VTC PRO AUDIO

S4P

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Service Manual

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VTC PRO AUDIO

MODEL TYPE: YS1042

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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 choque électrique.

CAUTION *AVIS*

RISK OF ELECTRIC SHOCK DO NOT OPEN

RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

The exclamation point within an equilatereal 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.

S2125A

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.

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 or 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.

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'ENTRETIENT

Veuillez Lire le Manuel: Il contient des informations qui devraient êtres 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 boite au cas ou 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 êtres prises afin d'eviter 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 attachements/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'appeil 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 lappareil est fourni de la propre ventilation. Ne procédez pas à l'installation près de source de chaleur tels que radiateurs, registre de chaleur, fours 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 connection extérieure doivent être effectivés 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.

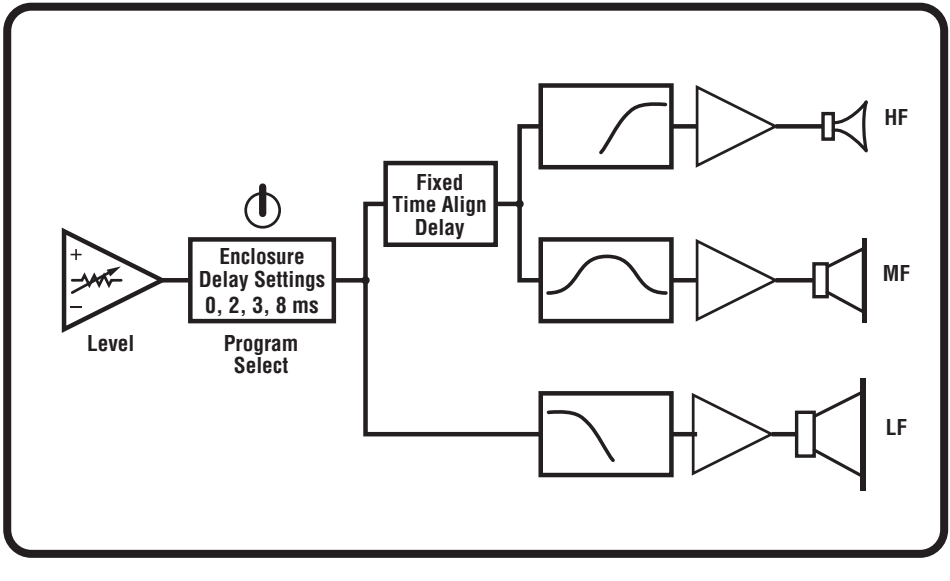
VTC S4P Parts List 6/1/2010

YS #	Description	Qty.
5906	RED 3MM LED 1V9 20MA.4SPCER T&R	1
6408	GRN 3MM LED 1V9 5MA FROSTED	4
6419	BRIDGE 35A 400V WIRE LEAD GI3504	3
6425	BAV21 200V 0A25 DIODE T&R	10
6733	BAT85 30V 0A2 DIODE SCHT T&R	6
6825	1N4148 75V 0A45 DIODE T&R	54
6827	1N5402 200V 3A0 DIODE	4
6892	UF4004 200V 1A0 DIODE ULTRAFAS	2
6934	MR854 400V 3A0 DIODE FASREC	10
6436	1N753ARL 6V2 0W5 ZENER 5% T&R	1
6437	1N5237B 8V2 0W5 ZENER 5% T&R	1
6439	1N5225B 3V0 0W5 ZENER 5% T&R	2
6440	1N750ARL 4V7 0W5 ZENER 5% T&R	1
6450	1N5242B 12V0 0W5 ZENER 5% T&R	3
6465	1N5250B 20V0 0W5 ZENER 5% T&R	1
6486	1N5244B 14V0 0W5 ZENER 5% T&R	3
6738	MC7805CT TO220 P 5V0 REG 36V	1
6824	1N5246B 16V0 0W5 ZENER 5% T&R	14
6871	MC7915CT TO220 N 15V0 REG V2	1
6872	MC7815CT TO220 P 15V0 REG V1	1
5101	BC550C TO92 NPN TRAN T&R TB	12
5102	BC560C TO92 PNP TRAN T&R TB	6
5103	MPSA06 TO92 NPN TRAN T&R TA	4
5104	MPSA56 TO92 PNP TRAN T&R TA	3
5105	MPSA13 TO92 NPN DARL T&R TA	5
5106	MPSA63 TO92 PNP DARL T&R TA	1
5107	2N5551 TO92 NPN TRAN T&R TA	1
5108	2N5401 TO92 PNP TRAN T&R TA	2
5113	MPSA42 TO92 NPN TRAN T&R TA	1
6780	MPSA56 TO92 PNP TRAN TA	2
6808	MJE15032 TO220 NPN TRAN TE	1
6809	MJE15033 TO220 PNP TRAN TE	1
6810	MJF15030 T221D NPN TRAN TJ	2
6811	MJF15031 T221D PNP TRAN TJ	2
6873	MJE340 TO126 NPN TRAN TG	1
6874	MJE350 TO126 PNP TRAN TG	1
6916	TIP107 TO220 PNP TRAN DARL TE	1
6953	IRF4905 TO220 PCH MFET	4
6966	IRL2910 NCH MFET 100V TN	4
6909	MJ21196 TO3 NPN TRAN TH	2
6910	MJ21195 TO3 PNP TRANSISTOR TH	2
6988	MJL21194 TO3P NPN TRAN TK	2
6991	MJL21193 TO3P PNP TRAN TK	2
6840	MC33078P IC DUAL OP AMP	2
6882	TL072CP IC FET DUAL OP AMP	2
6889	TL074CN IC QUAD O/A T.I ONLY	1
6467	_10K 10% THERMISTOR TO-92 NTC	3
6880	4N35 OPTO-COUPLER	2
5406	_33P 50V 10%CAP BLK BEAD NPO	2
5199	100P 100V 2%CAP T&R RAD CER.2NPO	6
7813	_47P 50V 5%CAP 0805 SMT NPO	5
5273	__1N5 200V 5%CAP T&R RAD CER.2NPO	1
5416	470P 50V 10%CAP T&R BEAD NPO	3
5422	__1N 50V 10%CAP T&R BEAD NPO	2
5423	__1N2 50V 10%CAP T&R BEAD X7R	2
5210	_22N 100V 10%CAP T&R RAD .2FLM	3
5300	_10N 50V 10%CAP T&R BEAD X7R	4
5840	_22N 400V 10%CAP BLK RAD POLY FLM	1
6451	__4N7 250V 20%CAP BLK 'Y' 10MM AC	1
5212	100N 63V 5%CAP T&R RAD .2FLM	5
5314	100N 50V 10%CAP T&R BEAD X7R	8
5318	220N 50V 10%CAP T&R BEAD X7R	2
5256	__1U 63V 5%CAP T&R RAD .2FLM	3
5257	__2U2 63V 20%CAP T&R RAD .2EL	6
5258	__4U7 63V 20%CAP T&R 8X7MM .2EL	1
5266	680N 250V 20%CAP BLK 'X2' 30MM AC	1
7769	__1U 50V 20%CAP 4.3X3.9 SMT ELC	9
5282	_10U 16V 20%CAP T&R 5X7MM .2NP	1
5945	_10U 63V 20%CAP T&R RAD .2EL	1
5961	_33U 16V 20%CAP T&R RAD .2	7
7809	_10U 16V 20%CAP 5X5.4 SMT NP	2
5267	100U 25V 20%CAP T&R RAD .2EL	2
5618	470U 25V 20%CAP BLK 10X15MM EL	1
5630	330U 25V 20%CAP BLK 10X13MM EL	4
5879	100U 16V 20%CAP T&R 8X7MM .2EL	7
5880	100U 35V 20%CAP T&R 8X11MM .2EL	1
5914	100U 63V 20%CAP BLK 10X13MM EL	1
5896	4700U 80V 20%CAP BLK 25X50MM ELS	4
5898	8200U 50V 20%CAP 25X50MM ELS	2
5903	12000U 35V 20%CAP RAD 25X45MM ELS	2
4506	ROT BIN 17MM 2BIT ENCODER P18	1

YS #	Description	Qty.
4520	_10K TRIM POT	1
2408	_8.00 AMP CIRCUIT BREAKER	1
8467	2X2-IB-3/8" FLYING HARDWARE BRACKET	8
8483	ADAPTOR,SPEAKER STAND,METAL,BLACK	1
8547	PLASTIC FOOT BLACK, POLYETHYLENE	4
3489	CLIP 250X032 18-22AWG DISCO/INSL	12
3490	CLIP 250X032 14-16AWG DISCO/INSL	15
3491	CLIP 205/187X020 18-22AWG DISCO/INS	1
3494	CLIP 205/187X020 14-16AWG DISCO/INS	2
3601	RING TERMINAL 16AWG WIRE & #8 SCREW	2
3921	1/4" JCK PCB MT VERT STER RT SWT	2
3453	XLR MALE PCB MT VERT	1
4010	XLR FEML PCB MT VERT 24MM AA-SERIES	1
3451	EYELET SMALL 0.089 OD PLATED	39
3414	INTERNATIONAL PC MOUNT FUSEHOLDER	8
2465	_7.0 AMP FAST-BLO .25X1.25 FUSE	4
4054	FAN 80MM X 80MM 31CFM 12VDC 150MA	2
8565	BAR HANDLE ALL METAL RECTANGULAR	2
7402	_8R 45W 1.00" DRIVER 4550-8R BMS	1
3894	AAVID 5972-B H/S W/TAB B.O.	2
3745	DUAL XSISTOR PBL SPRING CLEAR ZINC	4
3977	QUAD XSISTOR SPRING, ZINC YELLOW	4
9406SS	3/8-16X11/4 SS GRD5 FLT SKT HD BO&W	20
3552	NYLON SPRING CLAMP	1
3799	ROUND BUMPER BUTTON BLACK	1
3801	5/8" BUMPER BUTTON BLACK	4
3803	NYLON SECUR-A-TACH MINI PLASTIC TIE	1
3810	4" NYLON CABLE TIE	4
3852	STICK ON CABLE WRAP ANCHOR	1
H32	HORN -FOR UNITY 15 CABINET-	1
3903	PCB CONN 4 CIR BOTTOM .156	6
3558	TERM HOUSING 4 CIR .156/RAMP	2
3559	TERM HOUSING 8 CIR .156/RAMP	2
3538	24 PIN BREAKAWAY LOCK .156	1.167
3668	4 CIR CHASSIS MOUNT HDR .156	3
3549	TRIFURCON TERM .156	20
9916	KNOB 0-DEG GRY SOFT GRAY RIB	2
3426	8' 3/16 SJT AC LINE CORD REMOVB-CSA	1
8263	METALIZED POLYESTER .005 X 12"X 24"	0.07
8701	4-40 KEPS NUT ZINC	4
8760	6-32 KEPS NUT TIN PLATED	8
8800	6-32 KEPS NUT ZINC	8
9931	6-32 NYLON INSERT LOCK NUT	16
8930	#6-#8 X 1 1/4" TWISTER ANCHOR	6
8604	10-32 T NUT	14
8841	10-32 KEPS NUT TIN PLATED	14
8555	1/4-20 PEM NUT (S0420-1)	2
8602	1/4-20 T NUT	24
8788	1/4-20 KEPS NUT ZINC	4
8898	1/4-20 CAGE NUT C79 98142027	4
8797	5/16-18 KEPS NUT JS500	1
8724	3/8-16 T-NUT (SCREW MOUNT)	2
8628	3/8-16 HEX PEM NUT	4
3830	TO218 PREGREASED MICA 56-78-2AP	4
3916	TO3 SIL-PAD REPLACES MICA	4
4022	ELASTOMER PAD - 2-TO218 / 4-TO220	4
8581	CUSTOM PBL TRANSISTOR SPACER	4
3818	EMI SUPPRESSION FERRITE BEAD T&R	2
4597	22AWG STRAN TC WIR JMP	2
4599	22AWG SOLID SC WIR T&R JMP	62
5299	24AWG SOLID SC WIR RAD JMP	6
4745	5.0W 0R1 5% BLK RES	4
4749	5.0W 0R15 5% BLK RES	4
2006	1.0W 1R 5%FLAME PROOF T&R RES	5
4911	1/4W 2R2 5% T&R RES	2
4748	2.0W 3R9 5% T&R	4
2009	1/4W 10R 2%FLAME PROOF T&R RES	4
4875	1/4W 10R 5% T&R RES	4
2013	1/6W 22R1 1%FLAME PROOF T&R RES	1
4816	1/4W 33R 5% T&R RES	6
4604	1/4W 33R2 1% T&R RES	4
2016	1/6W 39R 2%FLAME PROOF T&R RES	2
4811	1/4W 68R 5% T&R RES	2
2019	1/8W 100R0 1%FLAME PROOF T&R RES	10
4897	1/4W 120R 5% T&R RES	2
2020	1/6W 150R 2%FLAME PROOF T&R RES	4
2023	1/6W 220R0 1%FLAME PROOF T&R RES	4
4867	1/4W 270R 5% T&R RES	2
4986	1/4W 270R 5%MINI T&R RES	4
4872	1/4W 390R 5% T&R RES	6
4980	1/4W 470R 5%MINI T&R RES	1

YS #	Description	Qty.
4869	1/4W 750R 5% T&R RES	2
2033	1/6W 1K 2%FLAME PROOF T&R RES	2
4981	1/4W 1K 5%MINI T&R RES	2
6110	1/4W 1K0 1%MINI MF T&R RES	1
4802	1/4W 1K21 1% T&R RES	1
4988	1/4W 1K5 5%MINI T&R RES	1
6105	1/4W 1K8 5%MINI T&R RES	2
6113	1/4W 2K 5%MINI T&R RES	2
4705	2.0W 2K2 5% T&R RES	4
6104	1/4W 2K2 5%MINI T&R RES	2
6124	1/4W 3K 5%MINI T&R RES	2
4992	1/4W 3K16 1% T&R RES	5
6136	1/4W 3K3 5%MINI T&R RES	1
4850	1/4W 3K9 5% T&R RES	1
4756	1/4W 4K12 0.1% *** T&R RES	2
4943	1/4W 4K7 5% .2"U T&R RES	1
4982	1/4W 4K7 5%MINI T&R RES	6
6128	1/4W 4K99 1%MINI MF T&R RES	4
4717	1/4W 6K19 1%MINI T&R RES	2
4801	1/4W 6K98 1% T&R RES	2
4787	1/4W 7K960 0.1% *** T&R RES	2
4829	1/4W 10K 5% T&R RES	4
5031	1.0W 10K0 5% T&R RES	10
6116	1/4W 10K0 1%MINI MF T&R RES	8
4856	1/4W 12K 5% T&R RES	2
4630	1/2W 15K 5% T&R RES	6
4979	1/4W 15K 5%MINI T&R RES	3
4885	1/4W 20K 5% T&R RES	3
4777	1/4W 21K5 1% T&R RES	1
6118	1/4W 22K 5%MINI T&R RES	4
6129	1/4W 27K 5%MINI T&R RES	1
4840	1/4W 33K 5% T&R RES	2
6122	1/4W 33K 5%MINI T&R RES	2
4868	1/4W 36K 5% T&R RES	2
4794	1/4W 37K9 0.1% *** T&R RES	2
6119	1/4W 47K 5%MINI T&R RES	6
4835	1/4W 56K 5% T&R RES	2
4848	1/4W 62K 5% T&R RES	2
4838	1/4W 100K 5% T&R RES	6
6120	1/4W 100K 5%MINI T&R RES	1
4991	1/4W 133K 1%MINI T&R RES	2
6126	1/4W 220K 5%MINI T&R RES	3
4879	1/4W 270K 5% T&R RES	2
4809	1/4W 10M 5% T&R RES	1
4751	1/4W 22M 5% T&R RES	1
3722	RELAY 1A 30AMP DC24 036MA PC-C	3
8842	#4 X 5/16 PAN QUAD TYPE A JS500 BLK	4
8865	4-40 X 5/16 PAN PH MS JS500	4
8861	4-40 X 3/8 PAN PH MS JS500	4
8832	6-32 X 1/4 PAN PH TAPTITE JS500	25
8807	6-32 X 5/16 PAN PH MS JS500	2
8801	6-32 X 3/8 PAN PH TAPTITE JS500	16
8761	6-32 X 1/2 PAN PHIL MS ZINC CLEAR	8
8828	6-32 X 3/4 PAN PH TAPTITE JS500	10
8823	6-32 X 1 PAN PH TAPTITE JS500	12
8811	#6 X 1 1/4 FLAT HD SQ SCKT WS ZN CL	44
8785	#8 X 3/4 OVAL PH TYPE A BLACK OXIDE	38
8734	#10 X 1/2 PAN PH TYP A BRITE NICKEL	1
8749	10-32 X 1/2 QDX PH TAPTITE JS500	9
8756	#10 X 3/4 PAN PH TYPE A BLACK OXIDE	6
9401SS	#10 X 3/4 SS PAN PH TYPE A BO&W	32
9402SS	#10 X 7/8 SS FLAT PHIL TYPE A BO&W	4
8727	#10 X 1" PAN PH TYPE A JS500 BLACK	4
8783	10-32 X 1 PAN QUAD TT JS500 BLACK	3
8786	10-32 X 1 1/4 PAN QD MS JS500 BLACK	8
9414SS	10-32X1 1/4 PAN PHIL SS MS B.O.&WAX	10
8751	10-32 X 2 PAN QUAD MS JS500	6
8736	5/16-18X2-3/4 GRD 5 HEX BOLT JS500	1
8935	1/4-20 X 23MM JOINT CON. BOLT □B/O	14
9407SS	1/4-20 X 1 3/4 SS FLAT PHIL MS BO&W	8
8770	1/4-20 X 1 5/16 TRUSS PH MS JS500	8
8709	1/4-20 X 1.5 PAN PHIL MS ZINC CLEAR	4
8730	M6 X 16 HEX BOLT ZINC	2
7766	_15P 50V 5%CAP 0603 SMT NPO	3
7602	330P 50V 5%CAP 0805 SMT NPO	2
7782	470P 50V 5%CAP 0603 SMT C0G	4
7693	__1N 50V 5%CAP 0805 SMT NPO	5
7783	__2N7 100V 10%CAP 0805 SMT C0G	5
7799	__5N6 50V 5%CAP 0805 SMT C0G	3
7777	_10N 25V 10%CAP 0603 SMT X7R	3
7798	_15N 50V 5%CAP 0805 SMT C0G	3

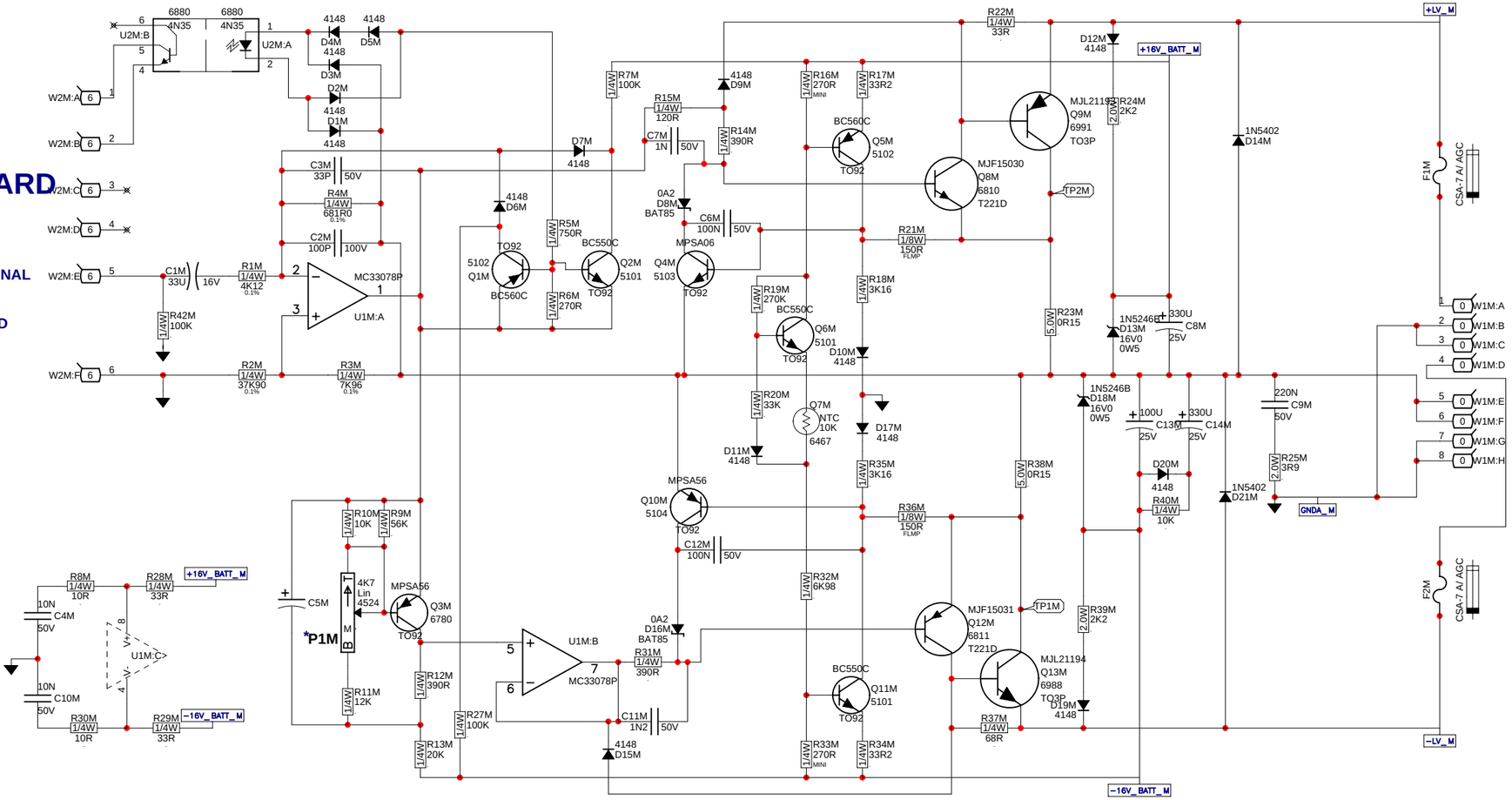
YS #	Description	Qty.
7601	220N 50V 10%CAP 1206 SMT Z5U	2
7778	470N 10V 10%CAP 0603 SMT X5R	1
7780	_10U 16V 20%CAP SMT ELC	8
7697	_22U 16V 5%CAP 5X5.5 SMT ELC	8
7810	_47U 16V 20%CAP 6X5.4 SMT ELE	1
7811	100U 25V 20%CAP 8X5.4 SMT ELE	5
7885	PMLL4148 75V 0A2 DIO SOD80C SMT	5
7754	FERRITE BEAD 1.5A 26R 1206 SMT	1
7774	TAS3103 AUDIO PROCESSOR W/FX	1
7776	CS5361 ADC	1
7791	CS4362 LQFP-48 6-CH DAC SMT IC	1
7818	LM1117 REGULATOR 3V3 SOT-223	1
7828	LM13700M IC XCONDUCTANCE AMP SMT	1
7786	CD4052B IC DUAL 4CHANNEL MUX SMT	1
7789	SN74AHC1G08 SINGLE AND SOT23-5 IC	1
7790	TPS3825-33 IC RESET SENSE SOT23-5	1
7792	SN74AHC1G14 SINGLE INV SOT23-5 IC	3
7812	SN74AHC1G86 SINGLE XOR SOT23-5 IC	2
7908-PROG	AT24C64A SERIAL EEPROM 64K P1	1
7909-PROG	AT24C64A SERIAL EEPROM 64K P2	1
7910-PROG	AT24C64A SERIAL EEPROM 64K P3	1
7911-PROG	AT24C64A SERIAL EEPROM 64K P4	1
7817	33078 DUAL OPAMP SO-8 IC	8
7808	12.288 CRYSTAL SMT 2-PIN 4.5MM CASE	1
7803	W063 0R 1% 0603 SMT RES	6
7801	W125 1R0 5% 1206 SMT RES	12
7781	W063 49R9 1% 0603 SMT RES	3
7785	W100 93R1 1% 0603 SMT RES	5
7624	0.1W 100R 1% 0805 SMT RES	2
7635	0.1W 221R 1% 0805 SMT RES	6
7690	1/3W 249R0 1% 1210 SMT RES	6
7640	0.1W 392R 1% 0805 SMT RES	3
7784	W063 634R 1% 0603 SMT RES	6
7621	0.1W 1K0 1% 0805 SMT RES	8
7633	0.1W 2K74 1% 0805 SMT RES	1
7638	0.1W 3K74 1% 0805 SMT RES	6
7642	0.1W 4K75 1% 0805 SMT RES	2
7649	1/8W 1K50 1% 0805 SMT RES	10
7679	0.1W __4K99 1% 0805 SMT RES	13
7793	W063 1K62 1% 0603 SMT RES	3
7794	W063 4K64 1% 0603 SMT RES	3
7795	W063 4K02 1% 0603 SMT RES	3
7796	W063 1K37 1% 0603 SMT RES	3
7625	0.1W 10K0 1% 0805 SMT RES	12
7627	0.1W 13K 1% 0805 SMT RES	1
7628	0.1W 15K0 1% 0805 SMT RES	1
7634	0.1W 20K5 1% 0805 SMT RES	5
7797	W063 47K 1% 0603 SMT RES	4
7626	0.1W 100K0 1% 0805 SMT RES	4
7685	1/8W 200K 1% 0805 SMT RES	3
7687	0.1W 348K 1% 0805 SMT RES	3
7805	MMBT3906LT1 SOT-23 PNP TRAN T&R	5
7806	MMBF4391LT1 SOT-23 NCH JFET T&R	3
4088	V-LOCK IEC POWER INLET	1
8607	3/16 NYLON SPACER OD 1/8 X ID .063	14
8608	NYLON SPACER .200 OD .145 ID .110 L	8
3752	SNAP IN 1/4 SPACER RICHCO	8
3749	.375 SPACER ID.170 OD.31 NYLON	7
8657	6-32 X 3/8" HEX SPACER ALUMINUM	2
3739	CUSTOM .4 LED SPACER	4
3859	1/2 PLASTIC HEX SPACER #4	2
7405	5" 8R 30WPGM SPEAKER SEALEDBACK	3
7439	15" 8R 800WPGM SPKR NEO	1
8885	NEOPRENE EMINENCE DRIVER GASKET	1
8489	1/4-20 SPLIT WASHER BLACK OXIDE	2
8482	3/8 1D FLAT WASHER	2
8485	#6 SPLIT WASHER ZINC	1
3500	SHOULDER WASHER SWS605	1
8818	3/4 OD X 3/8 ID X .080 THICK WASHER	6
8817	#10 FLAT WASHER FOR 3/16" BOLT	2
3585	DPDT ROKR SW QUIK 250" AC/PWR IEC65	1
3682	250 MALE PCB TAB REEL	28
3887	ADHESIVE LINED GROMMET EDGING	4
CH1403U	120/240/250VAC 50/60HZ POWER XFMR	1
4056	2 CIR XH-HEADER 0.098IN	2
2337	4 CIR XH-HEADER 0.098IN	1
2357	4 CIR XH-HEADER RA 0.098IN	1
2327	6 CIR XH-HEADER 0.098IN	1
2343	6 CIR XH-HEADER RA 0.098IN	1
2329	12 CIR XH-HEADER 0.098IN	2
3058	PATCH 04 22AWG 18.0 XH FLAT	1


+
–
Level
Enclosure
Delay Settings
0, 2, 3, 8 ms
Program
Select
Fixed
Time Align
Delay
HF
MF
LF

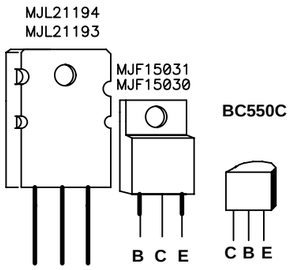
FROM INPUT BOARD

SIGNAL

GND



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



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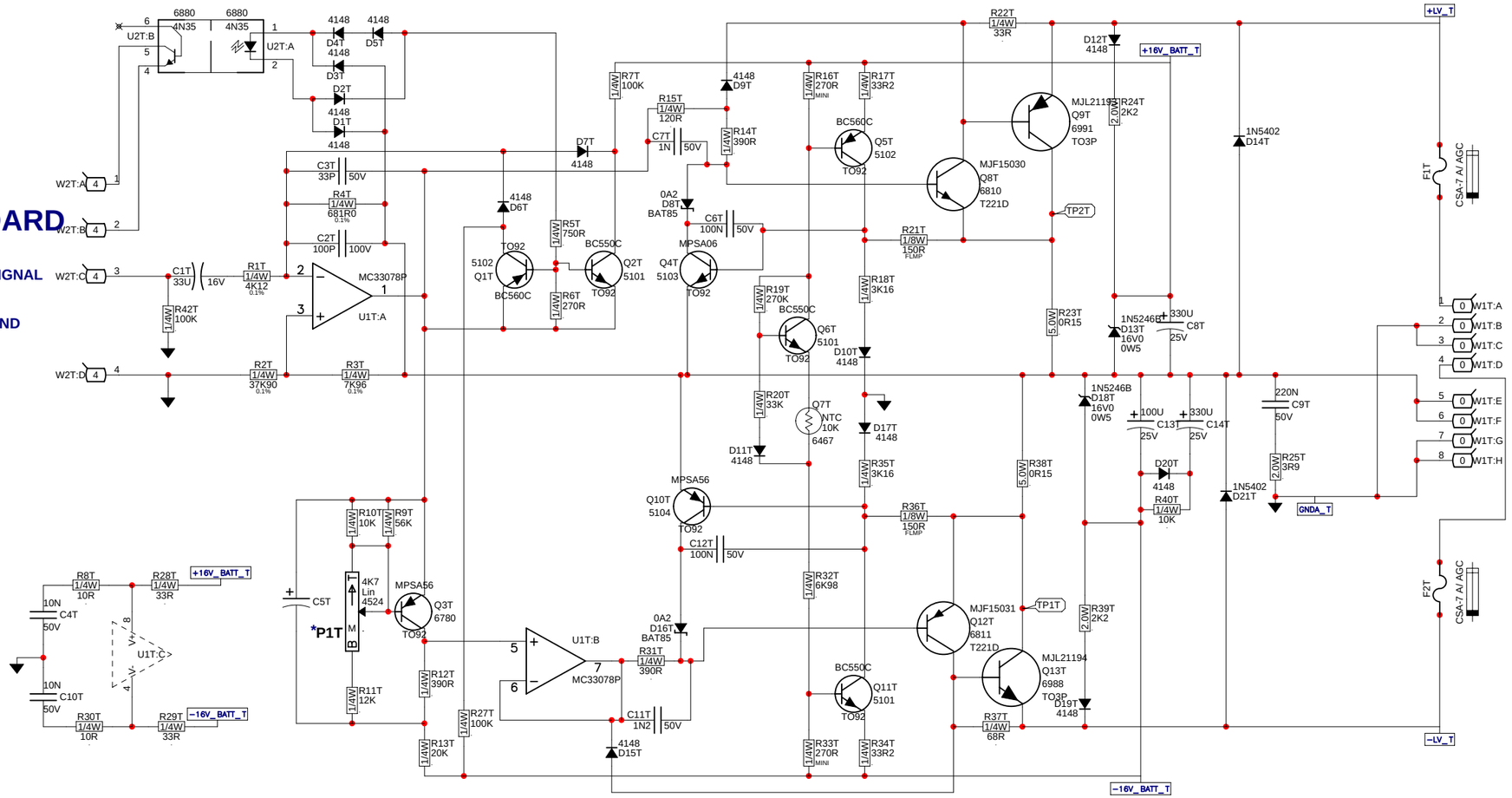
Product **U15P**		
Tweeter/Mid Amplifiers	PCB# M1233	Sheet 1 of 2
Date: Tue Aug 10, 2010	Rev:V2.00	
Filename: M1233V02sch.sch2002		

FROM INPUT BOARD

SIGNAL

GND



***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

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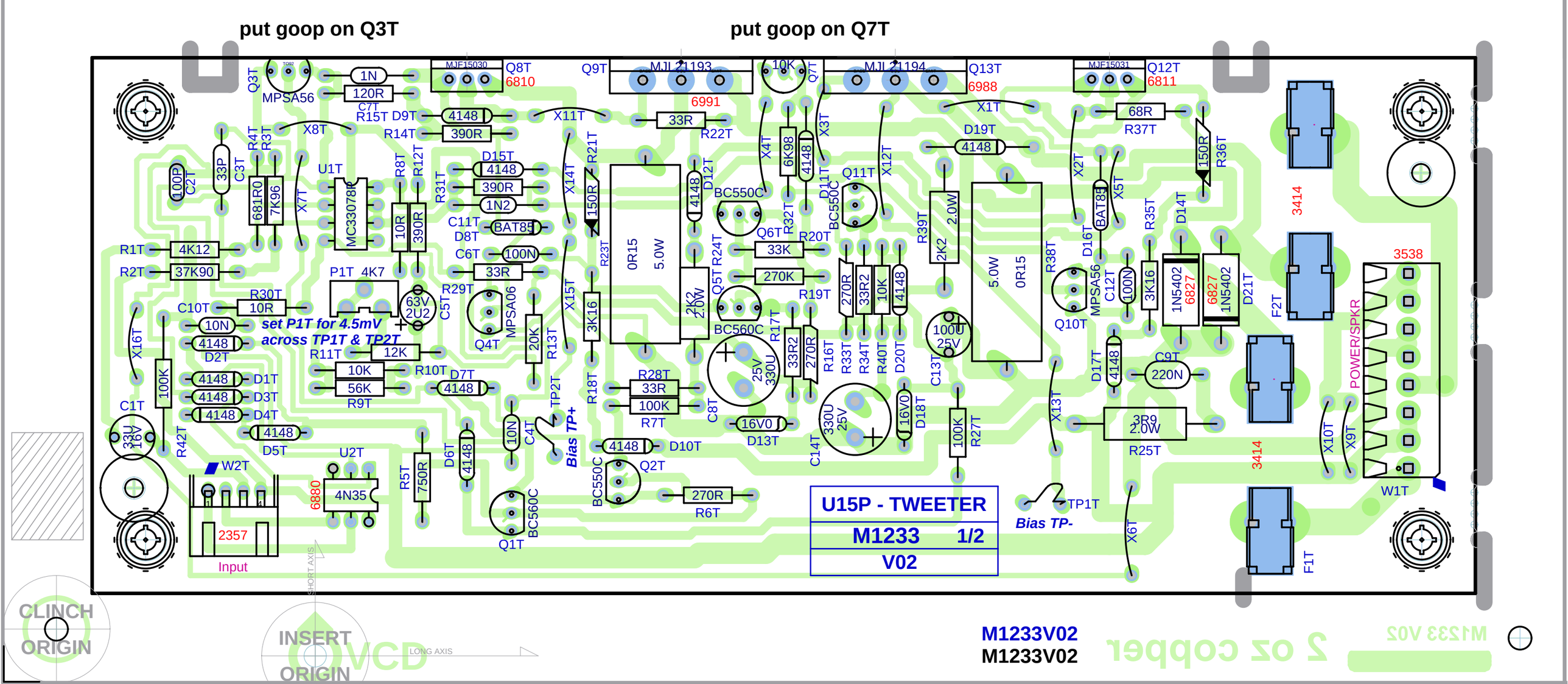
Product **U15P**

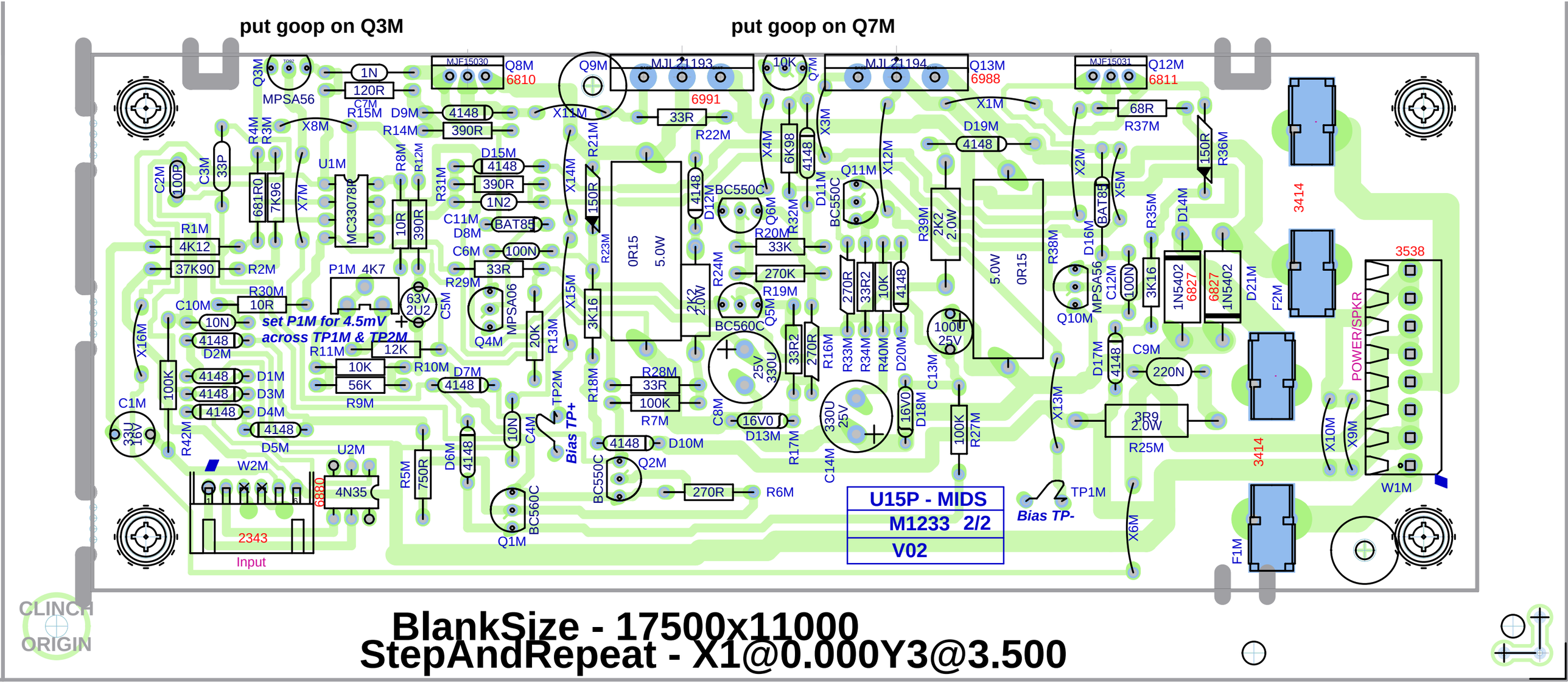
Tweeter/Mid Amplifiers | PCB# M1233 | Sheet 2 of 2

Date: Tue Aug 10, 2010 | Rev:V2.00

Filename: M1233V02sch.sch2002



SEE LAYOUT DOCUMENTATION



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

SEE LAYOUT DOCUMENTATION

SEE LAYOUT DIAGRAM

M1233 REVISION 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

M1233 DRILL HISTORY

MODEL(S):- U15P

#	DATE	VER#	DESCRIPTION OF CHANGE
1	09-NOV-09	V02	Update board for Crimp
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

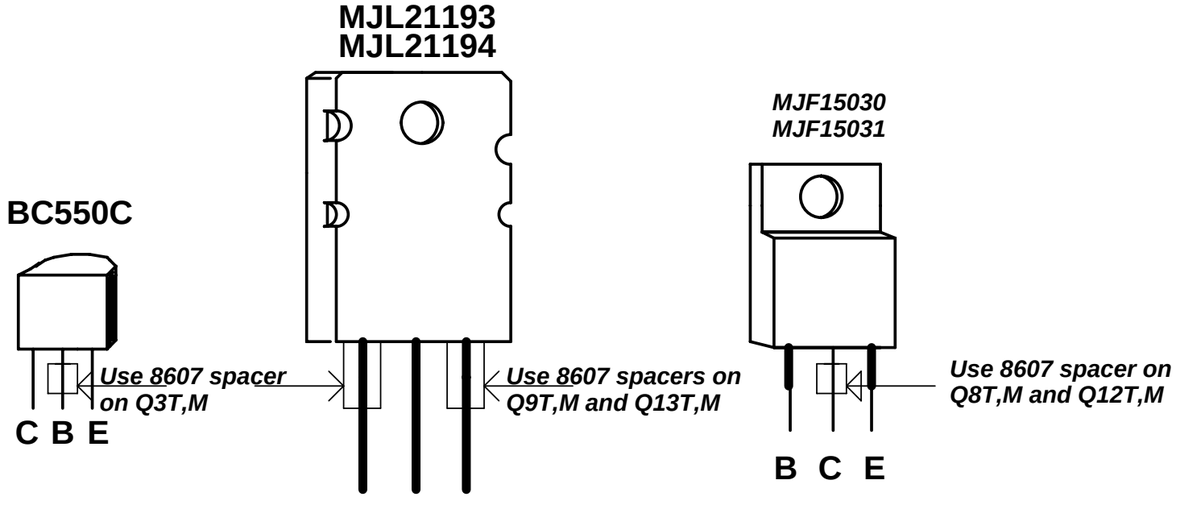
M1233 PENDING LIST

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

M1233 PRODUCTION NOTES

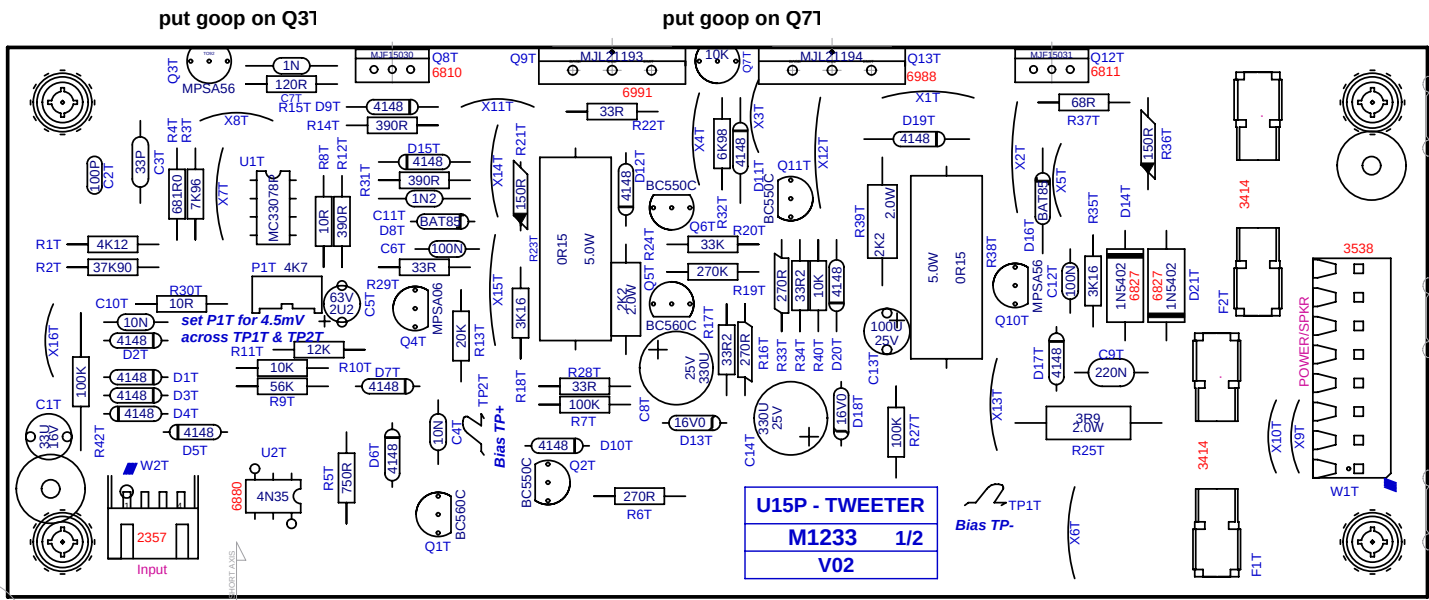
1. ADD SPACERS TO TRANSITORS

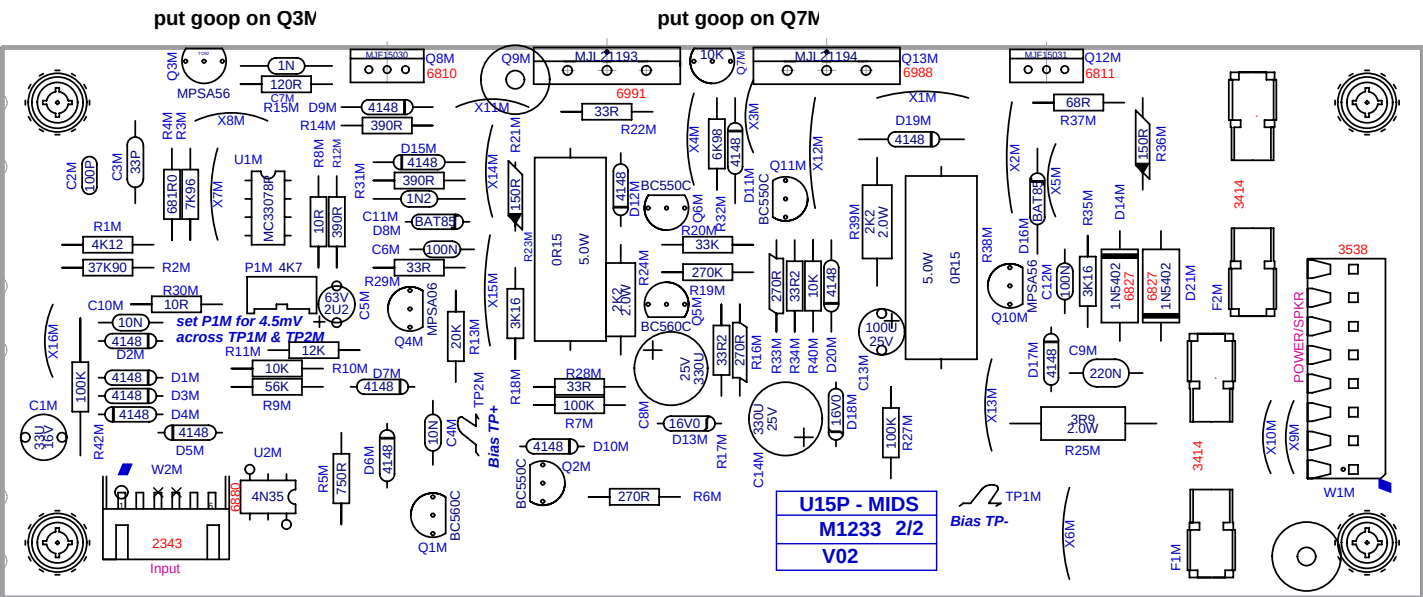


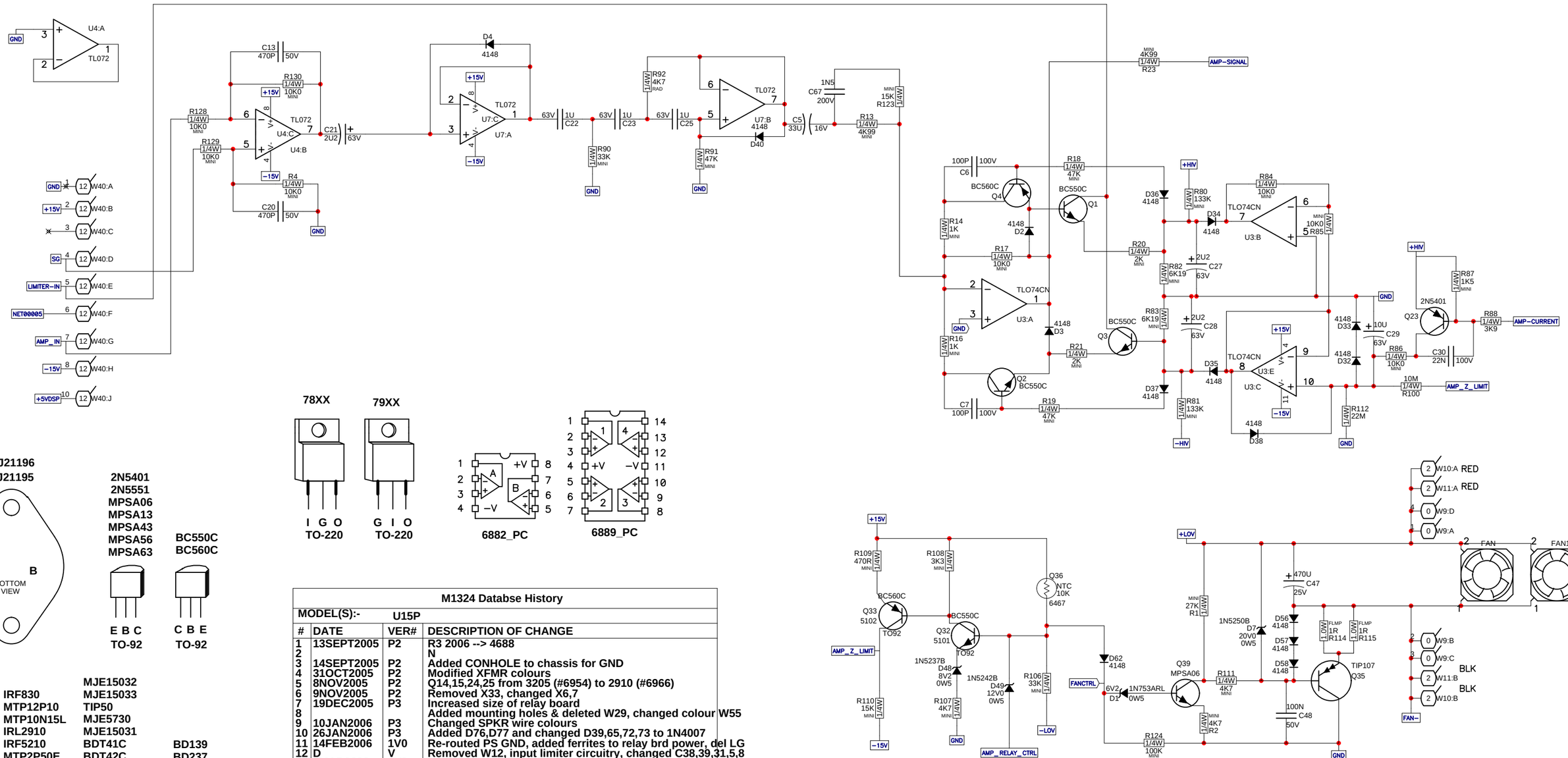
2. Q3T AND Q3M ARE HAND INSERTED

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
Q3T
MPSA56
1N
120R
Q8T
6810
MJE15030
Q9T
MJL21193
10K
Q7T
MJL21194
Q13T
6988
6991
MJE15031
Q12T
6811
X11T
X1T
R15T
D9T
4148
390R
R14T
33R
R22T
68R
R37T
X8T
R4T
R3T
33P
C3T
C2T
100P
681R0
7K96
X7T
U1T
MC33078P
R8T
R12T
10R
390R
R31T
D15T
4148
390R
1N2
C11T
BAT85
D8T
C6T
100N
33R
R29T
C5T
R1T
4K12
R2T
37K90
P1T 4K7
63V
2U2
MPSA06
Q4T
R30T
10R
C10T
10N
4148
D2T
set P1T for 4.5mV
across TP1T & TP2T
R11T
12K
10K
56K
R9T
R10T
D7T
4148
20K
R13T
TP2T
Bias TP+
X14T
150R
R21T
X15T
3K16
R18T
R28T
33R
100K
R7T
C8T
D10T
4148
Q2T
BC550C
270R
R6T
Q1T
BC560C
10N
C4T
X16T
100K
R42T
C1T
33V
3W
W2T
2357
Input
4148
D5T
4148
D4T
4148
D3T
4148
D1T
U2T
6880
4N35
R5T
750R
D6T
4148
X12T
R23T
0R15
5.0W
4148
D12T
BC550C
Q5T
R24T
2K2
20W
BC560C
25V
330U
R17T
33R2
270R
R16T
R33T
R34T
R40T
D20T
C14T
330U
25V
16V0
D18T
C13T
100U
25V
X13T
100K
R27T
X4T
6K98
4148
X3T
Q11T
BC550C
D11T
X12T
Q6T
R32T
R20T
33K
270K
R19T
270R
33R2
10K
4148
R39T
2K2
2.0W
5.0W
0R15
R38T
Q10T
MPSA56
D16T
BAT85
X5T
C12T
100N
3K16
R35T
D14T
1N5402
6827
6827
1N5402
D21T
3414
F2T
3538
POWER/SPKR
W1T
X10T
X9T
D17T
4148
C9T
220N
3R9
2.0W
R25T
3414
F1T
X6T
TP1T
Bias TP-
U15P - TWEETER
M1233 1/2
V02


put goop on Q3M
put goop on Q7M
Q3M
MPSA56
1N
120R
2M2
MJE15030
Q8M
6810
Q9M
MJL21193
6991
10K
Q7M
MJL21194
Q13M
6988
MJE15031
Q12M
6811
X1M
R15M
D9M
4148
R14M
390R
X8M
33R
R22M
68R
R37M
R4M
R3M
X11M
R21M
X4M
6K98
X3M
D19M
4148
X2M
C2M
100P
C3M
33P
681R0
7K96
X7M
U1M
MC33078P
R8M
R12M
10R
390R
D15M
4148
390R
1N2
R31M
X14M
150R
R23M
0R15
5.0W
4148
D12M
BC550C
Q6M
Q11M
BC550C
X12M
R39M
2K2
2.0W
5.0W
0R15
R38M
X5M
BAT85
C11M
D8M
C6M
100N
33R
R20M
33K
R32M
D11M
R1M
4K12
37K90
R2M
P1M 4K7
R29M
MPSA06
Q4M
C5M
63V
2U2
R30M
10R
C10M
10N
4148
D2M
set P1M for 4.5mV
across TP1M & TP2M
X15M
3K16
R24M
2K2
2.0W
R19M
270K
C5M
BC560C
Q5M
270R
33R2
10K
4148
100U
25V
Q10M
MPSA56
C12M
100N
3K16
R35M
1N5402
6827
6827
1N5402
D14M
D21M
F2M
3414
3538
POWER/SPKR
X16M
R11M
12K
10K
56K
R9M
R10M
D7M
4148
R18M
R28M
33R
100K
R7M
C8M
16V0
D13M
R17M
33R2
270R
R16M
25V
330U
R33M
R34M
R40M
D20M
C13M
330U
25V
16V0
D18M
C14M
D17M
4148
C9M
220N
X13M
100K
R27M
3R9
2.0W
R25M
X10M
X9M
C1M
33U
16V
100K
R42M
4148
D1M
4148
D3M
4148
D4M
4148
D5M
W2M
U2M
4N35
68R80
R5M
750R
D6M
4148
10N
C4M
TP2M
Bias TP+
4148
D10M
Q2M
BC550C
270R
R6M
Q1M
BC560C
U15P - MIDS
M1233 2/2
V02
TP1M
Bias TP-
X6M
F1M
3414
W1M
2343
Input



M1324 Databse History			
MODEL(S):-		U15P	
#	DATE	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	.	.	PC7586, 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	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

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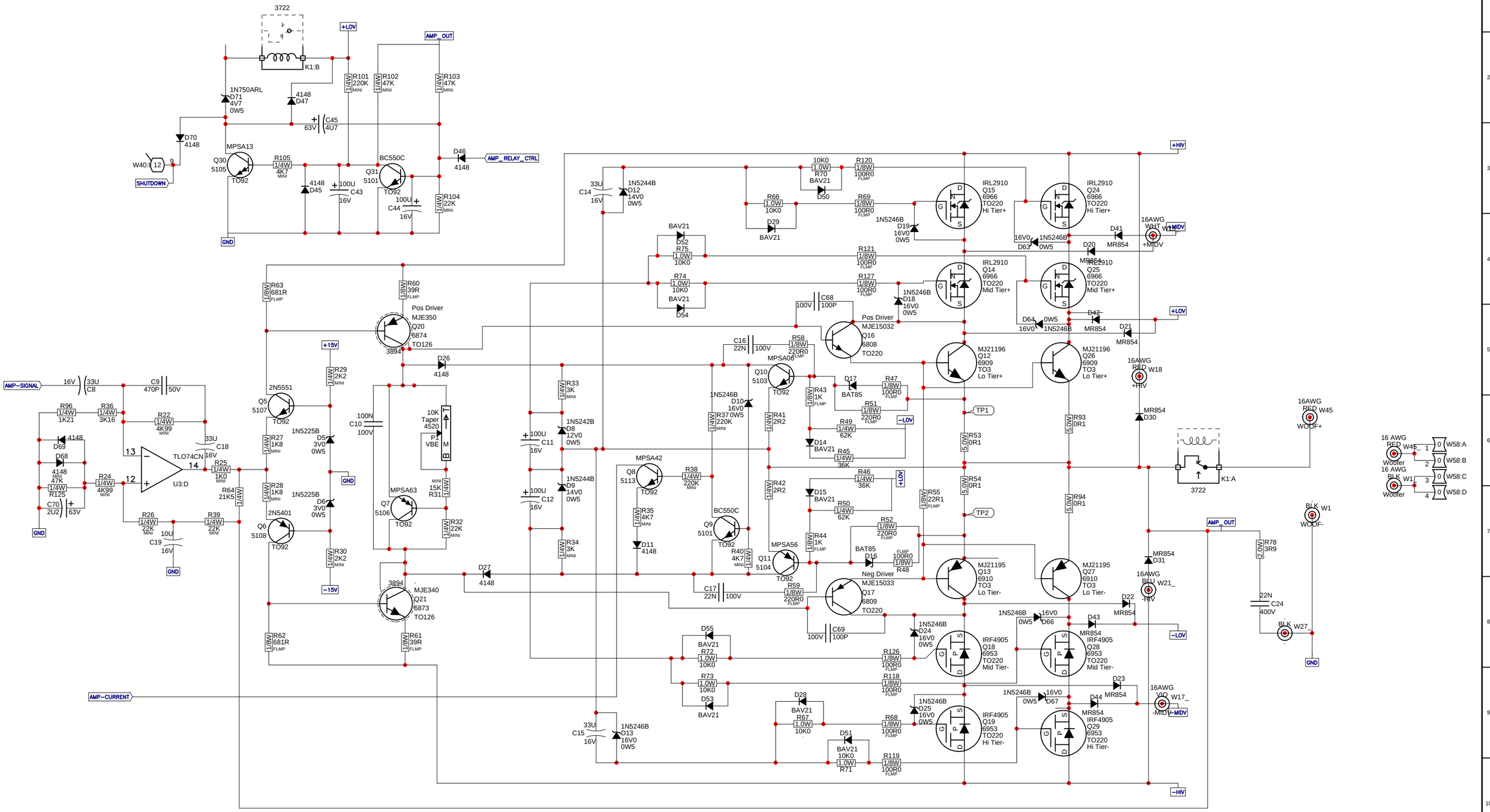
Product	U15P		
AMP-IN		PCB# M1234	Sheet 1 of 3
Date: Thu Nov 06, 2008		Rev:V4.00	
Filename: M1234V400sch.sch2002			



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

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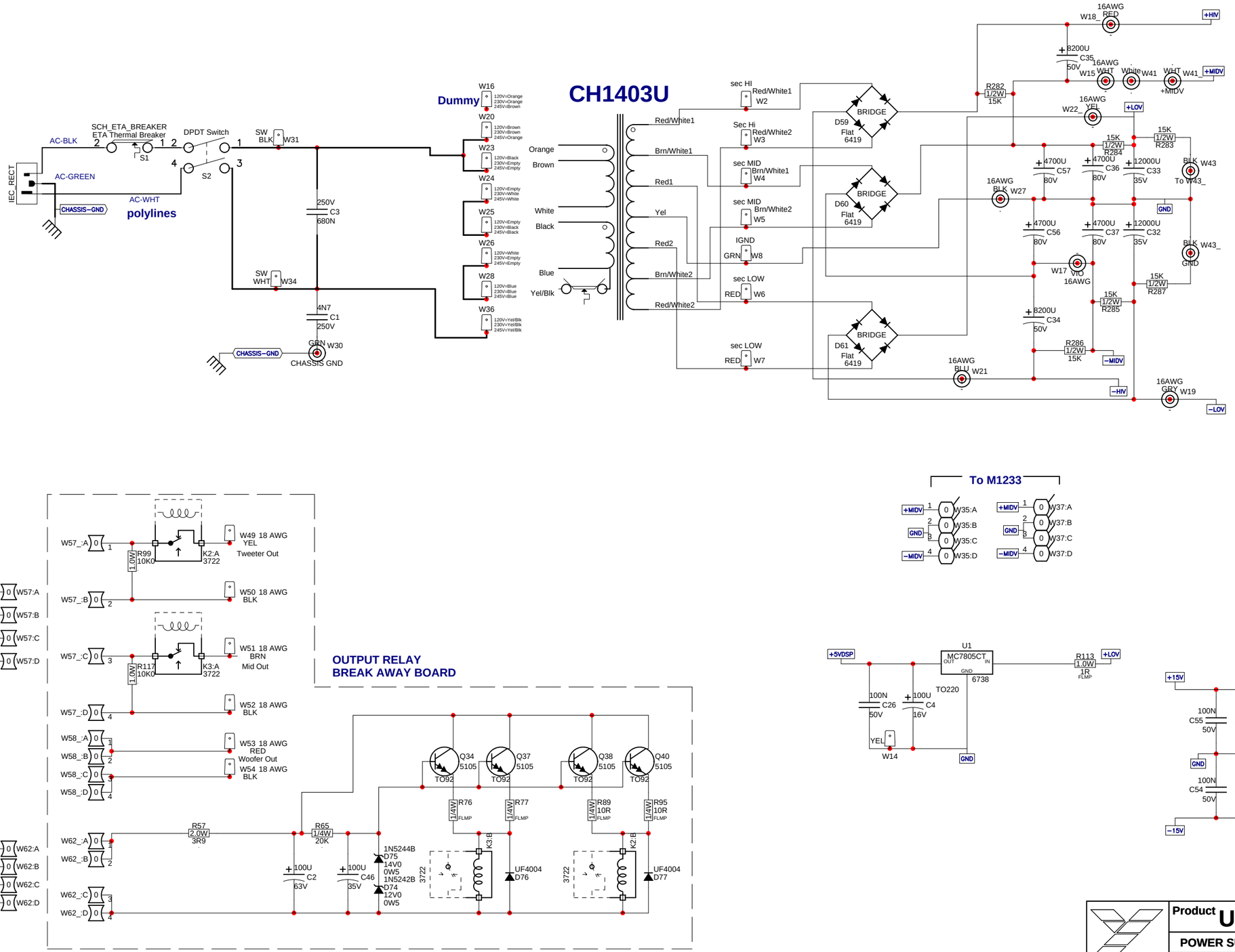
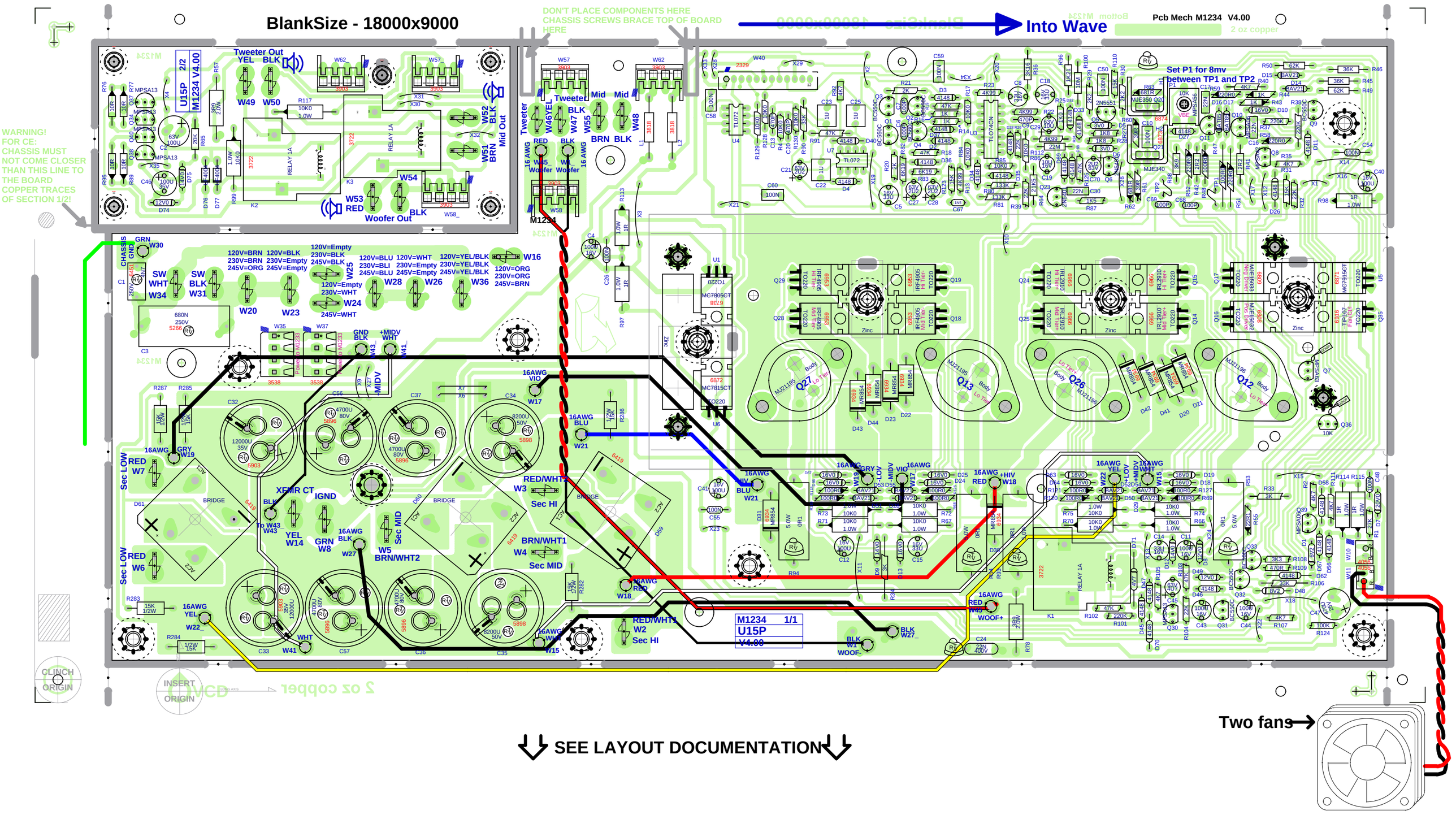
Product **U15P**		
AMP	PCB# M1234	Sheet 2 of 3
Date: Thu Nov 06, 2008	Rev:V4.00	
Filename: M1234V400sch.sch2002		


CH1403U
Dummy
IEC_RECT
AC-BLK
AC-GREEN
AC-WHT
CHASSIS-GND
SCH_ETA_BREAKER
ETA Thermal Breaker
S1
DPDT Switch
S2
SW BLK W31
SW WHT W34
250V
C3
680N
4N7
C1
250V
GRN W30
CHASSIS GND
polylines
W16
W20
W23
W24
W25
W26
W28
W36
120V=Orange
230V=Orange
245V=Brown
120V=Brown
230V=Brown
245V=Orange
120V=Black
230V=Empty
245V=Empty
120V=Empty
230V=White
245V=White
120V=Empty
230V=Black
245V=Black
120V=White
230V=Empty
245V=Empty
120V=Blue
230V=Blue
245V=Blue
120V=Yel/Blk
230V=Yel/Blk
245V=Yel/Blk
Orange
Brown
White
Black
Blue
Yel/Blk
Red/White1
Brn/White1
Red1
Yel
Red2
Brn/White2
Red/White2
sec HI
Red/White1 W2
Sec Hi
Red/White2 W3
sec MID
Brn/White1 W4
sec MID
Brn/White2 W5
IGND
GRN W8
sec LOW
RED W6
sec LOW
RED W7
BRIDGE
D59
Flat
6419
BRIDGE
D60
Flat
6419
BRIDGE
D61
Flat
6419
16AWG
W18_
RED
+HIV
8200U
C35
50V
16AWG
W15
WHT
White
W41
WHT
W41_
+MIDV
+MIDV
16AWG
W22_
YEL
+LOV
R282
1/2W
15K
15K
1/2W
R284
15K
1/2W
R283
4700U
C57
80V
4700U
C36
80V
12000U
C33
35V
BLK W43
To W43_
16AWG
BLK W27
GND
4700U
C56
80V
4700U
C37
80V
12000U
C32
35V
BLK W43_
GND
W17
VIO
16AWG
15K
1/2W
R287
15K
1/2W
R285
8200U
C34
50V
R286
1/2W
15K
-MIDV
16AWG
BLU W21
-HIV
16AWG
GRY W19
-LOV
NO LOAD VOLTAGES
LOV +/- 30.5 Vdc
MIDV +/- 64 Vdc
HIV +/- 98.5 Vdc
From Tweeter & Mid Boards
3682 YEL W46
3682 BLK W47
3682 BRN W55
3682 BLK W48
W57:A
W57:B
W57:C
W57:D
OUTPUT RELAY
BREAK AWAY BOARD
W57_:A
W57_:B
W57_:C
W57_:D
R99
10K0
1.0W
K2:A
3722
W49 18 AWG
YEL
Tweeter Out
W50 18 AWG
BLK
R117
10K0
1.0W
K3:A
3722
W51 18 AWG
BRN
Mid Out
W52 18 AWG
BLK
W58_:A
W58_:B
W58_:C
W58_:D
W53 18 AWG
RED
Woofer Out
W54 18 AWG
BLK
W62_:A
W62_:B
W62_:C
W62_:D
+LOV
L1
3818
L2
3818
GND
W62:A
W62:B
W62:C
W62:D
R57
2.0W
3R9
R65
1/4W
20K
100U
C2
63V
100U
C46
35V
1N5244B
D75
14V0
0W5
1N5242B
D74
12V0
0W5
Q34
5105
TO92
Q37
5105
TO92
Q38
5105
TO92
Q40
5105
TO92
R76
1/4W
FLMP
R77
1/4W
FLMP
R89
10R
1/4W
FLMP
R95
10R
1/4W
FLMP
K3:B
K2:B
3722
3722
UF4004
D76
UF4004
D77
To M1233
+MIDV
GND
-MIDV
W35:A
W35:B
W35:C
W35:D
W37:A
W37:B
W37:C
W37:D
+15V
C60
100N
100V
C58
100N
100V
C59
100N
100V
C50
100N
100V
GND
-15V
+5VDSP
U1
MC7805CT
OUT
IN
GND
6738
TO220
R113
1.0W
1R
FLMP
+LOV
100N
C26
50V
100U
C4
16V
YEL
W14
GND
+15V
U6
MC7815CT
OUT
IN
GND
6872
TO220
R97
1.0W
1R
FLMP
16AWG
YEL W22
+LOV
100N
C55
50V
100U
C41
16V
GND
100N
C54
50V
100U
C40
16V
TO220
6871
GND
OUT
IN
MC7915CT
U5
R98
1.0W
1R
FLMP
16AWG
GRY W19_
-LOV
-15V
Yorkville
Product U15P
POWER SUPPLY
PCB# M1234
Sheet 3 of 3
Date: Thu Nov 06, 2008
Rev:V4.00
Filename: M1234V400sch.sch2002


BlankSize - 18000x9000
DON'T PLACE COMPONENTS HERE
CHASSIS SCREWS BRACE TOP OF BOARD
HERE
Into Wave
Pcb Mech M1234 V4.00
2 oz copper
WARNING!
FOR CE:
CHASSIS MUST
NOT COME CLOSER
THAN THIS LINE TO
THE BOARD
COPPER TRACES
OF SECTION 1/2!
U15P 2/2
M1234 V4.00
Tweeter Out
YEL BLK
W49 W50
W52 BLK Mid Out
W51 BRN
W54
W53 RED
Woofer Out BLK
Tweeter
Mid
Mid
W46 YEL
W47
W55
W48
BRN BLK
RED
BLK
16 AWG
W45 Woofer
W58 Woofer
M1234
Set P1 for 8mv
between TP1 and TP2
CHASSIS GND
GRN
W30
SW WHT W34
SW BLK W31
120V=BRN 120V=BLK
230V=BRN 230V=Empty
245V=ORG 245V=Empty
W20
W23
120V=Empty
230V=BLK
245V=BLK
W25
120V=Empty
230V=WHT
W24
245V=WHT
120V=BLU 120V=WHT 120V=YEL/BLK
230V=BLI 230V=Empty 230V=YEL/BLK
245V=BLU 245V=Empty 245V=YEL/BLK
W28 W26 W36
W16
120V=ORG
230V=ORG
245V=BRN
680N 250V 5266
GND BLK
+MIDV WHT
W43 W41
MIDV
16AWG VIO W17
16AWG BLU W21
16AWG GRY W19
RED W7
Sec LOW
XFMR CT
IGND
To W43
W43
YEL W14
GRN W8
16AWG BLK W27
Sec MID
W5 BRN/WHT2
RED/WHT1 W3
Sec HI
BRN/WHT1 W4
Sec MID
16AWG RED W18
RED/WHT1 W2
Sec HI
16AWG YEL W22
WHT W41
16AWG WHT W15
M1234 1/1
U15P
V4.00
16AWG GRY -LOV
16AWG VIO -MIDV
16AWG BLU -HIV
16AWG RED +HIV W18
16AWG YEL +LOV
16AWG WHT +MIDV W15
16AWG RED W49
WOOF+
BLK W1
WOOF-
BLK W27_
Zinc
Body
Lo Tier
Q27
Q26
Q13
Q12
MJ21195
MJ21196
Two fans
SEE LAYOUT DOCUMENTATION
CLINCH ORIGIN
INSERT ORIGIN

SEE LAYOUT DIAGRAM

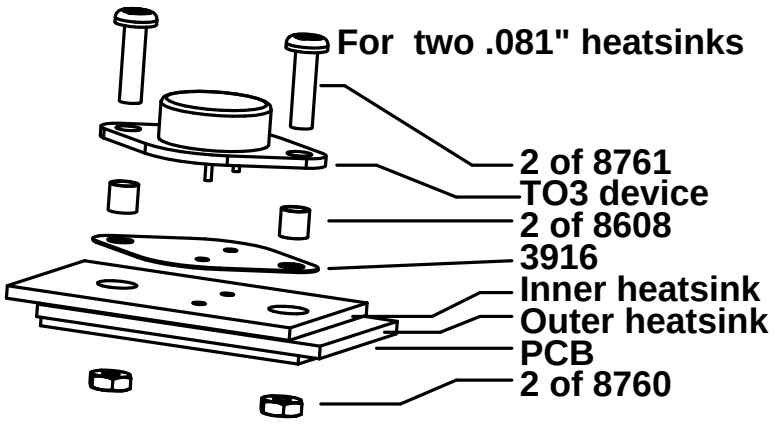
PRODUCTION NOTES

M1234 U15P

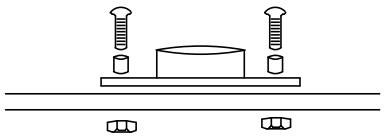
Board Assembly

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

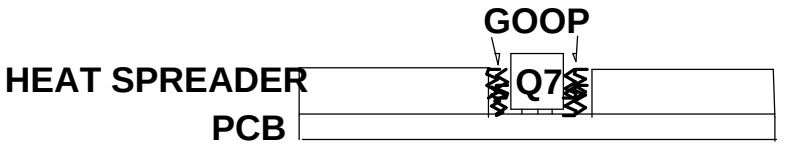


3 - MOUNT Q12,Q13,Q26,Q27 SCREWS FROM THE TOP



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
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

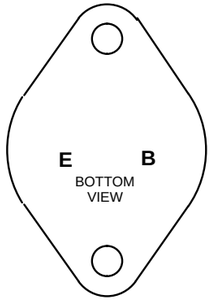
M1234 Pending List			
MODEL(S):-	U15P		
#	DATE	VER#	DESCRIPTION OF CHANGE
1	D	V	N
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

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

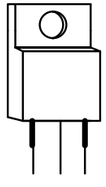
PIN CONFIGURATION

MJ21196

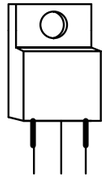
MJ21195



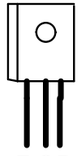
MJE15032
MJE15033
TIP50
MJE5730
MJE15031
BDT41C
BDT42C
BDX54C
BDX53C
2N6045 BD649
TIP102
TIP107



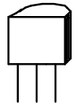
IRF830
MTP12P10
MTP10N15L
IRL2910
IRF5210
MTP2P50E
MTP8P20
IRF720
MTP23P06
IRF822
IRF4905



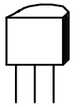
BD139
BD237
BD238
MJE340
MJE350
MJE271
MJE270
BD140



2N5401
2N5551
MPSA06
MPSA13
MPSA43
MPSA56
MPSA63



BC550C
BC560C



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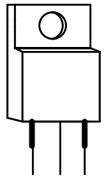

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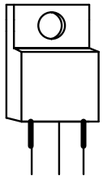
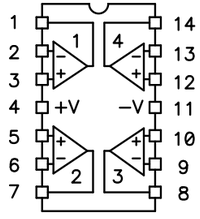
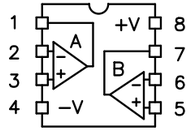
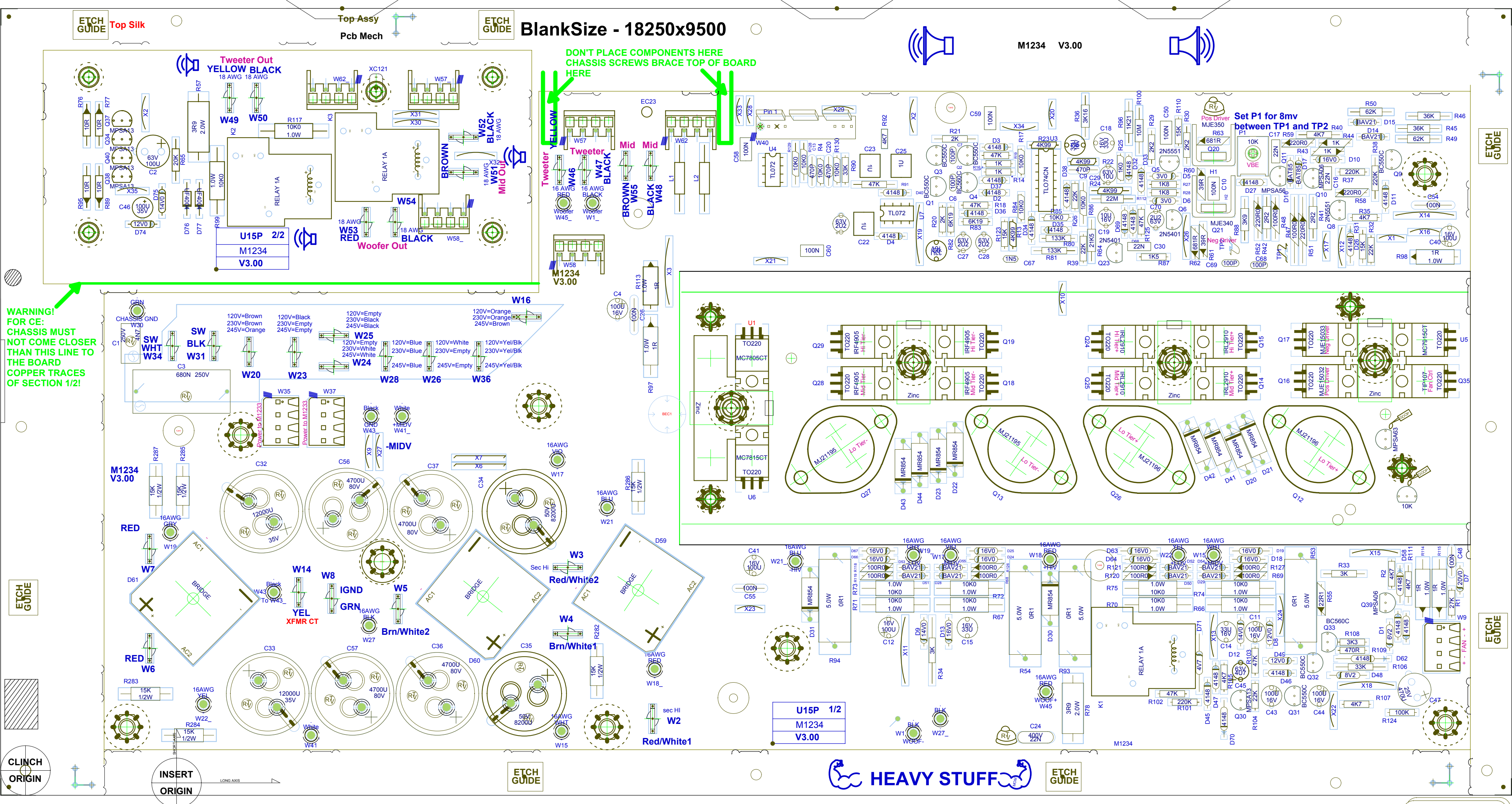
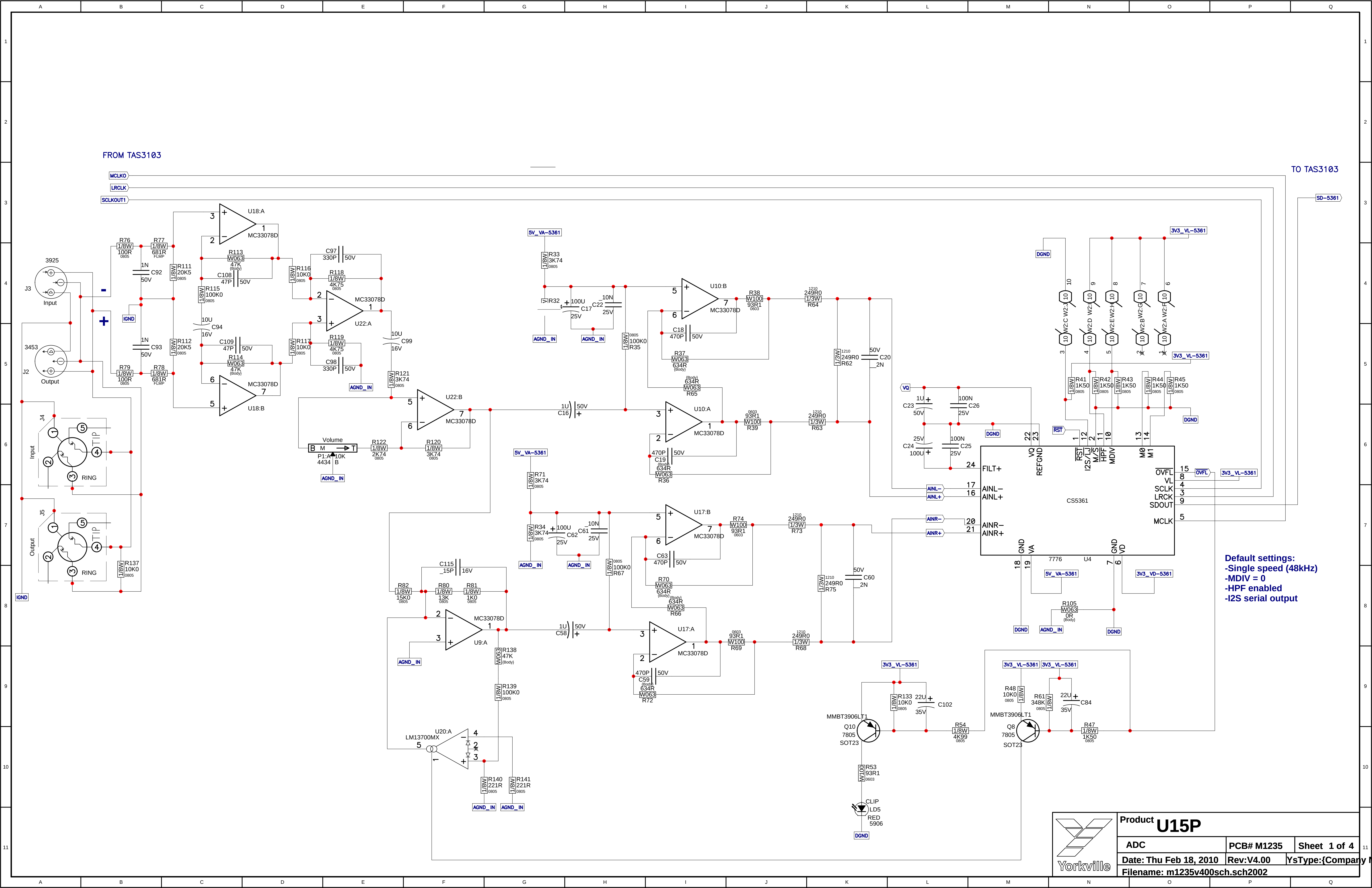








ETCH GUIDE
Top Silk
Top Assy
Pcb Mech
BlankSize - 18250x9500
M1234 V3.00
DON'T PLACE COMPONENTS HERE
CHASSIS SCREWS BRACE TOP OF BOARD
HERE
Set P1 for 8mv
between TP1 and TP2
Tweeter Out
YELLOW BLACK
Woofer Out
Mid Out
U15P 2/2
M1234
V3.00
WARNING!
FOR CE:
CHASSIS MUST
NOT COME CLOSER
THAN THIS LINE TO
THE BOARD
COPPER TRACES
OF SECTION 1/2!
CHASSIS GND
120V=Brown
230V=Brown
245V=Orange
120V=Black
230V=Empty
245V=Empty
120V=Empty
230V=Black
245V=Black
120V=Orange
230V=Orange
245V=Brown
-MIDV
XFMR CT
IGND
Red/White2
Brn/White1
Brn/White2
Red/White1
U15P 1/2
M1234
V3.00
HEAVY STUFF
CLINCH ORIGIN
INSERT ORIGIN
LONG AXIS


FROM TAS3103
TO TAS3103
MCLKO
LRCLK
SCLKOUT1
SD-5361
Input
Output
Volume
CS5361
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 N
Filename: m1235v400sch.sch2002
Yorkville

FROM ADC

SD-5361

TO DAC

LRCLK
SDOUT1
SDOUT2
SDOUT3
SCLKOUT2
MCLKO

TO ADC

MCLKO
LRCLK
SCLKOUT1

TO POWER

I2C-RST
MR

3V3_LOGIC
R59 221R 1/8W 0805
U12 Prog LD1 GRN 6401
U13 Prog LD2 GRN 6401
U14 Prog LD3 GRN 6401
U15 Prog LD4 GRN 6401
DGND
4052B U5:B 7786

U12 Program1 7908-PROG
U13 Program2 7909-PROG
U14 Program3 7910-PROG
U15 Program4 7911-PROG
A0 A1 A2 SDA SCL WP Vcc GND
R12 1/8W 1K0 0805
Program
For programming short the two vias in the box Program
4052B U5:A 7786
NET00108

7774 U1

SDIN1 SDIN2 SDIN3 SDIN4 ORIN MCLKI SCLKIN LRCLK PWRDN RST GPIO0 GPIO1 GPIO2 GPIO3 REGULATOR_EN TEST MICROCLK_DIV PLL0 PLL1 CS0 CS1 I2CM_S SDA SCL

SDOUT1 SDOUT2 SDOUT3 SCLKOUT1 SCLKOUT2 MCLKO XTALIN XTALO AVDD_BYPASS_CAP A_VDDS AVSS DVDD_BYPASS_CAP VDDS DVSS

R3 4K99 1/8W 0805
R1 4K99 1/8W 0805
R2 4K99 1/8W 0805
W1:A W1:B W1:C W1:D W1:E W1:F W1:G W1:H W1:I W1:J
R56 49R9 W063 (Body)
R55 49R9 W063 (Body)
R57 4K99 1/8W 0805
R58 4K99 1/8W 0805
SDA
SCL

C48 _15P 16V
R51 12.288 XtW (Body)
C107 _15P 16V
C15 _10N 25V
C14 470N 10V

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

FROM PADDLE BOARD (DAREF106)

J1:A SCL-I2C
J1:B SDA-I2C
J1:C 5V_I2C
J1:D I2C-RST
J1:E
J1:F
J1:G
J1:H

Prog Select P2:A 4506 ROT B2 B1 COM

R4 4K99 1/8W 0805
R134 4K99 1/8W 0805
D5 PMLL4148
D6 PMLL4148
R26 348K 1/8W 0805
R27 348K 1/8W 0805
SN74AHC1G14 U6:A 7792
SN74AHC1G14 U16:A 7792
C79 220N 25V
C103 220N 25V

SN74AHC1G86 U23 7812
SN74AHC1G86 U24 7812
R135 10K0 1/8W 0805
C82 100N 25V
U7:A 7792
SN74AHC1G14
3V3-RESET
R60 4K99 1/8W 0805

U5:C 7786 4052B

Yorkville

Product U15P

DSP | PCB# M1235 | Sheet 2 of 4

Date: Thu Feb 18, 2010 | Rev:V4.00 | YsType:{Company N

Filename: m1235v400sch.sch2002

FROM TAS3103

MCLKO
LRCLK
SDOUT1
SCLKOUT2
SDOUT2
SDOUT3

U21
CS4362
7791

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

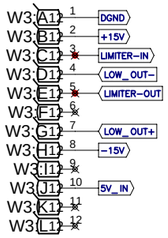
+TO HIGH -

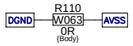
+TO MIDS -

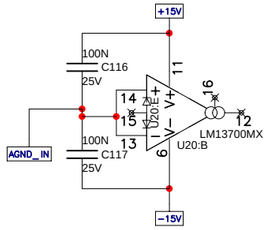
TO LOW (W3)

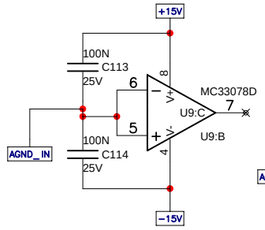
Product U15P		
DAC	PCB# M1235	Sheet 3 of 4
Date: Thu Feb 18, 2010	Rev:V4.00	YsType:{Company N
Filename: m1235v400sch.sch2002		

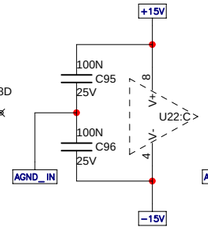
RIBBON TO AMP

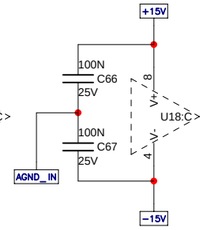


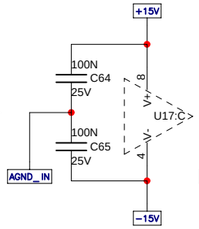


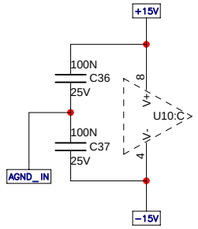


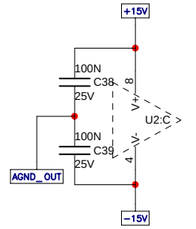


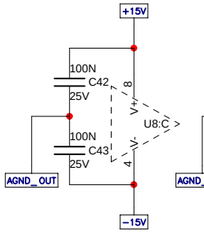


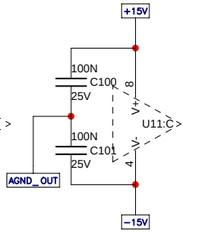


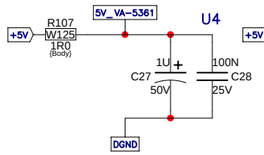


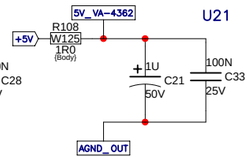


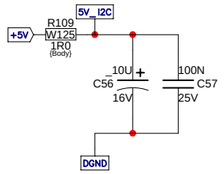


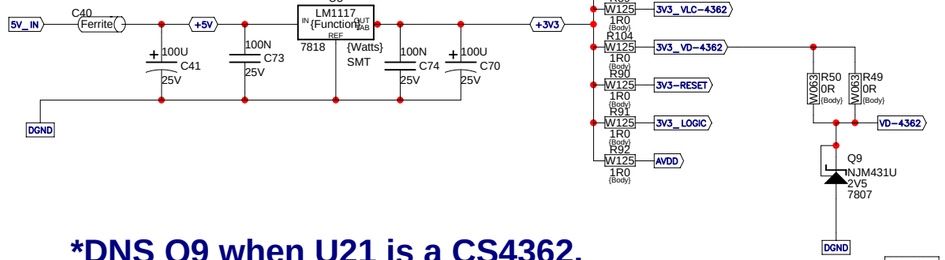


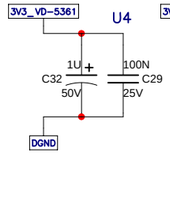


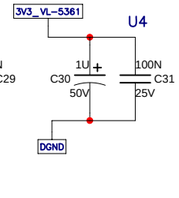


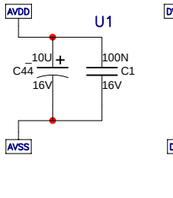


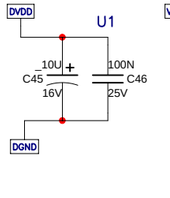


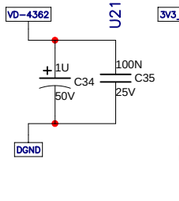


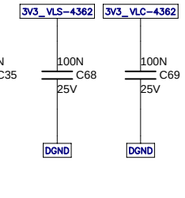


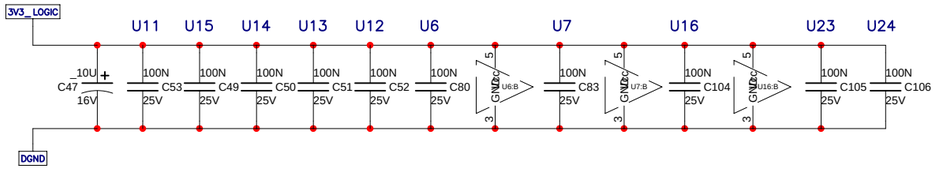


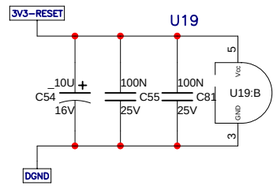




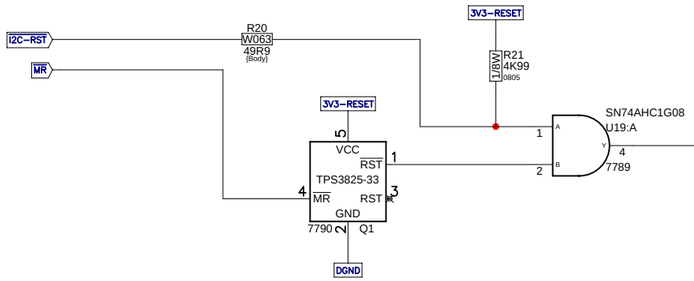




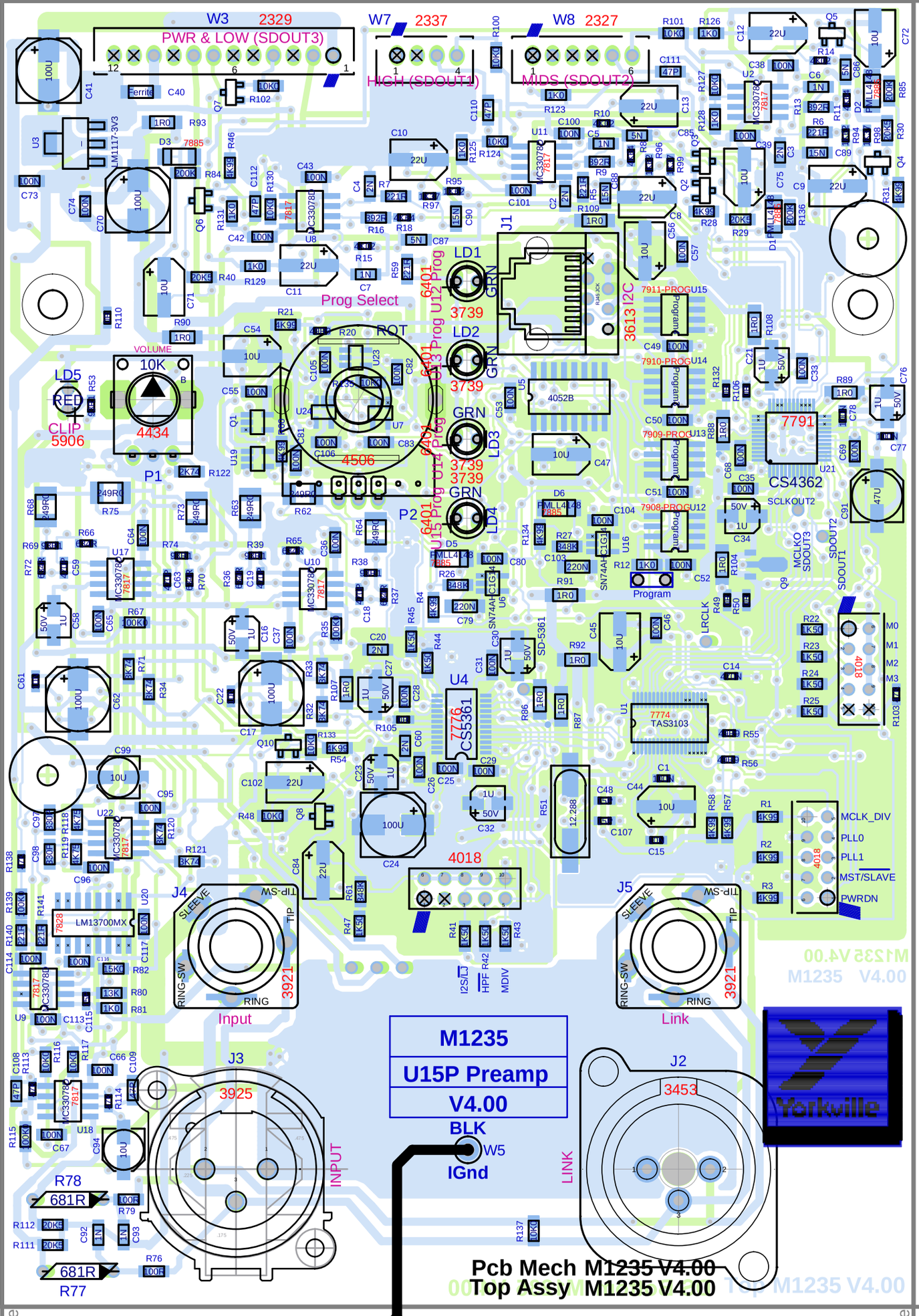




***DNS Q9 when U21 is a CS4362.**
***Only stuff Q9 when U21 is CS4362A to provide 2.5V.**
***When using CS4362A, replace R49 & R50 with 49R9 (7781).**



Yorkville	Product **U15P**	
	Power	PCB# M1235 — Sheet 4 of 4
	Date: Thu Feb 18, 2010	Rev:V4.00 — YsType:{Company N
	Filename: m1235v400sch.sch2002	


W3 2329
PWR & LOW (SDOUT3)
W7 2337
HIGH (SDOUT1)
W8 2327
MIDS (SDOUT2)
Prog Select
LD1
LD2
LD3
LD4
LD5
RED
CLIP
5906
GRN
3739
6401
VOLUME
10K
4434
ROT
4506
P1
P2
J1
3613 I2C
7911-PROGU15
7910-PROGU14
7909-PROGU13
7908-PROGU12
Program
7791
CS4362
SCLKOUT2
SDOUT2
SDOUT1
MCLKO
SDOUT3
LRCLK
4052B
SN74AHC1G14
SD-5361
CS5361
7776
TAS3103
7774
4018
MCLK_DIV
PLL0
PLL1
MST/SLAVE
PWRDN
J4
J5
SLEEVE
TIP
RING-SW
RING
3921
Input
Link
J3
3925
INPUT
J2
3453
LINK
M1235
U15P Preamp
V4.00
BLK
W5
IGnd
To LoAmp IGnd
Pcb Mech M1235 V4.00
Top Assy M1235 V4.00
StepAndRepeat - X2@4.500Y2@6.450
SEE LAYOUT DOCUMENTATION
Yorkville

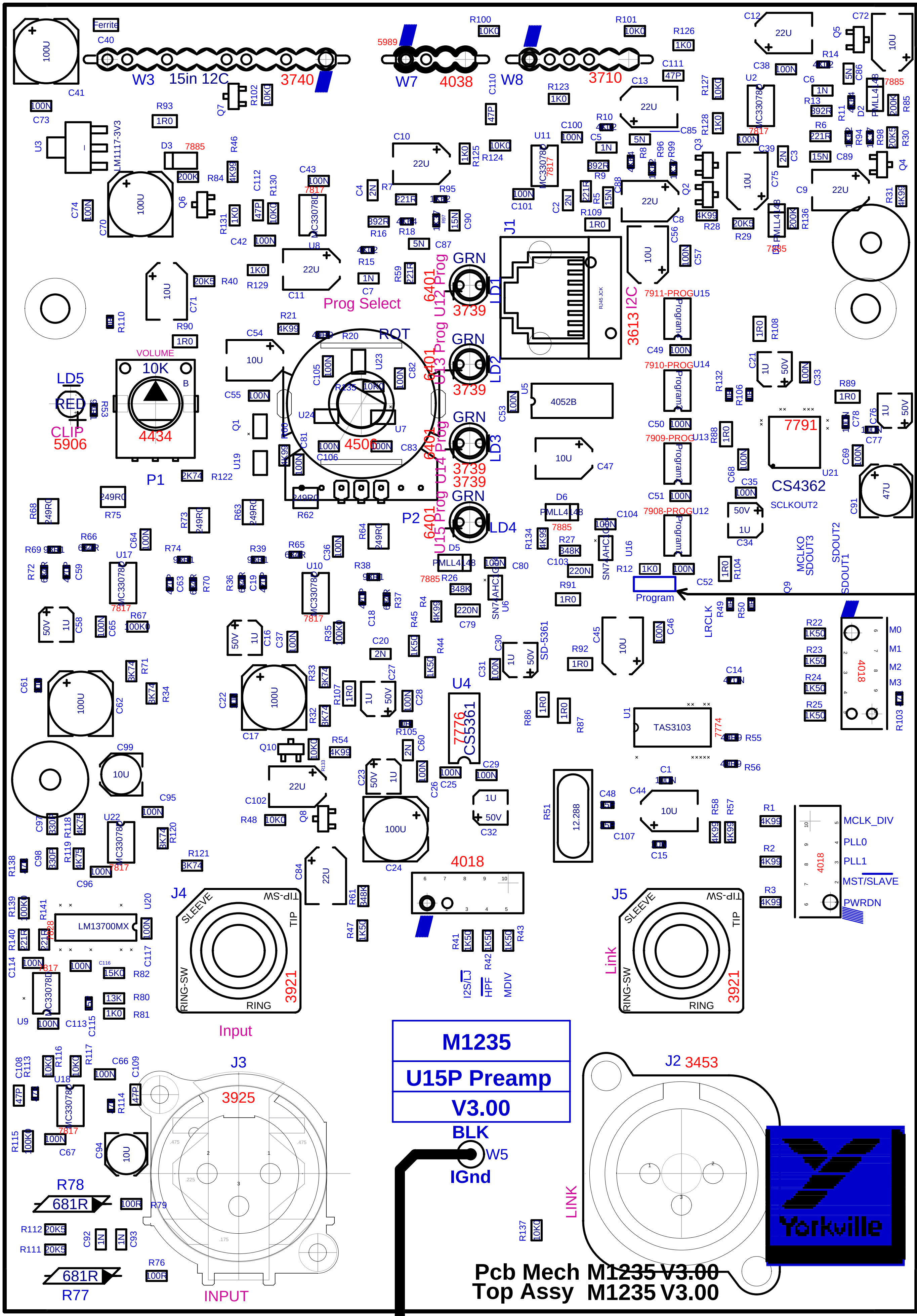
SEE LAYOUT DIAGRAM

M1235 Database History			
MODEL(S):-		U15P	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	2FEB2006	P3	Updated ribbons, move parts under encoder legs, fixed output
2	D	V	stages, fixed input limiter
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

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



SEE NOTE 4

To LoAmp IGnd

SEE LAYOUT DOCUMENTATION