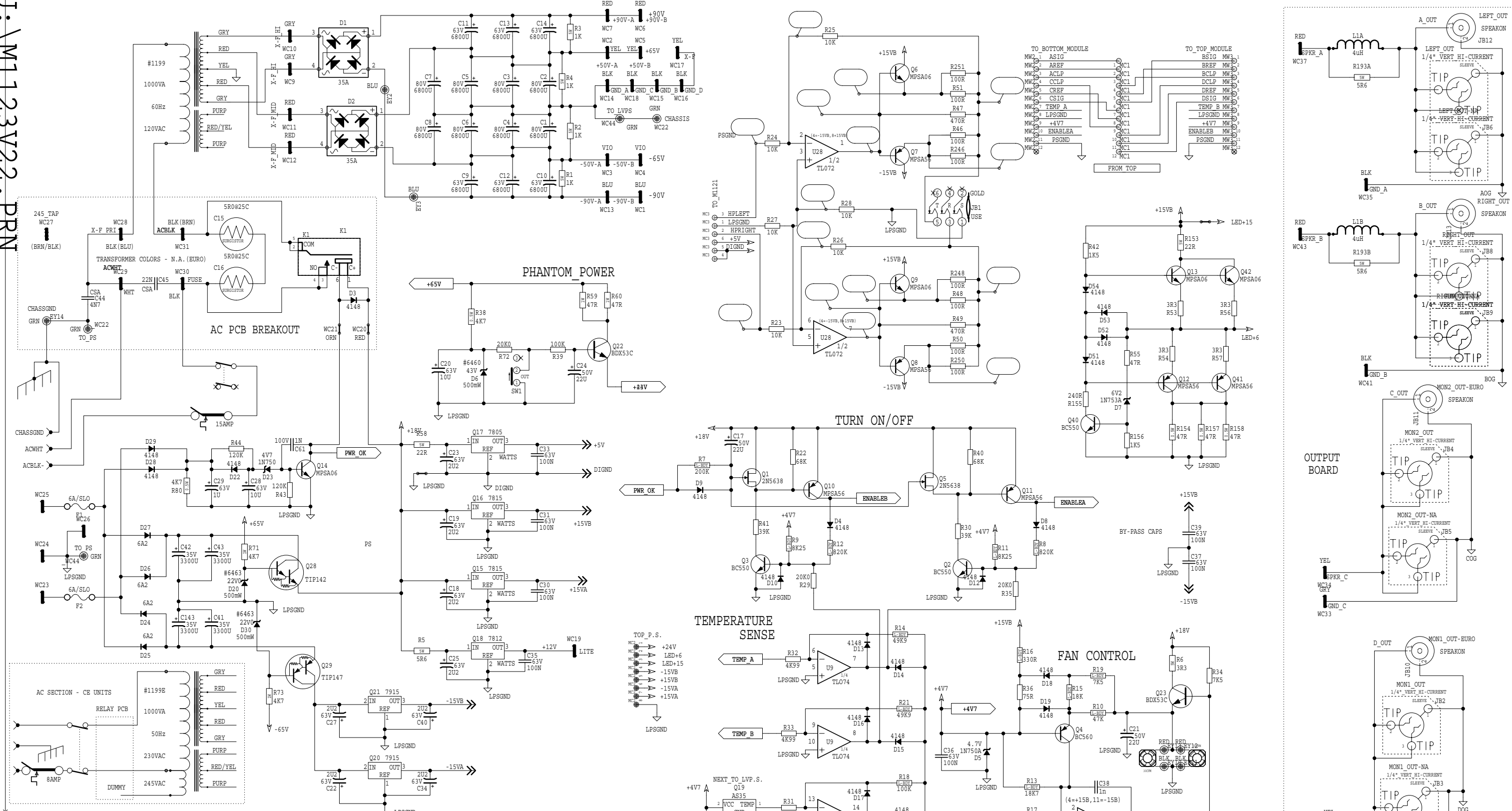
M1122.PCB_DATABASE_HISTORY		#	DATE	VER#	DESCRIPTION OF CHANGE
1	MODEL(S) :- MODEL	24	MAR/14/02	7.00	TABS TO STARPADS
2		25		7.10	PC#6483 ADD R51 C10 AT U1
3		26	JUN/25/02	7.20	PC#6226 ADD STAND-OFFS TO R221,R222
4		27	SEP/08/03	7.30	PC#6621 Q73 MPSA93->MPSA92
5		28	JAN/27/04	7.30	PC#6648 C71-72 330u/100V->220u/160V
6		29	MAR/31/05	8.00	REDO SOLDERMASK
7		30	APR/24/06	8.10	PC#7004 MAC-224-4 TO STM BTB 600BRG PC#7083 MTP10N15L TO IRF630NPBF
8		31		V	V
9		32		V	V
10		33		V	V
11		34		V	V
12		35		V	V
13		36		V	V
14		37		V	V
15		38		V	V
16		39		V	V
17		40		V	V
18		41		V	V
19		42		V	V
20		43		V	V
21		44		V	V
22		45		V	V
23		46		V	V
24		47		V	V
25		48		V	V
26		49		V	V
27		50		V	V

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

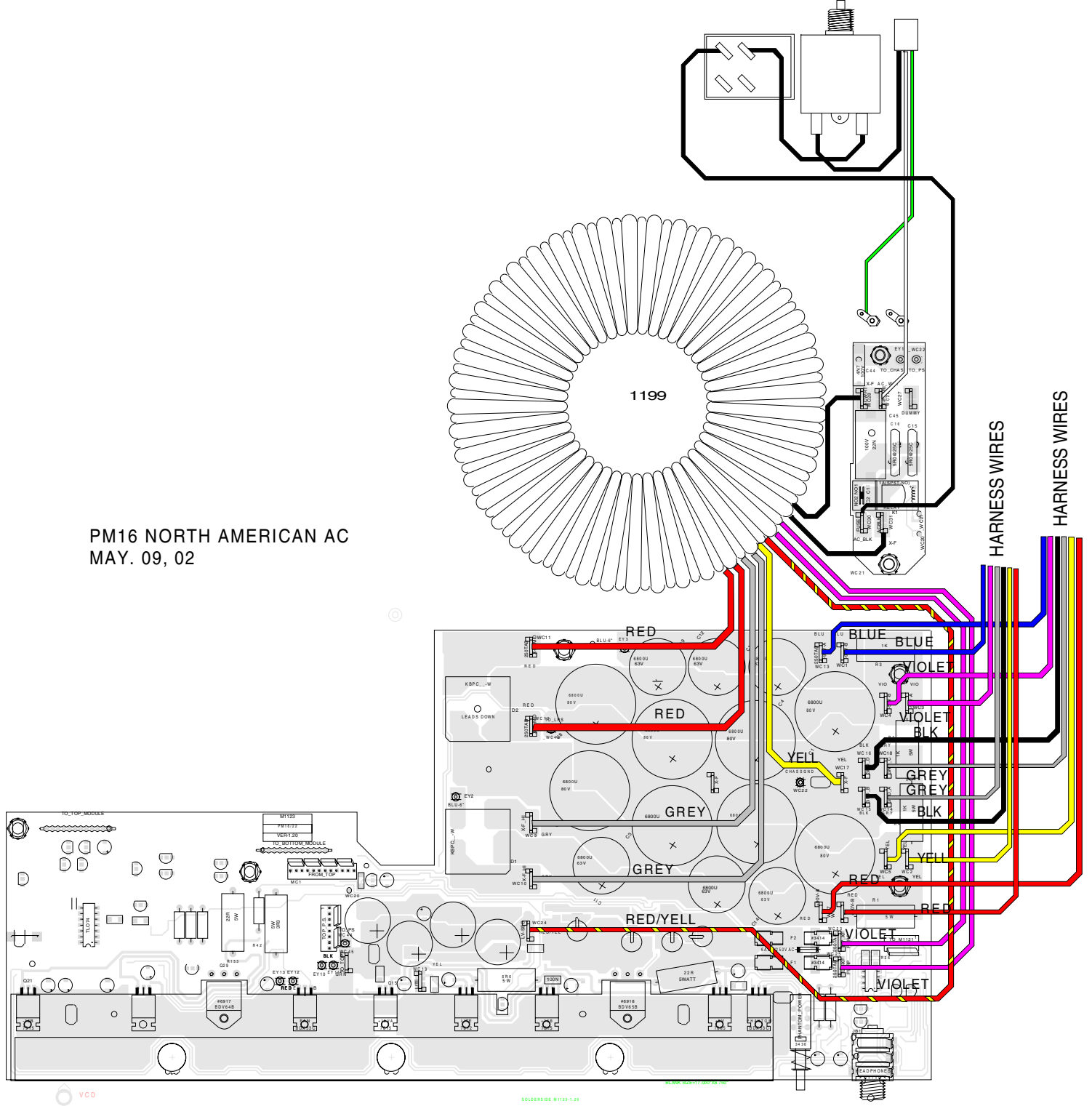


U: M1123V22.PRN



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
4			Q29_BDV64B->TIP147
5			N
6			N
7			N
8			N
9			N
10			N

PM16 NORTH AMERICAN AC
MAY. 09, 02

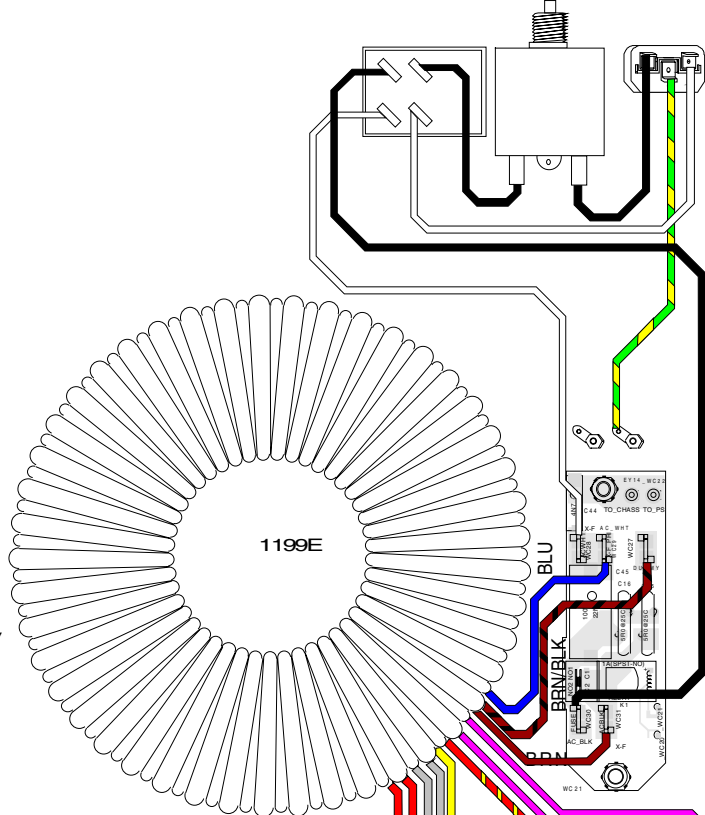


VCD

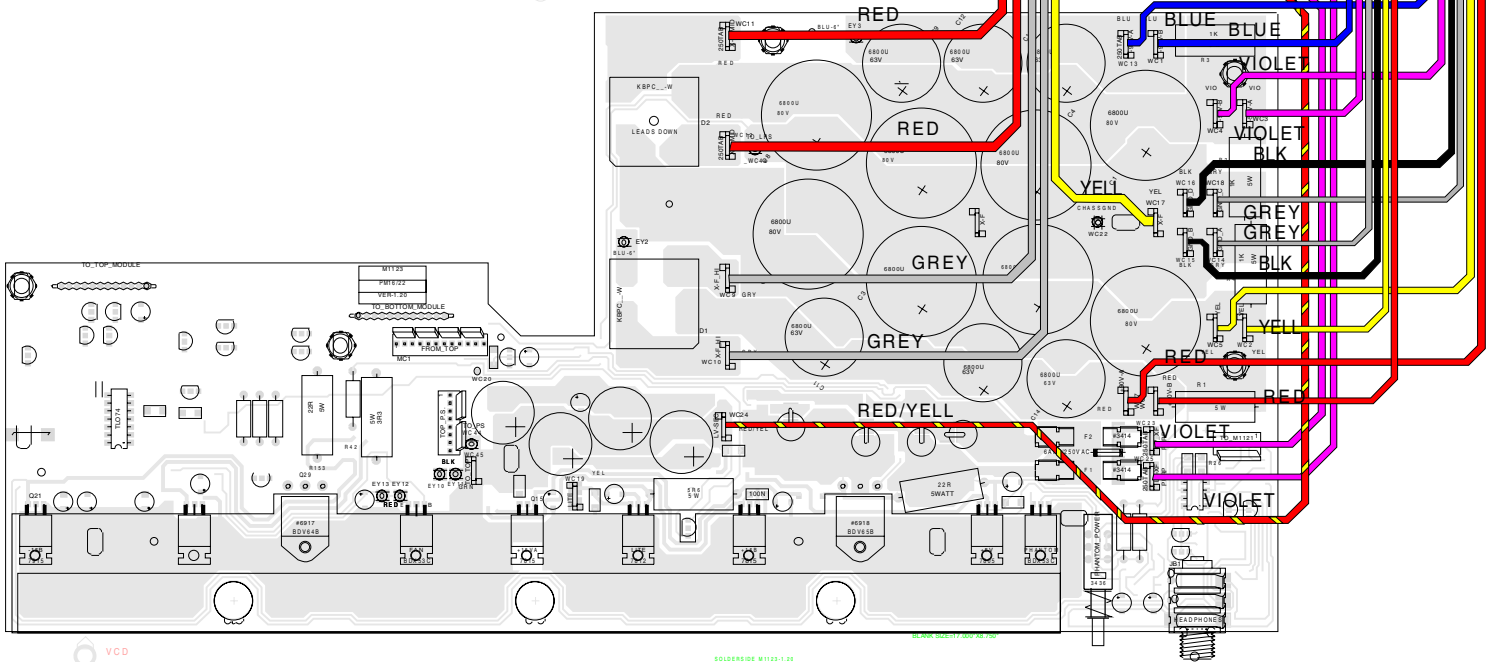
SOLDERSIDE M1203-1-02

BLK W0217, W0218, W0219

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



HARNES WIRES
HARNES WIRES

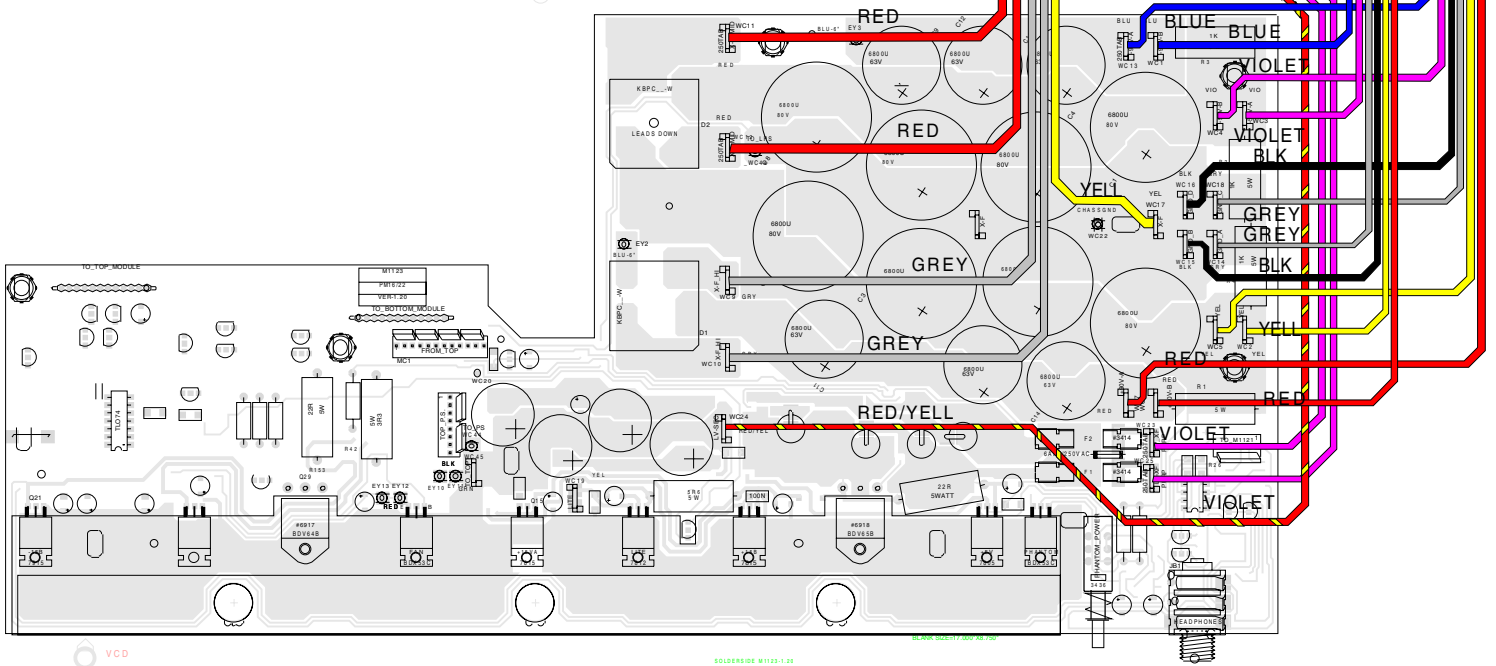
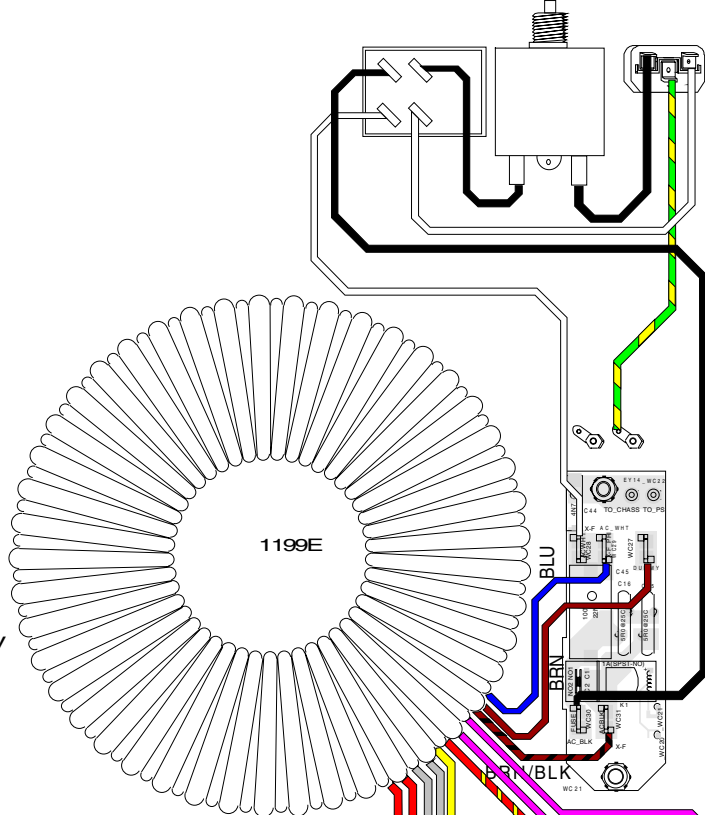


VCD

SOLDER SIDE W1123-1.01

BLANK 1000117.000-00-00

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



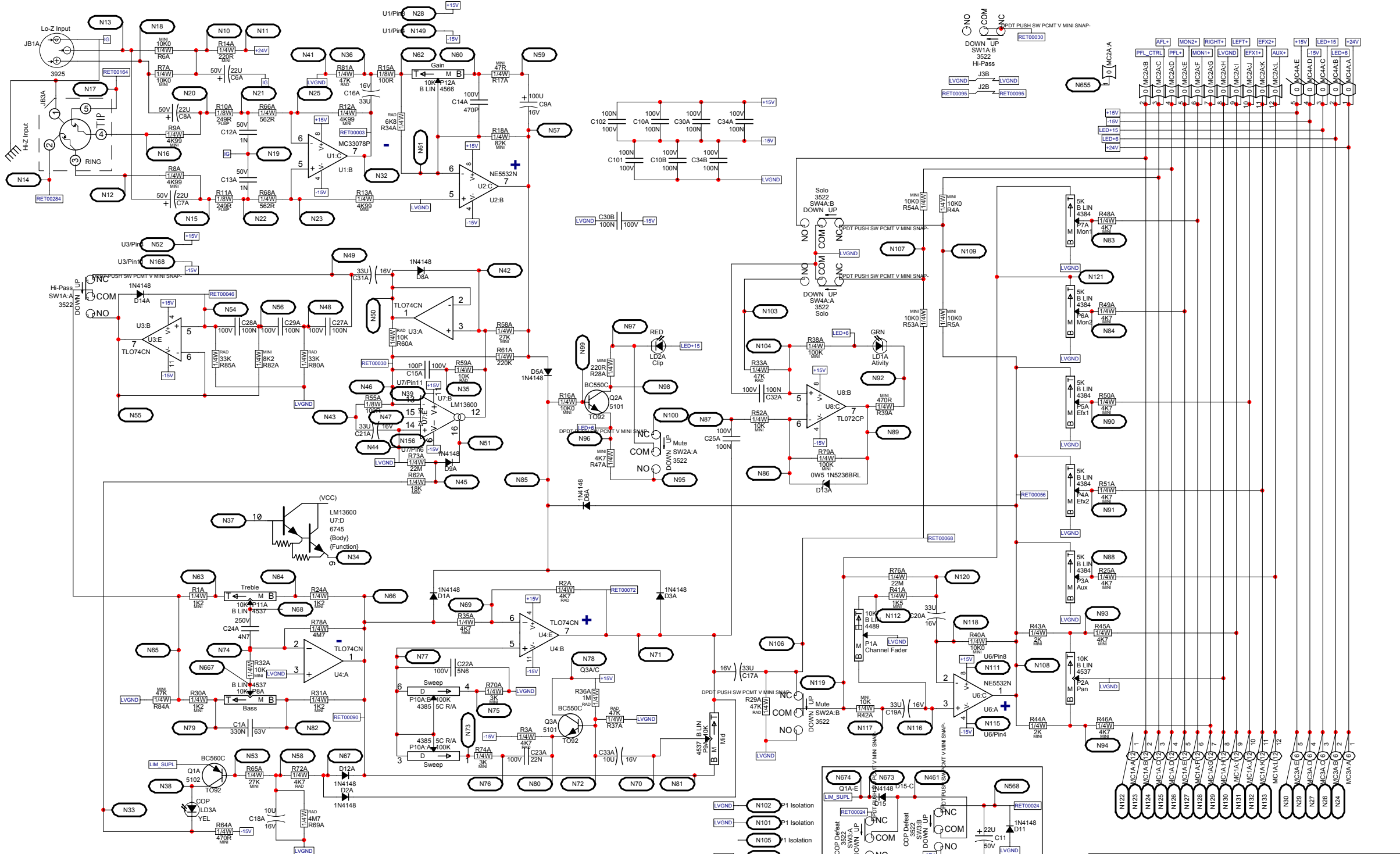
HARNES WIRES

HARNES WIRES

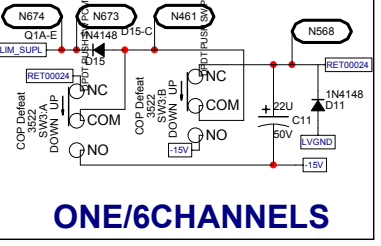
VCD

SOLDER SIDE W1192-1.01

BLK W11917.000-01.01

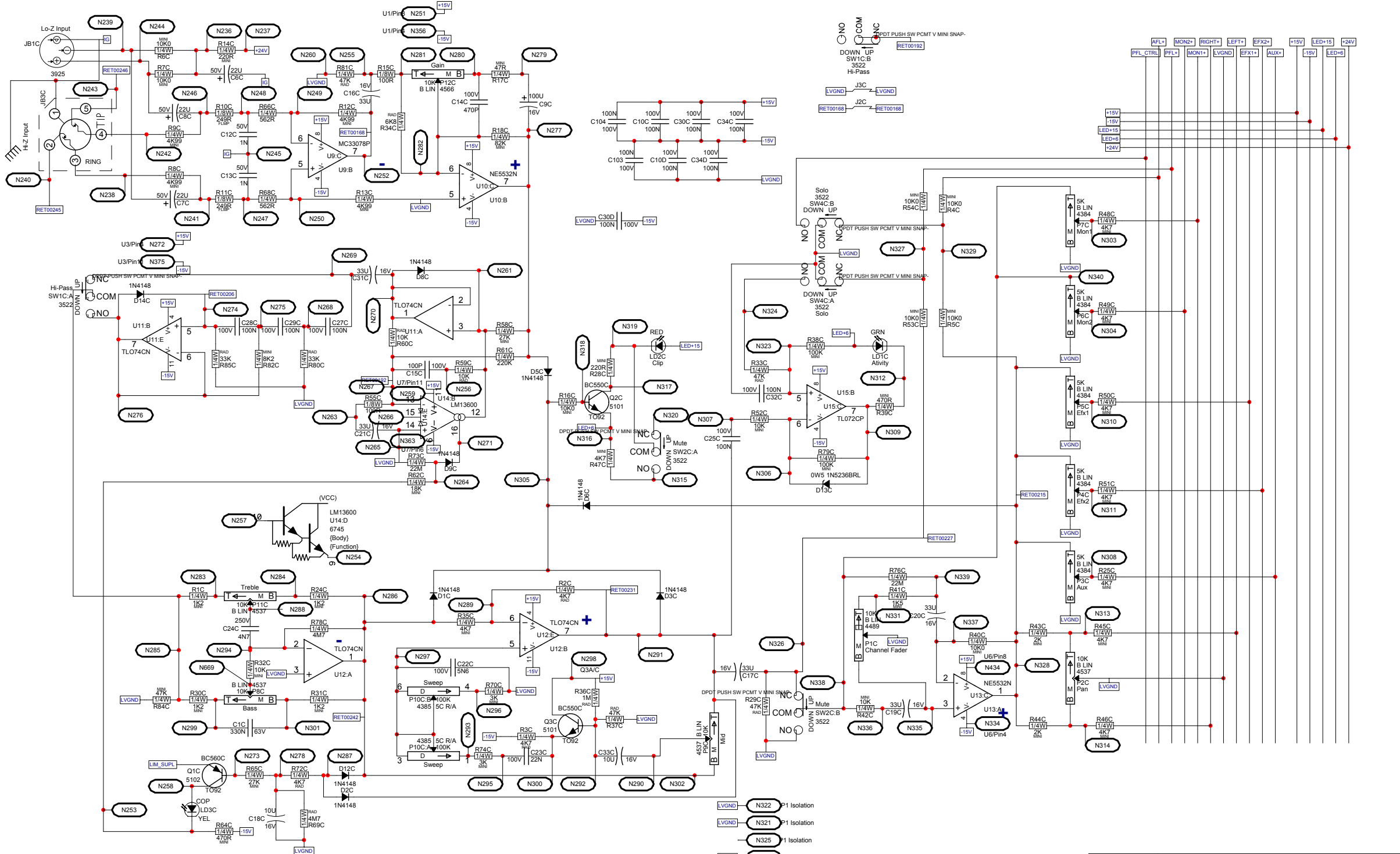


- LVGND - N102 P1 Isolation
- LVGND - N101 P1 Isolation
- LVGND - N105 P1 Isolation
- LVGND - N110 P1 Isolation
- LVGND - N114 P1 Isolation
- LVGND - N113 P1 Isolation



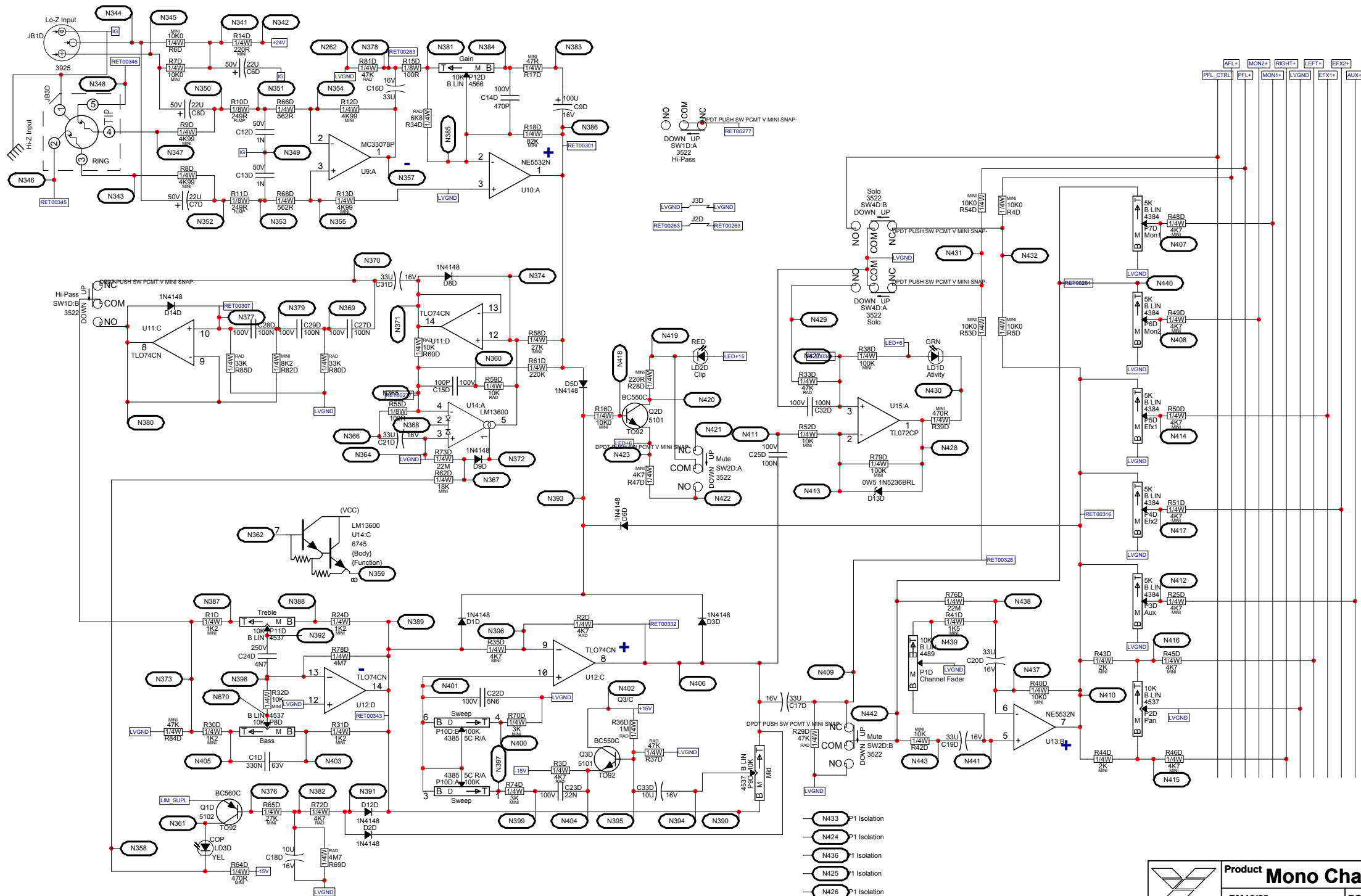
ONE/6CHANNELS





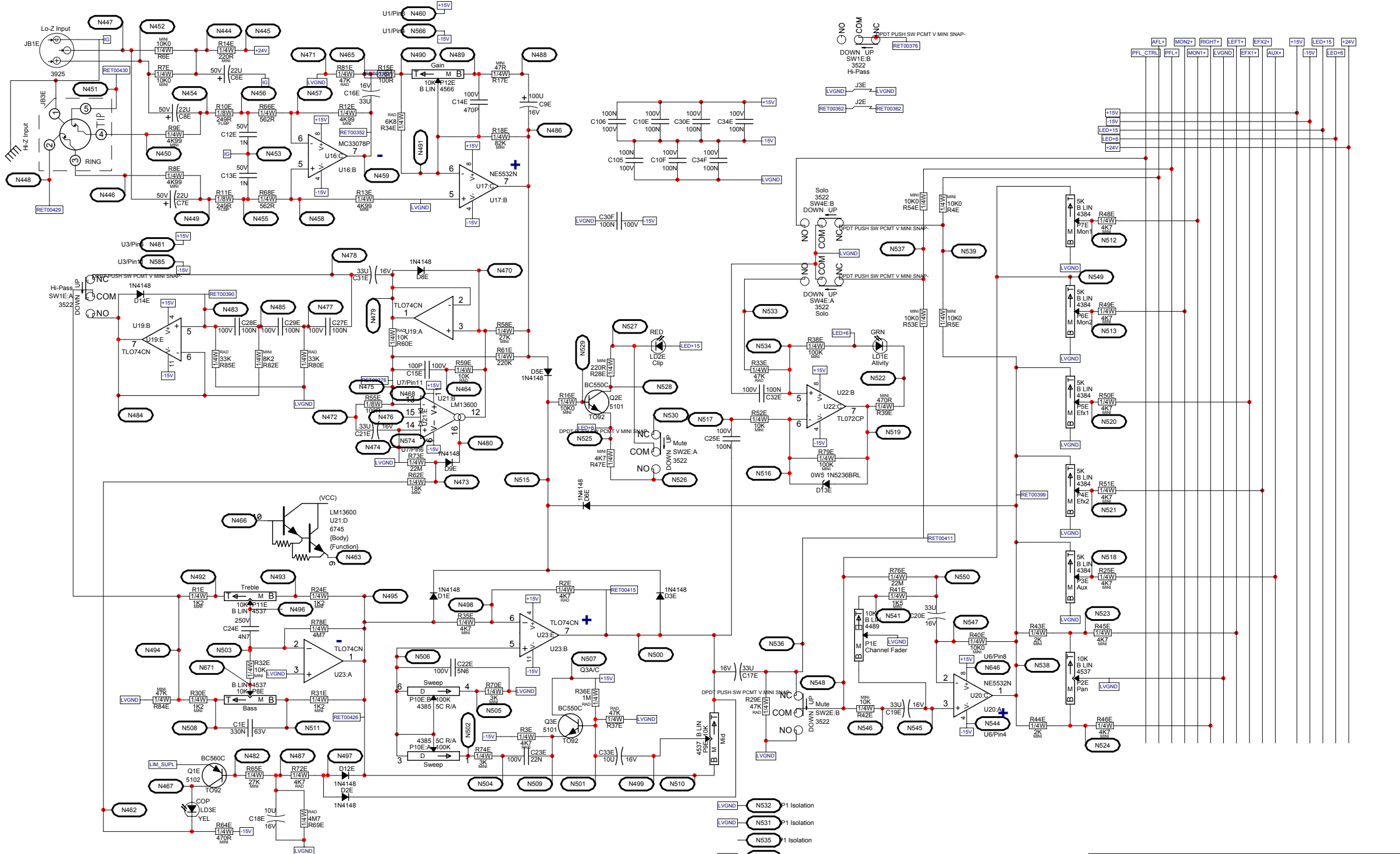
- LVGND N322 P1 Isolation
- LVGND N321 P1 Isolation
- LVGND N325 P1 Isolation
- LVGND N330 P1 Isolation
- LVGND N333 P1 Isolation
- LVGND N332 P1 Isolation





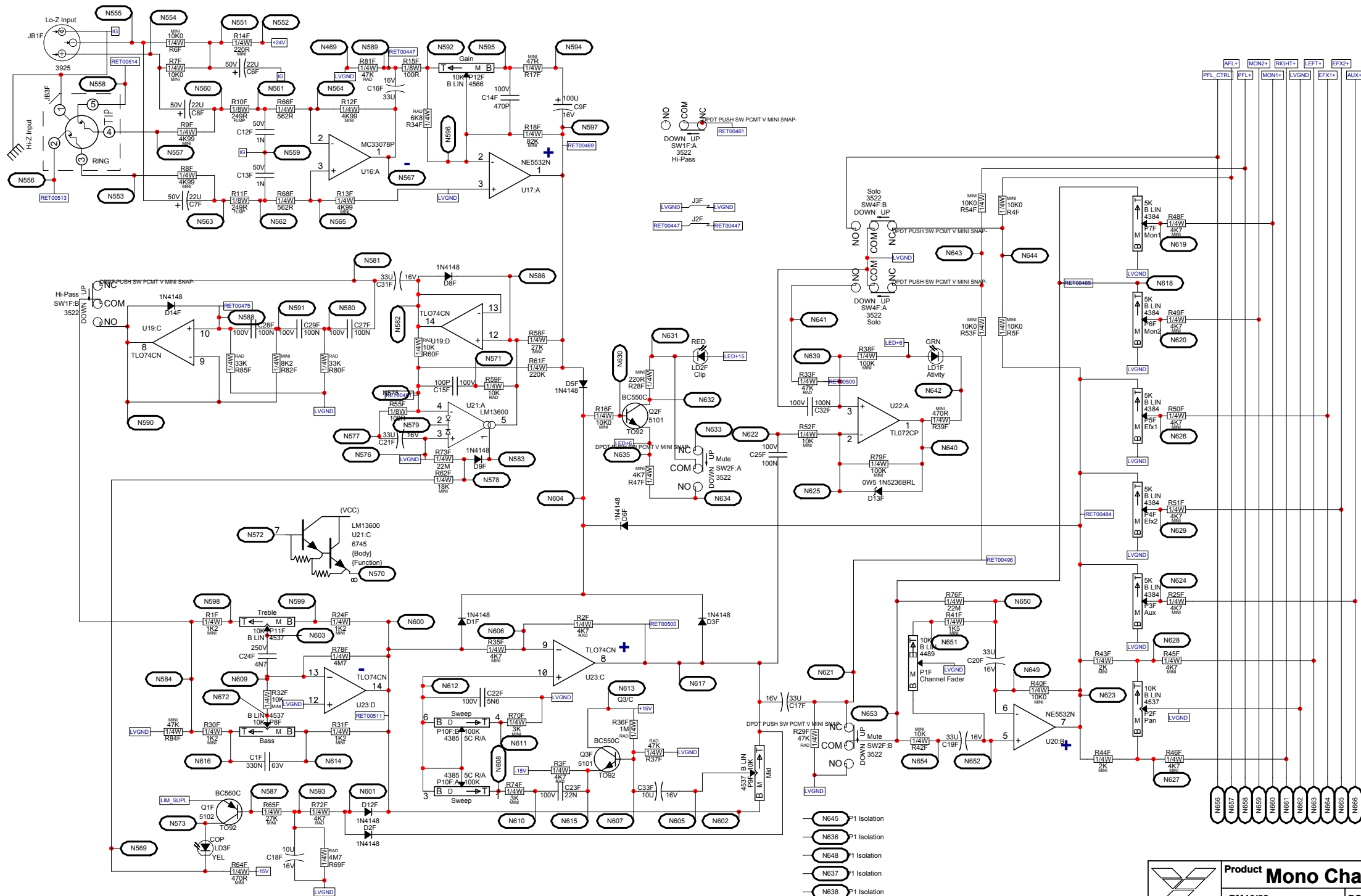
- N433 P1 Isolation
- N424 P1 Isolation
- N436 P1 Isolation
- N425 P1 Isolation
- N426 P1 Isolation
- N435 P1 Isolation





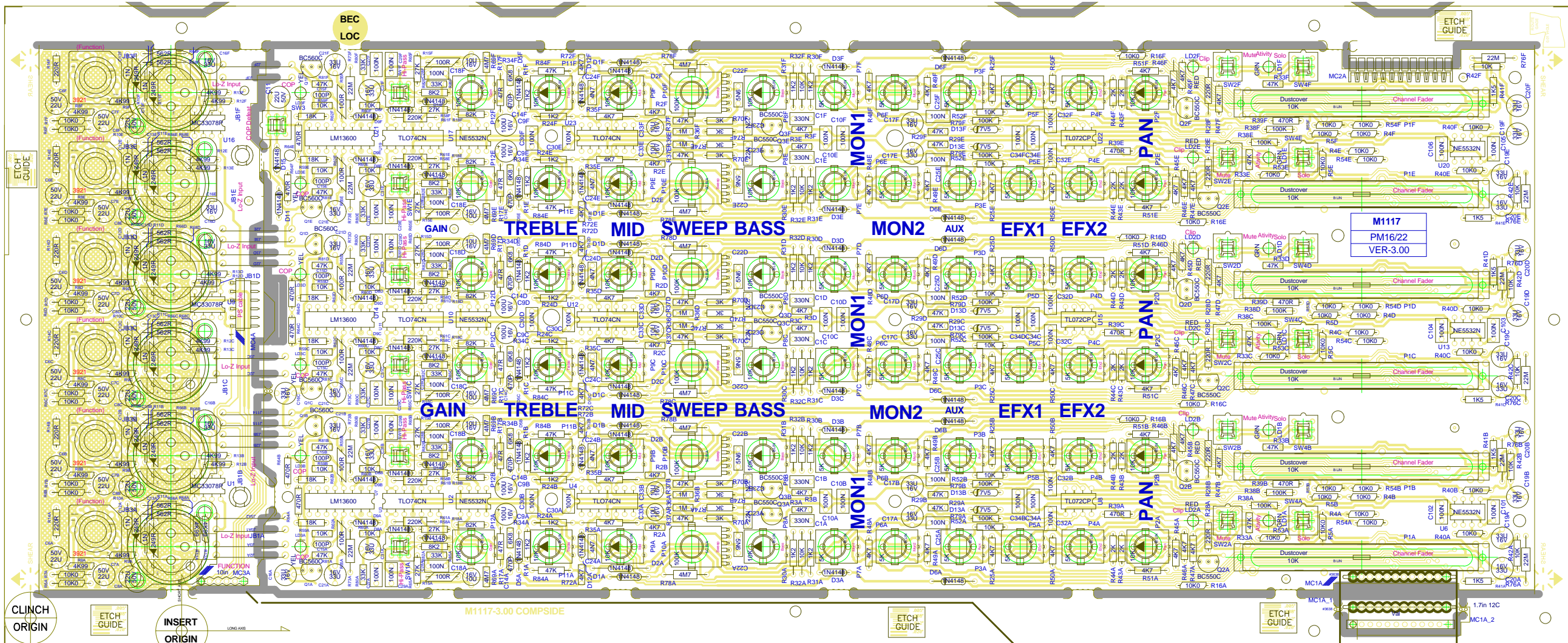
- LVGND N532 P1 Isolation
- LVGND N531 P1 Isolation
- LVGND N535 P1 Isolation
- LVGND N540 P1 Isolation
- LVGND N543 P1 Isolation
- LVGND N542 P1 Isolation





- N645 P1 Isolation
- N636 P1 Isolation
- N648 P1 Isolation
- N637 P1 Isolation
- N638 P1 Isolation
- N647 P1 Isolation





M1117.PCB DATABASE HISTORY

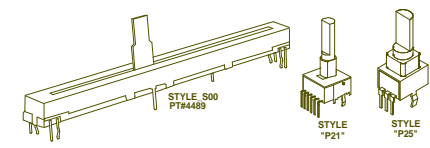
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25		D	
26		D	
27		D	
28		D	
29		D	
30		D	
31		D	
32		D	
33		D	
34		D	
35		D	
36		D	
37		D	
38		D	
39		D	
40		D	
41		D	
42		D	
43		D	
44		D	
45		D	
46		D	
47		D	
48		D	
49		D	
50		D	

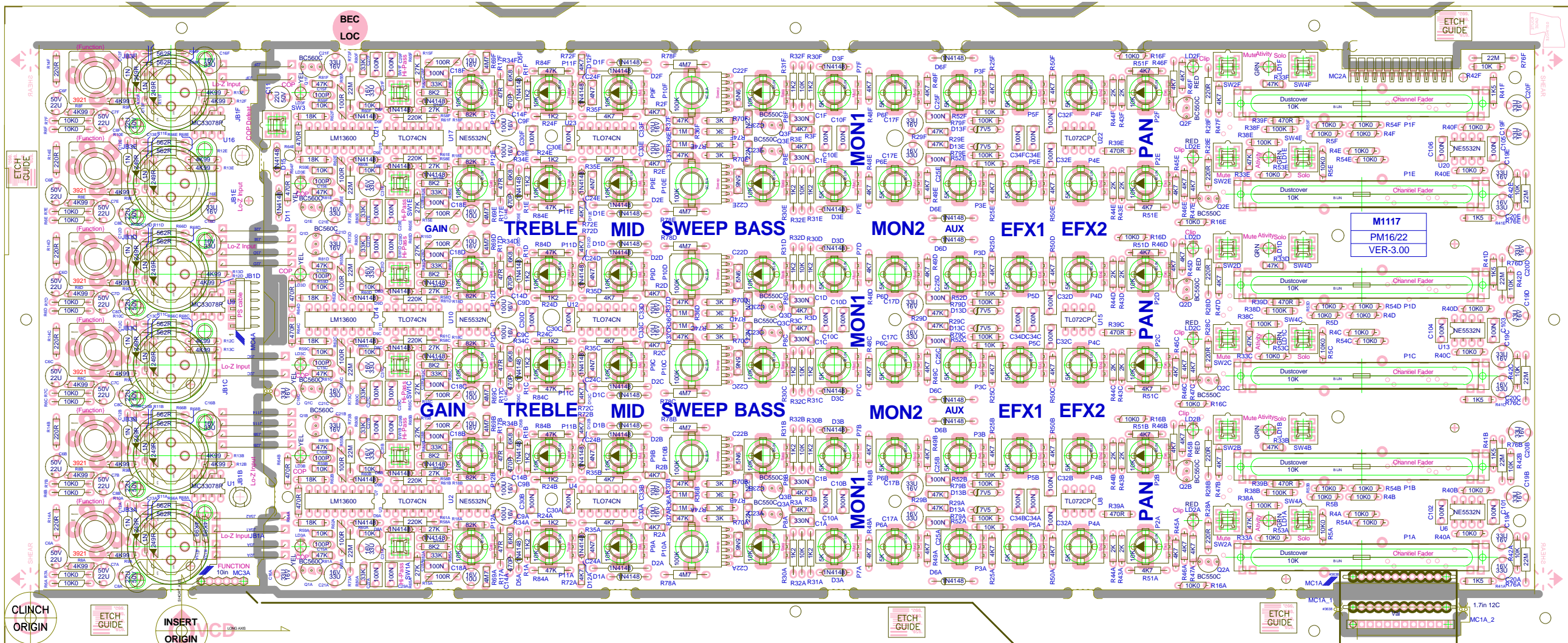
MODEL(S):-	MODEL	
1	Sept 28,2000	1.00P1
2	Dec 1, 2000	2.00
3		
4		
5		
6		
7		
8	Jan 18, 2001	
9	NOV 26 2001	2.10
10		
11	MAY 02,2002	2.20
12	Nov 13, 2002	3.00
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		

M1120.PCB_POT_LIST

MODEL(S):-	MODEL			
REF	FUNCTION	PART#	KNOB	AS_OF
P12A-F	GAIN	#4566	#6302	JAN2000
P11A-F	HIGH	#4557	#6303	
P10A-F	MID	#4559	#6303	
P9A-F	SWEEP	#4528	#6303	
P8A-F	LOW	#4527	#6303	
P7A-F	MON1	#4584	#6304	
P6A-F	MON2	#4584	#6304	
P5A-F	AUX	#4584	#6305	
P4A-F	EFX1	#4584	#6305	
P3A-F	EFX2	#4584	#6305	
P2A-F	PAN	#4557	#6302	
P1A-F	VOLUME	#4480	#6660	

THESE MOLEX PARTS STUFFED FOR M117B ONLY





M1117.PCB DATABASE HISTORY

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

THESE MOLEX PARTS STUFFED FOR M1117B ONLY

M1120.PCB_POT_LIST			
MODEL(S)-	MODEL		
REF	FUNCTION	PART#	AS_OF
P12A-F	GAIN	#4566	#6302 JAN2000
P11A-F	HIGH	#4537	#6303
P10A-F	MID	#4537	#6303
P9A-F	SWEEP	#4537	#6303
P8A-F	LOW	#4537	#6303
P7A-F	MON1	#4534	#6304
P6A-F	MON2	#4534	#6304
P5A-F	AUX	#4534	#6305
P4A-F	EFX1	#4534	#6305
P3A-F	EFX2	#4534	#6305
P2A-F	PAN	#4537	#6302
P1A-F	VOLUME	#4489	#6989

