



SERVICE MANUAL

MODEL TYPE: YS1042
U15P

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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.



SZ125A

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.

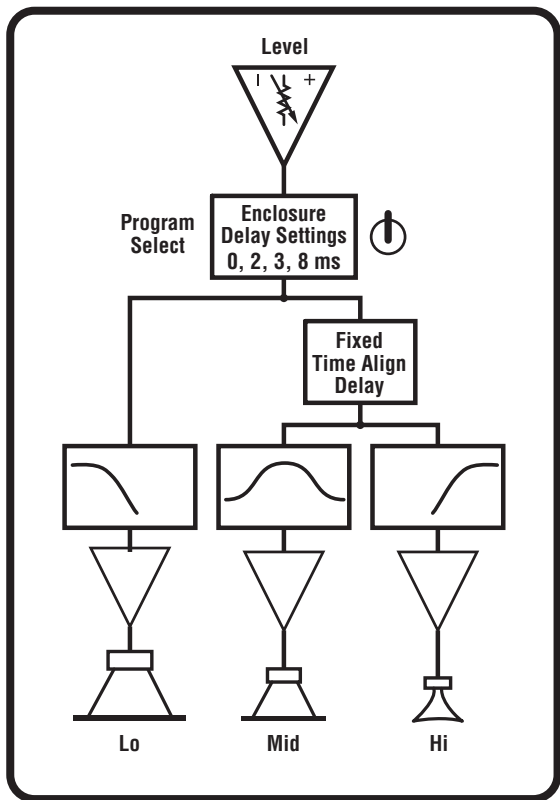
Débranchez cet appareil durant les orages ou si inutilisé pendant de longues périodes.

Service

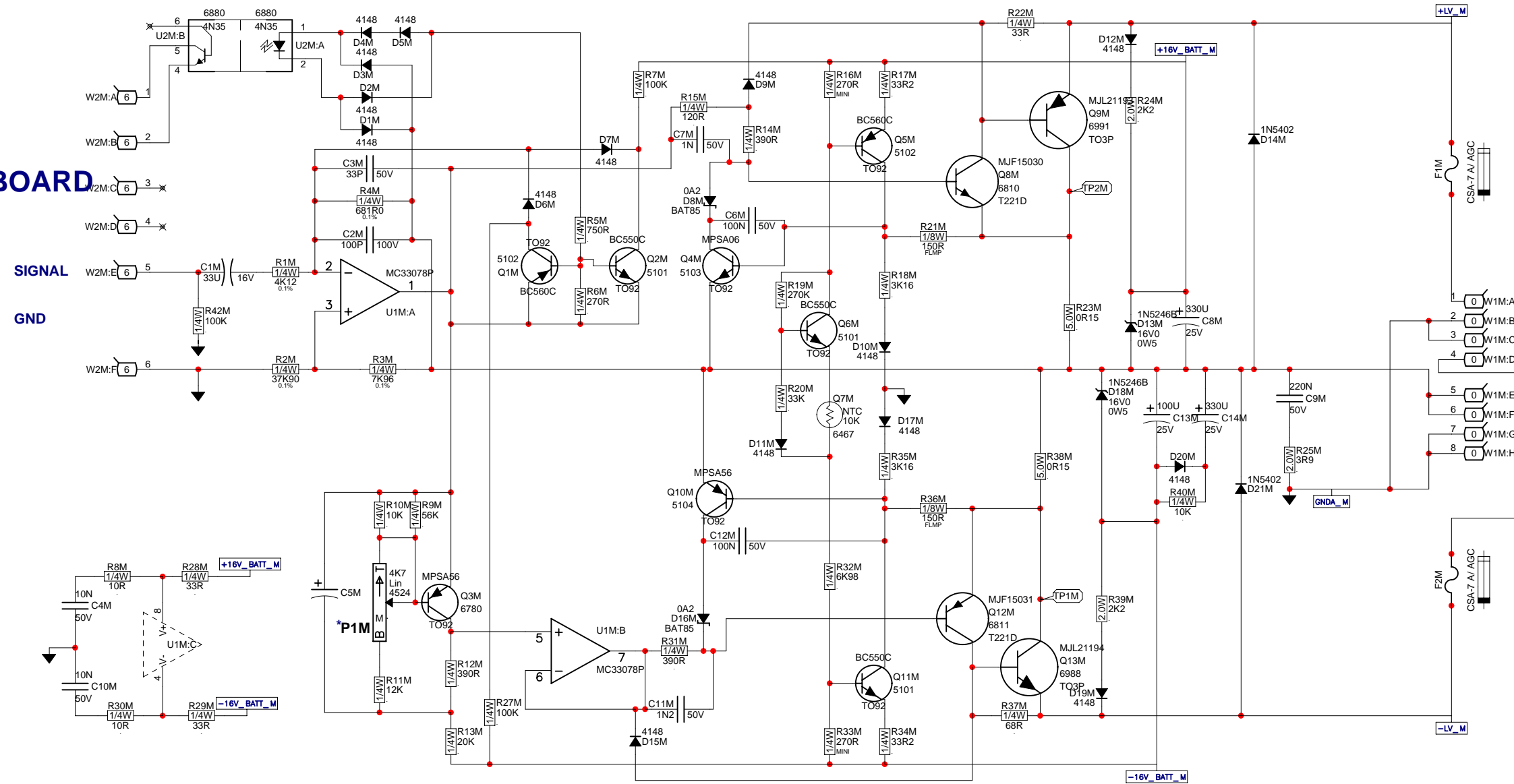
Consultez un technicien qualifié pour l'entretien de votre appareil. L'entretien est nécessaire quand l'appareil a été endommagé de quelque façon que se soit. Par exemple si le cordon d'alimentation ou la prise du cordon sont endommagés, si il y a eu du liquide qui a été renversé à l'intérieur ou des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

U15P Parts List 6/1/2010

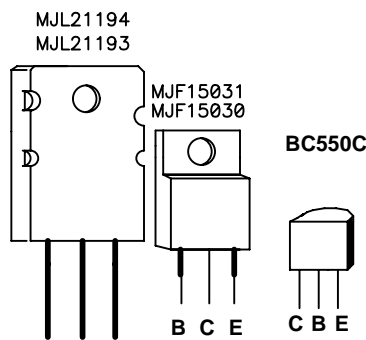
YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.
5906	RED 3MM LED 1V9 20MA 4SPCER T&R	1	4520	10K TRIM POT	1	4743	1/4W 681R 0.1% *** T&R RES	2	7780	10U 16V 20%CAP SMT ELC	8
6408	GRN 3MM LED 1V9 5MA FROSTED	4	2408	8.00 AMP CIRCUIT BREAKER	1	4869	1/4W 750R 5% T&R RES	2	7697	22U 16V 5%CAP 5X5.5 SMT ELC	8
6419	BRIDGE 35A 400V WIRE LEAD G13504	3	8467	2X2-1B-3/8" FLYING HARDWARE BRACKET	4	2033	1/6W 1K 2%FLAME PROOF T&R RES	2	7810	47U 16V 20%CAP 6X5.4 SMT ELC	1
6425	BAV21 200V 0A25 DIODE T&R	10	8483	ADAPTOR,SPEAKER STAND,METAL,BLACK	1	4981	1/4W 1K 5%MINI T&R RES	2	7811	100U 25V 20%CAP 8X5.4 SMT ELC	5
6733	BAT85 30V 0A2 DIODE SCHT T&R	6	8547	PLASTIC FOOT,BLACK,POLYETHYLENE	4	6110	1/4W 10K 1%MINI MF T&R RES	5	7885	PML14148 75V 0A2 DIO SOD80C SMT	5
6825	1N4148 75V 0A45 DIODE T&R	54	8562	CORNER, 3 LEGS, BLACK POWDER COAT	2	4802	1/4W 1K21 1% T&R RES	1	7754	FERRITE BEAD 1.5A 26R 1206 SMT	1
6827	1N5402 200V 3A0 DIODE	4	8569	CORNER, 2 LEGS,NO LIP,BLACK POWDER C	6	4988	1/4W 1K5 5%MINI T&R RES	1	7774	TAS3103 AUDIO PROCESSOR W/FX	1
6892	UF4004 200V 1A0 DIODE ULTRAFAS	2	3489	CLIP 250X032 18-22AWG DISCO/INSL	12	6105	1/4W 1K8 5%MINI T&R RES	2	7776	CS8361 ADC	1
6934	MR854 400V 3A0 DIODE FASREC	10	3490	CLIP 250X032 14-16AWG DISCO/INSL	15	6113	1/4W 2K 5%MINI T&R RES	2	7791	CS4362 LOFP-48 6-CH DAC SMT IC	1
6436	1N753ARL 6V2 0W5 ZENER 5% T&R	1	3491	CLIP 205/187X020 18-22AWG DISCO/INS	1	4705	2.0W 2K2 5% T&R RES	4	7818	LM1117 REGULATOR 3V3 SOT-223	1
6437	1N5237B 8V2 0W5 ZENER 5% T&R	1	3494	CLIP 205/187X020 14-16AWG DISCO/INS	2	6104	1/4W 2K2 5%MINI T&R RES	2	7828	LM13700M IC XCONDUCTANCE AMP SMT	1
6439	1N5225B 3V0 0W5 ZENER 5% T&R	2	3601	RING TERMINAL 16AWG WIRE & #8 SCREW	2	6124	1/4W 3K 5%MINI T&R RES	2	7786	CD4052B IC DUAL 4CHANNEL MUX SMT	1
6440	1N750ARL 4V7 0W5 ZENER 5% T&R	1	3921	1/4" JCK PCB MT VERT STER RT SWT	2	4992	1/4W 3K16 1% T&R RES	5	7789	SN74AHC1G08 SINGLE AND SOT23-5 IC	1
6450	1N5242B 12V0 0W5 ZENER 5% T&R	3	3453	XLR MALE PCB MT VERT	1	6136	1/4W 3K3 5%MINI T&R RES	1	7790	TPS3825-33 IC RESET SENSE SOT23-5	1
6465	1N5250B 20V0 0W5 ZENER 5% T&R	1	4010	XLR FEMLE PCB MT VERT 24MM AA-SERIES	1	4850	1/4W 3K9 5% T&R RES	1	7792	SN74AHC1G14 SINGLE INV SOT23-5 IC	3
6486	1N5244B 14V0 0W5 ZENER 5% T&R	3	3451	EYELET SMALL 0.089 OD PLATED	39	4756	1/4W 4K12 0.1% *** T&R RES	2	7812	SN74AHC1G86 SINGLE XOR SOT23-5 IC	2
6738	MC7805CT TO220 P 5V0 REG 36V	1	3414	INTERNATIONAL PC MOUNT FUSEHOLDER	8	4943	1/4W 4K7 5% 2U T&R RES	1	7908-PROG	AT24C64A SERIAL EEPROM 64K P1	1
6824	1N5246B 16V0 0W5 ZENER 5% T&R	14	2465	7.0 AMP FAST-BLO 25X1.25 FUSE	4	4982	1/4W 4K7 5%MINI T&R RES	6	7909-PROG	AT24C64A SERIAL EEPROM 64K P2	1
6871	MC7915CT TO220 N 15V0 REG V2	1	4054	FAN 80MM X 80MM 31CFM 12VDC 150MA	2	6128	1/4W 4K99 1%MINI MF T&R RES	4	7910-PROG	AT24C64A SERIAL EEPROM 64K P3	1
6872	MC7815CT TO220 P 15V0 REG V1	1	8565	BAR HANDLE ALL METAL RECTANGULAR	2	4717	1/4W 6K19 1%MINI T&R RES	2	7911-PROG	AT24C64A SERIAL EEPROM 64K P4	1
5101	BC550C TO92 NPN TRAN T&R TB	12	7402	8R 45W 1.00" DRIVER 4550-8R BMS	1	4801	1/4W 6K98 1% T&R RES	2	7817	33078 DUAL OPAMP SO-8 IC	8
5102	BC560C TO92 PNP TRAN T&R TB	6	3894	AAVID 5972-B H/S W/TAB B.O.	2	4787	1/4W 7K960 0.1% *** T&R RES	2	7808	12.288 CRYSTAL SMT 2-PIN 4.5MM CASE	1
5103	MPSA06 TO92 NPN TRAN T&R TA	4	3745	DUAL XSISTOR PBL SPRING CLEAR ZINC	4	4829	1/4W 10K 5% T&R RES	4	7803	W063 0R 1% 0603 SMT RES	6
5104	MPSA56 TO92 PNP TRAN T&R TA	3	3977	QUAD XSISTOR SPRING, ZINC YELLOW	4	5031	1.0W 10K0 5% T&R RES	10	7801	W125 1R 0.1% 0603 SMT RES	12
5105	MPSA13 TO92 NPN DARL T&R TA	5	8721	3/8-16X11/4 GRD5 FLAT SCKT HD JS500	8	6116	1/4W 10K0 1%MINI MF T&R RES	8	7781	W063 49R9 1% 0603 SMT RES	3
5106	MPSA63 TO92 PNP DARL T&R TA	1	9897	CABINET COVER, BLACK, 54" WIDE	25	4856	1/4W 12K 5% T&R RES	2	7785	W100 93R1 1% 0603 SMT RES	5
5107	2N5551 TO92 NPN TRAN T&R TA	1	3552	NYLON SPRING CLAMP	1	4630	1/2W 15K 5% T&R RES	6	7624	0.1W 100R 1% 0805 SMT RES	2
5108	2N5401 TO92 PNP TRAN T&R TA	2	3799	ROUND BUMPER BUTTON BLACK	1	4979	1/4W 15K 5%MINI T&R RES	3	7635	0.1W 221R 1% 0805 SMT RES	6
5113	MPSA42 TO92 NPN TRAN T&R TA	1	3801	5/8" BUMPER BUTTON BLACK	4	4885	1/4W 20K 5% T&R RES	3	7690	1/3W 249R 1% 1210 SMT RES	6
6780	MPSA56 TO92 PNP TRAN TA	2	3803	NYLON SECUR-A-TACH MINI PLASTIC TIE	1	4777	1/4W 21K5 1% T&R RES	1	7640	0.1W 322R 1% 0805 SMT RES	3
6808	MJE15032 TO220 NPN TRAN TE	1	3810	4" NYLON CABLE TIE	4	6118	1/4W 22K 5%MINI T&R RES	4	7784	W063 634R 1% 0603 SMT RES	6
6809	MJE15033 TO220 PNP TRAN TE	1	3852	STICK ON CABLE WRAP ANCHOR	1	6129	1/4W 27K 5%MINI T&R RES	1	7621	0.1W 1K 1% 0805 SMT RES	8
6810	MJF15030 T221D NPN TRAN TJ	2	H32	HORN FOR UNITY 15 CABINET	1	4840	1/4W 33K 5% T&R RES	2	7633	0.1W 2K74 1% 0805 SMT RES	1
6811	MJF15031 T221D PNP TRAN TJ	2	3903	PCB CONN 4 CIR BOTTOM .156	6	6122	1/4W 33K 5%MINI T&R RES	2	7638	0.1W 3K74 1% 0805 SMT RES	6
6873	MJE340 TO126 NPN TRAN TG	1	3558	TERM HOUSING 4 CIR .156/RAMP	2	4868	1/4W 36K 5% *** T&R RES	2	7642	0.1W 4K75 1% 0805 SMT RES	2
6874	MJE350 TO126 PNP TRAN TG	1	3559	TERM HOUSING 8 CIR .156/RAMP	2	4794	1/4W 37K9 0.1% *** T&R RES	2	7649	1/8W 1K50 1% 0805 SMT RES	10
6916	TIP107 TO220 PNP TRAN DARL TE	1	3538	24 PIN BREAKAWAY LOCK .156	1,167	6119	1/4W 47K 5%MINI T&R RES	6	7679	0.1W 4K99 1% 0805 SMT RES	13
6953	IRF4905 TO220 PCH MFET	4	3668	4 CIR CHASSIS MOUNT HDR .156	3	4835	1/4W 56K 5% T&R RES	2	7793	W063 1K62 1% 0603 SMT RES	3
6966	IRL2910 NCH MFET 100V TN	4	3549	TRIFURCON TERM .156	20	4848	1/4W 62K 5% T&R RES	2	7794	W063 4K64 1% 0603 SMT RES	3
6909	MJ21196 TO3 NPN TRAN TH	2	9916	KNOB O-DEG GRY SOFT GRAY RIB	2	4838	1/4W 100K 5% T&R RES	6	7795	W063 1K02 1% 0603 SMT RES	3
6910	MJ21195 TO3 PNP TRAN TH	2	3426	8 3/16 SJT AC LINE CORD REMOVE-BSA	1	6120	1/4W 100K 5%MINI T&R RES	1	7796	W063 4K37 1% 0603 SMT RES	3
6988	MJL21194 TO3P NPN TRAN TK	2	8254D	"Y" LOGO UNITY SERIES LARGE DOME	1	4991	1/4W 133K 1%MINI T&R RES	2	7625	0.1W 10K0 1% 0805 SMT RES	12
6991	MJL21193 TO3P PNP TRAN TK	2	8701	4-40 KEPS NUT ZINC	4	6126	1/4W 220K 5%MINI T&R RES	3	7627	0.1W 13K 1% 0805 SMT RES	1
6840	MC33078P IC DUAL OP AMP	2	8760	6-32 KEPS NUT TIN PLATED	8	4879	1/4W 270K 5% T&R RES	2	7628	0.1W 15K0 1% 0805 SMT RES	1
6882	TL072CP IC FET DUAL OP AMP	2	8800	6-32 KEPS NUT ZINC	8	4809	1/4W 10M 5% T&R RES	1	7634	0.1W 20K5 1% 0805 SMT RES	5
6889	TL074CN IC QUAD O/A T.I. ONLY	1	9931	6-32 NYLON INSERT LOCK NUT	16	4751	1/4W 22M 5% T&R RES	1	7797	W063 47K 1% 0603 SMT RES	4
6467	10K 10% THERMISTOR TO-92 NTC	3	8930	#6-#8 X 1 1/4" TWISTER ANCHOR	6	3722	RELAY 1A 30AMP DC24 036MA PC-C	3	7626	0.1W 100K0 1% 0805 SMT RES	4
6880	4N35 OPTO-COUPLER	2	8604	10-32 T NUT	8	8842	#4 X 5/16 PAN QAD MS JS500 BLK	4	7685	1/8W 200K 1% 0805 SMT RES	3
5406	33P 50V 10%CAP BLK BEAD NPO	2	8841	10-32 KEPS NUT TIN PLATED	14	8865	4-40 X 5/16 PAN PH MS JS500	4	7687	0.1W 348K 1% 0805 SMT RES	3
5199	100P 100V 2%CAP T&R RAD CER.2NPO	6	8602	1/4-20 T NUT	12	8861	4-40 X 3/8 PAN PH MS JS500	4	7805	MMBT3906LT1 SOT-23 PNP TRAN T&R	5
7813	47P 50V 5%CAP 0805 SMT NPO	5	8788	1/4-20 KEPS NUT ZINC	4	8832	6-32 X 1/4 PAN PH TAPTITE JS500	25	7806	MMBF4391LT1 SOT-23 NCH JFET T&R	3
5273	1N5 200V 5%CAP T&R RAD CER.2NPO	1	8898	1/4-20 CAGE NUT C79 98142027	4	8807	6-32 X 5/16 PAN PH MS JS500	2	4088	V-LOCK IEC POWER INLET	1
5416	470P 50V 10%CAP T&R BEAD NPO	3	8797	5/16-18 KEPS NUT JS500	1	8801	6-32 X 3/8 PAN PH TAPTITE JS500	16	8607	3/16 NYLON SPACER OD 1/8 X ID .063	14
5422	1N 50V 10%CAP T&R BEAD NPO	2	8724	3/8-16 T-NUT (SCREW MOUNT)	1	8761	6-32 X 1/2 PAN PHIL MS ZINC CLEAR	8	8608	NYLON SPACER 200 OD .145 ID .110 L	8
5423	1N2 50V 10%CAP T&R BEAD X7R	2	3830	TO218 PREGREASED MICA 56-78-2AP	4	8828	6-32 X 3/4 PAN PH TAPTITE JS500	10	3752	SNAP IN 1/4 SPACER RICCHO	8
5210	22N 100V 10%CAP T&R RAD 2FLM	3	3916	TO3 SIL-PAD REPLACES MICA	4	8823	6-32 X 1 PAN PH TAPTITE JS500	12	3749	3/75 SPACER ID 170 OD .31 NYLON	7
5300	10N 50V 10%CAP T&R BEAD X7R	4	4022	ELASTOMER PAD - 2 TO218 / 4 TO220	4	8811	#6 X 1 1/4 FLAT HD SQ SCKT WS ZN CL	44	8657	6-32 X 3/8" HEX SPACER ALUMINUM	2
5840	22N 400V 10%CAP BLK RAD POLY FLM	1	8581	CUSTOM PBL TRANSISTOR SPACER	4	8785	#8 X 3/4 OVAL PH TYPE A BLACK OXIDE	20	3739	CUSTOM 4 LED SPACER	4
6451	4N7 250V 20%CAP BLK Y 10MM AC	1	3818	EMI SUPPRESSION FERRITE BEAD T&R	2	8749	10-32 X 1/2 OVAL PH TAPTITE JS500	9	3859	1/2 PLASTIC HEX SPACER #4	2
5212	100N 63V 5%CAP T&R RAD 2FLM	5	4597	22AWG STRAN TC WIR JMP	2	8756	#10 X 3/4 PAN PH TYPE A BLACK OXIDE	44	7405	5" 8R 30WPGM SPEAKER SEALED/BACK	3
5314	100N 50V 10%CAP T&R BEAD X7R	8	4599	22AWG SOLID SC WIR T&R JMP	62	8781	#10 X 7/8 FLAT QAD TYPE A JS500BLK	4	7439	15" 8R 800WPGM SPKR NEO	1
5318	220N 50V 10%CAP T&R BEAD X7R	2	5299	24AWG SOLID SC WIR RAD JMP	6	8727	#10 X 1" PAN PH TYPE A JS500 BLACK	4	8885	NEOPRENE EMINENCE DRIVER GASKET	1
5256	1U 63V 5%CAP T&R RAD 2FLM	3	4745	5.0W 0R1 5% BLK RES	4	8783	10-32 X 1 PAN QAD TT JS500 BLACK	3	8489	1/4-20 SPLIT WASHER BLACK OXIDE	2
5257	2U2 63V 20%CAP T&R RAD 2EL	6	4749	5.0W 0R15 5% BLK RES	4	8786	10-32 X 1 1/4 PAN QD MS JS500 BLACK	8	8482	3/8 1D FLAT WASHER	2
5258	4U7 63V 20%CAP T&R 8X7MM 2EL	1	2006	1.0W 1R 5%FLAME PROOF T&R RES	5	8751	10-32 X 2 PAN QAD MS JS500	6	8485	#6 SPLIT WASHER ZINC	1
5266	680N 250V 20%CAP BLK X2 30MM AC	1	4911	1/4W 2R2 5% T&R RES	2	8736	5/16-18X2-3/4 GRD 5 HEX BOLT JS500	1	3500	SHOULDER WASHER SWS605	1
7769	1U 50V 20%CAP 4.3X3.9 SMT ELC	9	4748	2.0W 3R9 5% T&R	4	8928	#14X11/4 ALLEN FLHD WOOD SCRW JS500	6	8818	3/4 OD X 3/8 ID X .080 THICK WASHER	2
5282	10U 16V 20%CAP T&R 5X7MM 2NCP	1	2009	1/4W 10R 2%FLAME PROOF T&R RES	4	8847	1/4-20 X 1 1/4 FLAT PH MS JS500	4	3586	DPDT ROKR SW QUIK 250 AC/PPWR IEC65	1
5945	10U 63V 20%CAP T&R RAD 2EL	1	4875	1/4W 10R 5% T&R RES	4	8770	1/4-20 X 1 5/16 TRUSS PH MS JS500	12	3682	250 MALE PCB TAB REEL	28
5961	33U 16V 20%CAP T&R RAD 2	7	2013	1/6W 22R1 1%FLAME PROOF T&R RES	1	8709	1/4-20 X 1.5 PAN PHIL MS ZINC CLEAR	4	3887	ADHESIVE LINED GROMMET EDGING	4
7809	10U 16V 20%CAP 6X5.4 SMT NP	2	4816	1/4W 33R 5% T&R RES	6	8730	M6 X 16 HEX BOLT ZINC	2	CH1403U	120/240/250VAC 50/60HZ POWER XFMR	1
5267	100U 25V 20%CAP T&R RAD 2EL	2	4604	1/4W 33R2 1% T&R RES	4	7766	15P 50V 5%CAP 0603 SMT NPO	3	4056	2 CIR XH-HEADER 0.098IN	2
5618	470U 25V 20%CAP BLK 10X15MM EL	1	2016	1/6W 39R 2%FLAME PROOF T&R RES	2	7602	330P 50V 5%CAP 0805 SMT NPO	2	2337	4 CIR XH-HEADER	



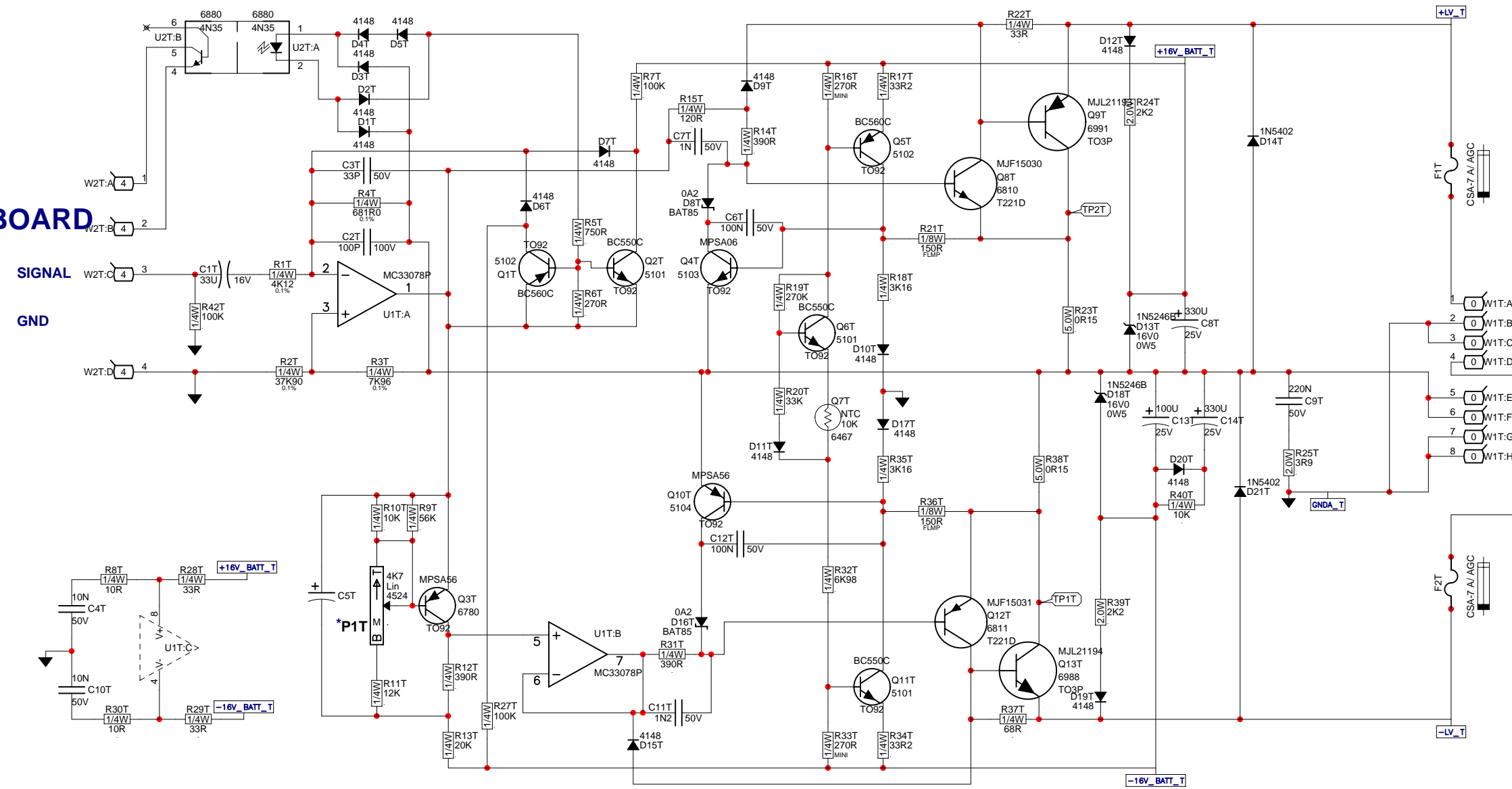
FROM INPUT BOARD



*** Adjust bias trim P1M to measure 4.5mV between TP1M and TP2M
Remove R9M as required to adjust bias.**



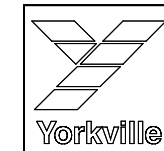
FROM INPUT BOARD



***Adjust bias trim P1T to measure 4.5mV between TP1T and TP2T
Remove R9T as required to adjust bias.**

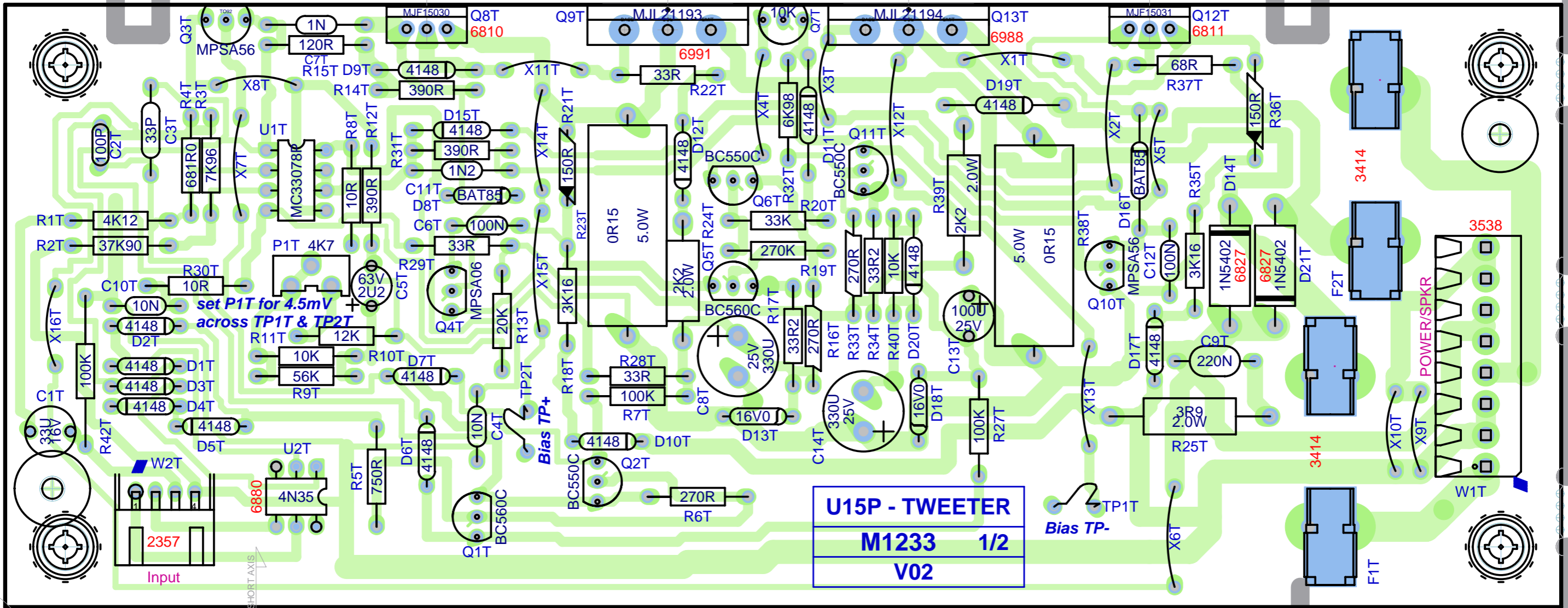
M1233 Database History

MODEL(S):-		U15P	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	4JUL2005	P3	Changed 6115 --> 4992
2	D	V	Removed routed finger holes
3	D	V	Changed Q10T,M from 6780 to 5104
4	2-NOV-2005	P3	Added R41T,41M,42T,42M
5	14FEB2006	1V0	Removed R41M,T, shorted pin3 of U1M,T to GND
6	09-AUG-2010	V02	PC8073: ADD BEC-LOC GG
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



put goop on Q3T

put goop on Q7T



U15P - TWEETER
M1233 1/2
V02

M1233V02
M1233V02

5 oz copper

M1233 V02

CLINCH
ORIGIN

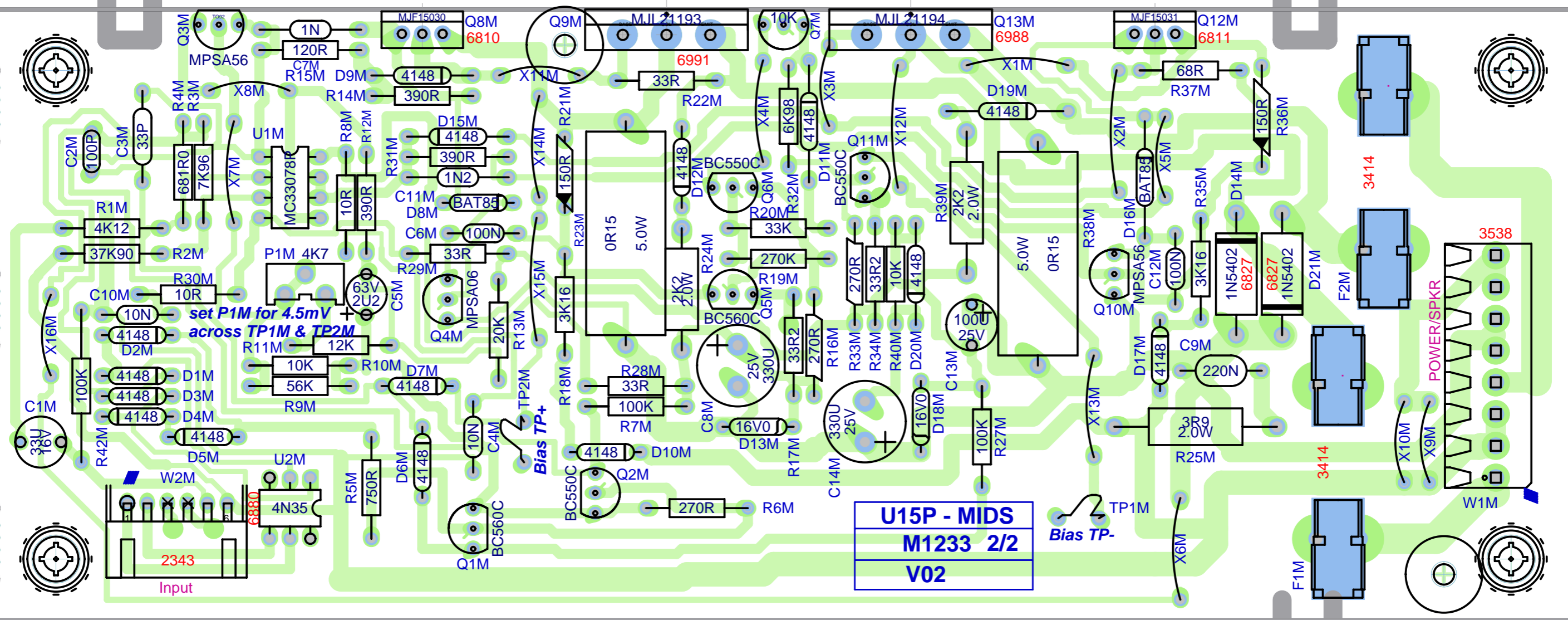
INSERT
ORIGIN

LONG AXIS

SEE LAYOUT DOCUMENTATION

put goop on Q3M

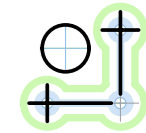
put goop on Q7M

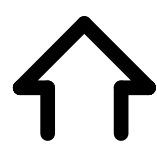


U15P - MIDS
M1233 2/2
V02

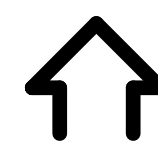
BlankSize - 17500x11000
 StepAndRepeat - X1@0.000Y3@3.500

SEE LAYOUT DOCUMENTATION





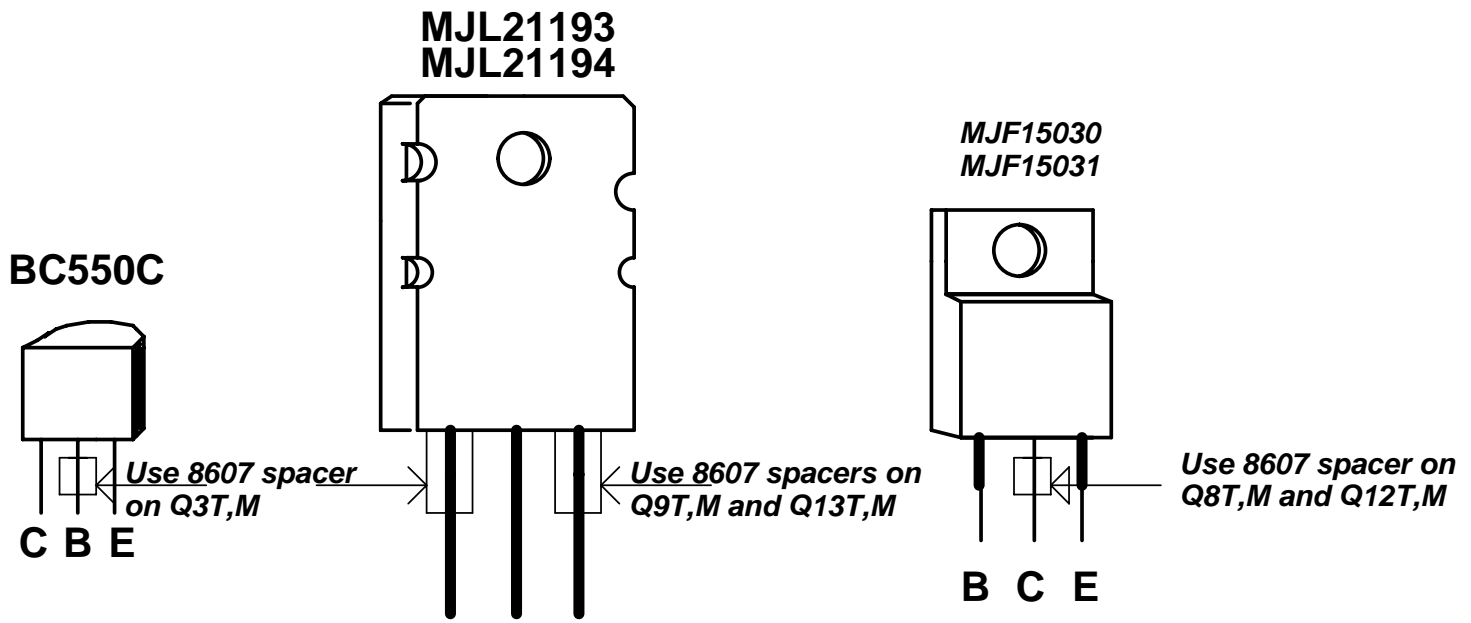
SEE LAYOUT DIAGRAM



M1233 REVISION HISTORY				M1233 DRILL HISTORY			
MODEL(S):- U15P				MODEL(S):- U15P			
#	DATE	VER#	DESCRIPTION OF CHANGE	#	DATE	VER#	DESCRIPTION OF CHANGE
1	4JUL2005	P3	Changed 6115 --> 4992	1	09-NOV-09	V02	Update board for Crimp
2	D	V	Removed routed finger holes	2	D	V	N
3	D	V	Changed Q10T,M from 6780 to 5104	3	D	V	N
4	2-NOV-2005	P3	Added R41T,41M,42T,42M	4	D	V	N
5	14FEB2006	1V0	Removed R41M,T, shorted pin3 of U1M,T to GND	5	D	V	N
6	09-AUG-2010	V02	PC8073: ADD BEC-LOC GG	6	D	V	N
7	D	V	N	M1233 PENDING LIST			
8	D	V	N	MODEL(S):- U15P			
9	D	V	N	#	DATE	VER#	DESCRIPTION OF CHANGE
10	D	V	N	1	D	V	N
11	D	V	N	2	D	V	N
12	D	V	N	3	D	V	N
13	D	V	N	4	D	V	N
				5	D	V	N
				6	D	V	N

M1233 PRODUCTION NOTES

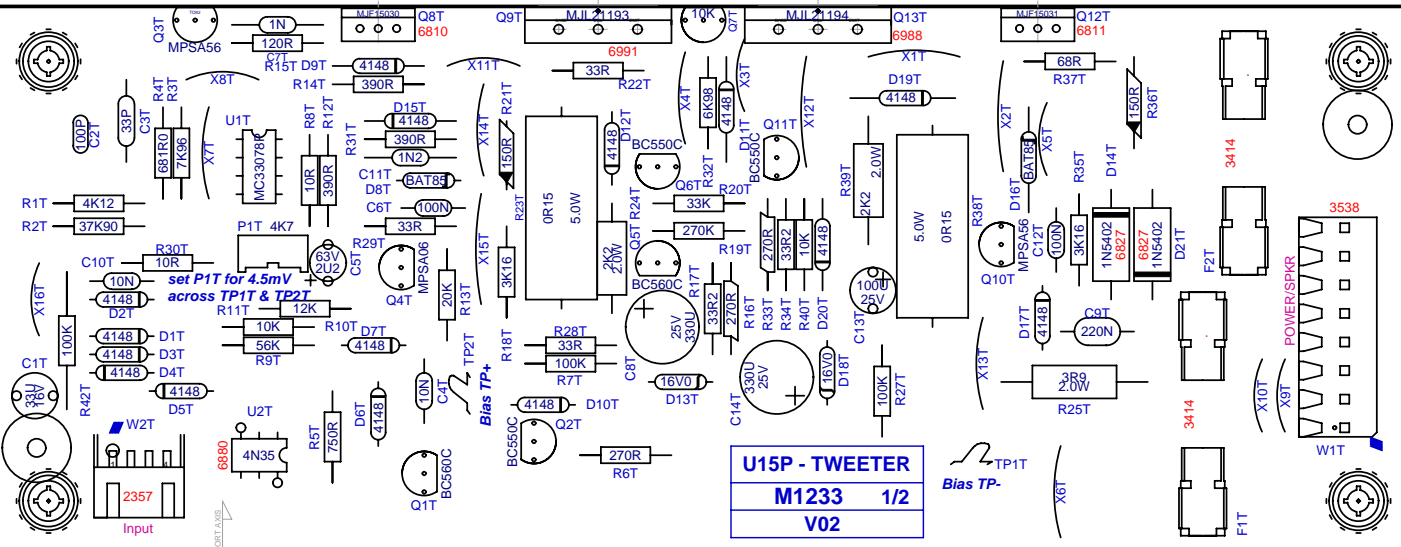
1. ADD SPACERS TO TRANSISTORS



- 2. Q3T AND Q3M ARE HAND INSERTED
- 3. Q3T, Q3M, Q7T, Q7M NEED TO BE GOOPED BEFORE BOARD IS BOLTED TO HEATSINK
- 4. BLANKSIZE & TOOLING HOLES MUST BE EXACT OR ELSE BOARD IS UNTESTABLE ON FIXTURE

put goop on Q3T

put goop on Q7T



set P1T for 4.5mV across TP1T & TP2T

Bias TP+

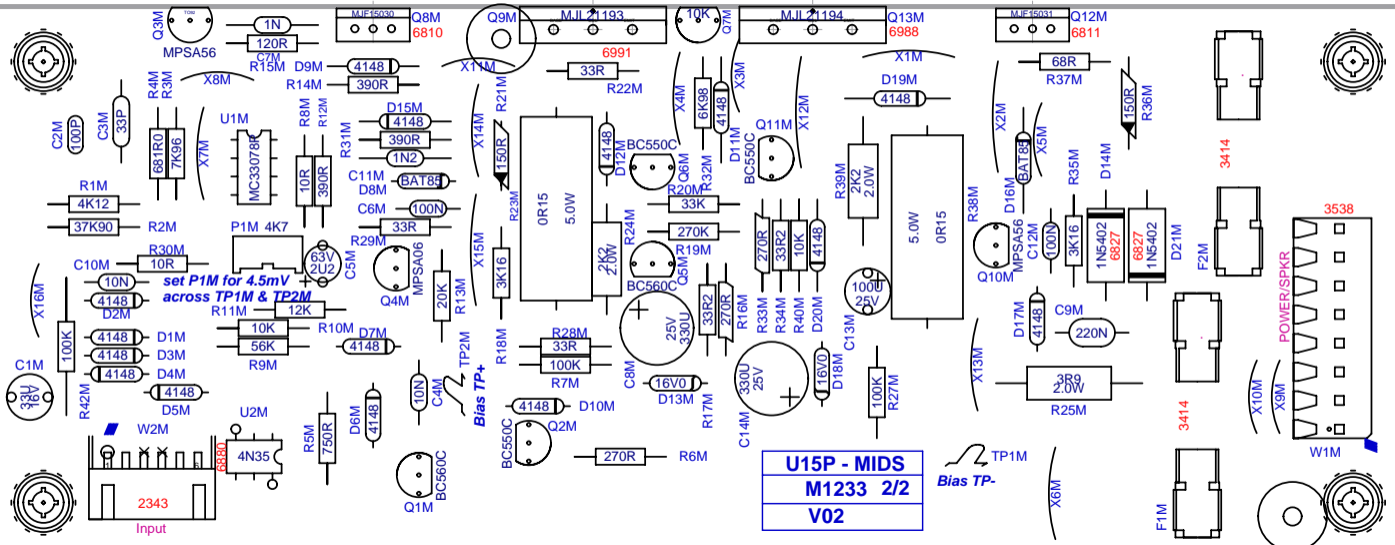
Bias TP-

U15P - TWEETER
M1233 1/2
V02

SHORT AXIS

put goop on Q3M

put goop on Q7M



set P1M for 4.5mV across TP1M & TP2M

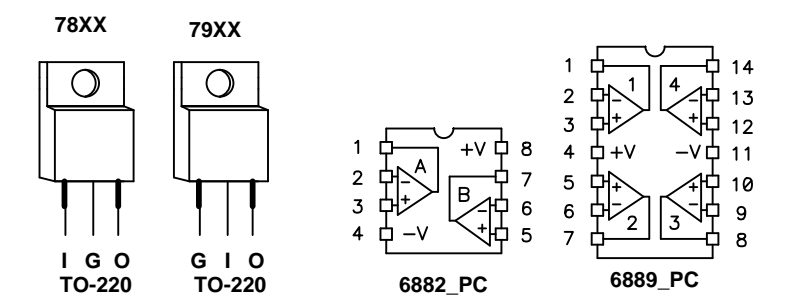
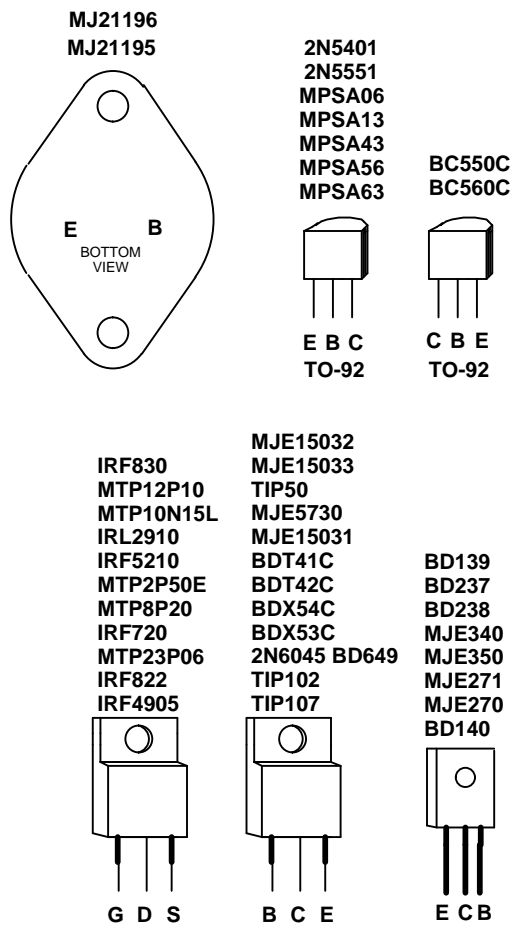
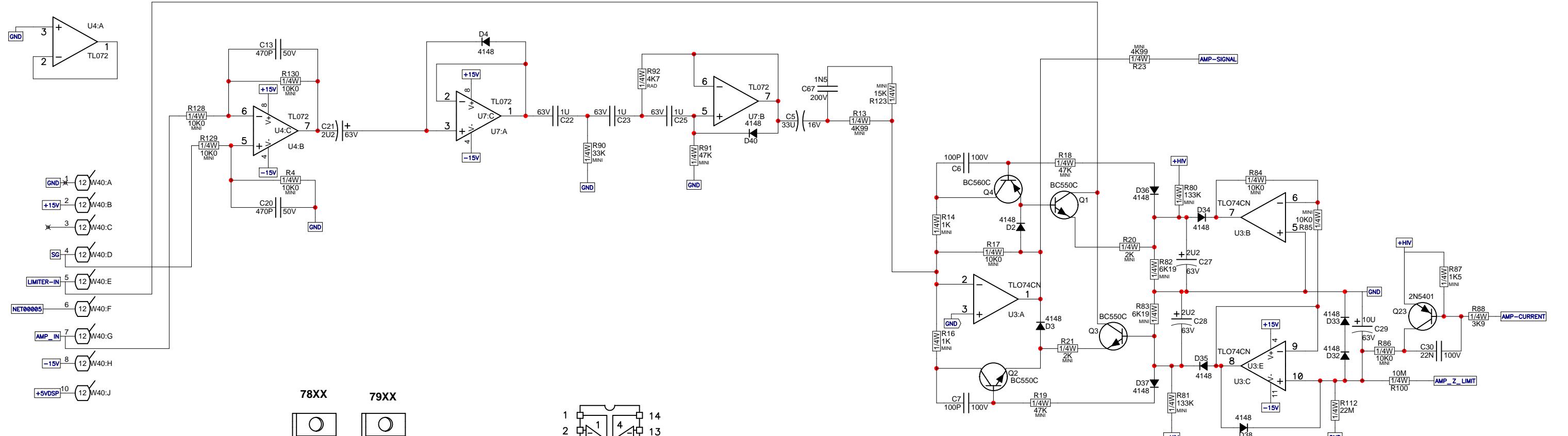
Bias TP+

Bias TP-

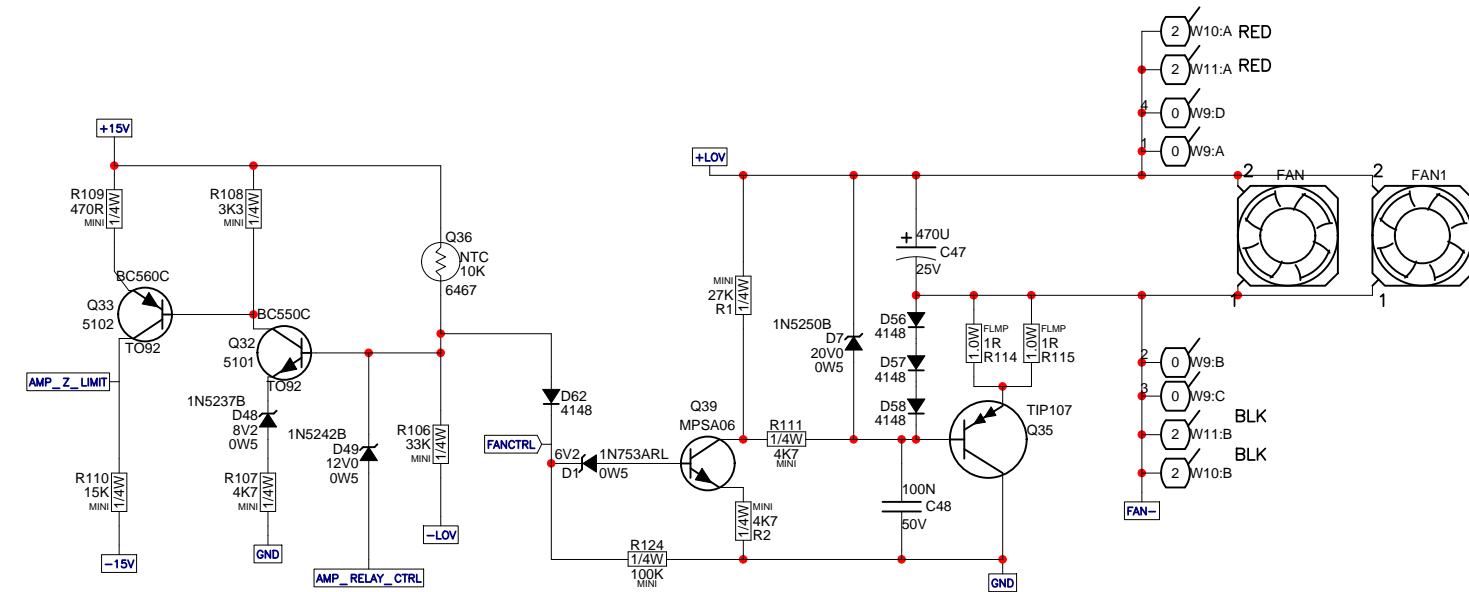
POWER/SPKR

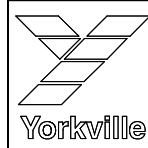
Input

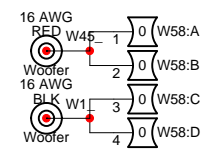
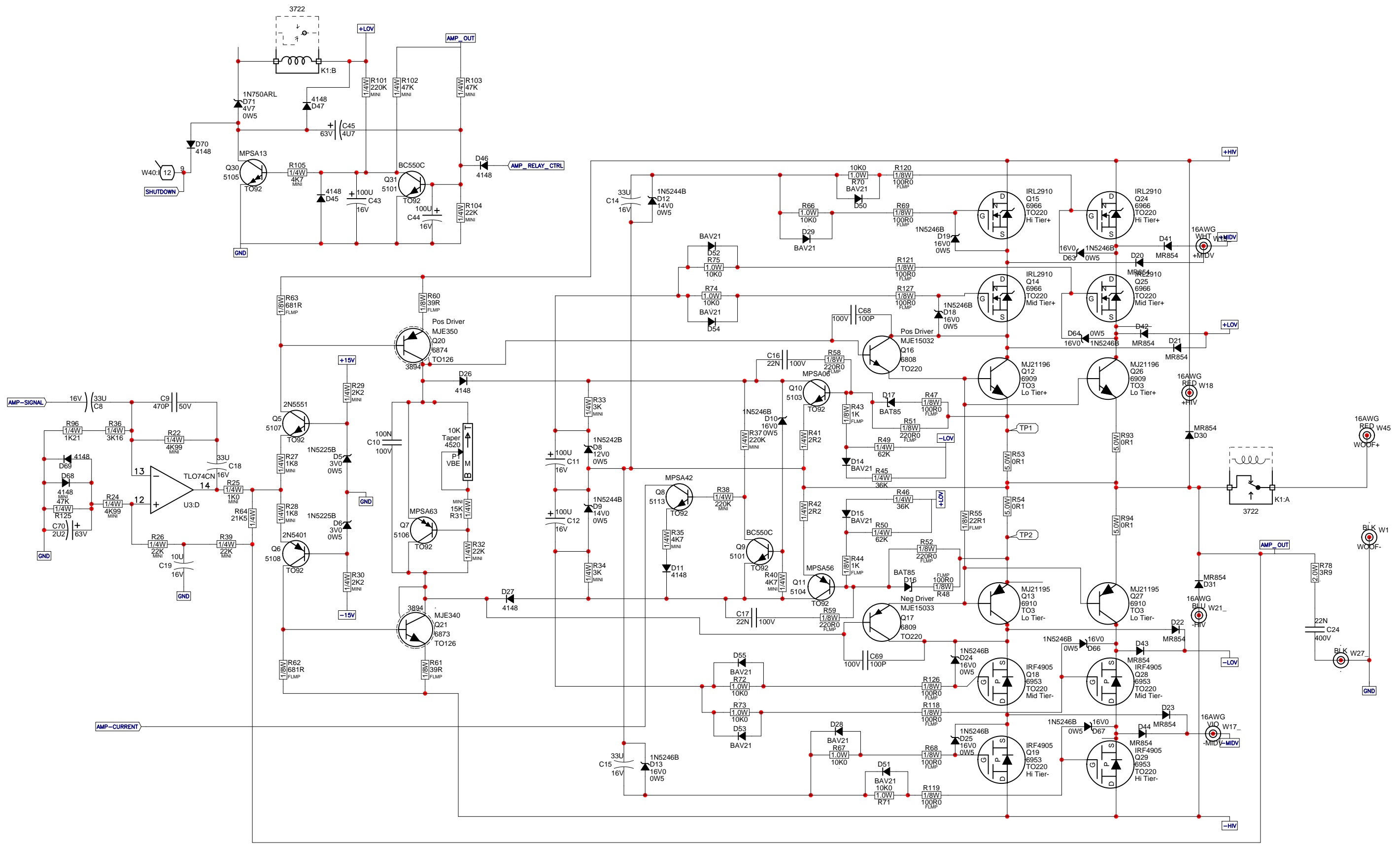
W1M



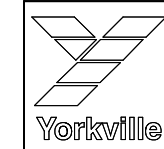
M1234 Database History			
MODEL(S):-	U15P	VER#	DESCRIPTION OF CHANGE
1	13SEPT2005	P2	R3 2006 --> 4688
2			N
3	14SEPT2005	P2	Added CONHOLE to chassis for GND
4	31OCT2005	P2	Modified XFMR colours
5	8NOV2005	P2	Q14,15,24,25 from 3205 (#6954) to 2910 (#6966)
6	9NOV2005	P2	Removed X33, changed X6,7
7	19DEC2005	P3	Increased size of relay board
8			Added mounting holes & deleted W29, changed colour W55
9	10JAN2006	P3	Changed SPKR wire colours
10	26JAN2006	P3	Added D76,D77 and changed D39,65,72,73 to 1N4007
11	14FEB2006	1V0	Re-routed PS GND, added ferrites to relay brd power, del LG
12	D	V	Removed W12, input limiter circuitry, changed C38,39,31,5,8
13	9MAR2006	1V0	C22,23,25 4.7uF->1uF
1	21MAR2006	1V0	Changed horn output relays to DC powered, R65 to 20K
2	16-MAY-2006	2.00	PC#7126:GT:ADDED X33 TO JUMP GND TO W40 PIN1
3			MOVED W57, W58, W62 DOWN 150MIL FOR CHASSIS
4	18-APR-2007	3.00	PC#7242, Added EC27-30, Fasten PCB and Heatsink
5	.	.	Changed pattern of XC4A,5A,94,114
6	.	.	PC#7586, change Q8 2N5551 #5107 to MPSA42 #5113
7	07-JUL-2008	4.00	PC#7574, ADD FAN CONNECTOR#4056
8	D	V	PC#7586, CHANGE Q8 FROM 2N5551 to MPSA42 #5113
9	D	V	
10	D	V	
11	D	V	
12	D	V	
13	D	V	



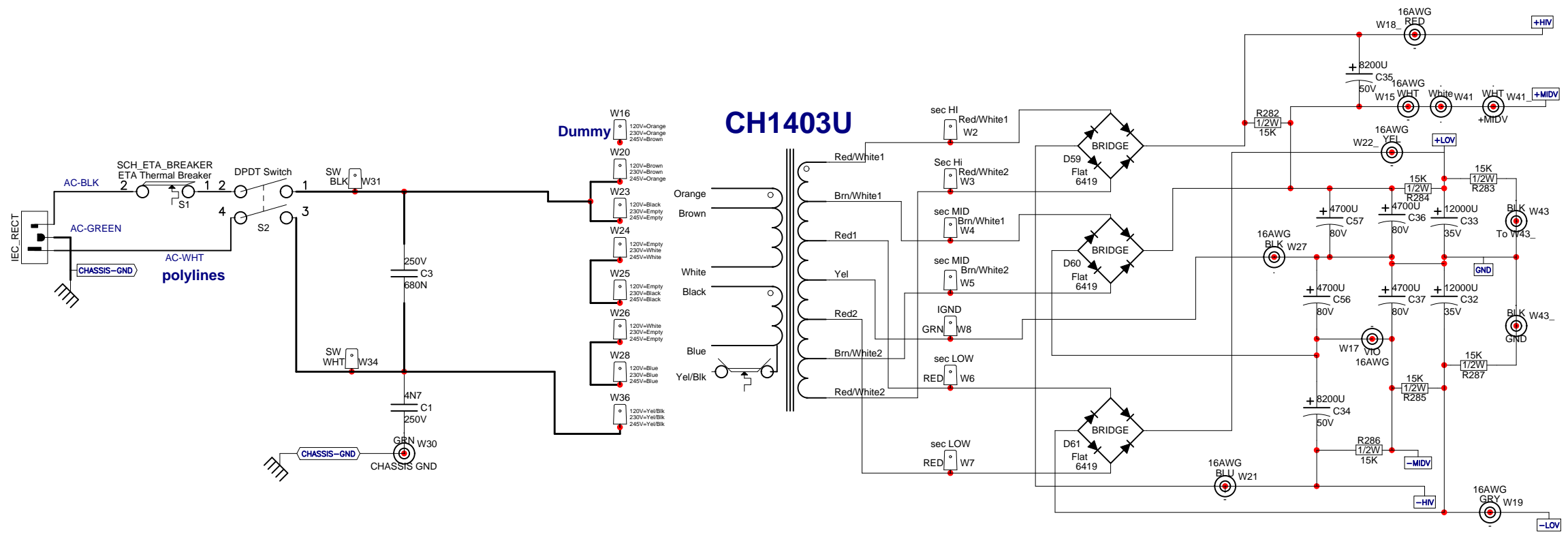

Product U15P
AMP-IN **PCB# M1234** **Sheet 1 of 3**
Date: Thu Nov 06, 2008 **Rev:V4.00**
Filename: M1234V400sch.sch2002



Adjust bias trim P1 to measure 8mV between TP1 and TP2

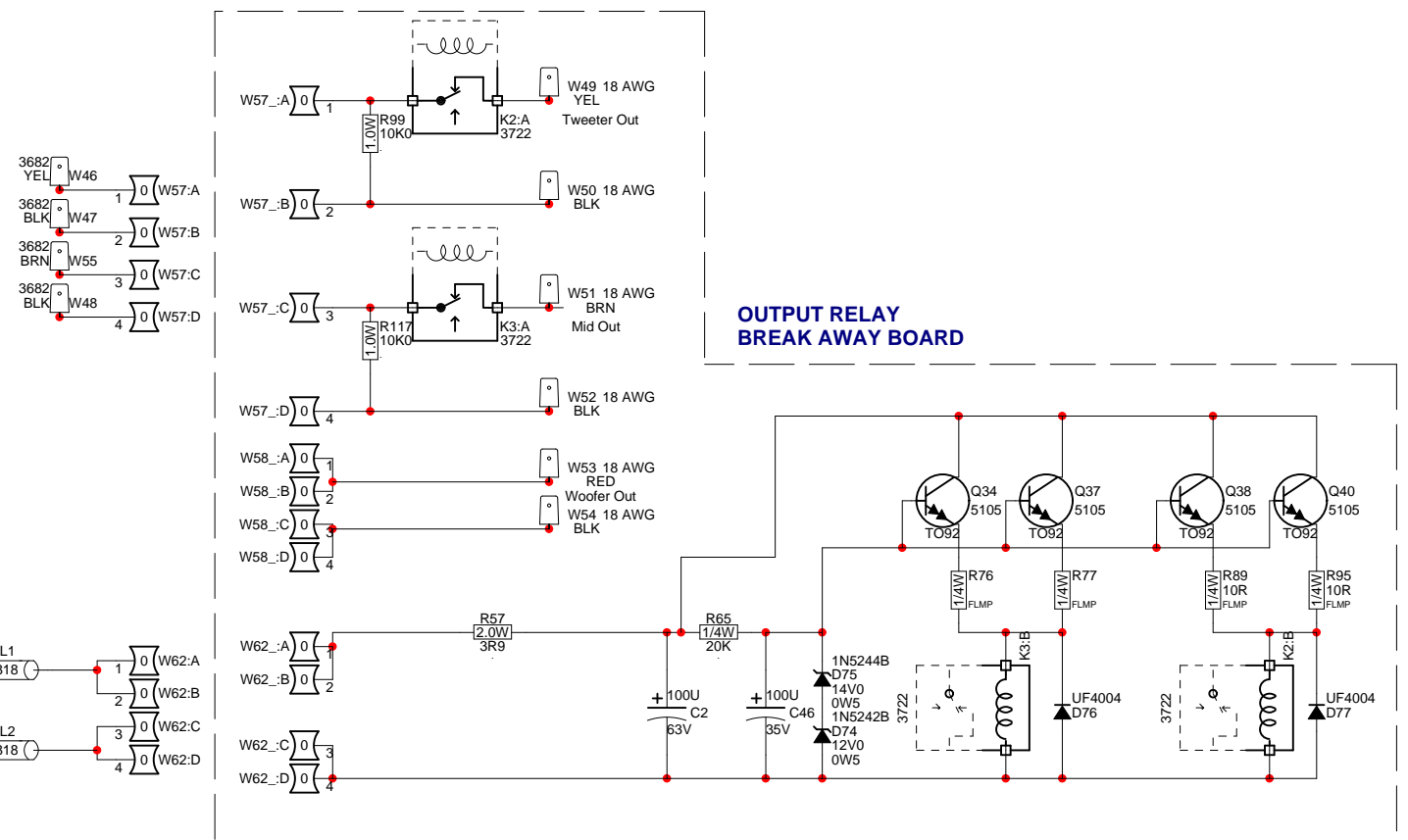


Product U15P		
AMP	PCB# M1234	Sheet 2 of 3
Date: Thu Nov 06, 2008	Rev: V4.00	
Filename: M1234V400sch.sch2002		

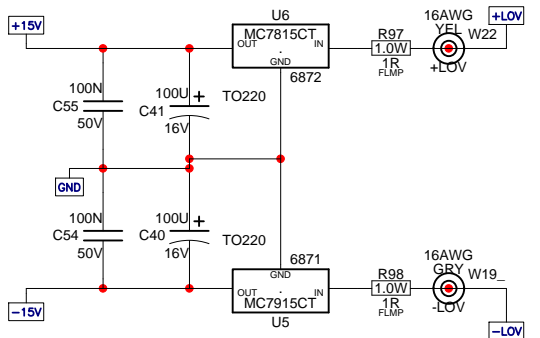
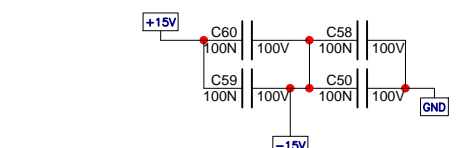
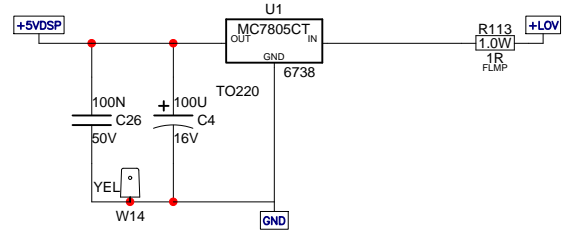
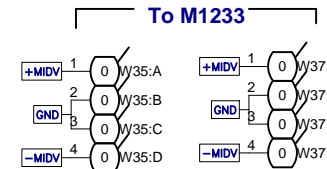


NO LOAD VOLTAGES
 LOV +/- 30.5 Vdc
 MIDV +/- 64 Vdc
 HIV +/- 98.5 Vdc

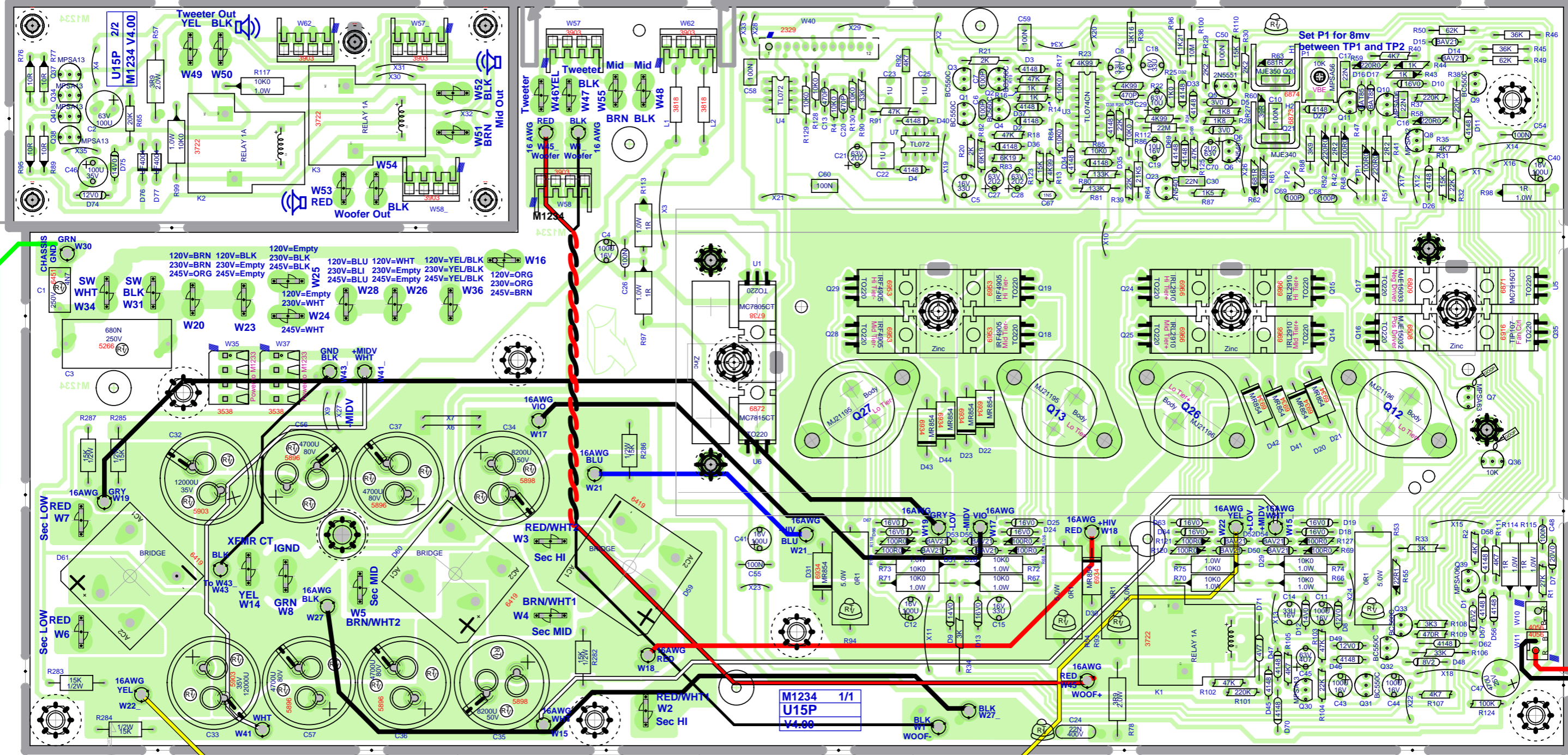
From Tweeter & Mid Boards



**OUTPUT RELAY
BREAK AWAY BOARD**

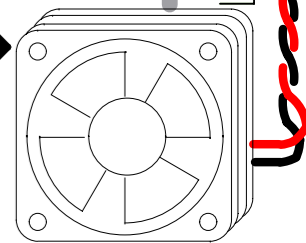


WARNING!
FOR CE:
CHASSIS MUST
NOT COME CLOSER
THAN THIS LINE TO
THE BOARD
COPPER TRACES
OF SECTION 1/2!



SEE LAYOUT DOCUMENTATION

Two fans





SEE LAYOUT DIAGRAM

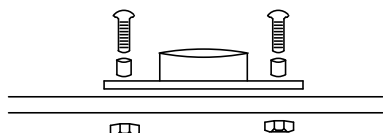


PRODUCTION NOTES

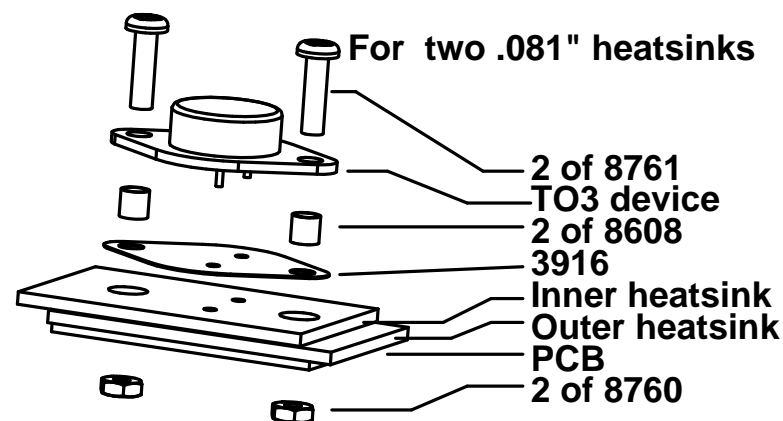
M1234 U15P

Board Assembly

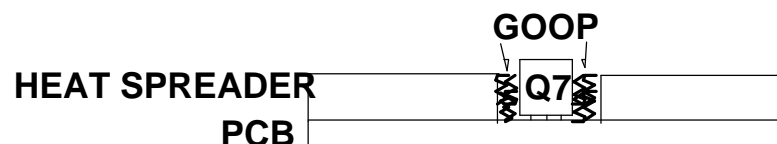
- 1 - INSERT #8829 THROUGH THE TWO TOOLING HOLES ON THE HEATSPREADER
- 2 - INSERT #8861 THROUGH THE FOUR CORNERS OF THE HEATSINK AND ADD #8701 NUTS ON PCB SIDE
- 3 - MOUNT Q12,Q13,Q26,Q27 SCREWS FROM THE TOP



- 4 - BOARD ASSEMBLY: INSERT Q36 #6467 10K THERMISTOR BY HAND



- 5 - FILL SPACE BETWEEN HEATSPREADER AND Q7 AND Q36 WITH THERMAL GOOP



- 6 - SHOOT FOUR #8786 SCREWS FROM THE BOTTOM OF THE PCB. AFTER THE TRANSISTORS AND CLIPS HAVE BEEN ADDED, USE #8841 NUTS TO HOLD IT ALL TOGETHER.
- 7 - CONNECT BREAK-AWAY BOARD TO UNDERSIDE OF MAIN BOARD USING THREE #3668 CONNECTORS AFTER DROPPING BOARD INTO CHASSIS
- 8 - RTV LARGE ELECTROLYTIC CAPACITORS TOGETHER, RTV SMALL ELECTROLYTICS TO THE BOARD
- 9 - RTV LARGE 5W RESISTORS TO THE BOARD
- 10 - TAPE OFF GROUND RING NEAR SUPPLY CAPS BEFORE WAVE SOLDERING. THIS AREA MUST BE FLAT WHEN ASSEMBLING CHASSIS.
- 11 - FOR FAN CONNECTORS (W9, W10 AND W11) CHECK WITH PENG
- 12 - BREAK OUT BOARD BEFORE TESTING.



SEE LAYOUT DIAGRAM

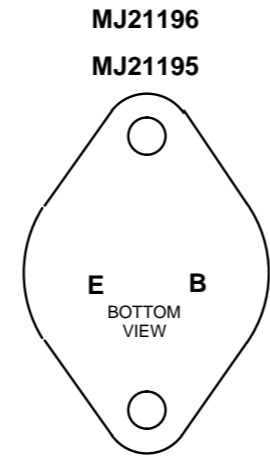


M1234 Database History			
MODEL(S):-	U15P		
#	DATE	VER#	DESCRIPTION OF CHANGE
1	13SEPT2005	P2	R3 2006 --> 4688
2		N	N
3	14SEPT2005	P2	Added CONHOLE to chassis for GND
4	31OCT2005	P2	Modified XFMR colours
5	8NOV2005	P2	Q14,15,24,25 from 3205 (#6954) to 2910 (#6966)
6	9NOV2005	P2	Removed X33, changed X6,7
7	19DEC2005	P3	Increased size of relay board
8			Added mounting holes & deleted W29, changed colour W55
9	10JAN2006	P3	Changed SPKR wire colours
10	26JAN2006	P3	Added D76,D77 and changed D39,65,72,73 to 1N4007
11	14FEB2006	1V0	Re-routed PS GND, added ferrites to relay brd power, del LG
12	D	V	Removed W12, input limiter circuitry, changed C38,39,31,5,8
13	9MAR2006	1V0	C22,23,25 4.7uF->1uF
1	21MAR2006	1V0	Changed horn output relays to DC powered, R65 to 20K
2	16-MAY-2006	2.00	PC#7126:GT:ADDED X33 TO JUMP GND TO W40 PIN1
3			MOVED W57, W58, W62 DOWN 150MIL FOR CHASSIS
4	18-APR-2007	3.00	PC#7242, Added EC27-30, Fasten PCB and Heatsink
5			Changed pattern of XC4A,5A,94,114
6			PC7586, change Q8 2N5551 #5107 to MPSA42 #5113
7	10-NOV-2008	4.00	PC#7574, ADD FAN CONNECTOR#4056
8	D	V	PC#7586, CHANGE Q8 FROM 2N5551 TO MPSA42 #5113
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N
1	D	V	N
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
11	D	V	N
12	D	V	N
13	D	V	N

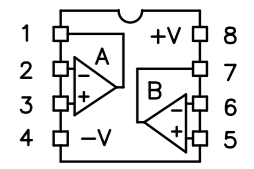
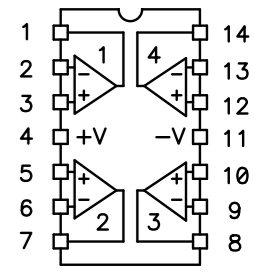
M1234 Pending List			
MODEL(S):-	U15P		
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2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

M1234 Drill History			
MODEL(S):-	U15P		
#	DATE	VER#	DESCRIPTION OF CHANGE
1	D	V	N
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

PIN CONFIGURATION



- MJE15032
- MJE15033
- TIP50
- MJE5730
- MJE15031
- BDT41C
- BDT42C
- BDX54C
- BDX53C
- 2N6045
- TIP102
- TIP107
- IRF830
- MTP12P10
- MTP10N15L
- IRL2910
- IRF5210
- MTP2P50E
- MTP8P20
- IRF720
- MTP23P06
- IRF822
- IRF4905
- BD139
- BD237
- BD238
- MJE340
- MJE350
- MJE271
- BD140
- 2N5401
- 2N5551
- MPSA06
- MPSA13
- MPSA43
- MPSA56
- MPSA63
- BC550C
- BC560C
- 78XX
- 79XX



- B C E
- G D S
- E C B
- E B C
TO-92
- C B E
TO-92
- I G O
TO-220
- G I O
TO-220

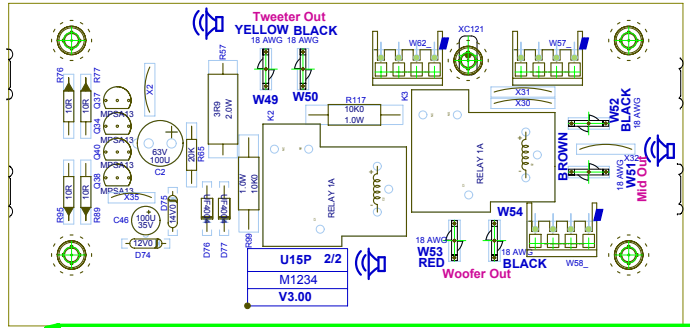
ETCH GUIDE Top Silk

Top Assy Pcb Mech

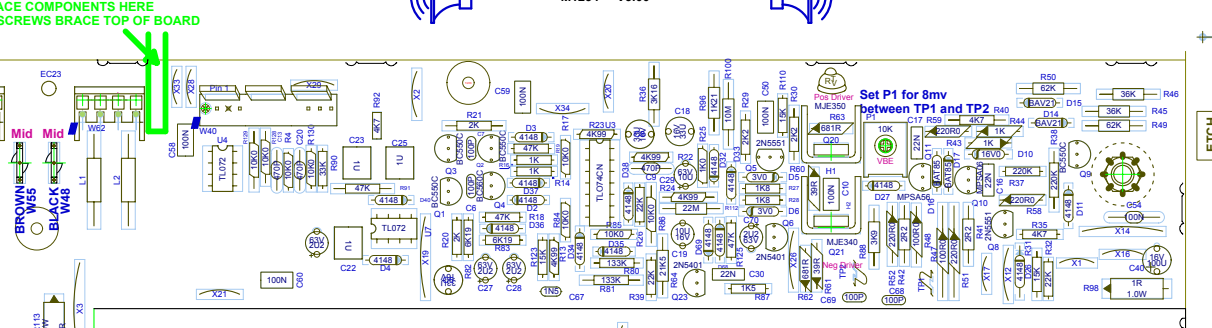
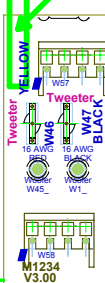
ETCH GUIDE

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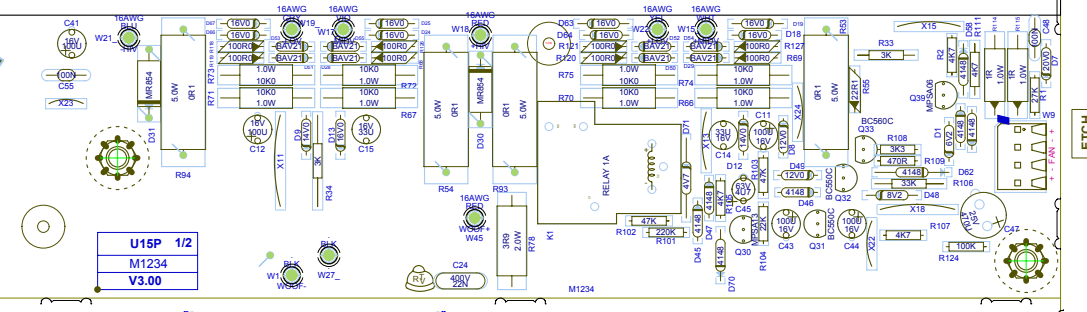
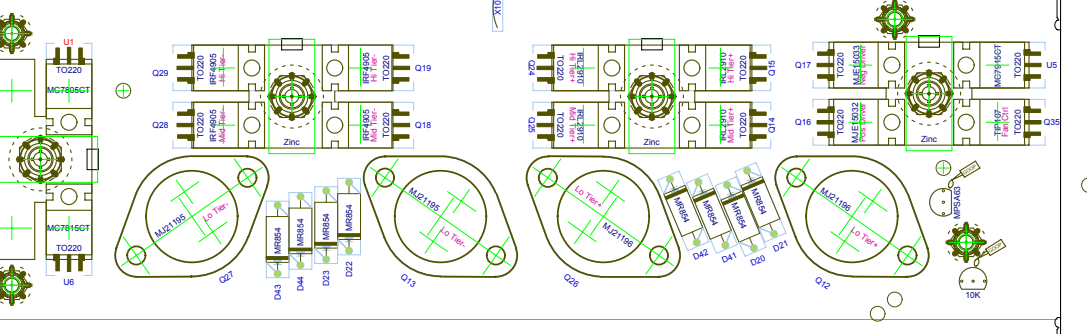
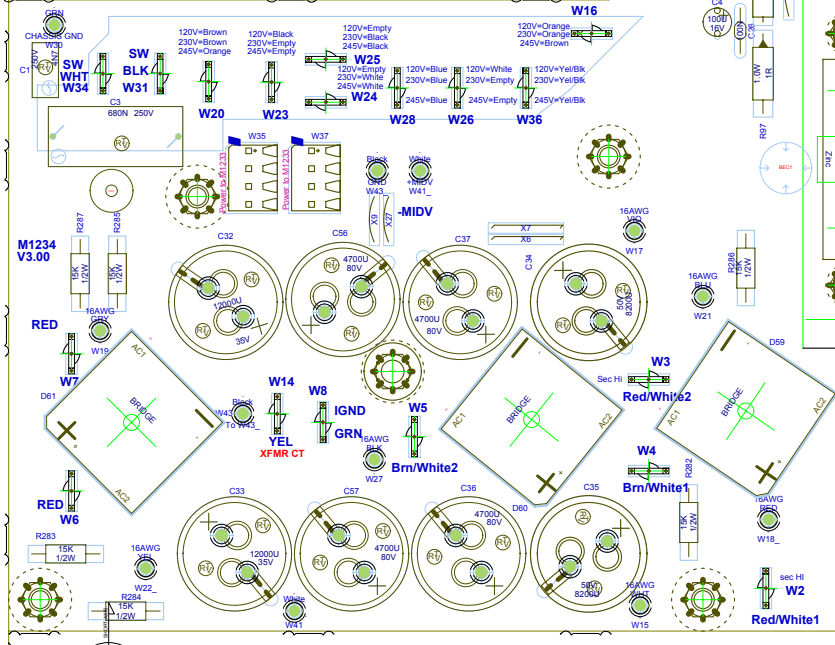
M1234 V3.00



DON'T PLACE COMPONENTS HERE
CHASSIS SCREWS BRACE TOP OF BOARD
HERE



WARNING!
FOR CE
CHASSIS MUST
NOT COME CLOSER
THAN THIS LINE TO
THE BOARD
COPPER TRACES
OF SECTION 1/2!



ETCH GUIDE

CLINCH ORIGIN

INSERT ORIGIN

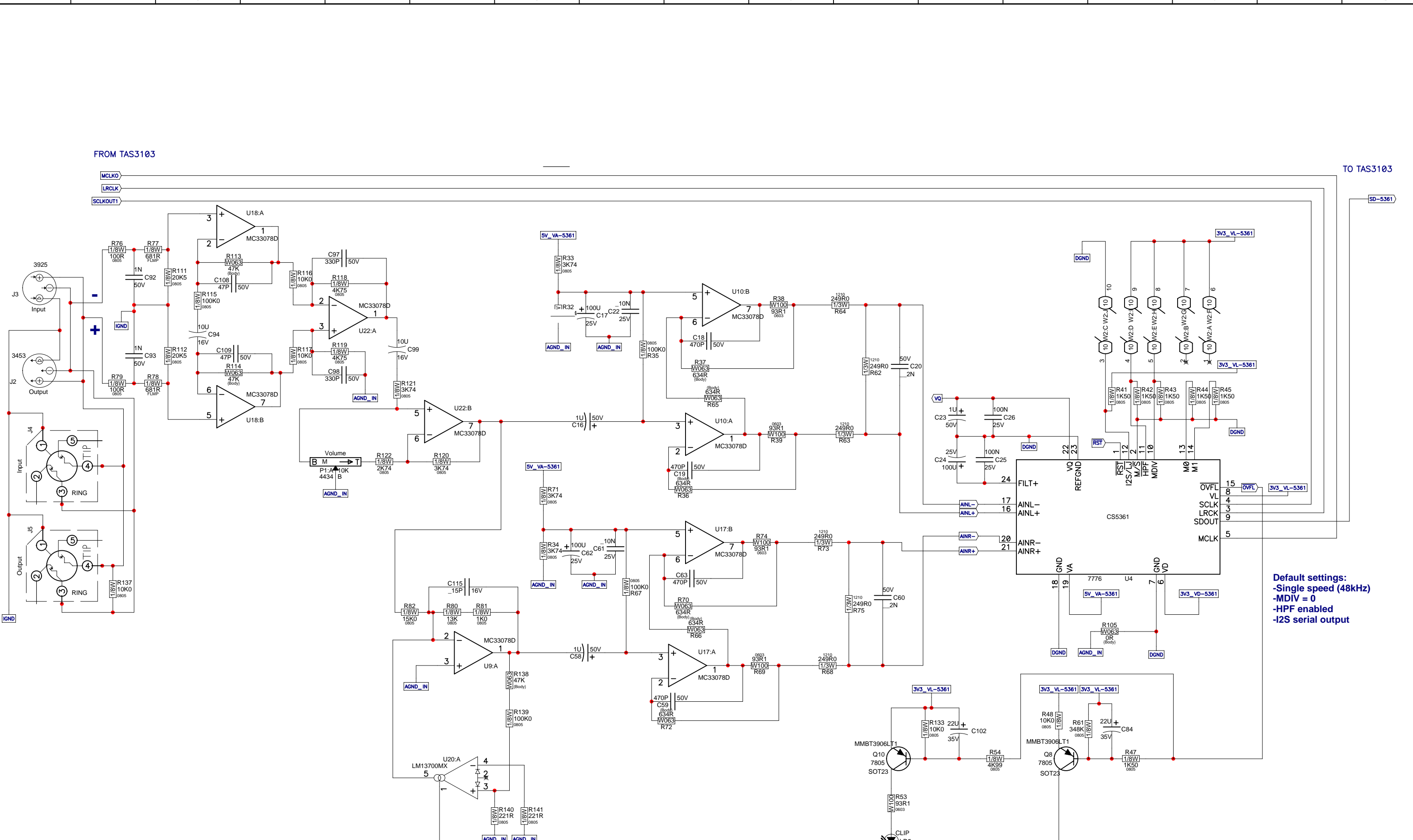
ETCH GUIDE



ETCH GUIDE

ETCH GUIDE

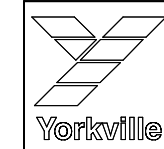
ETCH GUIDE



FROM TAS3103

TO TAS3103

Default settings:
 -Single speed (48kHz)
 -MDIV = 0
 -HPF enabled
 -I2S serial output



Product U15P		
ADC	PCB# M1235	Sheet 1 of 4
Date: Thu Feb 18, 2010	Rev: V4.00	YsType: (Company)
Filename: m1235v400sch.sch2002		

FROM ADC

SD-5361

TO DAC

LRCLK

SDOUT1

SDOUT2

SDOUT3

SCLKOUT2

MCLK0

TO ADC

MCLK0

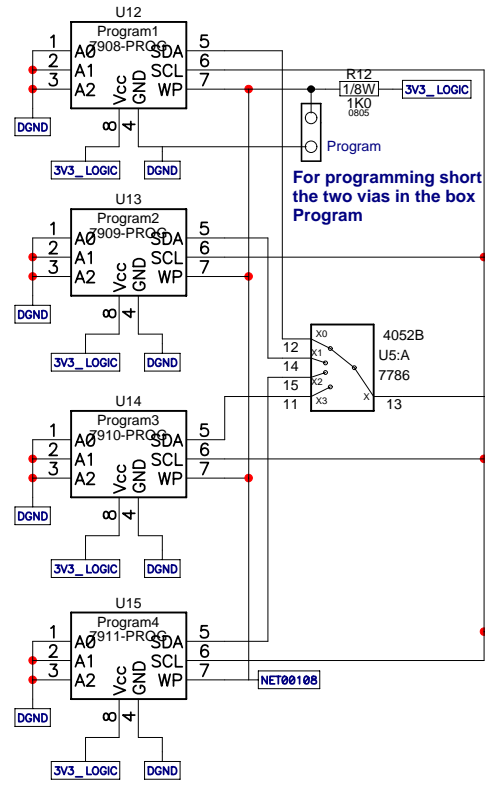
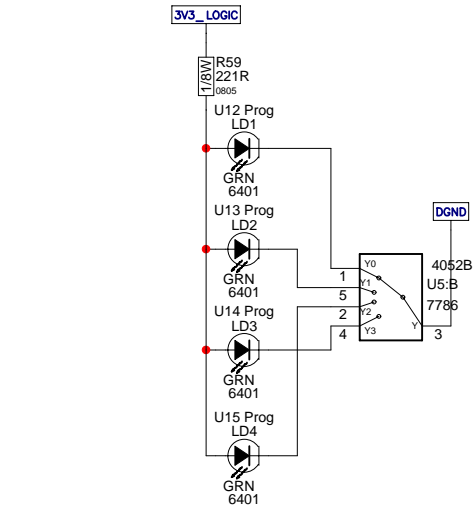
LRCLK

SCLKOUT1

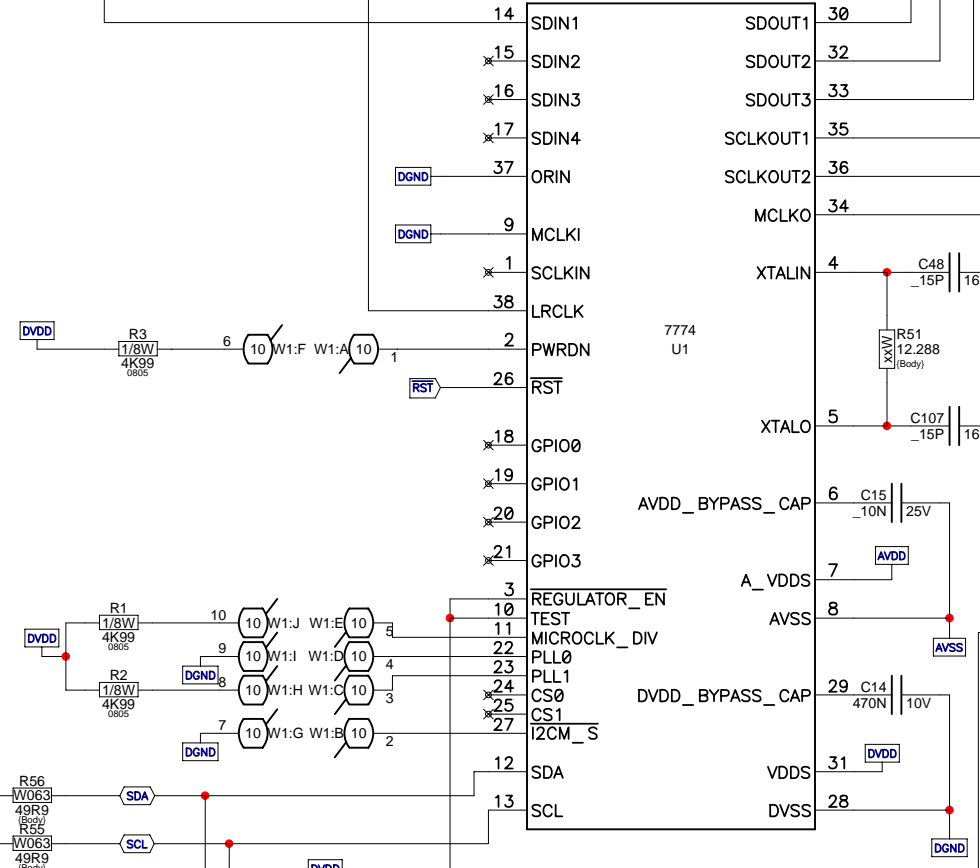
TO POWER

I2C-RST

MR

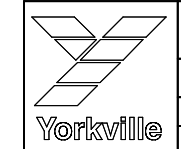
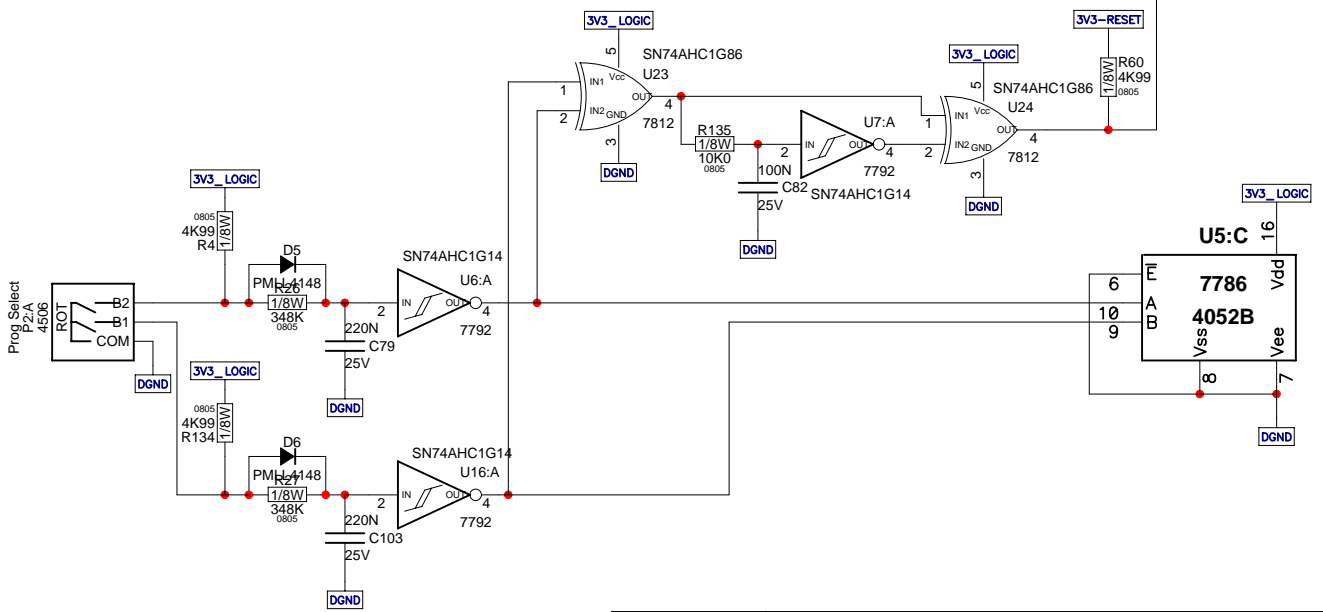
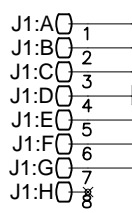


For programming short the two vias in the box Program

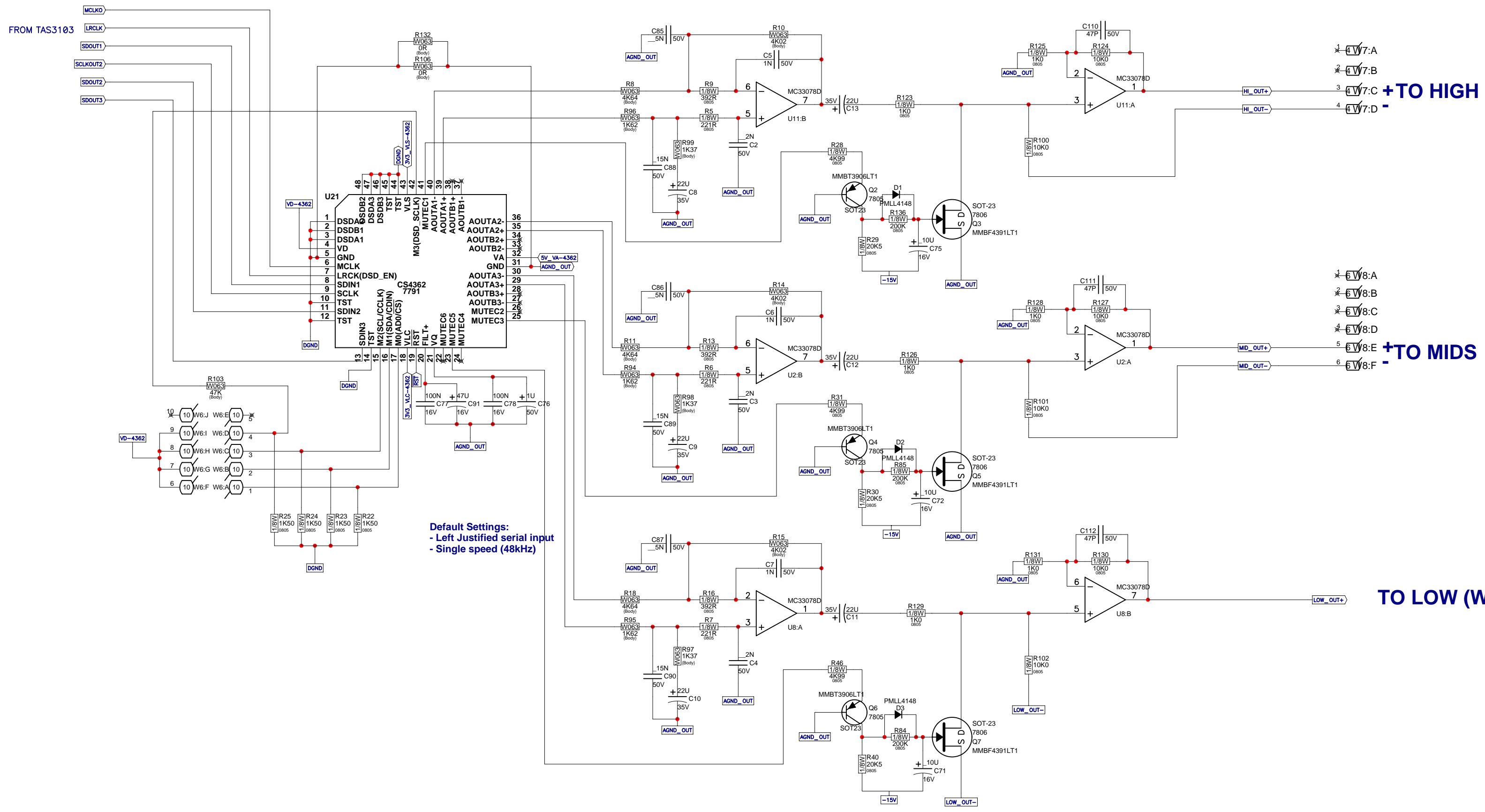


Default Settings:
 -Master Mode
 -PLL set for Fs=48kHz
 -MICROCLK = DAP/4

FROM PADDLE BOARD (DAREF106)



Product U15P		
DSP	PCB# M1235	Sheet 2 of 4
Date: Thu Feb 18, 2010	Rev:V4.00	YsType:(Company)
Filename: m1235v400sch.sch2002		



Default Settings:
 - Left Justified serial input
 - Single speed (48kHz)

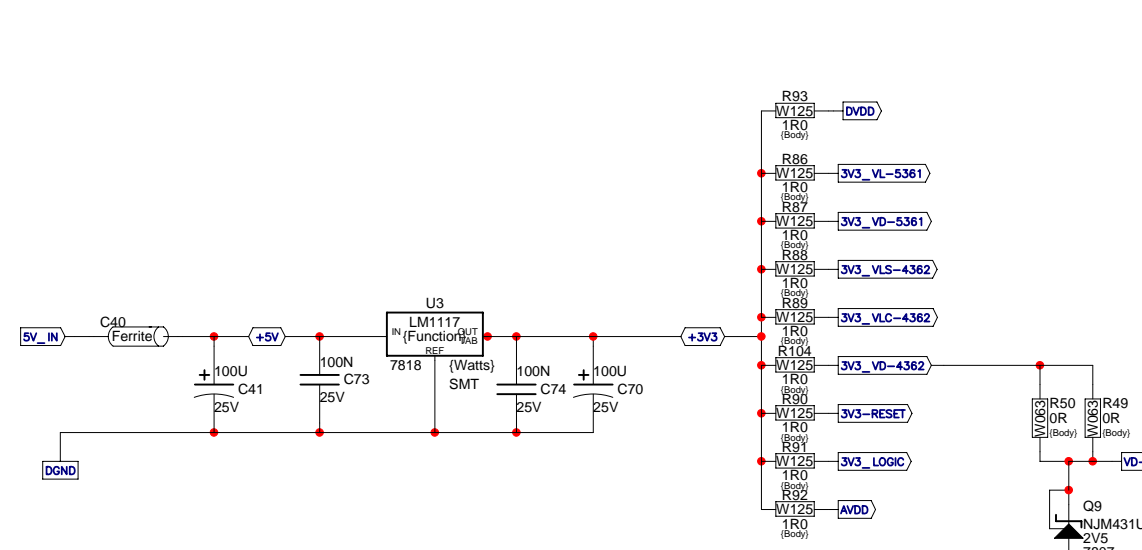
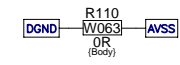
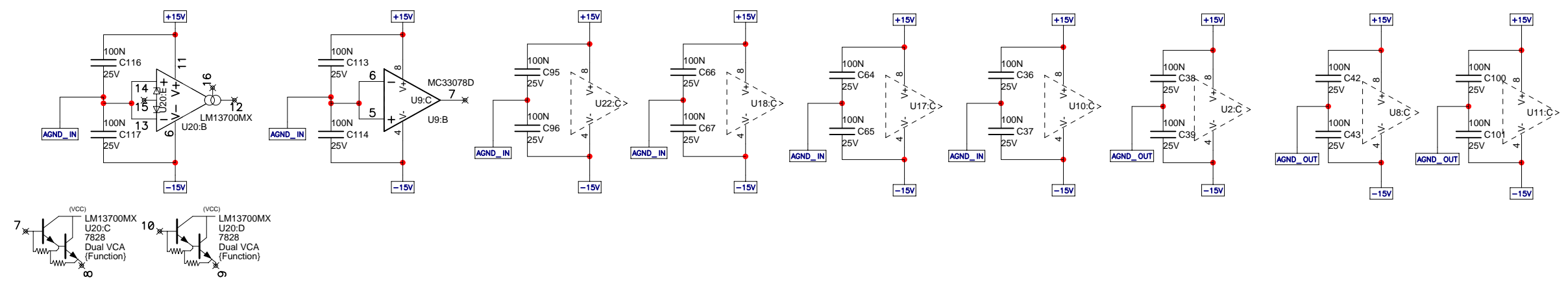
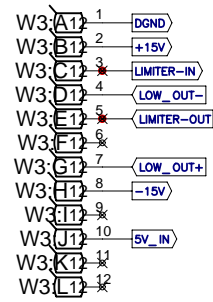
1 HI_OUT+
 2 HI_OUT-
 3 HI_OUT+
 4 HI_OUT-
+TO HIGH

1 MID_OUT+
 2 MID_OUT-
 3 MID_OUT+
 4 MID_OUT-
 5 MID_OUT+
 6 MID_OUT-
+TO MIDS

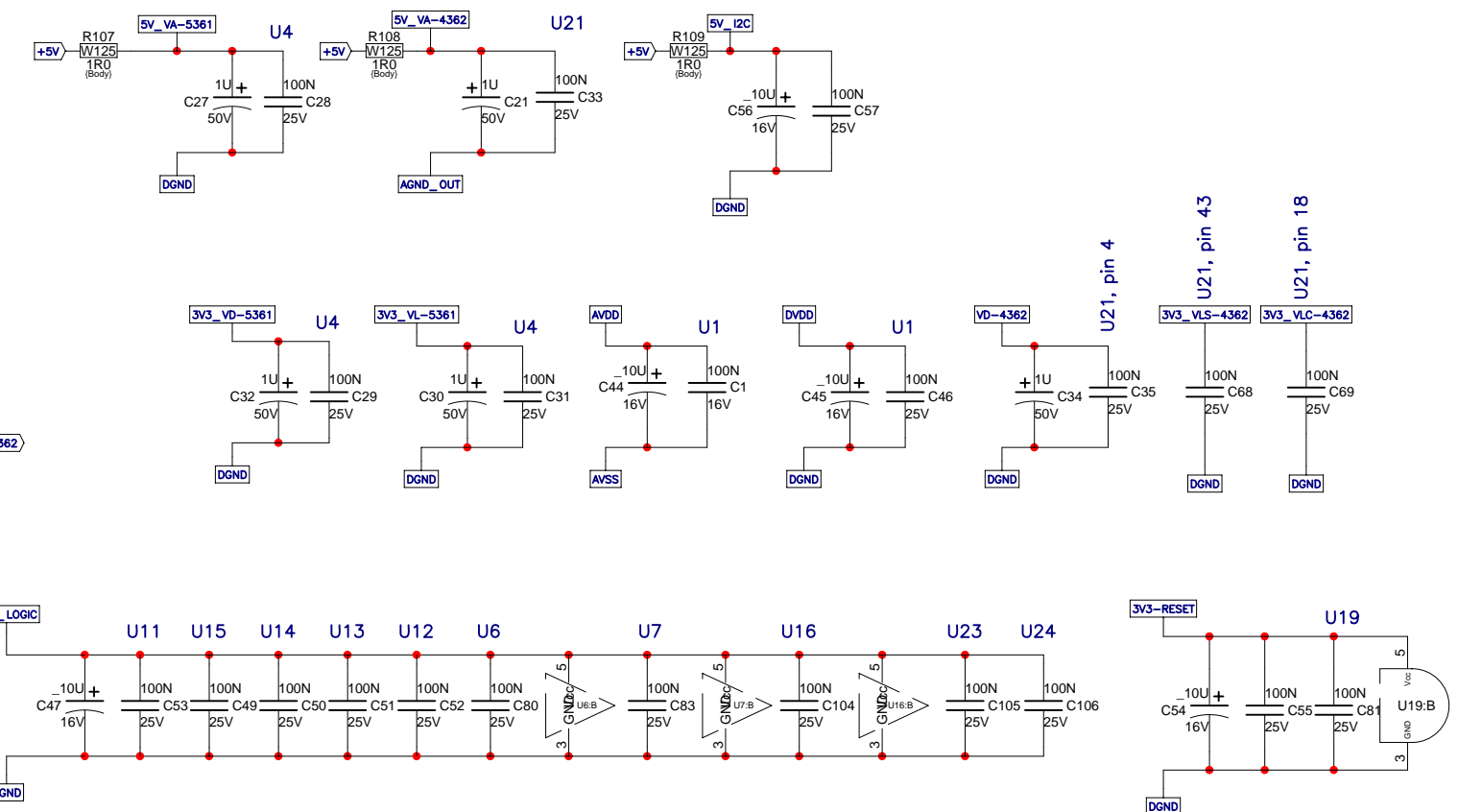
1 LOW_OUT+
 2 LOW_OUT-
TO LOW (W3)



RIBBON TO AMP



***DNS Q9 when U21 is a CS4362.**
***Only stuff Q9 when U21 is CS4362A to provide 2.5V.**
***When using CS4362A, replace R49 & R50 with 49R9 (7781).**



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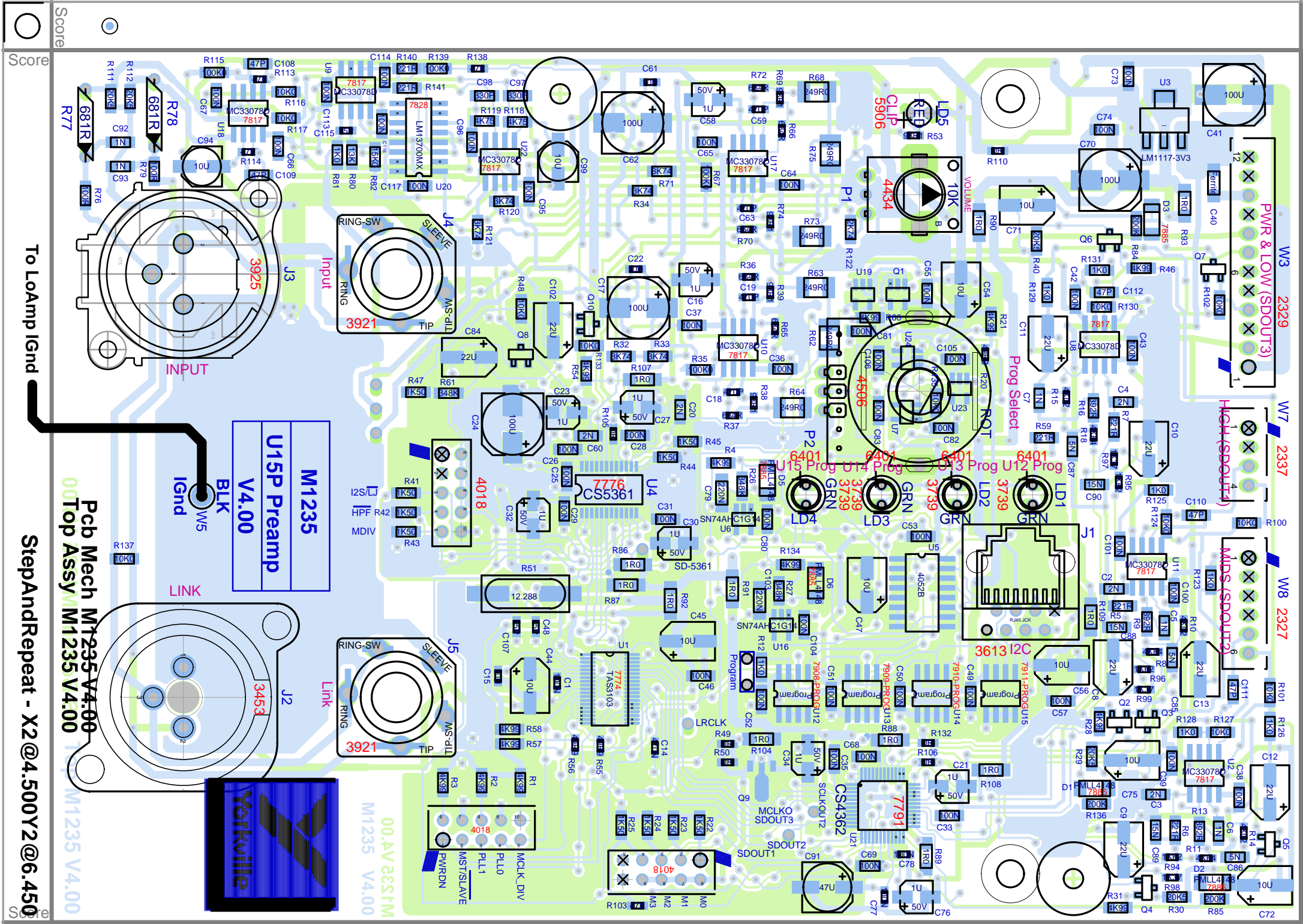
Score

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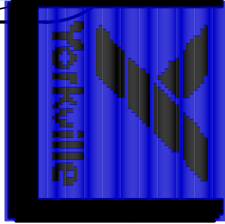


To Loamp Ignd

StepAndRepeat - X2@4.500Y2@6.450

Pcb Mech M1235 V4.00
Top Assy M1235 V4.00

M1235
U15P Preamp
V4.00



00.4V 233TM
M1235 V4.00

SEE LAYOUT DOCUMENTATION



SEE LAYOUT DIAGRAM

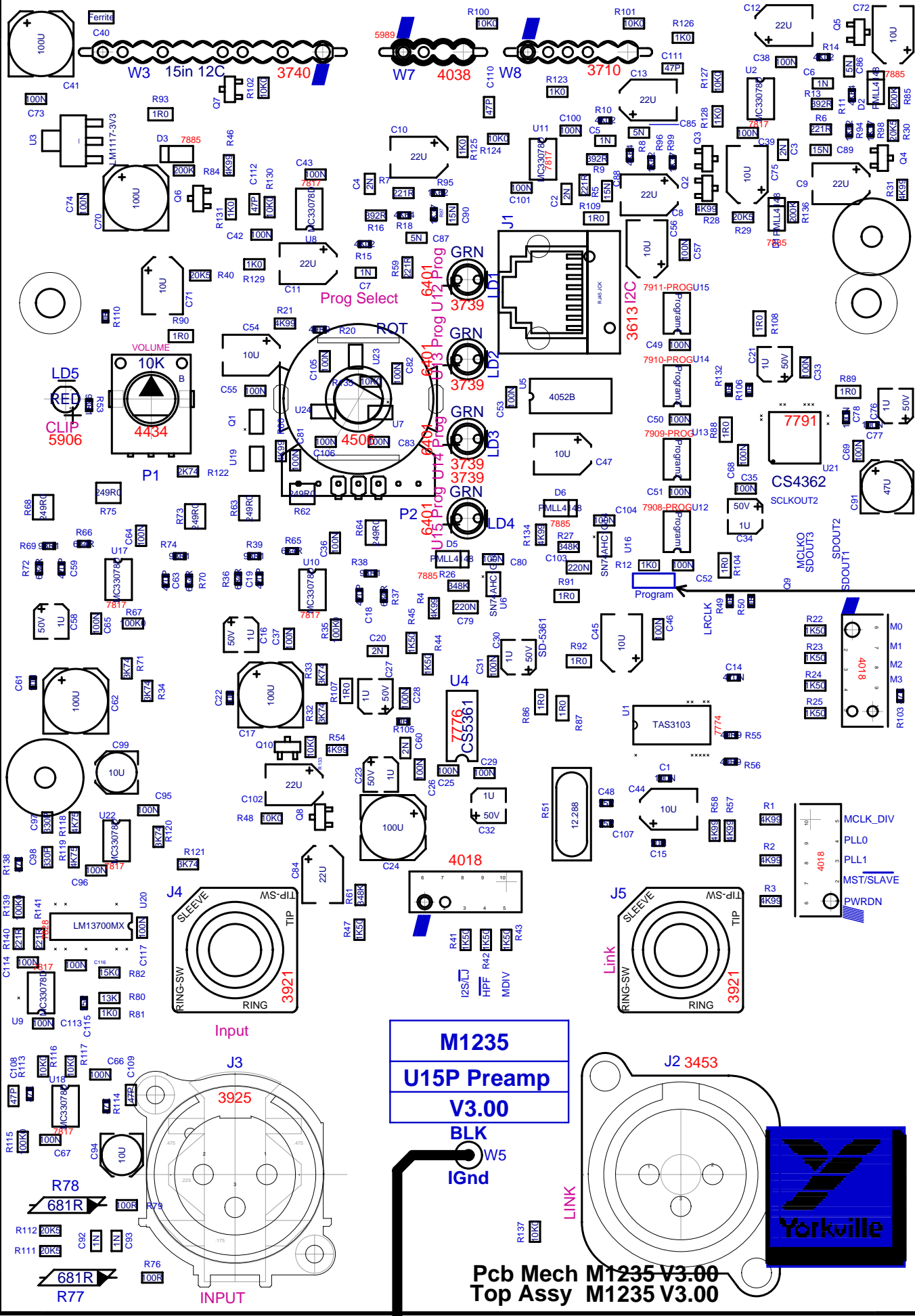


M1235 PRODUCTION NOTES

1. Do not stuff (DNS) Q9 when U21 is a CS4362. *Only stuff Q9 when U21 is CS4362A to provide 2.5V.
2. DNS W1, W2, W6, and J1.
3. When using CS4362A, replace R49 & R50 with 49R9 (7781).
4. For programming short the two vias in the Program box
5. DO NOT STUFF J4 OR J5 FOR S4P. ONLY STUFF J4 AND J5 FOR U15P

M1235 Database History			
MODEL(S):-	U15P		
#	DATE	VER#	DESCRIPTION OF CHANGE
1	2FEB2006	P3	Updated ribbons, move parts under encoder legs, fixed output stages, fixed input limiter
2	D	V	
3	D	V	Updated diode packages to SOD80, change R133 100k->10k
4	8MAR2006	P3	R84,85,136 100k->200k
5	D	V	PC#7191, #4038 CHANGE LENGTH FROM 14" TO 18"
6	NOV/22/2006	2.00	PC#7182 ADD SOLDER PADS TO PT#4580 ENCODER
7	D	V	PC#7183, Change #4580 Encoder from 18 mm 17mm
8	Mar 3, 2008	2V00	PC#7434 Updated encoder, moved traces around it, FU board
9	Oct 13, 2009	2V00	PC7816: Add 4 solder bridges on U12, U13, U14 and U15
10	Oct 14, 2009	3V00	PC7816: Add R12 #7621 and Program box
11	16-FEB-2010	4V00	PC7945: Moved C72, C12, C76, C91 inwards. PC7757. GG
12	18-FEB-2010	.	Replaced ribbon cables with XH conn and cables GG
13	D	V	N

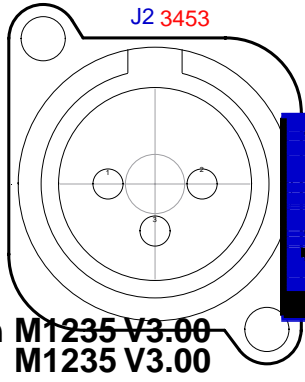
1	D	V	N
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N



SEE NOTE 4

M1235
U15P Preamp
V3.00
BLK

IGnd
W5

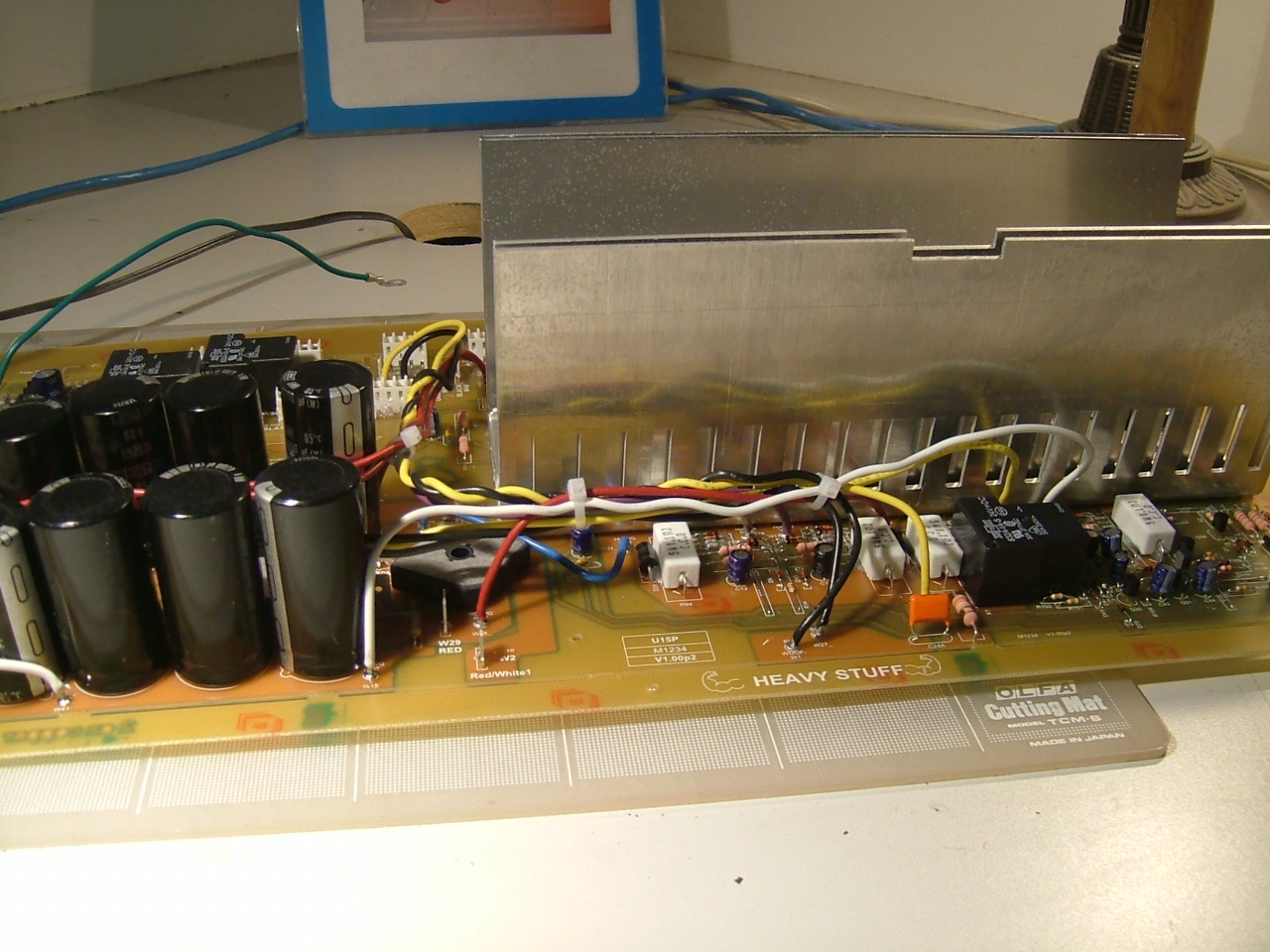


Pcb Mech M1235 V3.00
Top Assy M1235 V3.00



To LoAmp IGnd

SEE LAYOUT DOCUMENTATION

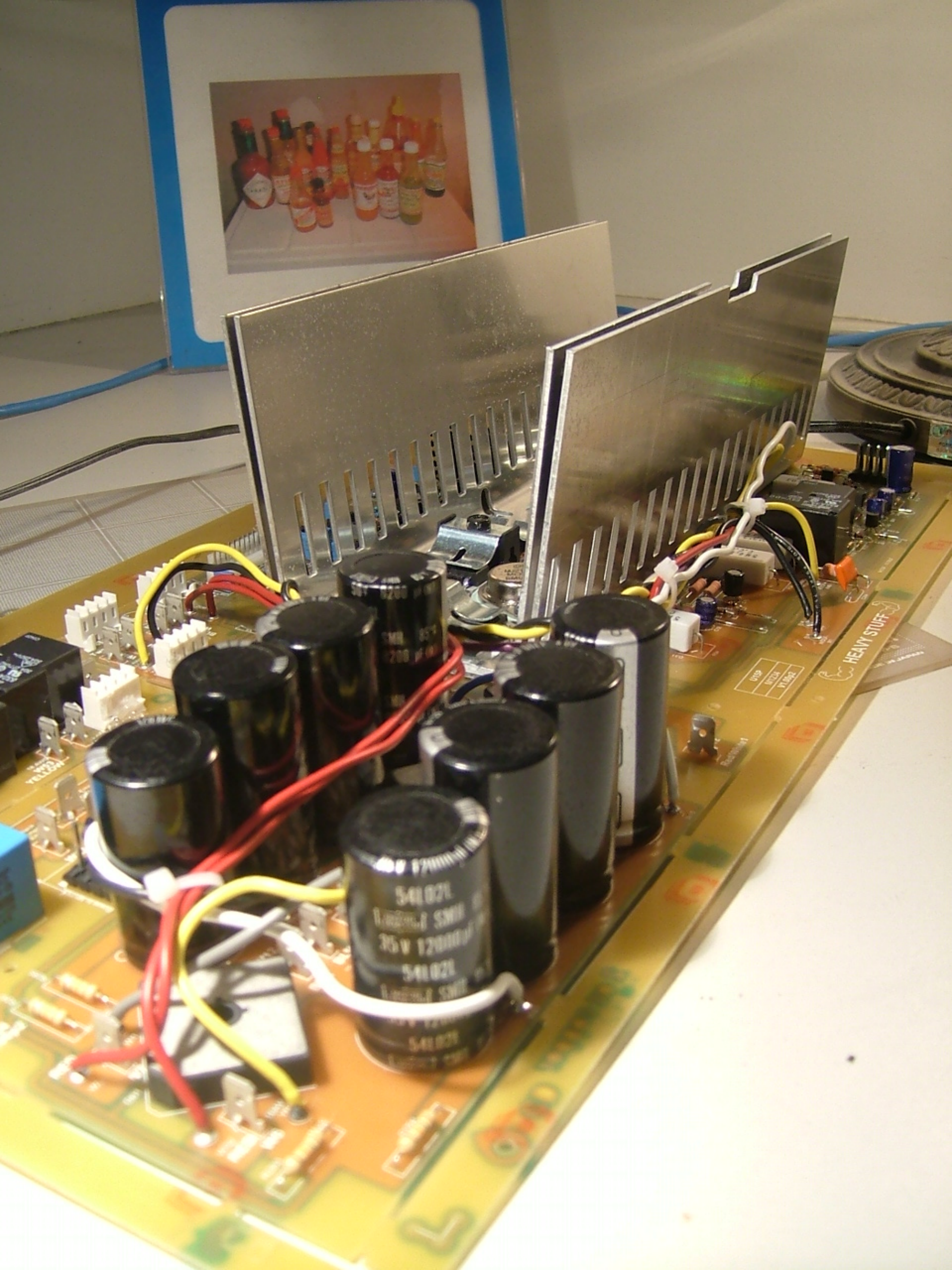


W29
RED
W28
Red/White1
W18

U15P
M1234
V1.00p2

HEAVY STUFF

CUTTING
Cutting Mat
MODEL TCM-B
MADE IN JAPAN

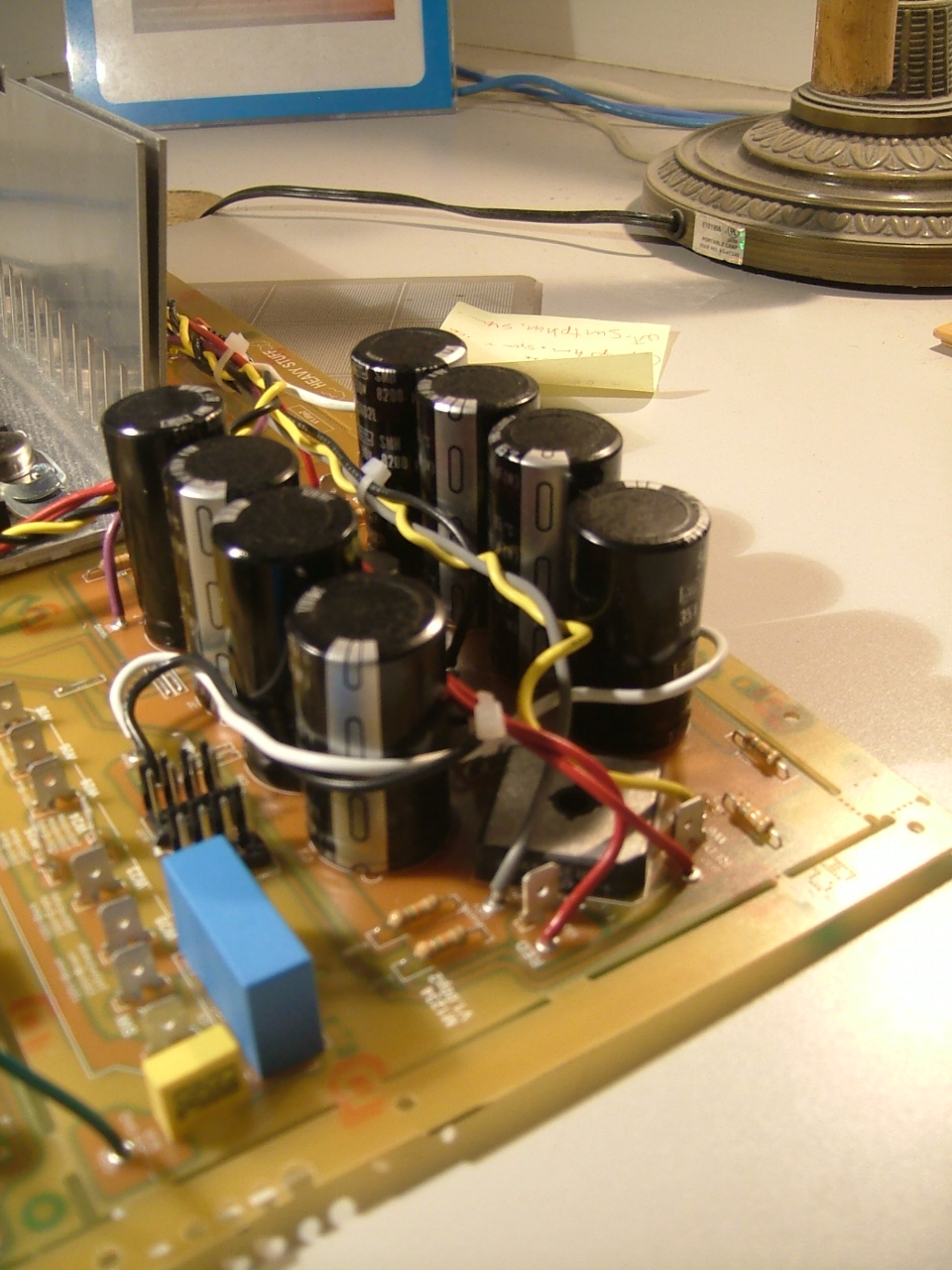


HEAVY STUFF

GOLDEN

54102L
Tantalum SMD
35V 12000µF
54102L
Tantalum SMD

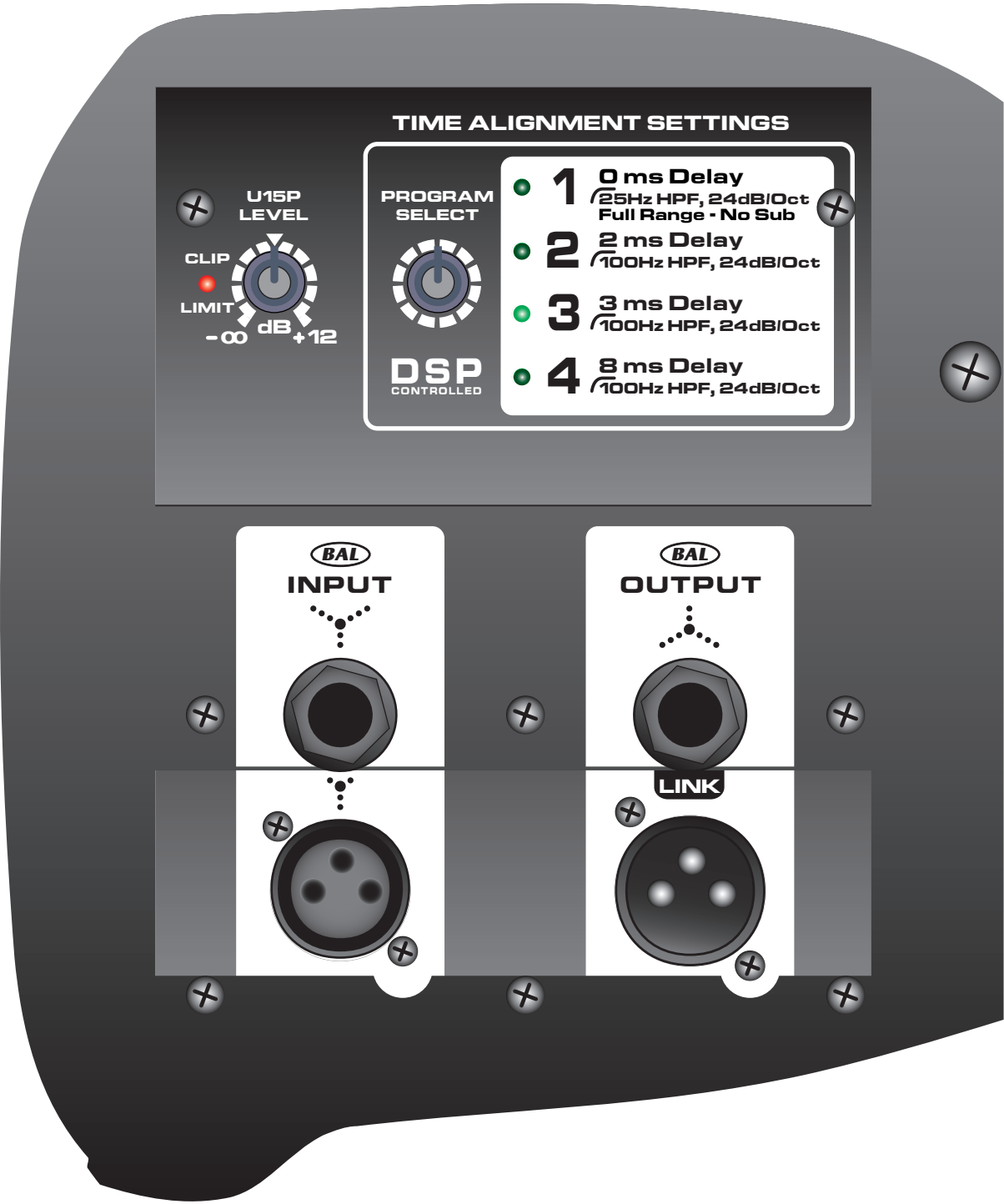
0119
0124
0132



OT-Smtpm, sm
p4m + sm
...

Blue component

EXTRA
PORTABLE CAMP
SIDE NO. 842148



YS#8393 Grey Knob (qty: 2)