



WEB: www.yorkville.com

WORLD HEADQUARTERS

CANADA

Yorkville Sound Limited

550 Granite Court
Pickering, Ontario
L1W 3Y8 CANADA

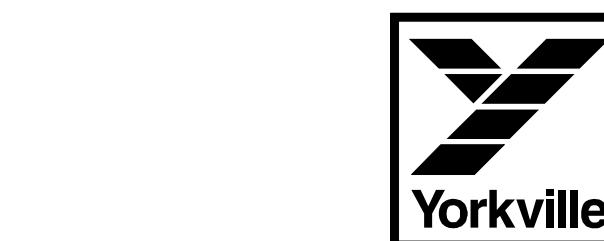
Voice: 905-837-8481
Fax: 905-837-8746

U.S.A.

Yorkville Sound Inc.

4625 Witmer Industrial Estate
Niagara Falls, New York
14305, USA

Voice: 716-297-2920
Fax: 716-297-3689



SERVICE MANUAL

PSA2S

SMT Disclaimer

Due to the complex nature of the use of SMT installed components in Yorkville equipment, we highly caution all service technicians in attempting to repair or replace SMT factory installed components.

Many of these components may be glued prior to initial soldering.

Replacing SMT components requires expensive specialized de-soldering equipment and training.

Yorkville Sound will repair and replace defective SMT components to ensure proper quality assurance and installation is maintained.

Quality and Innovation Since 1963
Printed in Canada

IMPORTANT SAFETY INSTRUCTIONS



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

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

The DO NOT STACK symbol is intended to alert the user that the product shall not be vertically stacked because of the nature of the product.

La symbole NE PAS EMPILER est pour alerter l'utilisateur que le produit ne doit pas être empilé verticalement en raison de la nature du produit.



SEPARATE
COLLECTION
WEEE



CAUTION: HOT SURFACE
ATTENTION: SURFACE CHAUE



DO NOT
PUSH OR PULL



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

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

FOLLOW ALL INSTRUCTIONS

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

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

NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE

PERSONNEL. THIS DEVICE IS FOR INDOOR USE ONLY!

**INSTALLED BATTERY PACKS SHALL NOT BE EXPOSED TO EXCESSIVE HEAT
SUCH AS SUNSHINE, FIRE OR THE LIKE.**

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 CE PRODUIT EST POUR L'USAGE À L'INTÉRIEUR SEULEMENT. LES PACKS BATTERIES INSTALLEÉS NE DOIVENT PAS ÊTRE EXPOSÉS À UNE CHALEUR EXCESSIVE TELLE QUE LE ENSOLEILLEMENT, LE FEU OU SIMILAIRES.

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 connection. 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/or 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. Disconnect power before servicing!

IMPORTANT SAFETY INSTRUCTIONS



The 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 enclosure that may be of sufficient magnitude to constitute a risk of shock to persons



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 product

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. 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.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

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

14. Refer all servicing to 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.

WARNING:

• To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.

• 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 or appliance coupler shall remain readily accessible.



Le symbole représentant un éclair avec une flèche à l'intérieur d'un triangle équilatéral est utilisé pour prévenir l'utilisateur de la présence d'une tension électrique dangereuse non isolée à l'intérieur de l'appareil. Cette tension est d'un niveau suffisamment élevé pour représenter un risque d'électrocution



Le symbole représentant un point d'exclamation à l'intérieur d'un triangle équilatéral, signale à l'utilisateur la présence d'instructions importantes relatives au fonctionnement et à l'entretien de l'appareil dans cette notice d'installation

1. Lisez ces instructions.

2. Conservez ces instructions.

3. Respectez tous les avertissements.

4. Suivez toutes les instructions.

5. N'utilisez pas l'appareil près de l'eau.

6. Nettoyez uniquement avec chiffon sec.

7. Ne bloquez pas les ouvertures de ventilation. Installez en suivant les instructions du fabricant.

8. Ne pas installer près des sources de chaleur telles que radiateurs, bouches de chaleur, four ou autres appareils (y compris les amplificateurs) produisant de la chaleur.

9. N'annulez pas l'objectif sécurité de la fiche polarisée ou de la tige de mise à la terre. Une fiche polarisée possède deux lames avec une plus grande que l'autre. Une prise avec mise à la terre possède deux lames et une troisième tige. La lame large ou la troisième tige sont fournies pour votre sécurité. Si la fiche n'entre pas dans votre prise, consultez un électricien pour remplacer la prise obsolète.

10. Protéger le cordon d'alimentation des piétinements ou pincements en particulier près des fiches, des prises de courant et au point de sortie de l'appareil.

11. Utilisez uniquement les accessoires spécifiés par le fabricant.

12. Utilisez uniquement avec un chariot, stand, trépied ou une table spécifiée par le fabricant, ou vendus avec l'appareil.

13. Débranchez l'appareil durant un orage ou lorsqu'il reste inutilisé pendant de longues périodes de temps.

14. Confiez toute réparation à un technicien qualifié. Une réparation est nécessaire lorsque l'appareil a été endommagé de quelque façon que ce soit; comme lorsque le cordon d'alimentation ou la fiche est endommagé, lorsque le liquide a été renversé ou des objets sont tombés à l'intérieur, lorsque l'appareil a été exposé à la pluie ou l'humidité, ne fonctionne pas normalement, ou est tombé.

AVERTISSEMENT:

• Pour réduire les risques d'incendie ou de choc électrique, ne pas exposer cet appareil à la pluie ou à l'humidité et ne placez pas d'objets contenant des liquides, tels que des vases, sur l'appareil.

• Pour isoler totalement cet appareil de l'alimentation secteur, débranchez totalement son cordon d'alimentation du réceptacle CA.

• La prise du cordon d'alimentation ou du prolongateur, si vous en utilisez un comme dispositif de débranchement, doit rester facilement accessible.



CAUTION

TO PREVENT ELECTRIC SHOCK HAZARD,
DO NOT CONNECT TO MAINS POWER SUPPLY
WHILE GRILLE IS REMOVED.



AVIS

POUR PRÉVENIR LES RISQUES D'ÉLECTROCUSSION,
NE PAS RACCORDER A L'ALIMENTATION ÉLECTRIQUE ALORS
QUE LA GRILLE EST RETIRÉE.

PARALINE SERIES

PSA2S

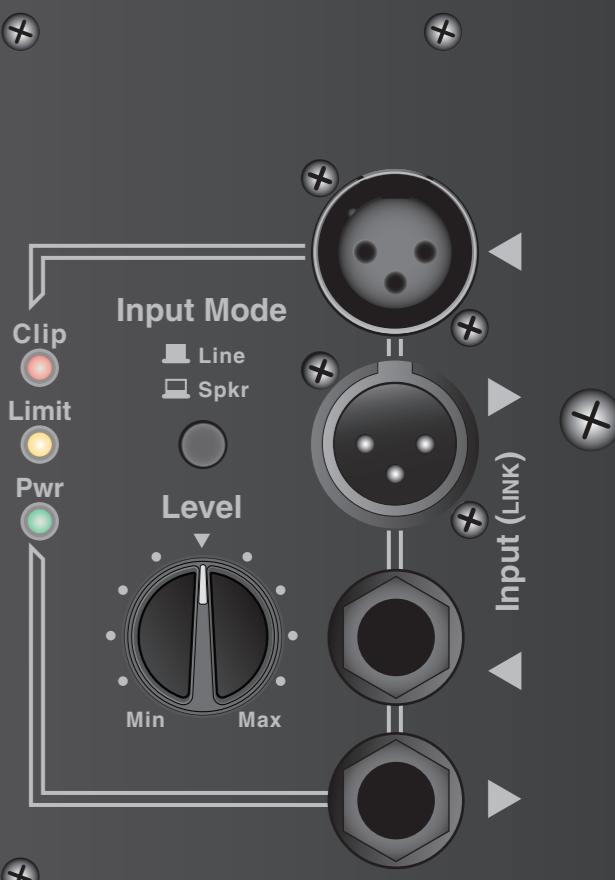
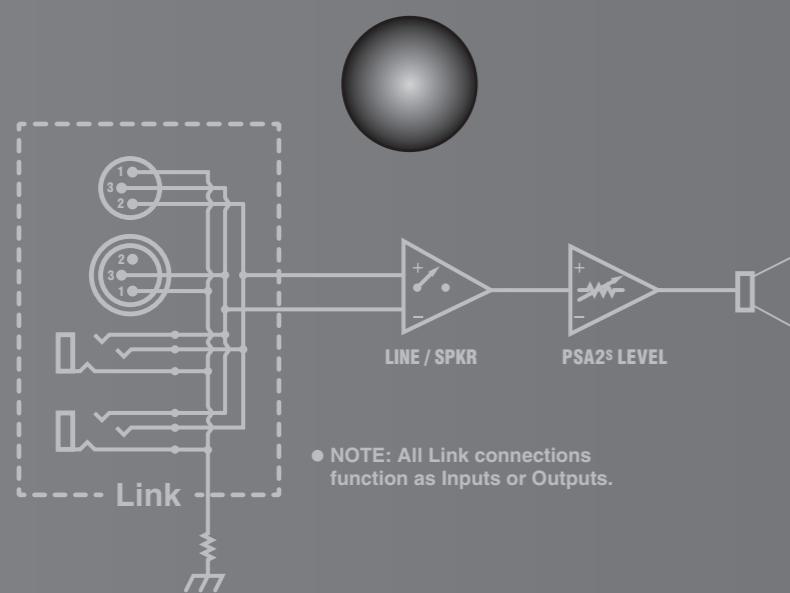


WWW.YORKVILLE.COM



PARALINE SERIES

PSA2S



THIS UNIT MUST BE GROUNDED!
CET APPAREIL DOIT ÊTRE MIS À LA TERRE!

DISCONNECT POWER BEFORE SERVICING!
DEBRANCHER L'APPAREIL AVANT
D'ENLEVER LES COUVERLES!

NO USER SERVICEABLE PARTS INSIDE.
NE CONTIENT AUCUNE PIÈCE
REPAREABLE PAR L'UTILISATEUR.



PSA2S REV2	230V~ 50Hz CE 3,0A	A-Z1613 / 3v0
	120V~ 60Hz 5.9A	

DESIGNED & MANUFACTURED BY
YORKVILLE SOUND • TORONTO, CANADA

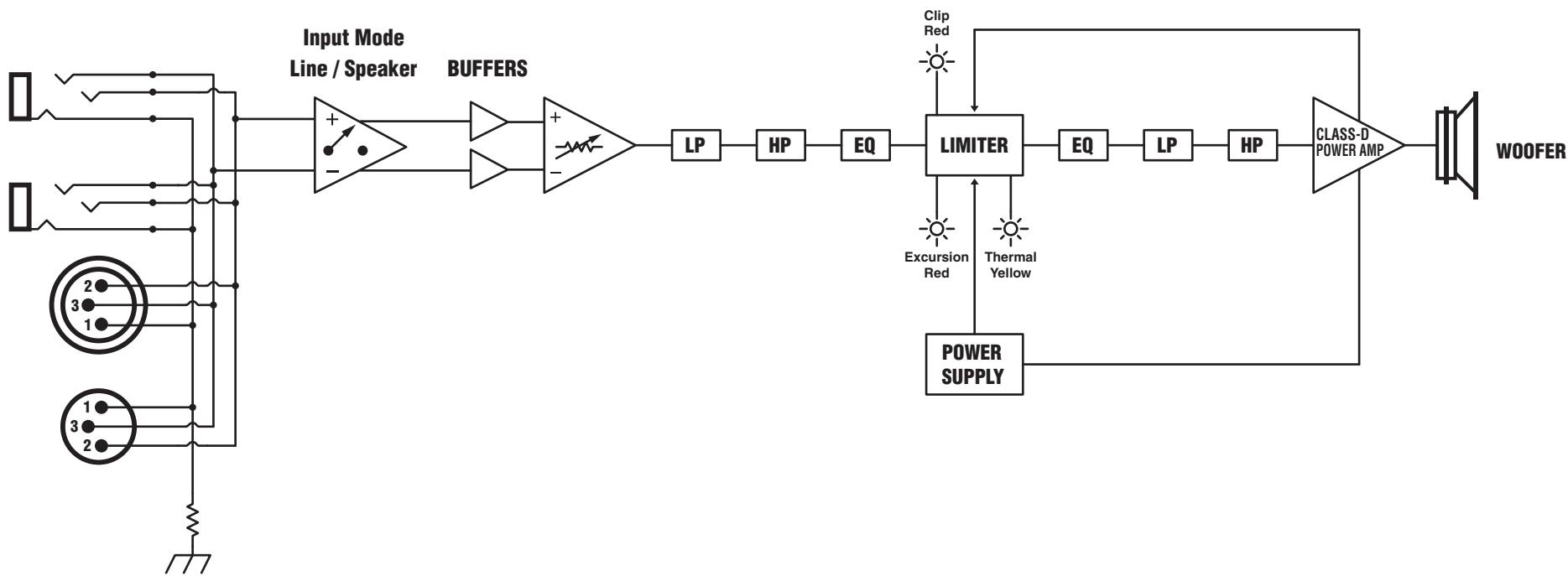


Specifications	
Model	PSA2s
System Type	Active Bass Reflex Subwoofer
Program Power (watts)	2400W program (4800W peak)
Max SPL (dB)	134 Peak / 131 continuous
Frequency Response (Hz +/- 3db)	30 – 100
Crossover Frequency (Hz)	Fixed @ 100Hz
Driver Configuration	2 x 15-inch
LF Driver(s)	2 x 15-inch Ceramic Woofers w/ 3-inch voice coils
LF Impedance (ohms)	2x 8 ohms
LF Amplifier Type	Class-D
Power Consumption (typ/max)	660VA/900VA (5.5A/7.7A@120V, 2.9A/3.9A@230V)
Enclosure Materials	15mm Birch
Baffle Materials	15mm Birch
Covering / Finish	Urethane Paint (Black)
Dimensions (DWH xbackW, inches)	23.75 x 18 x 38
Dimensions (DWH xbackW, cm)	60.3 x 45.7 x 96.5
Weight (lbs/kg)	156/70.76
* specifications subject to change without notice	

Spécifications	
Modèle	PSA2s
Type de Système	Caisson Actif Bass-Reflex
Puissance Nominale (Watts)	2400W nominale (4800W pointe)
Niveau de Pression Sonore Max (dB)	134 Pointe / 131 continue
Réponse en Fréquence (Hz +/- 3db)	30 - 100
Fréquence de Filtre Séparateur (Hz):	Fixe @ 100Hz
Configuration des HP	2 x 15-pouces
Driver(s) pour graves	2 x Woofers 15 pouces en céramique avec bobine de 3 pouce
Impédance - Fréquences Graves (ohms)	2 x 8 ohms
Type d'Amplificateur - Fréquence Graves	Classe-D
Consommation de puissance (typ/max)	660VA/900VA (5.5A/7.7A@120V, 2.9A/3.9A@230V)
Matériaux de construction - enceinte	15mm Bouleau
Matériaux de construction - baffle	15mm Bouleau
Recouvrement/ Finition	Peinture uréthane (Noir)
Dimensions (PLH x L arrière, pouces)	23.75 x 18 x 38
Dimensions (PLH x L arrière, cm)	60.3 x 45.7 x 96.5
Poids (livres/kg)	156/70.76
*	Spécifications sujettes à modifications sans préavis

Block Diagram for PSA2s

DESIGNED & MANUFACTURED BY YORKVILLE SOUND



M1692 Parts Reference List 10/26/2018

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
A1-SUB	M1692-59	PSA2S AMP/SUPPLY PCB	D305		MURS120T3 200V 1A DIO DO214AA SMT	R256		W125 82K5 1% 0805 SMT RES
BLANK	M1692BLANK	_OZ 2SD 83.13SQIN 1PER ELITE PSA	D306		MURS120T3 200V 1A DIO DO214AA SMT	R257		W125 4K7 5% 0805 SMT RES
C200	100N 50V 5%CAP	0805 SMT X7R	D307		MURS120T3 200V 1A DIO DO214AA SMT	R258		W100 20K5 1% 0805 SMT RES
C202	100N 50V 5%CAP	0805 SMT X7R	D308		ES1J 600V 1A0 DO214AC SMT SMA	R259		W100 182K 1% 0805 SMT RES
C203	100N 50V 5%CAP	0805 SMT X7R	D309		ES1J 600V 1A0 DO214AC SMT SMA	R260		470K 5% THERMISTOR NTC 0805 SMT
C204	100N 50V 5%CAP	0805 SMT X7R	F301		FUSE SLOW 7A 125V SMT 6125	R261		W100 274K 1% 0805 SMT RES
C205	100N 50V 5%CAP	0805 SMT X7R	F302		FUSE SLOW 7A 125V SMT 6125	R262		W100 274K 1% 0805 SMT RES
C206	100N 50V 5%CAP	0805 SMT X7R	HS1	4181	TO220 THERMO PAD CERAMIC .080 THK	R263		W100 13K 1% 0805 SMT RES
C207	100N 50V 5%CAP	0805 SMT X7R	HS2	4181	TO220 THERMO PAD CERAMIC .080 THK	R264		W125 1K4 1% 0805 SMT RES
C208	100N 50V 5%CAP	0805 SMT X7R	HS3	ZC1611	ES PSA SERIES HEATSPREADER	R265		W250 330R 5% 1206 SMT RES
C209	100N 50V 5%CAP	0805 SMT X7R	HW1	8871	4-40X5/8 PAN PHILIPS MS BO&W	R266		W100 100K 5% 2512 SMT RES
C210	100N 50V 5%CAP	0805 SMT X7R	HW2	8902	4-40X3/4 PAN PHILIPS MS TBZ	R267		W100 100K 5% 2512 SMT RES
C211	100N 50V 5%CAP	0805 SMT X7R	HW4	8485	#6 SPLIT WASHER ZINC	R268		W125 4K02 0.1% 0805 SMT RES
C212	100N 50V 5%CAP	0805 SMT X7R	HW5	3501	#4 B52200F006 COMP WASH SMALL	R301		W100 1K8 5% 2512 SMT RES
C213	680P 50V 5%CAP	0805 SMT C0G	HW6	8742	4-40X3/8 PAN PH TAPITTE BO&W	R303	6664	10W0 25K 5% BLK RES
C214	470P 50V 5%CAP	1206 SMT X7R	HW7	8835	6-32X1/2 PAN QUAD MS TIN PLATE	R304	6664	10W0 25K 5% BLK RES
C215	_U 50V 20%CAP	4.3X3.9 SMT ELC	HW8	8800	6-32 KEPS NUT ZINC	U200		LTV-8141S ACINPUT OPTOCOUPLE SMT
C216	_U 25V 20%CAP	1206 SMT X7R	HW9	8871	4-40X5/8 PAN PHILIPS MS BO&W	U201		LM311 COMPARATOR IC SMT SO-8
C217	470P 50V 5%CAP	0603 SMT NPO	HW10	8902	4-40X3/4 PAN PHILIPS MS TBZ	U202		LM311 COMPARATOR IC SMT SO-8
C218	1N 50V 5%CAP	0805 SMT NPO	HW11	8837	6-32 X 1/2 PAN PHILIP MS TBZ	U203		IRS2184SPBF IC HILO FET DRVR SO14
C219	5972	680N 400V 5%CAP BLK RAD POLY FLM	HW12	8800	6-32 KEPS NUT ZINC	U204		33078 DUAL OPAMP SMT SO-8
C220	220N 50V 10%CAP	1206 SMT X7R	HW13	8701	4-40 KEPS NUT ZINC	U205		33078 DUAL OPAMP SMT SO-8
C221	100N 100V 10%CAP	1206 SMT X7R	HW14	8701	4-40 KEPS NUT ZINC	U206		TL331 COMPARATOR IC SMT SOT235
C222	5951	3U3 450DC10%CAP BLK MPOLYP FLM	HW15	8701	4-40 KEPS NUT ZINC	U207		LNK302G OFFLINE SWITCH SMT SMD8B
C223	5962	2U2 140AC10%CAP BLK RAD POLYP FLM	HW16	8701	4-40 KEPS NUT ZINC	U302	6856	NJM7815FA TO220 P 15V REG IS V1
C224	1U 50V 20%CAP	4.3X3.9 SMT ELC	HW17	8485	#6 SPLIT WASHER ZINC	U303	6857	NJM7915FA TO220 N 15V0 REG IS V2
C225	470P 50V 5%CAP	0603 SMT NPO	HW18	3501	#4 B52200F006 COMP WASH SMALL	W201	2328	8 CIR XH-HEADER 0.09IN
C226	.47N 100V 10%CAP	1206 SMT X7R	L200	6663	.533UH CHOKE 120T19AWG/77908CORE	W301	4147	6 PIN POWER PIN HEADER MALE POLZED
C227	100N 50V 5%CAP	0805 SMT X7R	L202		1000UH 10% COIL 12MM SMT	W302	4162	2 PIN POWER PIN HEADER MALE POLZED
C228	5972	680N 400V 5%CAP BLK RAD POLY FLM	L300	3817	1.5MH COIL INPUT COM MODE	W304	4146	3 PIN POWER PIN HEADER MALE POLZED
C229	5221	470P 1000V 5%CAP POLYPROP BULK	L301	3128	.15UH COIL VTM160-4 22T 16AWG	W306	4147	6 PIN POWER PIN HEADER MALE POLZED
C230	.47P 50V 5%CAP	0805 SMT NPO	L401		486UH COIL COMMON MODE 8A SMT	W307	4151	4 PIN POWER PIN HEADER MALE POLZED
C231	100N 50V 5%CAP	0805 SMT X7R	Q200		MMBTA92 PNP SOT-23 SMT	W402	4215	4 PIN POWER VH MALE .156 10A
C232	33U 25V 20%CAP	6.3X5.5 SMT ELC	Q201		MMBF4391LT1NCH JFET SOT-23 SMT T&R	ZD200		MM3218VT1G 18V0 0W2 5% SMT ZEN
C233	100N 50V 5%CAP	0805 SMT X7R	Q203	2496	IRGP50B60PD1PBF T0247 NPN IGBT T			
C234	100N 50V 5%CAP	0805 SMT X7R	Q204		MMBTA92 PNP SOT-23 SMT			
C235	10U 10V 20%CAP	0805 SMT Y5V	Q205	2496	IRGP50B60PD1PBF T0247 NPN IGBT T			
C236	100N 50V 5%CAP	0805 SMT X7R	R200		W125 10R0 1% 0805 SMT RES			
C237	1U 25V 20%CAP	1206 SMT X7R	R201		W100 12K1 1% 0603 SMT RES			
C238	.4U7 50V 10%CAP	1210 SMT CER	R202		W125 10R0 1% 0805 SMT RES			
C239	5270	2U2 250V 20%CAP BLK RAD .1EL	R203		W100 10K0 1% 0805 SMT RES			
C241	.4U7 50V 10%CAP	1210 SMT CER	R204		W100 12K1 1% 0603 SMT RES			
C242	.10U0 16V 10%CAP	1206 SMT X7R	R206		W125 100K 5% 0805 SMT RES			
C301	100N 100V 10%CAP	1206 SMT X7R	R207		W125 2K2 5% 0805 SMT RES			
C302	5242	100N 250V 20%CAP BLK X'2' 15MM AC	R208		W125 4M7 5% 0805 SMT RES			
C303	5887	2200U 50V 20%CAP BLK 18X27MM EL	R209		W125 100K 5% 0805 SMT RES			
C304	.4U7 25V 20%CAP	4X5.5 SMT ELC	R210		W100 6K98 1% 0805 SMT RES			
C305	5266	680N 250V 20%CAP BLK X'2' 27MM AC	R212		W100 10K0 1% 0805 SMT RES			
C306	100N 100V 10%CAP	1206 SMT X7R	R213		W100 182K 1% 0805 SMT RES			
C307	5887	2200U 50V 20%CAP BLK 18X27MM EL	R214		W125 4K7 5% 0805 SMT RES			
C308	.4U7 25V 20%CAP	4X5.5 SMT ELC	R215		W125 47K5 1% 0805 SMT RES			
C309	6451	4N7 250V 20%CAP BLK 10MM AC	R218		W125 8K66 1% 0805 SMT RES			
C310	100N 100V 10%CAP	1206 SMT X7R	R219		W100 475R 1% 0805 SMT RES			
C311	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R221		W125 470R 5% 0805 SMT RES			
C312	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R222		W100 10K0 1% 0805 SMT RES			
C313	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R223		W100 6K98 1% 0805 SMT RES			
C314	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R224		W125 47R 5% 0805 SMT RES			
C315	5827	150N 250V 20%CAP BLK X'2' 15MM AC	R225		W250 10R 5% 1206 SMT RES			
C316	5242	100N 250V 20%CAP BLK X'2' 15MM AC	R226		W100 15K0 1% 0805 SMT RES			
C401	150P 1000V 5%CAP	1206 SMT C0G	R227		W100 1M0 1% 0805 SMT RES			
C402	150P 1000V 5%CAP	1206 SMT C0G	R228		W250 10R 5% 1206 SMT RES			
COR1	6663CORE	77908-A7 KOOL MU POWDER CORES	R229		W100 6K98 1% 0805 SMT RES			
D200		CDSF4148 75V 0A15 1005 SMT	R230		W125 4K02 0.1% 0805 SMT RES			
D201		BZX84C22 22V0 0W3 5% SMT ZEN	R231		W100 1K0 1% 0805 SMT RES			
D203		BAT750 SOT-23 SMT SCHTKY	R232		W100 1K0 1% 0805 SMT RES			
D204		ES1J 600V 1A0 DO214AC SMT SMA	R233		W100 6K98 1% 0805 SMT RES			
D205		ES1J 600V 1A0 DO214AC SMT SMA	R234		W100 182K 1% 0805 SMT RES			
D206		BAT750 SOT-23 SMT SCHTKY	R236		W100 6K98 1% 0805 SMT RES			
D207		CDSF4148 75V 0A15 1005 SMT	R237		W100 1R0 5% 2512 SMT RES			
D208		ES1J 600V 1A0 DO214AC SMT SMA	R238		W100 100R 1% 0805 SMT RES			
D209		BZX84C43 43V0 0W3 5% SMT ZEN	R240		W125 470R 5% 0805 SMT RES			
D210		MURA240T3 400V 2A DIO 403D SMT	R241		W100 2R0 1% 2512 SMT RES			
D211		MURA240T3 400V 2A DIO 403D SMT	R242		W200 0R02 1% OARS SMT RES			
D212		ES1J 600V 1A0 DO214AC SMT SMA	R247		W125 4K7 5% 0805 SMT RES			
D213		BZX84C15LT1 15V0 0W225 ZEN SOT23	R248		W100 2R0 1% 2512 SMT RES			
D214		CDSF4148 75V 0A15 1005 SMT	R249		W250 10R 5% 1206 SMT RES			
D300	6852	BRIDGE 45A 600V WIRE LEAD SIP	R250		W250 10R 5% 1206 SMT RES			
D301		ES1J 600V 1A0 DO214AC SMT SMA	R251		W125 4K7 5% 0805 SMT RES			
D302		MURS120T3 200V 1A DIO DO214AA SMT	R252		W100 1M0 1% 0805 SMT RES			
D304		ES1J 600V 1A0 DO214AC SMT SMA	R255		W125 82K5 1% 0805 SMT RES			

M1699 Parts Reference List 3/9/2020

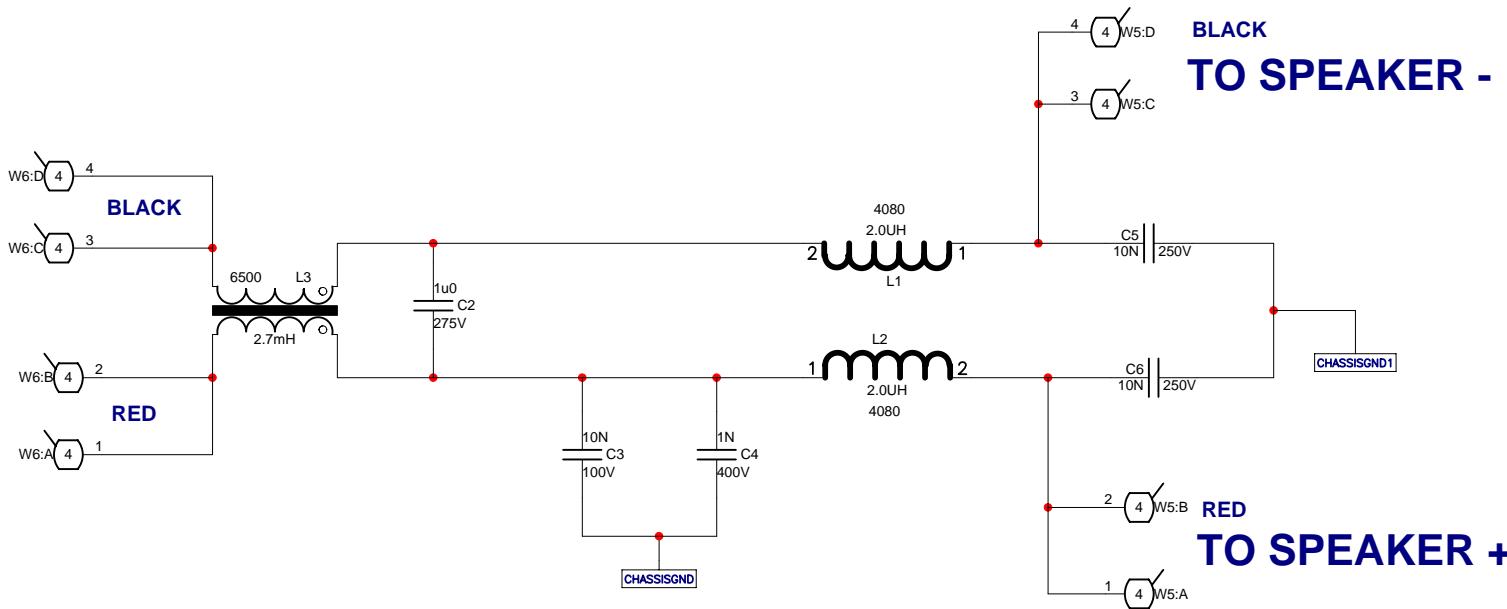
REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
AI-ASS	M1699-59	PSA2S SUBAMP INPUT PCB	Q4		MMBT3904 NPN SOT-23 SMT	R181		W125 30K 0.5% 0805 SMT RES
C1		470P 250V 5%CAP 0603 SMT NPO	Q5		MMBT3904 NPN SOT-23 SMT	R196		W100 4K99 1% 0805 SMT RES
C2		470P 250V 5%CAP 0603 SMT NPO	Q21		MMBTA14 NPN DARL SOT-23 SMT	S1	3522	DPDT MINI PC VERT SNP ALT
C3	5213	_1N 630V 5%CAP T&R RAD PRO.2FM	R1	W100 1K0 1%	0805 SMT RES	U1		33078 DUAL OPAMP SMT SO-8
C6	5204	_10N 100V 10%CAP T&R RAD .2FLM	R2	W125 10K00 0.1%	0805 SMT RES	U4		TL072 DUAL OPAMP SMT SO-8
C8		47P 50V 5%CAP 0805 SMT NPO	R3	W100 2K74 1%	0805 SMT RES	U5		33078 DUAL OPAMP SMT SO-8
C9	5961	33U 16V 20%CAP T&R RAD .2IN NP	R4	W100 1K0 1%	0805 SMT RES	U6		33078 DUAL OPAMP SMT SO-8
C11	5234	470N 63V 10%CAP T&R RAD .2FLM	R5	W125 18K00 0.1%	0805 SMT RES	U7		33078 DUAL OPAMP SMT SO-8
C12	5234	470N 63V 10%CAP T&R RAD .2FLM	R6	W125 10K00 0.1%	0805 SMT RES	U15		LM13700M XCONDUCTANC AMP SMT IC
C13	5222	_33N 100V 10%CAP T&R RAD .2FLM	R7	W100 475K 1%	0805 SMT RES	U18		33078 DUAL OPAMP SMT SO-8
C14	5222	33N 100V 10%CAP T&R RAD .2FLM	R8	W100 221R 1%	0805 SMT RES	U25		TL072 DUAL OPAMP SMT SO-8
C16	5234	470N 63V 10%CAP T&R RAD .2FLM	R9	W125 100K 5%	0805 SMT RES	U27		TL072 DUAL OPAMP SMT SO-8
C17	5234	470N 63V 10%CAP T&R RAD .2FLM	R10	W125 47K 5%	0805 SMT RES	U40		TL072 DUAL OPAMP SMT SO-8
C18	5265	_68U 25V 20%CAP T&R RAD .2EL	R11	W125 47K 5%	0805 SMT RES	W100	2344	8 CIR XH-HEADER RA 0.098IN
C21	5265	_68U 25V 20%CAP T&R RAD .2EL	R13	W125 100K 5%	0805 SMT RES	ZD1		MM3Z18VT1G 18V0 0W2 5% SMT ZEN
C36	5224	47N 100V 10%CAP T&R RAD .2FLM	R14	W100 221R 1%	0805 SMT RES	ZD2		MM3Z18VT1G 18V0 0W2 5% SMT ZEN
C37	5224	47N 100V 10%CAP T&R RAD .2FLM	R15	W125 47K 5%	0805 SMT RES			
C39	5226	68N 100V 5%CAP T&R RAD .2FLM	R16	W125 220K 5%	0805 SMT RES			
C40	5231	220N 63V 5%CAP T&R RAD .2FLM	R17	W125 47K 5%	0805 SMT RES			
C46		100N 50V 5%CAP 0805 SMT X7R	R18	W100 274K 1%	0805 SMT RES			
C47		100N 50V 5%CAP 0805 SMT X7R	R19	W100 1K0 1%	0805 SMT RES			
C48	5222	33N 100V 10%CAP T&R RAD .2FLM	R20	W125 0R 5%	0805 SMT RES			
C49	5234	470N 63V 10%CAP T&R RAD .2FLM	R21	W125 1K800 0.1%	0805 SMT RES			
C50	5222	33N 100V 10%CAP T&R RAD .2FLM	R23	W100 10K0 1%	0805 SMT RES			
C51	5234	470N 63V 10%CAP T&R RAD .2FLM	R24	W125 47K 5%	0805 SMT RES			
C74		100N 50V 5%CAP 0805 SMT X7R	R25	W125 1K5 5%	0805 SMT RES			
C93	270P	50V 5%CAP 0805 SMT NPO	R27	W125 470R 5%	0805 SMT RES			
C94	270P	50V 5%CAP 0805 SMT NPO	R28	W100 10K0 1%	0805 SMT RES			
C120		_1N 50V 5%CAP 0805 SMT NPO	R29	W100 4K99 1%	0805 SMT RES			
C124		100N 50V 5%CAP 0805 SMT X7R	R32	W125 6K20 1%	0805 SMT RES			
C125		100N 50V 5%CAP 0805 SMT X7R	R33	W100 20K5 1%	0805 SMT RES			
C126		100N 50V 5%CAP 0805 SMT X7R	R34	W100 27K4 1%	0805 SMT RES			
C127		100N 50V 5%CAP 0805 SMT X7R	R35	W100 27K4 1%	0805 SMT RES			
C128		100N 50V 5%CAP 0805 SMT X7R	R36	W125 100K 5%	0805 SMT RES			
C129		100N 50V 5%CAP 0805 SMT X7R	R40	W125 47R 5%	0805 SMT RES			
C130		100N 50V 5%CAP 0805 SMT X7R	R41	W100 4K75 1%	0805 SMT RES			
C131		100N 50V 5%CAP 0805 SMT X7R	R42	W125 1K800 0.1%	0805 SMT RES			
C132		100N 50V 5%CAP 0805 SMT X7R	R46	W125 82K5 1%	0805 SMT RES			
C133		100N 50V 5%CAP 0805 SMT X7R	R47	W125 82K5 1%	0805 SMT RES			
C135		100N 50V 5%CAP 0805 SMT X7R	R48	W125 22M0 5%	0805 SMT RES			
C136		100N 50V 5%CAP 0805 SMT X7R	R49	W100 15K0 1%	0805 SMT RES			
C137		100N 50V 5%CAP 0805 SMT X7R	R55	W100 15K0 1%	0805 SMT RES			
C138		100N 50V 5%CAP 0805 SMT X7R	R56	W125 220K 5%	0805 SMT RES			
C139		100N 50V 5%CAP 0805 SMT X7R	R68	W100 1M0 1%	0805 SMT RES			
C140		100N 50V 5%CAP 0805 SMT X7R	R73	W100 2K0 1%	0805 SMT RES			
D2		CDSF4148 75V 0A15 1005 SMT	R84	W100 10K0 1%	0805 SMT RES			
D3		CDSF4148 75V 0A15 1005 SMT	R85	W125 68K 5%	0805 SMT RES			
D4		CDSF4148 75V 0A15 1005 SMT	R86	W100 6K98 1%	0805 SMT RES			
D5		CDSF4148 75V 0A15 1005 SMT	R88	W125 5K6 1%	0805 SMT RES			
D6		CDSF4148 75V 0A15 1005 SMT	R89	W125 47K 5%	0805 SMT RES			
D7		CDSF4148 75V 0A15 1005 SMT	R90	W125 22K 5%	0805 SMT RES			
D9		CDSF4148 75V 0A15 1005 SMT	R91	W125 22K 5%	0805 SMT RES			
D10		CDSF4148 75V 0A15 1005 SMT	R92	W125 47K 5%	0805 SMT RES			
D11		CDSF4148 75V 0A15 1005 SMT	R93	W125 47K 5%	0805 SMT RES			
D15		CDSF4148 75V 0A15 1005 SMT	R94	W125 47K 5%	0805 SMT RES			
D24		CDSF4148 75V 0A15 1005 SMT	R95	W125 4K7 5%	0805 SMT RES			
D31		CDSF4148 75V 0A15 1005 SMT	R96	W100 27K4 1%	0805 SMT RES			
D35		CDSF4148 75V 0A15 1005 SMT	R97	W100 27K4 1%	0805 SMT RES			
D39		CDSF4148 75V 0A15 1005 SMT	R98	W100 27K4 1%	0805 SMT RES			
D40		CDSF4148 75V 0A15 1005 SMT	R107	W125 18K00 0.1%	0805 SMT RES			
D46		CDSF4148 75V 0A15 1005 SMT	R111	W125 348R0 1%	0805 SMT RES			
D47		CDSF4148 75V 0A15 1005 SMT	R112	W125 4K7 5%	0805 SMT RES			
D48		CDSF4148 75V 0A15 1005 SMT	R113	W125 1K5 5%	0805 SMT RES			
J1	4140	XLR MALE PCB MT VERT 24MM A-SERIES	R114	W100 27K4 1%	0805 SMT RES			
J2	4010	XLRFEMI PCB MT VERT 24MM AA-SERIES	R115	W125 82K5 1%	0805 SMT RES			
J3	4063	1/4IN ISO JCK PCMT VT STER RT SWT	R116	W100 2K74 1%	0805 SMT RES			
J7	4063	1/4IN ISO JCK PCMT VT STER RT SWT	R118	W100 2K21 1%	0805 SMT RES			
L10		15.0UH COIL 0805 SMT	R119	W100 274K 1%	0805 SMT RES			
L11		15.0UH COIL 0805 SMT	R120	W125 33K 5%	0805 SMT RES			
L12		15.0UH COIL 0805 SMT	R121	W100 10K0 1%	0805 SMT RES			
L13		15.0UH COIL 0805 SMT	R122	W125 0R 5%	0805 SMT RES			
LD1	6408	GRN 3MM LED 2V2 20MA DIFFUSD	R123	W125 0R 5%	0805 SMT RES			
LD2	6400	YEL 3MM LED 2V1 20MA DIFFUSD	R124	W125 82K5 1%	0805 SMT RES			
LD3	6405	RED 3MM LED 2V1 20MA DIFFUSD	R126	W100 10K0 1%	0805 SMT RES			
M1699		W250 0R 1206 SMT RES	R127	W100 10K0 1%	0805 SMT RES			
P1	2339	_10K B LIN 12MM DUAL 2IDET P34	R128	W100 1M0 1%	0805 SMT RES			
PCB1	X8022BLANK	2_OZ 2SD 81.2SQIN 5PER PS SUBS	R142	W100 10K0 1%	0805 SMT RES			
PTC1	6543	48R 265V RESETTABLE THERMISTOR PTC	R159	W100 1M0 1%	0805 SMT RES			
Q1		MMBT5401 PNP SOT-23 SMT	R164	W125 1K5 5%	0805 SMT RES			
Q2		MMBT3904 NPN SOT-23 SMT	R165	W125 30K 0.5%	0805 SMT RES			

M1823 Parts Reference List 3/9/2020

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
A1-SUB	M1823-59	ES12P,15P,18P,PSA2S AMP/SUPPLY PCB	D309		SMAZ18-13-F 18V0 1W0 5% SMT ZEN	R240		W100 475R 1% 0805 SMT RES
C203	100N 50V 5%CAP	0805 SMT X7R	F1		FUSE FAST 0.05 250VDC 350AC SMT 3912	R241		1W00 2R0 1% 2512 SMT RES
C204	100N 50V 5%CAP	0805 SMT X7R	F2		FUSE FAST 0.05 250VDC 350AC SMT 3912	R242		5W00 0R02 1% OARS SMT RES
C205	100N 50V 5%CAP	0805 SMT X7R	F301		FUSE SLOW 7A 125V SMT 6125	R247		W125 4K7 5% 0805 SMT RES
C206	100N 50V 5%CAP	0805 SMT X7R	F302		FUSE SLOW 7A 125V SMT 6125	R248		1W00 2R0 1% 2512 SMT RES
C207	100N 50V 5%CAP	0805 SMT X7R	HS1	4181	TO220 THERMO PAD CERAMIC .080 THK	R249		W250 10R 5% 1206 SMT RES
C209	100N 50V 5%CAP	0805 SMT X7R	HS2	4181	TO220 THERMO PAD CERAMIC .080 THK	R250		W250 10R 5% 1206 SMT RES
C210	100N 50V 5%CAP	0805 SMT X7R	HS3	ZC1611	ES PSA SERIES HEATSREADER	R251		W125 4K7 5% 0805 SMT RES
C211	100N 50V 5%CAP	0805 SMT X7R	HW1	8871	4-40X5/8 PAN PHILIPS MS BLACK ZINC	R252		W100 1M0 1% 0805 SMT RES
C213	680P 50V 5%CAP	0805 SMT COG	HW2	8902	4-40X3/4 PAN PHILIPS MS TBZ	R255		W125 82K5 1% 0805 SMT RES
C214	470N 50V 5%CAP	1206 SMT X7R	HW4	8485	#6 SPLIT WASHER ZINC	R256		W125 82K5 1% 0805 SMT RES
C215	1U 50V 20%CAP	4.3X3.9 SMT ELC	HW5	3501	#4 B52200F006 COMP WASH SMALL	R257		W125 4K7 5% 0805 SMT RES
C216	1N 50V 5%CAP	0805 SMT NPO	HW6	8742	4-40X3/8 PAN PH TAPITTE BO&W	R258		W100 20K5 1% 0805 SMT RES
C217	470P 50V 5%CAP	0603 SMT NPO	HW7	8835	6-32X1/2 PAN QUAD MS TIN PLATE	R259		W100 182K 1% 0805 SMT RES
C218	1N 50V 5%CAP	0805 SMT NPO	HW8	8800	6-32 KEPS NUT ZINC	R260		470K 5% THERMISTOR NTC 0805 SMT
C219	5972	680N 400V 5%CAP BLK RAD POLY FLM	HW9	8871	4-40X5/8 PAN PHILIPS MS BLACK ZINC	R261		W100 274K 1% 0805 SMT RES
C220	220N 50V 10%CAP	1206 SMT X7R	HW10	8902	4-40X3/4 PAN PHILIPS MS TBZ	R262		W100 274K 1% 0805 SMT RES
C221	100N 100V 10%CAP	1206 SMT X7R	HW11	8837	6-32 X 1/2 PAN PHILIP MS TBZ	R263		W100 13K 1% 0805 SMT RES
C222	5986	.1U 600VDC 5%CAP BLK MPOLYP FLM	HW12	8800	6-32 KEPS NUT ZINC	R264		W125 1K4 1% 0805 SMT RES
C223	5962	2U2 140AC10%CAP BLK RAD POLYP FLM	HW13	8701	4-40 KEPS NUT ZINC	R265		W250 330R 5% 1206 SMT RES
C224	.1U 50V 20%CAP	4.3X3.9 SMT ELC	HW14	8701	4-40 KEPS NUT ZINC	R266		1W00 100K 5% 2512 SMT RES
C225	470P 50V 5%CAP	0603 SMT NPO	HW15	8701	4-40 KEPS NUT ZINC	R267		1W00 100K 5% 2512 SMT RES
C226	47N 100V 10%CAP	1206 SMT X7R	HW16	8701	4-40 KEPS NUT ZINC	R268		W125 4K02 0.1% 0805 SMT RES
C227	100N 50V 5%CAP	0805 SMT X7R	HW17	8485	#6 SPLIT WASHER ZINC	R303	6664	10W0 25K 5% BLK RES
C228	5972	680N 400V 5%CAP BLK RAD POLY FLM	HW18	8921	ALUM FLAT WASHER .128"ID. .272" OD	R304	6664	10W0 25K 5% BLK RES
C229	5225	470P 1600V 20%CAP POLYPROP BULK	HW19	3501	#4 B52200F006 COMP WASH SMALL	SNI1	8372	1 MIL POLYIMIDE LABEL,.375" X .375"
C230	47P 50V 5%CAP	0805 SMT NPO	HW20	8921	ALUM FLAT WASHER .128"ID. .272" OD	U200		LTV-8141S ACINPUT OPTOCOUPLER SMT
C231	100N 50V 5%CAP	0805 SMT X7R	HW21	8921	ALUM FLAT WASHER .128"ID. .272" OD	U201		LM311 COMPARATOR IC SMT SO-8
C232	33U 25V 20%CAP	6.3X5.5 SMT EL	HW22	8921	ALUM FLAT WASHER .128"ID. .272" OD	U202		LM311 COMPARATOR IC SMT SO-8
C233	100N 50V 5%CAP	0805 SMT X7R	L200	6663	.533UH CHOKE 120T19AWG/77908CORE	U203		IRS21844SPBF IC HILO FET DRV SR014
C234	100N 50V 5%CAP	0805 SMT X7R	L202	7974	1000UH 10% COIL 12MM SMT	U204		33078 DUAL OPAMP SMT SO-8
C235	.1U 16V 10%CAP	1206 SMT X7R	L300	3817	1.5MH COIL INPUT COM MODE	U205		33078 DUAL OPAMP SMT SO-8
C236	100N 50V 5%CAP	0805 SMT X7R	L301	3128	.15UH COIL VTM160-4 22T 16AWG	U206		TL331 COMPARATOR IC SMT SOT235
C237	.1U 25V 20%CAP	1206 SMT X7R	L401		486UH COIL COMMON MODE 8A SMT	U207		LNK302G OFFLINE SWITCH SMT SMD8B
C238	4U7 50V 10%CAP	1210 SMT CER	PCB1	M1823BLANK	2 .0Z 2SD 89.8SQIN 1PER ES PSA2S	J302	6856	NJM7815FA TO220 P 15V0 REG IS V1
C239	5270	.2U2 250V 20%CAP BLK RAD .1EL	Q200		MMBT4391LT1 NCH JFET SOT-23 SMT T&R	U303	6857	NJM7915FA TO220 N 15V0 REG IS V2
C241	4U7 50V 10%CAP	1210 SMT CER	Q201		IRGP50B60PD1PBF T0247 NPN IGBT T	W201	2328	8 CIR XH-HEADER 0.098IN
C242	.1U 16V 10%CAP	1206 SMT X7R	Q203	2496	MMBT4391LT1 NCH JFET SOT-23 SMT T&R	W301	4243	6 POS HEADER ASSY (MALE) PCB MOUNT
C301	100N 100V 10%CAP	1206 SMT X7R	Q204		MMBT4391LT1 NCH JFET SOT-23 SMT T&R	W302	4244	2 POS HEADER ASSY (MALE) PCB MOUNT
C302	5242	100N 250V 20%CAP BLK X'2' 15MM AC	Q205	2496	IRGP50B60PD1PBF T0247 NPN IGBT T	W304	4146	3 PIN POWER PIN HEADER MALE POLZED
C303	5887	2200U 50V 20%CAP BLK 18X27MM EL	R3		W125 1K54 1% 0805 SMT RES	W306	4243	6 POS HEADER ASSY (MALE) PCB MOUNT
C304		4U7 25V 20%CAP 4X5.5 SMT ELC	R4		W125 1K54 1% 0805 SMT RES	W307	4151	4 PIN POWER PIN HEADER MALE POLZED
C305	5266	680N 250V 20%CAP BLK X'2' 27MM AC	R5		W125 1K54 1% 0805 SMT RES	W402	4215	.4 PIN POWER VH MALE .156 10A
C306	100N 100V 10%CAP	1206 SMT X7R	R6		W125 1K54 1% 0805 SMT RES	ZD200		MM3Z18VT1G 18V0 0W2 5% SMT ZEN
C307	5887	2200U 50V 20%CAP BLK 18X27MM EL	R7		W100 2K32 1% 0805 SMT RES			
C308		4U7 25V 20%CAP 4X5.5 SMT ELC	R8		W100 2K32 1% 0805 SMT RES			
C309	6451	4N7 250V 20%CAP BLK Y' 10MM AC	R9		W100 1K0 1% 0805 SMT RES			
C311	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R200		W250 10R 5% 1206 SMT RES			
C312	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R201		W100 12K1 1% 0603 SMT RES			
C313	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R202		W250 10R 5% 1206 SMT RES			
C314	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R203		W100 10K0 1% 0805 SMT RES			
C315	5827	150N 250V 20%CAP BLK X'2' 15MM AC	R204		W100 12K1 1% 0603 SMT RES			
C316	5242	100N 250V 20%CAP BLK X'2' 15MM AC	R206		W100 100K 5% 2512 SMT RES			
C401	150P 1000V 5%CAP	1206 SMT COG	R207		W100 1K0 1% 0805 SMT RES			
C402	150P 1000V 5%CAP	1206 SMT COG	R208		W125 4M7 5% 0805 SMT RES			
COR1	6663CORE	77908-A7 KOOL MU POWDER CORES	R209		W100 100K 5% 2512 SMT RES			
D1		35MAJ5932B 20V 3W DO214AC SMT ZEN	R210		W100 6K98 1% 0805 SMT RES			
D2		35MAJ5932B 20V 3W DO214AC SMT ZEN	R212		W100 10K0 1% 0805 SMT RES			
D200		CDSF4148 75V 0A15 1005 SMT	R213		W100 182K 1% 0805 SMT RES			
D201		BZX84C22 22V 0W3 5% SMT ZEN	R214		W125 4K7 5% 0805 SMT RES			
D203		BATT50 SOT-23 SMT SCHOTKY	R215		W125 47K5 1% 0805 SMT RES			
D204		ES1J 600V 1A0 DO214AC SMT SMA	R218		W125 8K66 1% 0805 SMT RES			
D205		ES1J 600V 1A0 DO214AC SMT SMA	R219		W100 475R 1% 0805 SMT RES			
D206		BATT50 SOT-23 SMT SCHOTKY	R221		W100 475R 1% 0805 SMT RES			
D207		CDSF4148 75V 0A15 1005 SMT	R222		W100 10K0 1% 0805 SMT RES			
D208		ES1J 600V 1A0 DO214AC SMT SMA	R223		W100 6K98 1% 0805 SMT RES			
D209		BZX84C43 43V 0W3 5% SMT ZEN	R224		W125 47R 5% 0805 SMT RES			
D210		MURA240T3 400V 2A DIO 403D SMT	R225		W250 10R 5% 1206 SMT RES			
D211		MURA240T3 400V 2A DIO 403D SMT	R226		W100 15K0 1% 0805 SMT RES			
D212		ES1J 600V 1A0 DO214AC SMT SMA	R227		W100 1M0 1% 0805 SMT RES			
D213		BZX84C15LT1 15V0 0W225 ZEN SOT23	R228		W250 10R 5% 1206 SMT RES			
D214		CDSF4148 75V 0A15 1005 SMT	R229		W125 1K54 1% 0805 SMT RES			
D300	6852	BRIDGE 45A 600V WIRE LEAD SIP	R230		W125 4K02 0.1% 0805 SMT RES			
D301		ES1J 600V 1A0 DO214AC SMT SMA	R231		W100 1K0 1% 0805 SMT RES			
D302		MURS120T3 200V 1A DIO DO214AA SMT	R232		W100 1K0 1% 0805 SMT RES			
D304		ES1J 600V 1A0 DO214AC SMT SMA	R233		W125 1K54 1% 0805 SMT RES			
D305		MURS120T3 200V 1A DIO DO214AA SMT	R234		W100 182K 1% 0805 SMT RES			
D306		MURS120T3 200V 1A DIO DO214AA SMT	R236		W100 6K98 1% 0805 SMT RES			
D307		MURS120T3 200V 1A DIO DO214AA SMT	R237		W100 1R0 5% 2512 SMT RES			
D308		SMAZ18-13-F 18V0 1W0 5% SMT ZEN	R238		W100 100R 1% 0805 SMT RES			

M1996-02 Parts Reference List 8/4/2021

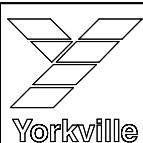
FROM AMP



M1373PCB_DATABASE_HISTORY

MODEL(S):- CROW BAR

#	DATE	VER#	DESCRIPTION OF CHANGE
1	07-JAN-2009	1.00	FIRST DESIGN
2	14DEC09	2.00	PC#7925 CHANGE L4, L5 FROM YS#3769 TO YS#4080
3	09-FEB-2010	3.00	PC7993: Reduce panel to 3x5 boards
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



Product **CROW BAR/FILTER**

Sheet1	PCB# M1373	Sheet 1 of 1
Date: Wed Nov 10, 2010	Rev: V03	YsType: YsType
Filename: M1373V300sch.sch2002		

J

K

L

M

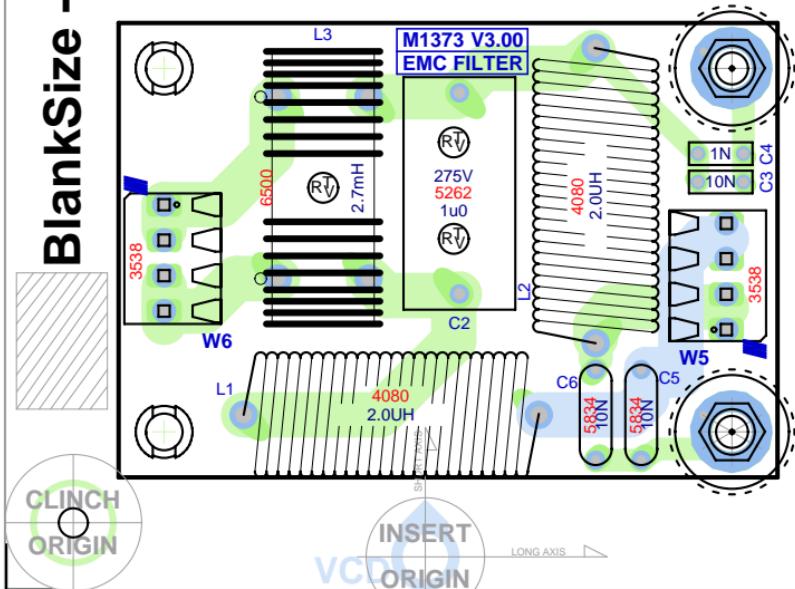
N

O

P

Q

BlankSize - 15500x7000



M1373 V3.00

SEE LAYOUT DOCUMENTATION

2ozCopper



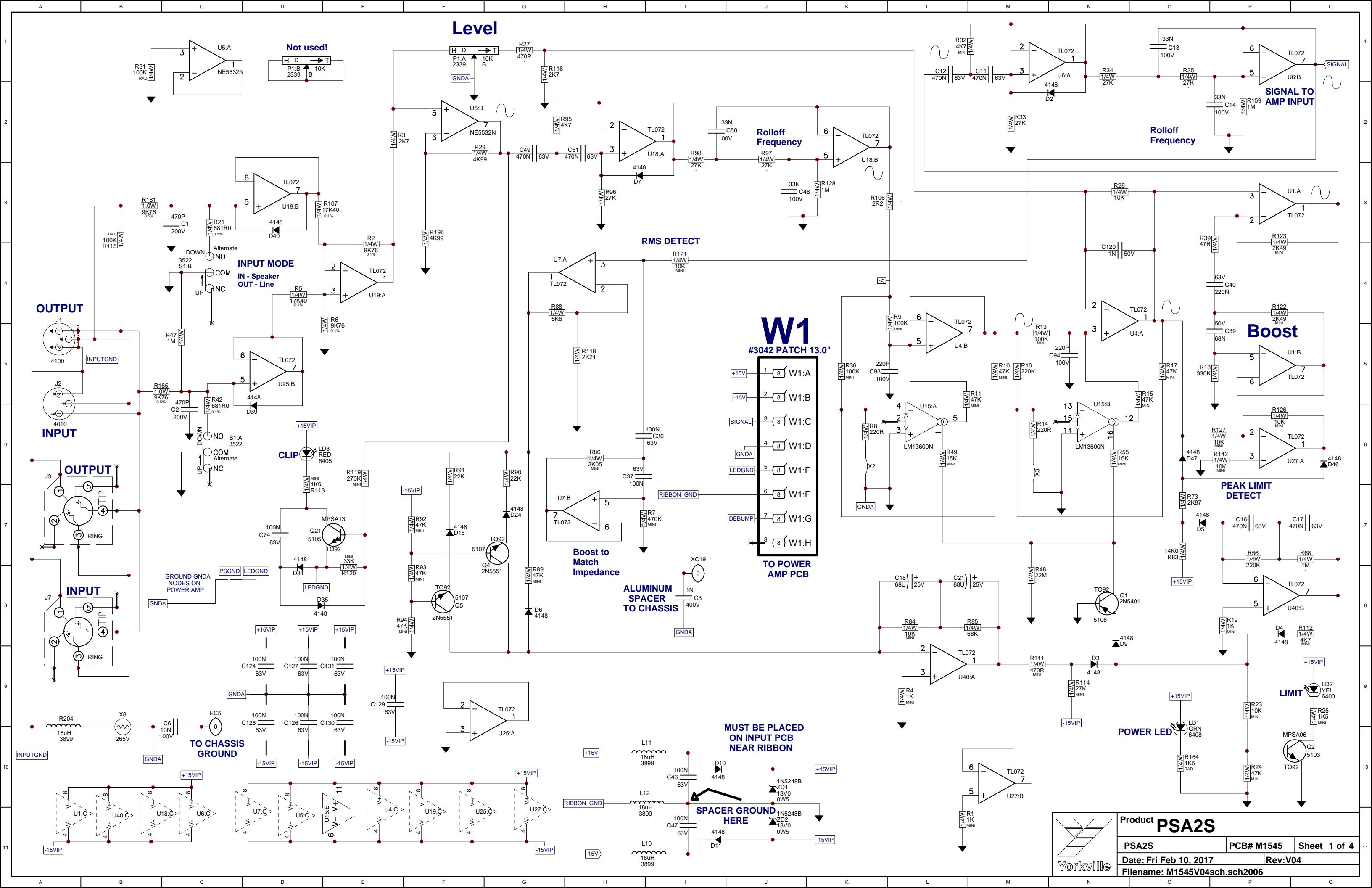
SEE LAYOUT DIAGRAM

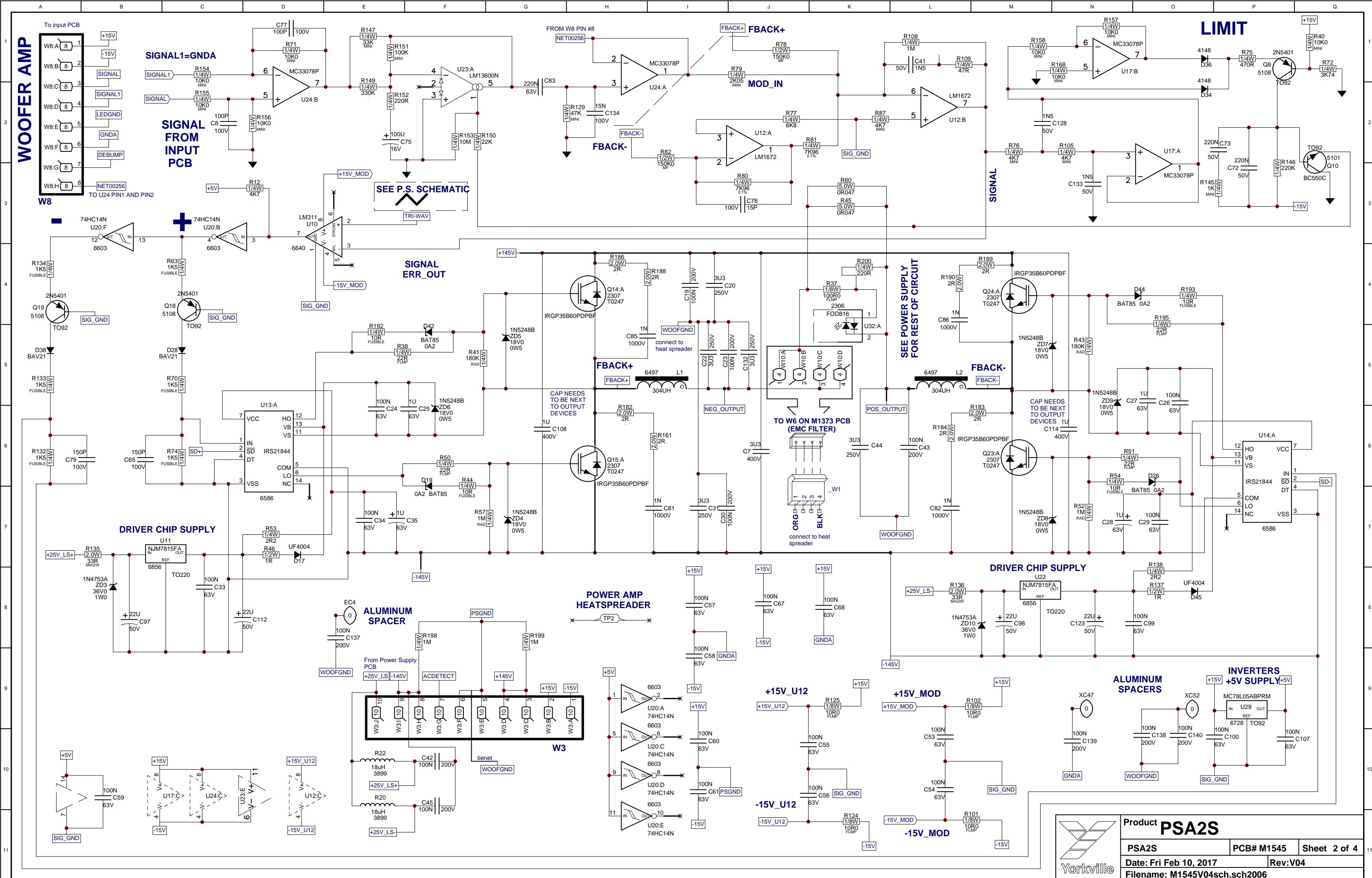


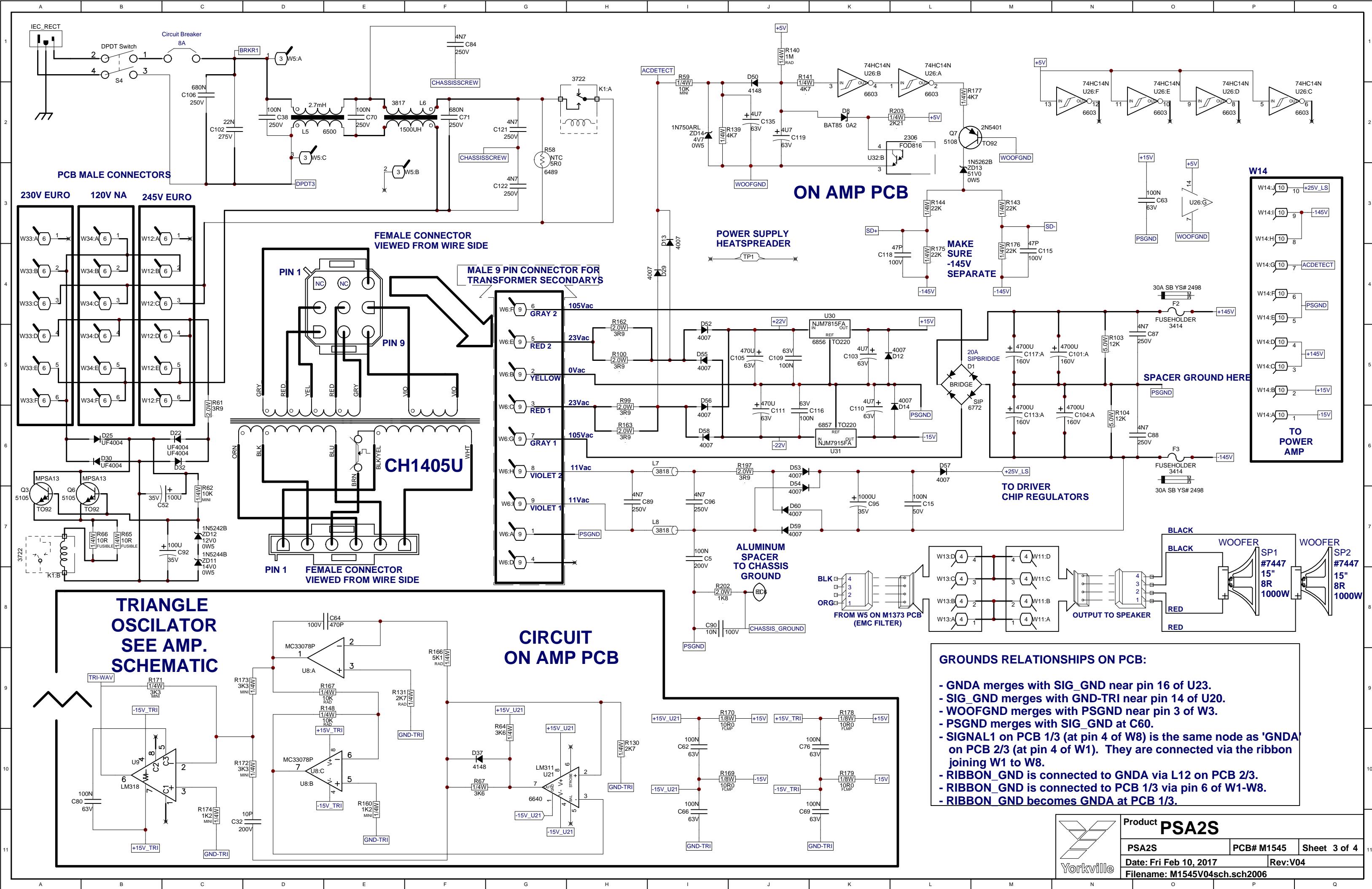
M1373PCB_DATABASE_HISTORY			
MODEL(S):-		CROW BAR	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	07-JAN-2009	1.00	FIRST DESIGN
2	14DEC09	2.00	PC#7925 CHANGE L4, L5 FROM YS#3769 TO YS#4080
3	09-FEB-2010	3.00	PC7993: Reduce panel to 3x5 boards
4	D	V	N
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

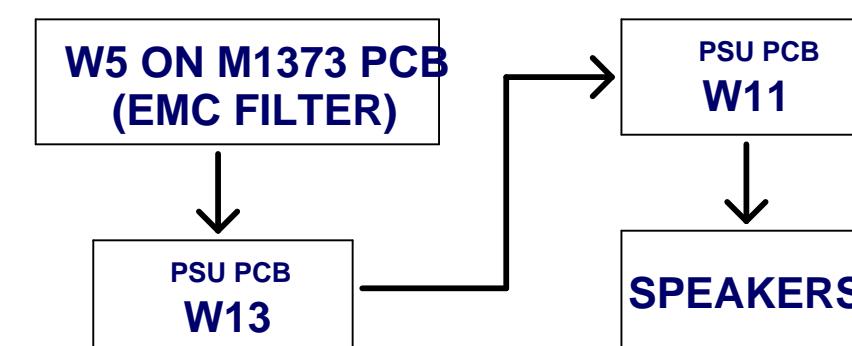
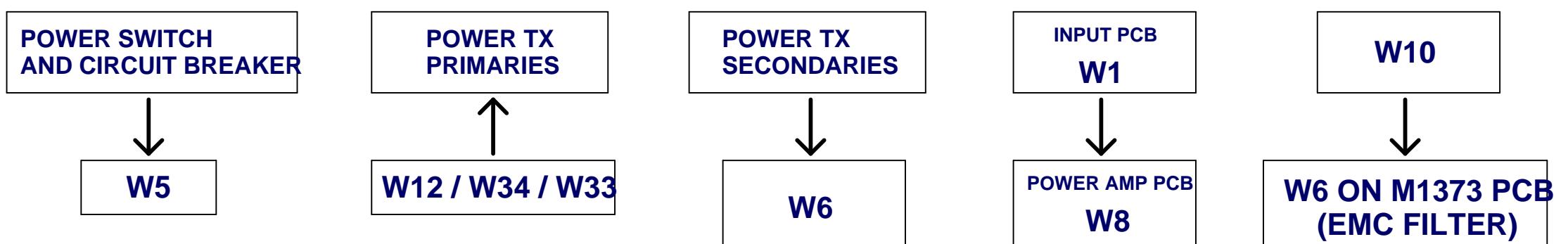
M1373 V3.00

PRODUCTION NOTES

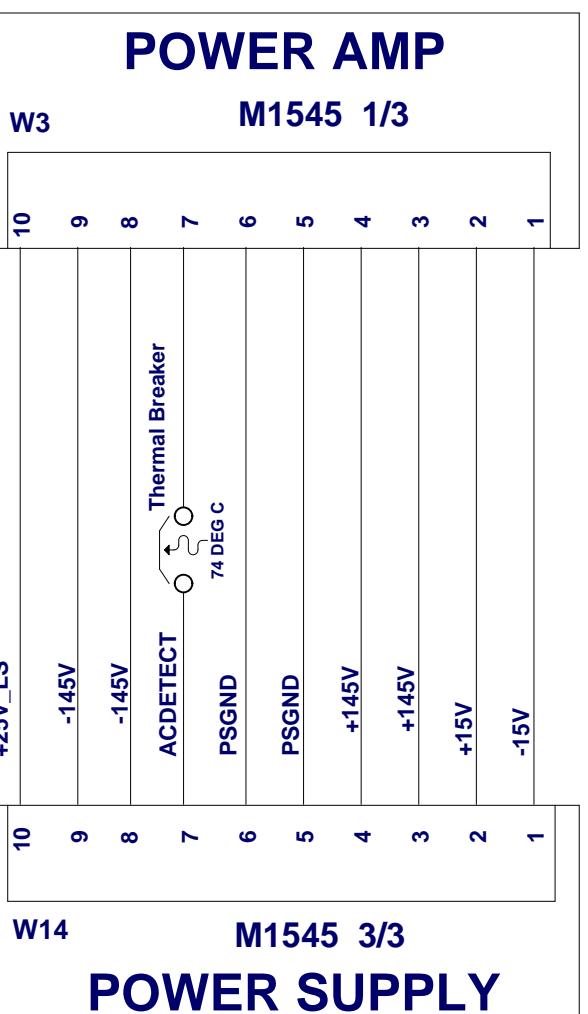






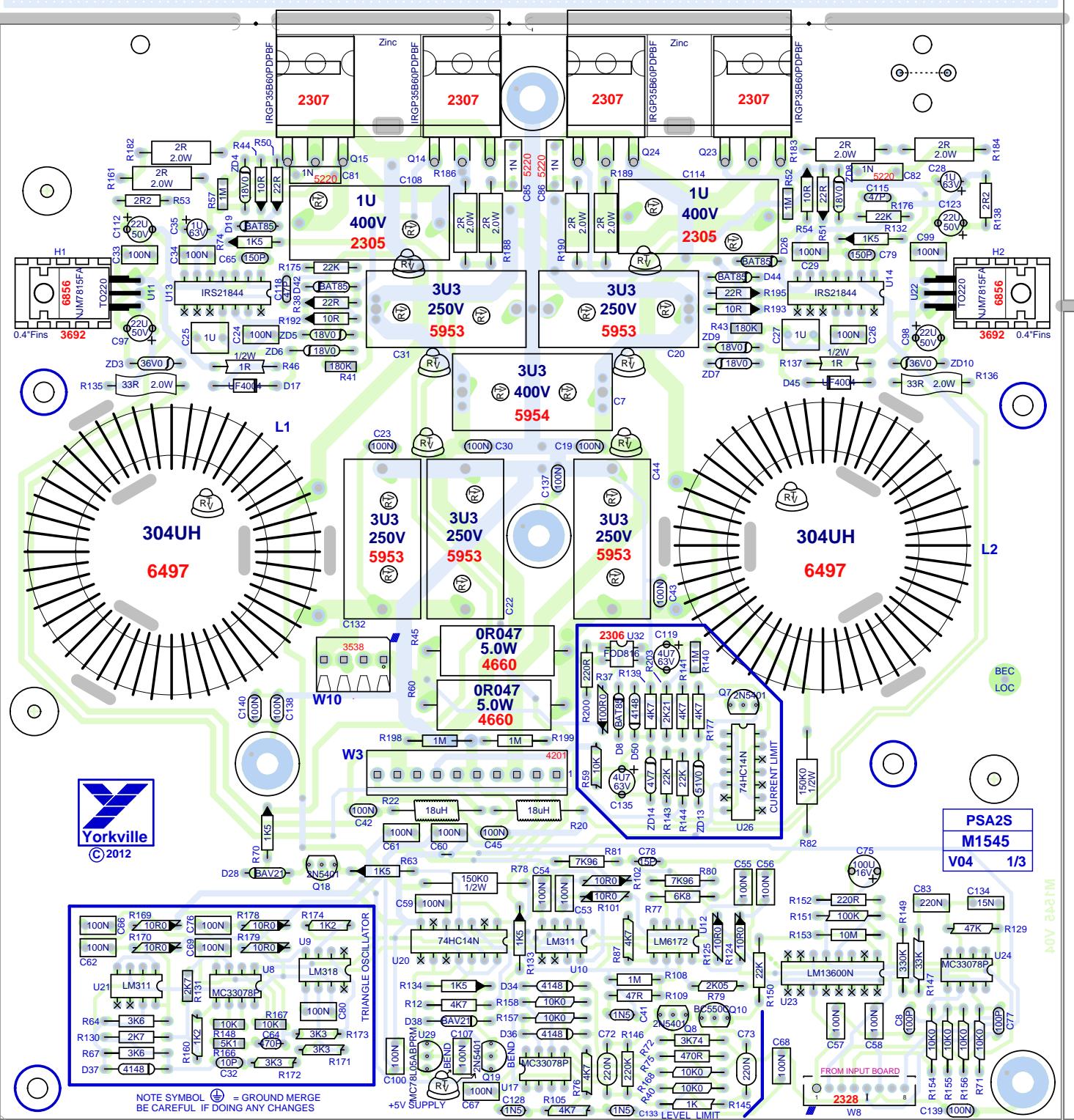


** W11 & W13 ARE ON THE PSU PCB BUT DO NOT FORM PART OF THE PSU CIRCUIT.
THEY ARE SIMPLY PARALLEL WIRED ON THE PCB.

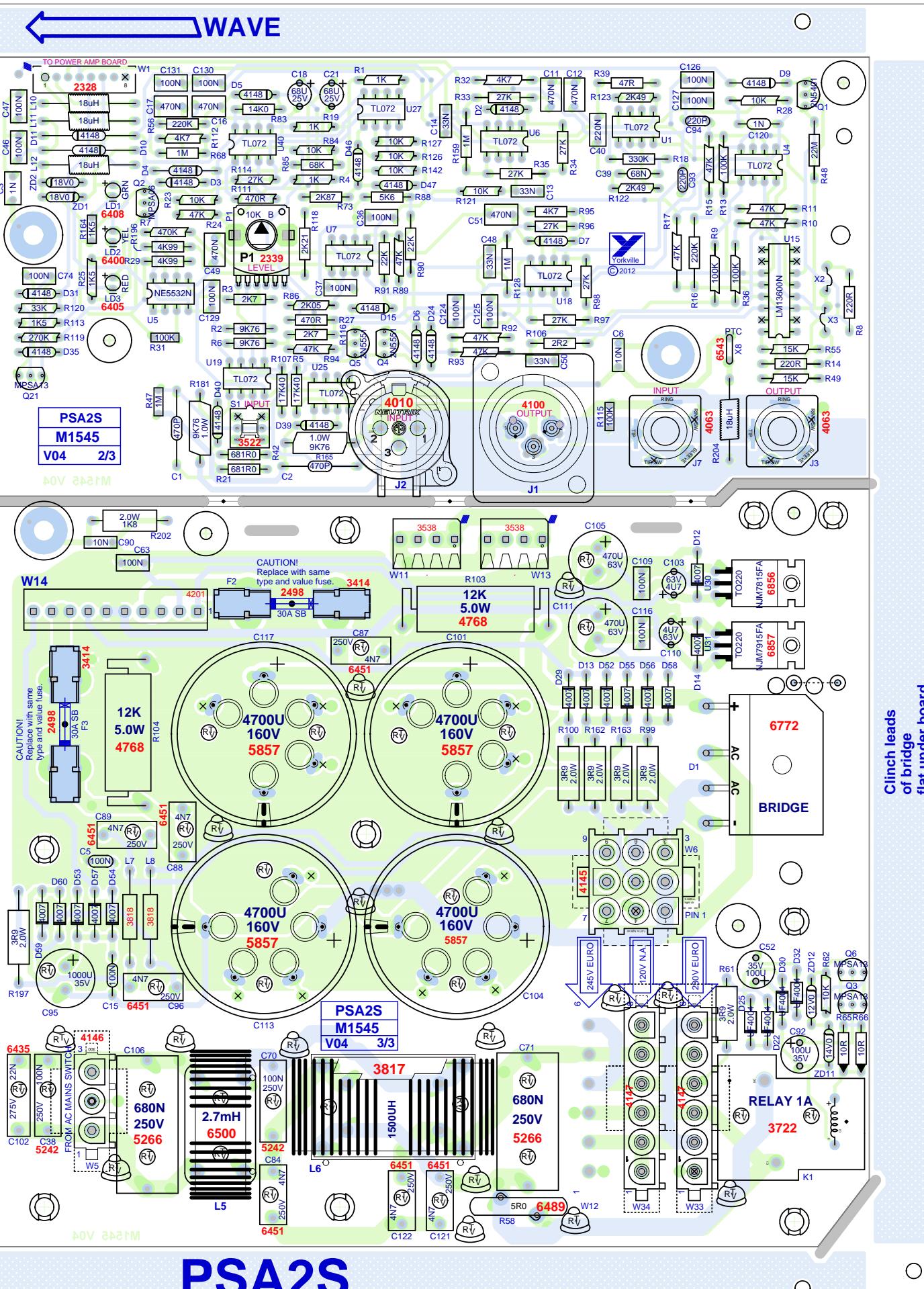


	Product PSA2S		
	PSA2S	PCB# M1545	Sheet 4 of 4
	Date: Fri Feb 10, 2017		Rev: V04
	Filename: M1545V04sch.sch2006		

BlankSize - 17000x1125



BEND U29 AND Q19 DOWN
AND ADD RTV.



SEE LAYOUT DOCUMENTATION



SEE LAYOUT DIAGRAM



M1545 V04

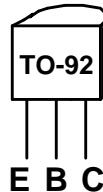
PRODUCTION NOTES

1. LEDS LD1, LD2, AND LD3 ARE TO BE HAND INSERTED.
2. RTV ALL ELECTROLYTIC CAPACITORS.
3. PCBSA: DO NOT BREAK OUT BOARD BEFORE TESTING.
4. PCBSA: USE SAME SOLDERWAVE JIG AS M1374.

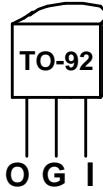
SEE LAYOUT DIAGRAM

LEADS & PINS REFERENCE

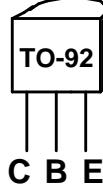
**2N5401 (YS#5108)
2N5551 (YS#5107)
MPSA06 (YS#5103)
MPSA13 (YS#5105)**



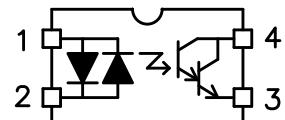
MC78L05ACP (YS#6728)



BC550C (YS#5101)



FOD816 (YS#2306)



1	IN	NC	14
2	SD	VB	13
3	VSS	HO	12
4	DT	VS	11
5	COM	NC	10
6	LO	NC	9
7	VCC	NC	8

IRS21844PBF (YS#6586)

74HC14N (YS#6603)

LM13600N (YS#6745)

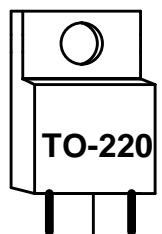
The diagram shows two integrated circuits: MC78L05ACP (YS#6728) and LM318 (YS#6542). The MC78L05ACP is a TO-92 package with pins labeled O, G, I. The LM318 is a quad operational amplifier package with pins labeled 1 through 8. A connection diagram shows the MC78L05ACP connected to the LM318 as follows: Pin 1 (BC1) connects to the non-inverting input (+) of the first op-amp; Pin 2 (BC2) connects to the inverting input (-) of the first op-amp; Pin 3 (BC3) connects to the non-inverting input (+) of the second op-amp; Pin 4 (BC4) connects to the inverting input (-) of the second op-amp; Pin 5 (BC5) connects to the output of the second op-amp; Pin 6 (BC6) connects to ground; Pin 7 (BC7) connects to +V; and Pin 8 (BC8) connects to C2.

LM318 (YS#6542)

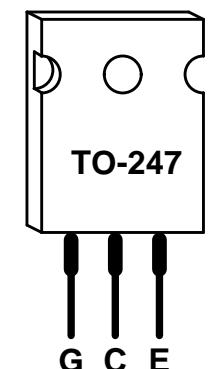
LM311 (YS#6640)

**LM6172IN (YS#2318)
MC33078P (YS#6840)
NE5532N (YS#6884)
TL072CP (YS#6882)**

NJM7815FA (YS#6856) NJM7915FA (YS#6857)

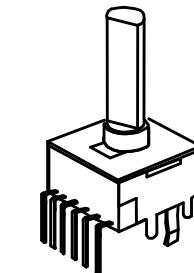


A schematic symbol for a TO-220 package. It consists of a rectangular box with a circular top terminal. The text "TO-220" is printed on the front face, and two vertical lines extend downwards from the bottom of the box, representing the leads.



IRGP35B60PDPBF (YS#2307)

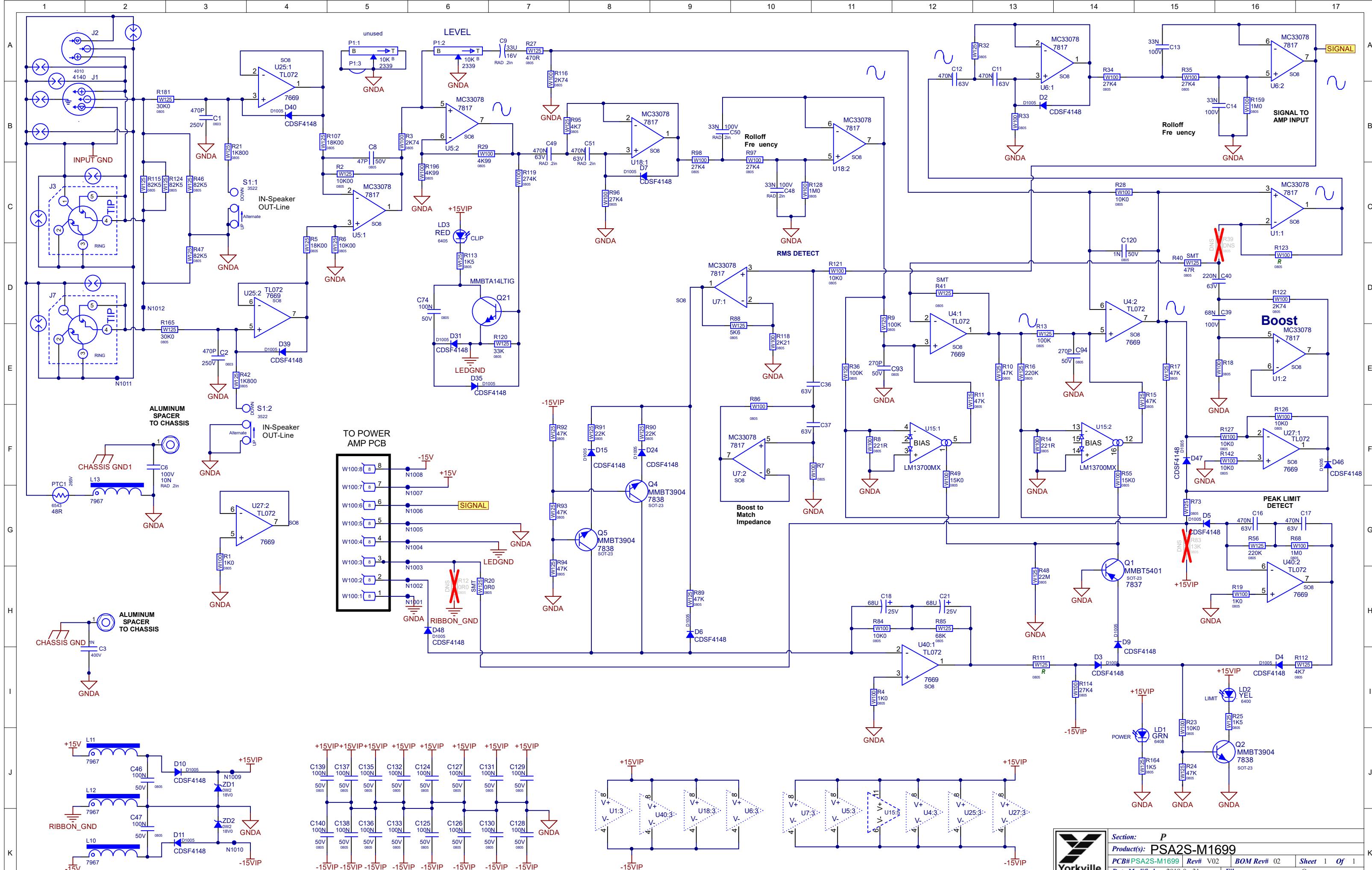
POTENTIOMETERS AND KNOBS



"STYLE P34"

M1545 REVISION HISTORY

MODEL(S):- M1545 - DATABASE HISTORY			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	22-OCT-2012	V01	Derived from M1374V03
2	29-NOV-2012	V01	PRODUCTION RELEASE - ML
3	29-JAN-2013	.	R18 changed to 330K. - ML
4	16-MAY-2013	V02	PC8514: Updated footprint for R18. - ML
5	04-JUL-2013	V03	PC8545: Moved vias from under resistors. - ML
6	26-AUG-2014	V03	PC8693:UPDATES J1,J3,J7,C101,C104,C113,C117.
7	07-JAN-2015	V04	PC#8734:D12 and D14 #6438 (1N4007) added to the output -of 7815 ,7915 regulators.
8			
9	13-MAR-2015	V04	PC8763: Replace 8pin #3538 with 10 pin #4201 GG
10	10-FEB-2017	.	PC8988 - Changed C81, C82, C85, and C86 to
11	D	.	hand placed YS#5220 1N 1000V
12	D	V	N
13	D	V	N



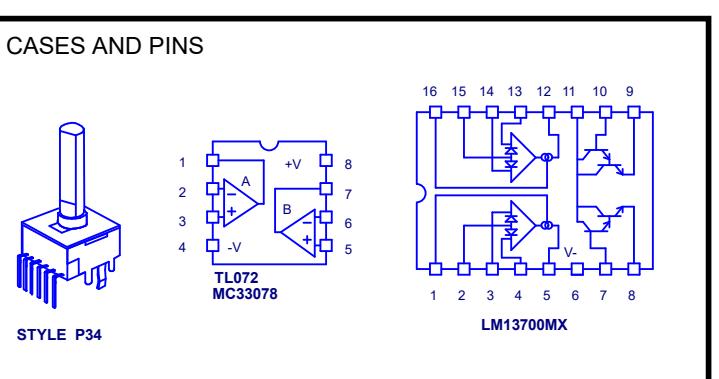
DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	15-SEP-2014	V01	.	
2	07-JUL-2017	V02	9039	Add M1698-PSA1S and M1699-PSA2S
3	14-JUN-2018	V02	9193	R18 from 348k #7687 to 200k #7685 R32 from 4k7 #7860 to 6k2 #8274
4	.	.	.	R33 from 27k4 #7636 to 20k5 #7634
5	10-JUL-2018	.	8997	Add RTV to parts C18, C21, C9 and PTC1
6	23-JUL-2019	.	9300	R18 - from 348K (#7687) to 274K (#7686) R32 - from 4K7 (#7860) to 6K2 (#8274)
7	.	.	.	R33 - from 27K4 (#7636) to 20K5 (#7634) R41 - from 2K74 (#7745) to 4K75 (#7642)
8	.	.	.	R73 - from 1K62 (#8137) to 2K0 (#7676) R86 - from 2K0 (#7676) to 6K98 (#7680)
9	.	.	.	R111 - from 470R (#7856) to 348R (#7672) R122 - from 2K32 (#7632) to 2K74 (#7745)
10	.	.	.	C36 - from 100n 63V (#5212) to 47n 63V (#5224)
11	.	.	.	C37 - from 100n 63V (#5212) to 47n 63V (#5224)
12	.	.	.	
13	.	.	.	
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
2
3
4
5
6
7
8
9
10
11
12
13
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
2
3
4
5
6
7
8
9
10
11
12
13

POTENTIOMETERS AND KNOBS

PINOUT DIAGRAMS



THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

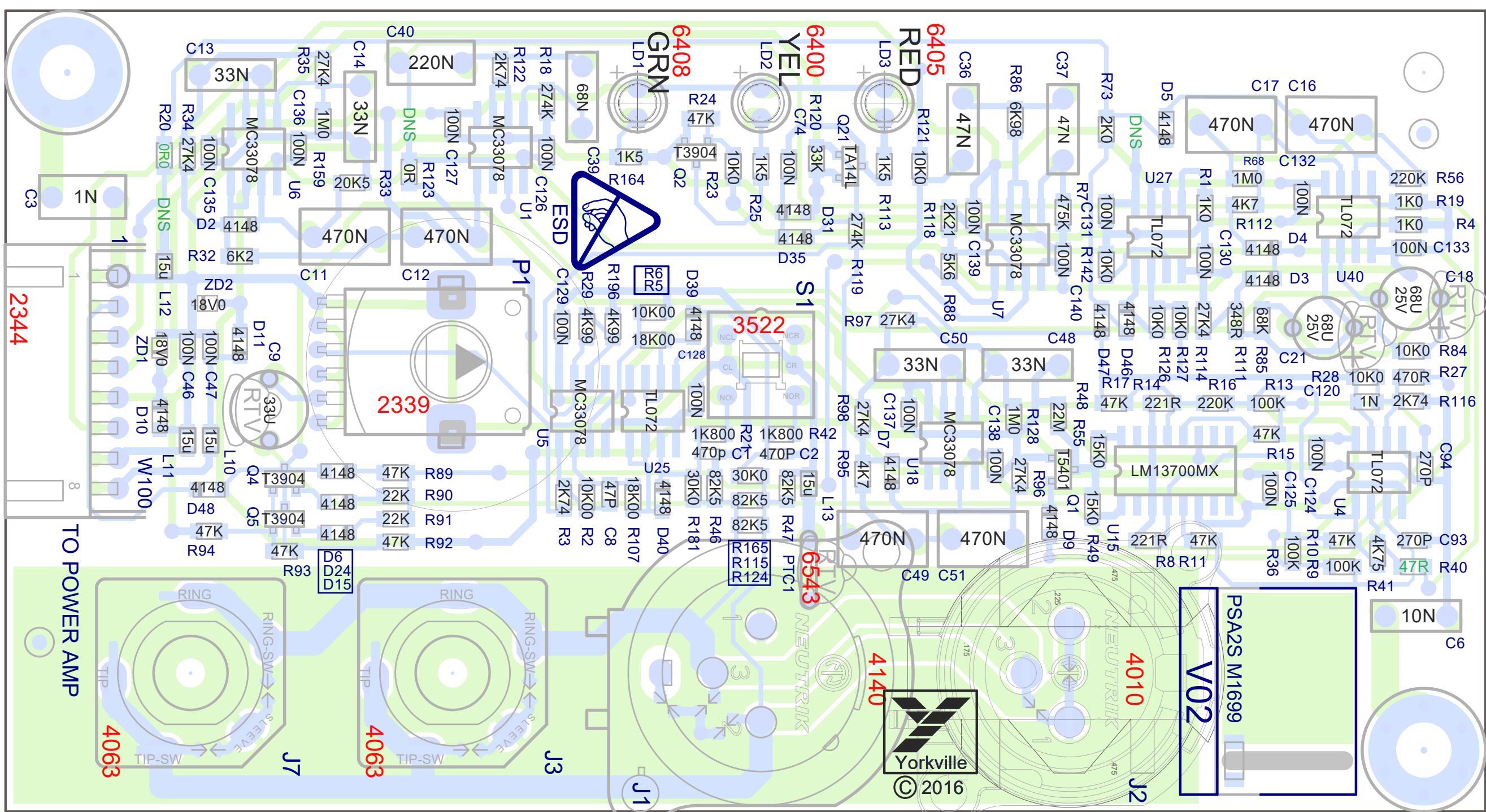


Design Information And History

Product(s): PS SUBS INPUT BOARD

#:	X8022	Rev#:	V02	EML Rev#:	02	Sheet	1	Of
Created:	2019-07-31	File:	History.SchDoc	Temp Rev#:				

PSA2S-M1699V02



PCB ASSEMBLY DOCUMENTATION

SPECIAL PRODUCTION NOTES

1. THIS BOARD IS FOR :

M1596 FOR PS12S
M1597 FOR PS15S
M1598 FOR PS18S
M1698 FOR PSA1S
M1699 FOR PSA2S

SEE SMT JUMPERS TO IDENTIFY

2. ADD RTV TO COMPONENTS WHERE INDICATED

PCB HARDWARE

THIS SHEET CONTAINS SPECIAL PRODUCTION NOTES AND A LIST OF PCB HARDWARE PARTS REQUIRED FOR THE BUILD.



Section: Assembly Documentation

Product(s): PS SUBS

PCB#: M1699 Rev#: V02 EML Rev#: 02 Sheet 1 Of *

Modified: 2019-07-31 File: Assembly.SchDoc Tmp Date: 03/15/2013

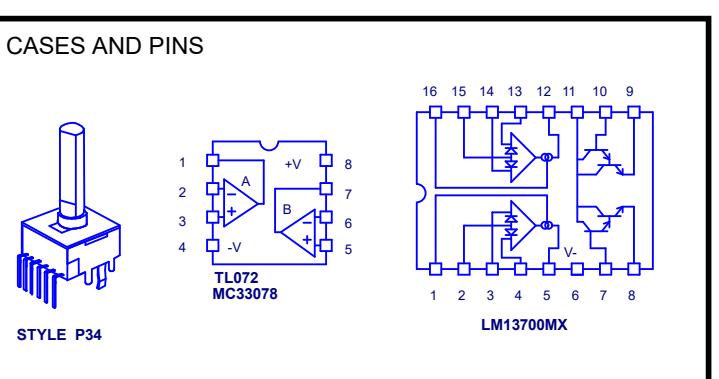
DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	15-SEP-2014	V01	.	.
2	07-JUL-2017	V02	9039	Add M1698-PSA1S and M1699-PSA2S
3	14-JUN-2018	V02	9193	R18 from 348k #7687 to 200k #7685 R32 from 4k7 #7860 to 6k2 #8274
4	.	.	.	R33 from 27k4 #7636 to 20k5 #7634
5	10-JUL-2018	.	8997	Add RTV to parts C18, C21, C9 and PTC1
6	23-JUL-2019	.	9300	R18 - from 348K (#7687) to 274K (#7686) R32 - from 4K7 (#7860) to 6K2 (#8274)
7	.	.	.	R33 - from 27K4 (#7636) to 20K5 (#7634) R41 - from 2K74 (#7745) to 4K75 (#7642)
8	.	.	.	R73 - from 1K62 (#8137) to 2K0 (#7676) R86 - from 2K0 (#7676) to 6K98 (#7680)
9	.	.	.	R111 - from 470R (#7856) to 348R (#7672) R122 - from 2K32 (#7632) to 2K74 (#7745)
10	.	.	.	C36 - from 100n 63V (#5212) to 47n 63V (#5224)
11	.	.	.	C37 - from 100n 63V (#5212) to 47n 63V (#5224)
12
13
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
2
3
4
5
6
7
8
9
10
11
12
13
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
2
3
4
5
6
7
8
9
10
11
12
13

POTENTIOMETERS AND KNOBS

PINOUT DIAGRAMS



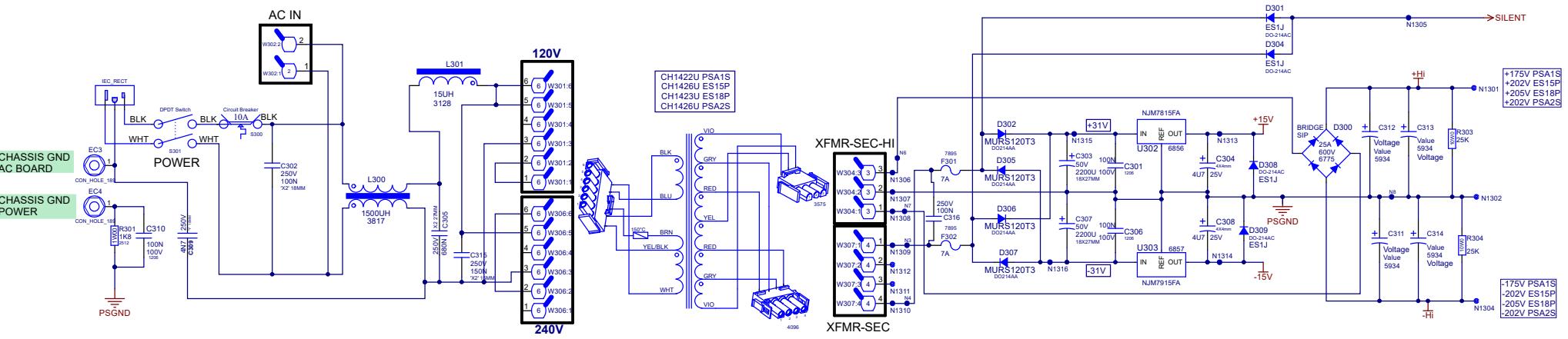
THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.



Design Information And History

Product(s): PS SUBS INPUT BOARD

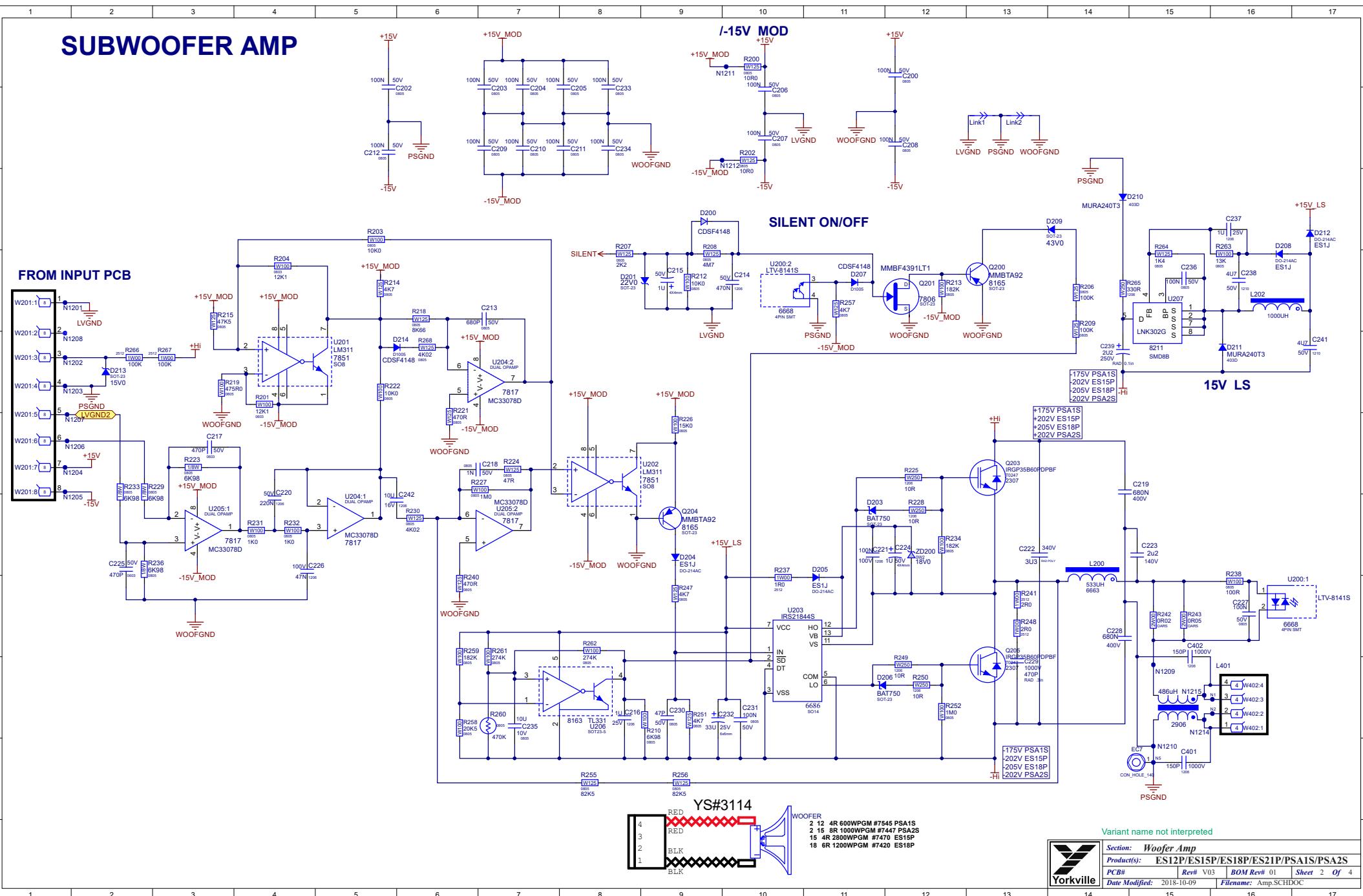
POWER SUPPLY



Variant name not interpreted

Section: Power Supply			
Product(s):		Rev# V03	
PCB#	Rev#	BOM Rev#	Sheet 3 Of 4
Date Modified:	2018-10-09	Filename: Supply.SCHDOC	

SUBWOOFER AMP



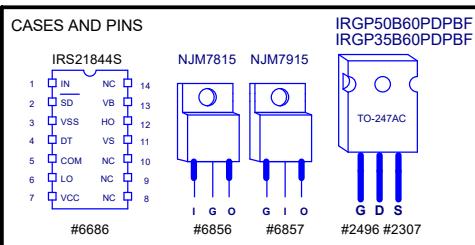
DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	27-OCT-2016	V01	9077 9114	RELEASED FOR PRODUCTION
2	07-JUL-2017	V01		REMOVE SIL PADS YS# 3797 AND CHANGE SCREW 8741 TO 8871
3	2-NOV-2017	V01		Changed R225 and R249 from 22R(YS#7930) to 10R (YS#7852)
4				Changed D203A and D206A from BAT54 (YS#7944) to BAT750 (YS#9106)
5				Change R219 from 470R (YS#7856) to 475R (YS#7673)
6				Change R264 from 1K62 (YS#8137) to 1k4 (YS#9107)
7				Add 12K1 0603 resistor (YS#7761) between pin 3 and pin 4 of U201
8				For M1693 PCB Only:
9				Change Q203A and Q205A from IRGP50B60PDPbF (YS#2385) to
10				IRGP50B60PD1PbF (YS#2496)
11	10-NOV-2017	V01		For M1692 PCB Only:
12				Change Q203A and Q205A from IRGP50B60PDPbF (YS#2385) to
13				IRGP50B60PD1PbF (YS#2496)
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	26-NOV-2017	V02	9114	Add two 150pF 100V capacitors (YS#5982) between PS_GND and pin 1 and pin 4 of W402
2				Change C309 connection from before L300 to after L300
3	20-DEC-2017	V02		Added M1690(ES21P) and M1691(ES12P) to board
4	18-DEC-2017	V02		Added 5 test points for Test & Repair
5	22-DEC-2017	V02		V02 Released
6	02-APR-2018	.	9196	Replace screw #8761 (zinc) with #8835 (tin)
7	01-SEP-2018	V03	.	X8024 Board - De-Exed
8		V03	9284	Added C316, L301, and C315 for EMI Improvements
9	09-OCT-2018	V03		V03 Released
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	.	.	.	.
2	.	.	.	.
3	.	.	.	.
4	.	.	.	.
5	.	.	.	.
6	.	.	.	.
7	.	.	.	.
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
11	.	.	.	.
12	.	.	.	.
13	.	.	.	.

POTENTIOMETERS AND KNOBS

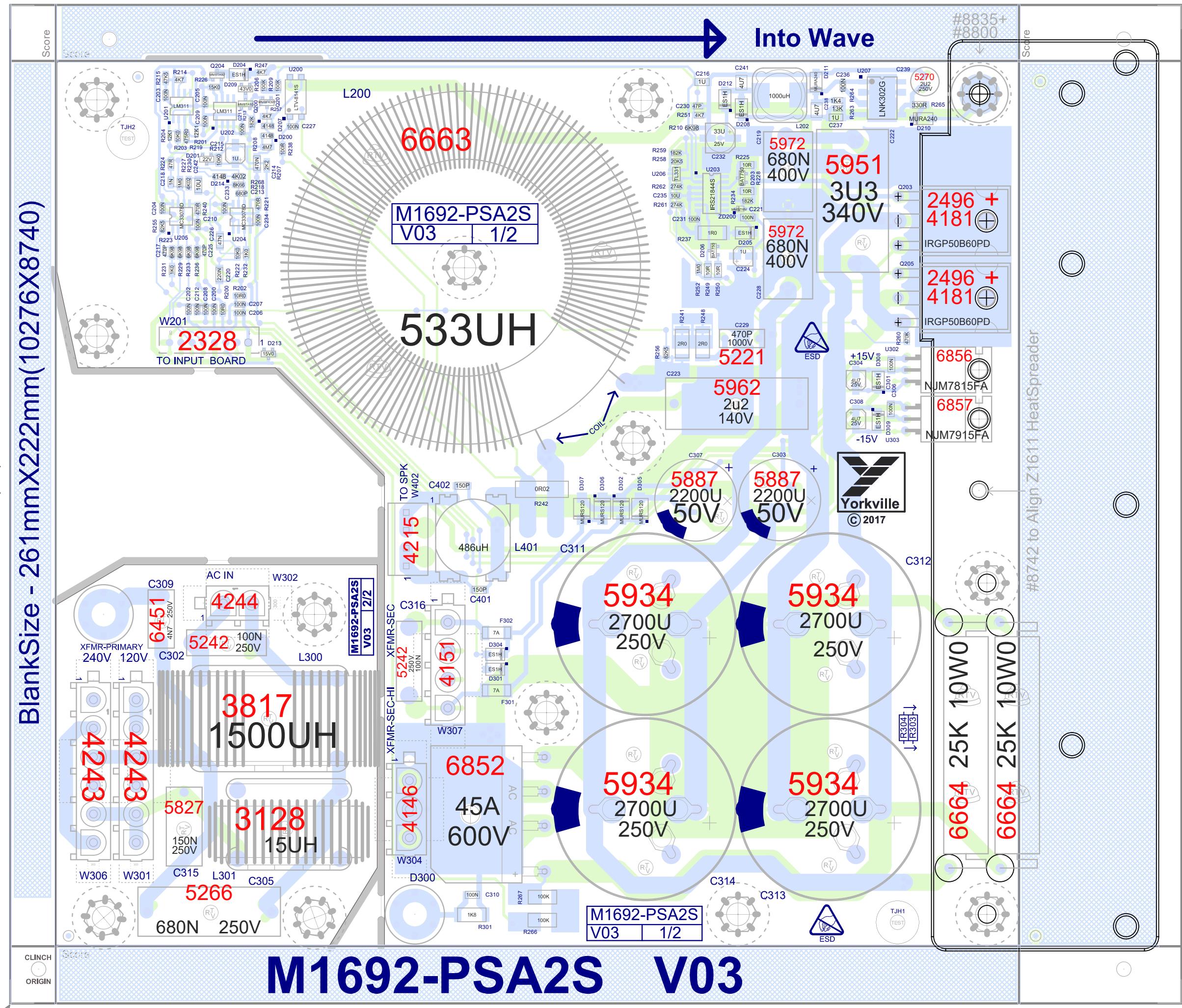
PINOUT DIAGRAMS



THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.



Section:	Design Information And History				
Product(s):	ES12P/ES15P/ES18P/ES21P/PSA1S/PSA2S				
PCB#:	Rev#:	EML Rev#:	01	Sheet	2 Of
Modified: 2018-10-09	File: History.SchDoc			Tmp Rev:	V028



PCB ASSEMBLY DOCUMENTATION

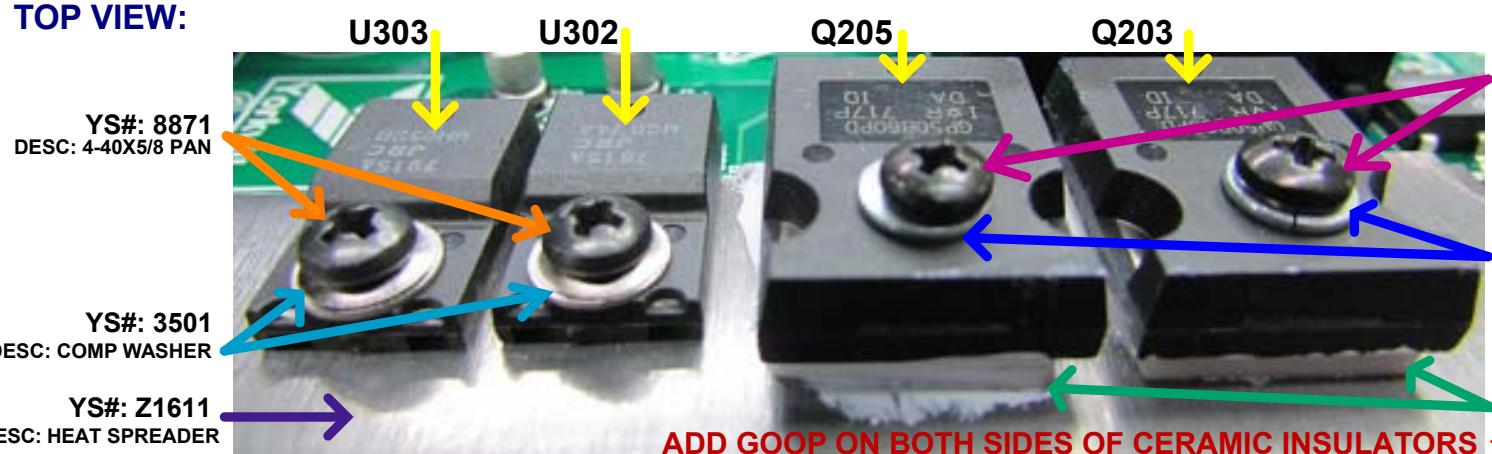
MOUNTING HARDWARE & INSTRUCTIONS FOR HEAT SPREADER ZC1611:

- 1- First install #8742 screw to align heatspreader ZC1611
- 2- Install all devices on Heat Spreader
- 3- Install #8800 and #8835 for grounding. Nut up.

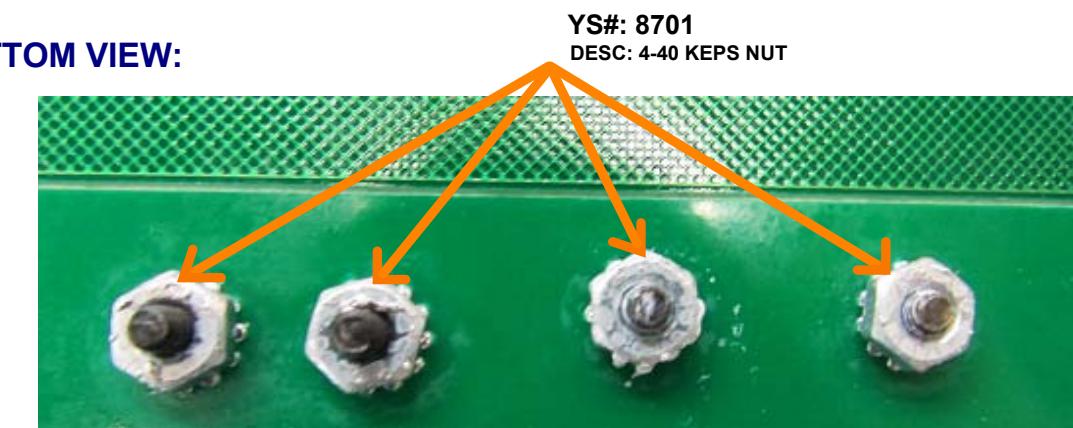


MOUNTING HARDWARE FOR U302/U303 AND Q203/Q205:

TOP VIEW:

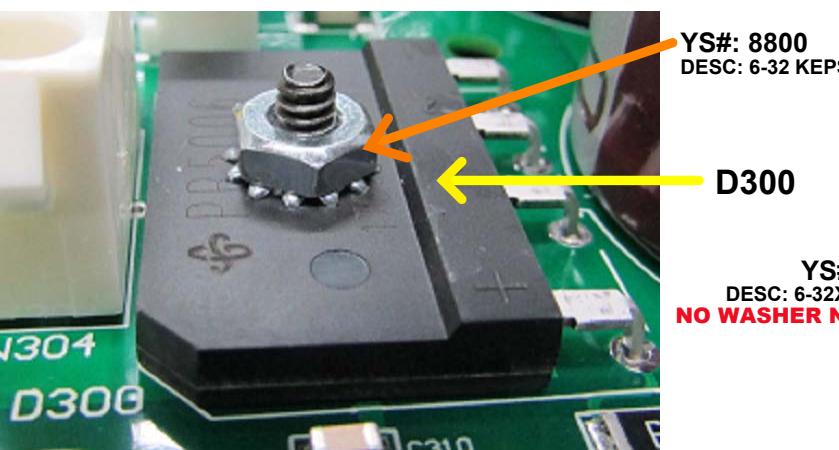


BOTTOM VIEW:

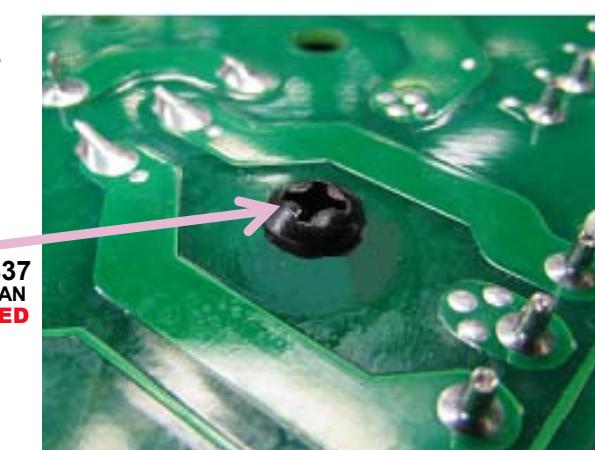


MOUNTING HARDWARE FOR D300:

TOP VIEW:

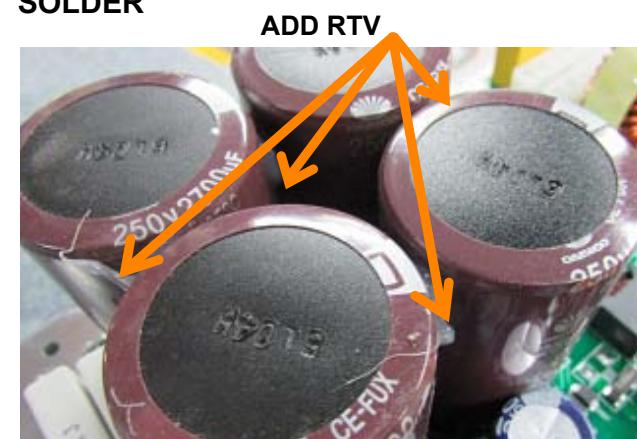


BOTTOM VIEW:



RTV INSTRUCTIONS:

ADD RTV BETWEEN:
C311, C312, C313 and C314 AFTER WAVE
SOLDER



Add RTV UNDER R303 AND R304 on the
heatspreader

**IMPORTANT: Keep the resistors away
from the nearby capacitors (C312, C313)**

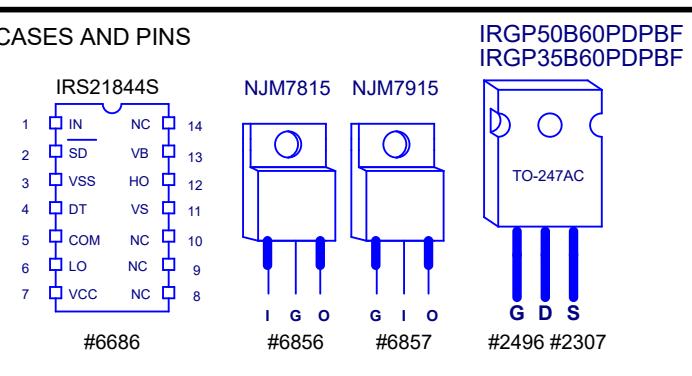
DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	27-OCT-2016	V01	9077	RELEASED FOR PRODUCTION
2	07-JUL-2017	V01	9114	REMOVE SIL PADS YS# 3797 AND CHANGE SCREW 8741 TO 8871
3	2-NOV-2017	V01	9114	Changed R225 and R249 from 22R(YS#7930) to 10R (YS#7852)
4				Changed D203A and D206A from BAT54 (YS#7944) to BAT750 (YS#9106)
5				Change R219 from 470R (YS#7856) to 475R (YS#7673)
6				Change R264 from 1K62 (YS#8137) to 1K4 (YS#9107)
7				Add 12K1 0603 resistor (YS#7761) between pin 3 and pin 4 of U201
8				For M1693 PCB Only:
9				Change Q203A and Q205A from IRGP50B60PDPbF (YS#2385) to
10				IRGP50B60PD1PbF (YS#2496)
11	10-NOV-2017	V01	9134	For M1692 PCB Only:
12				Change Q203A and Q205A from IRGP50B60PDPbF (YS#2385) to
13				IRGP50B60PD1PbF (YS#2496)
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	26-NOV-2017	V02	9114	Add two 150pF 100V capacitors (YS#5982) between PS_GND and pin 1 and pin 4 of W402
2				Change C309 connection from before L300 to after L300
3	20-DEC-2017	V02		Added M1690(ES21P) and M1691(ES12P) to board
4	18-DEC-2017	V02		Added 5 test points for Test & Repair
5	22-DEC-2017	V02		V02 Released
6	02-APR-2018	.	9196	Replace screw #8761 (zinc) with #8835 (tin)
7	01-SEP-2018	V03	.	X8024 Board - De-Exed
8	.	V03	9284	Added C316, L301, and C315 for EMI Improvements
9	09-OCT-2018	V03	.	V03 Released
10	01-FEB-2019	.	9277	Changed W301, W306 to YsPart# 4243 and W302 to YsPart# 4244
11	.	.	.	.
12	.	.	.	.
13	.	.	.	.
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	.	.	.	.
2	.	.	.	.
3	.	.	.	.
4	.	.	.	.
5	.	.	.	.
6	.	.	.	.
7	.	.	.	.
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
11	.	.	.	.
12	.	.	.	.
13	.	.	.	.

POTENTIOMETERS AND KNOBS

PINOUT DIAGRAMS



THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.



A

A

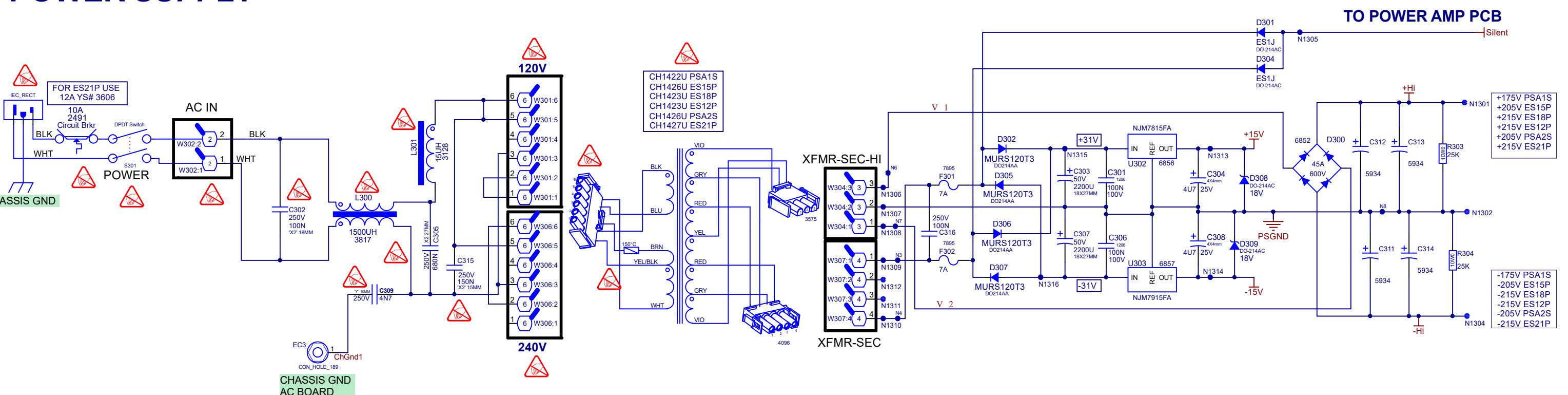
B

B

C

C

POWER SUPPLY



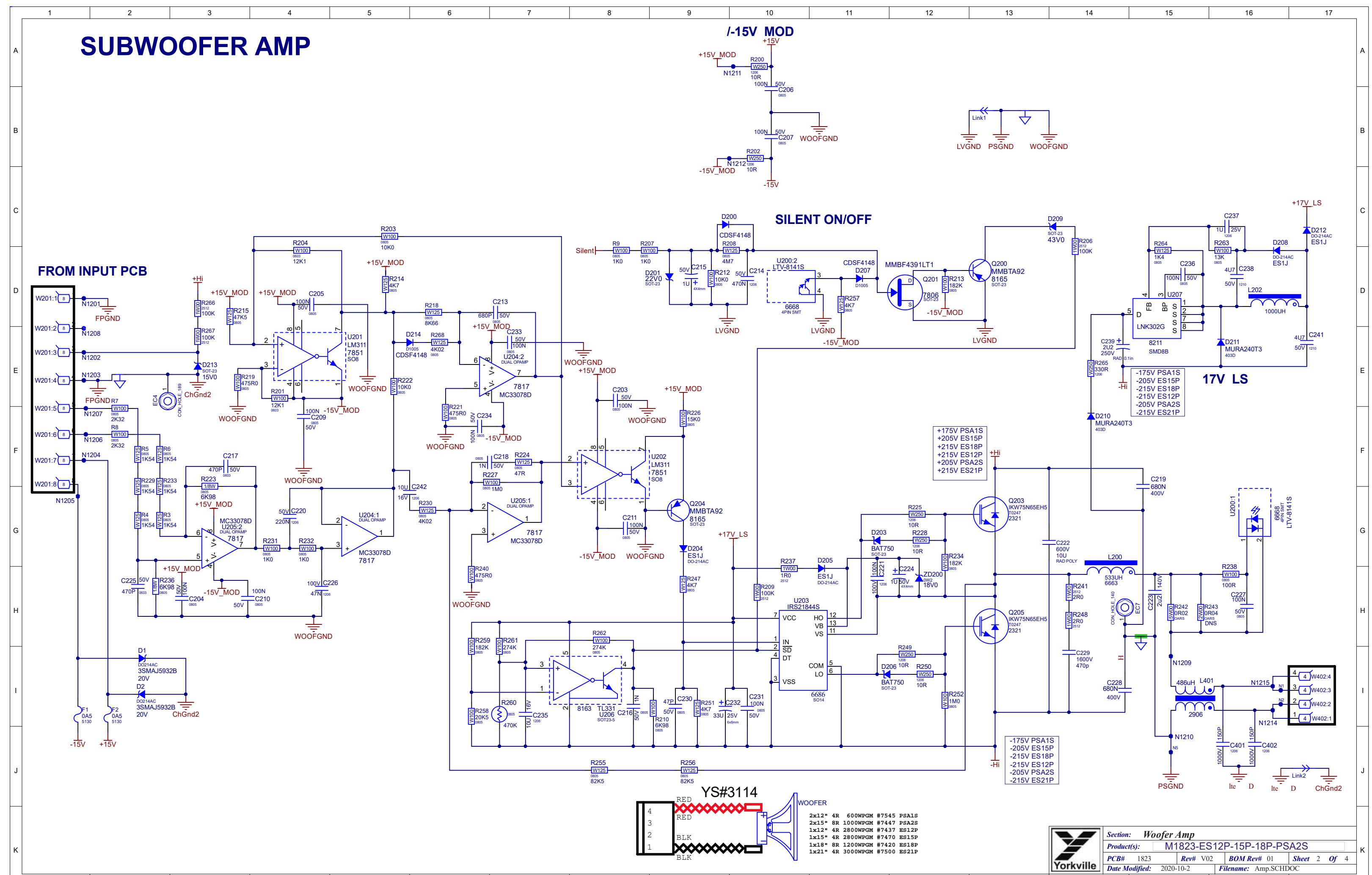
Critical Safety Components

This symbol is placed next to Safety Critical Components



Section: Power Supply			
Product(s): 182 ES12P 15P 18P PSA2S		BOM Rev# 01	
PCB#	Rev# V02	Date Modified:	Sheet 2 Of
1823		2020-10-2	Filename: Supply.SCHDOC

SUBWOOFER AMP



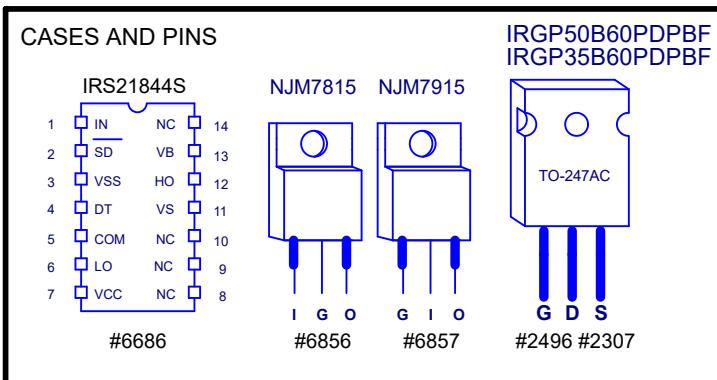
DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	08-May-2019	V01	.	New EMC compliant board
2	22-Aug-2019	.	9440	FOR ES12P-ES21P and PSA2S: Replace R242 #5110 0R04 2W with #5142 0R02 5W and DNS R243
3	.	.	.	REPLACE D308 AND D309 FROM YS#8814 ES1J TO YS#8159 SMAZ18 18V ZENER
4	23-Sept-2019	V02	9454	R247 moved close to C230 to eliminate oscillation
5	.	.	9456	R247 moved close to C230 to eliminate oscillation
6	27-Oct-2020	.	9411	Replaced #2496 with #2321
7
8
9
10
11
12
13
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
2
3
4
5
6
7
8
9
10
11
12
13
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
2
3
4
5
6
7
8
9
10
11
12
13

POTENTIOMETERS AND KNOBS

PINOUT DIAGRAMS

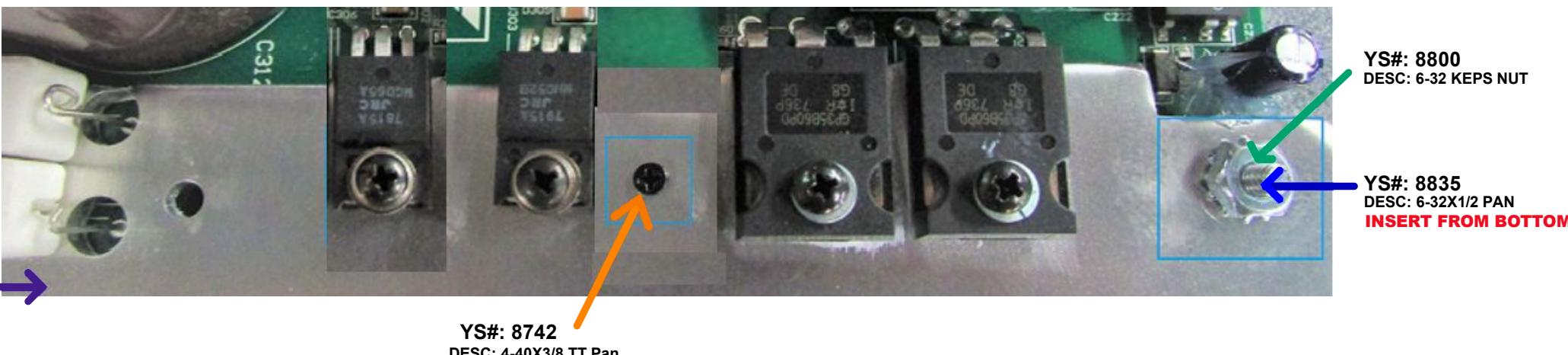


THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

PCB ASSEMBLY DOCUMENTATION

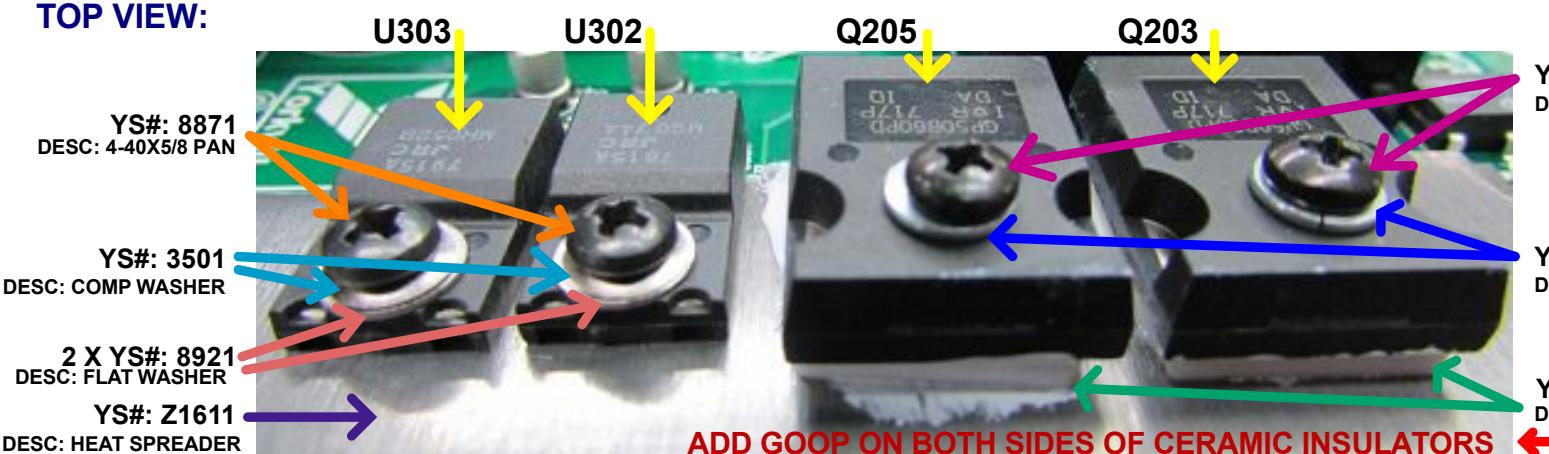
MOUNTING HARDWARE & INSTRUCTIONS FOR HEAT SPREADER ZC1611:

- 1- First install #8742 screw to align heatspreader ZC1611
- 2- Install all devices on Heat Spreader
- 3- Install #8800 and #8835 for grounding. Nut up.



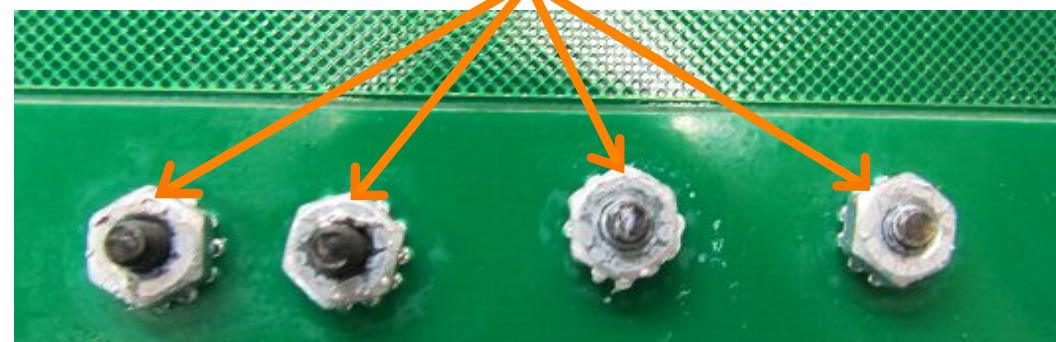
MOUNTING HARDWARE FOR U302/U303 AND Q203/Q205:

TOP VIEW:



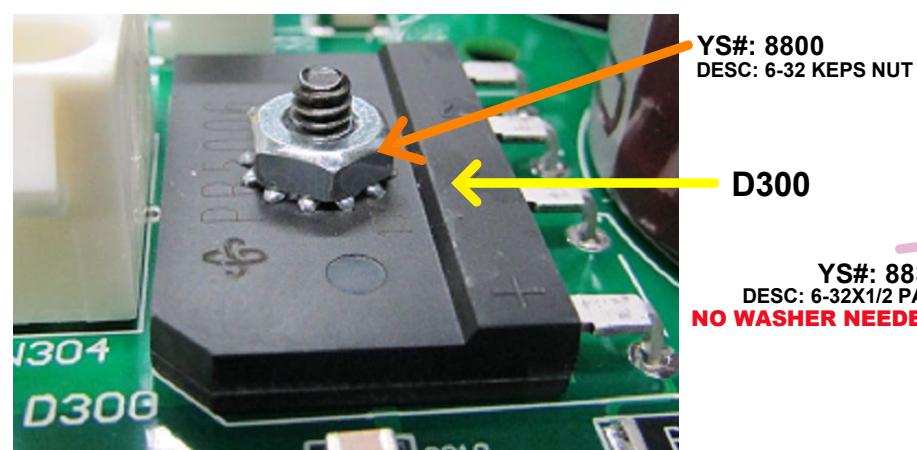
BOTTOM VIEW:

YS# 8701
DESC: 4-40 KEPS NUT

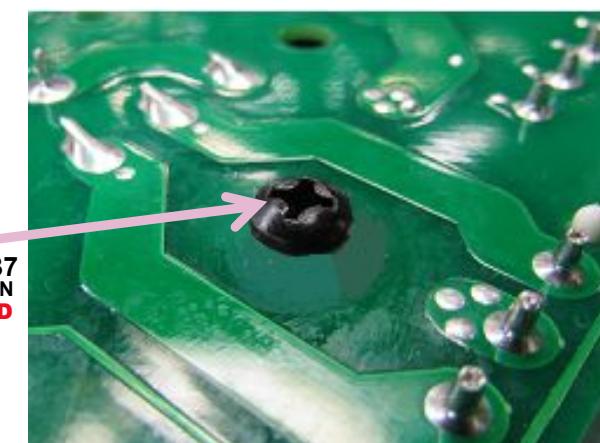


MOUNTING HARDWARE FOR D300:

TOP VIEW:

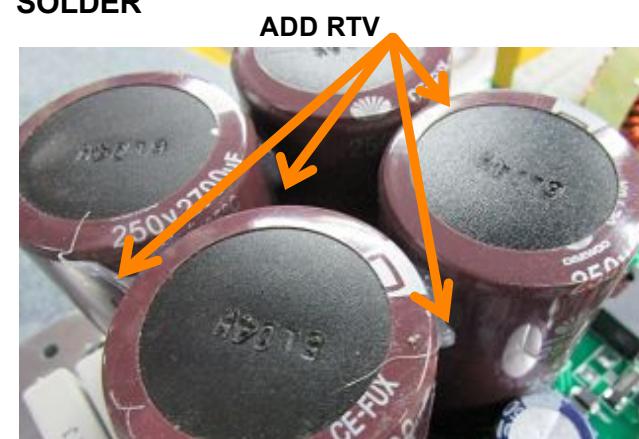


BOTTOM VIEW:



RTV INSTRUCTIONS:

ADD RTV BETWEEN:
C311, C312, C313 and C314 AFTER WAVE
SOLDER



Add RTV UNDER R303 AND R304 on the
heatspreader
**IMPORTANT: Keep the resistors away
from the nearby capacitors (C312, C313)**

Clip all 4 leads short on D300:

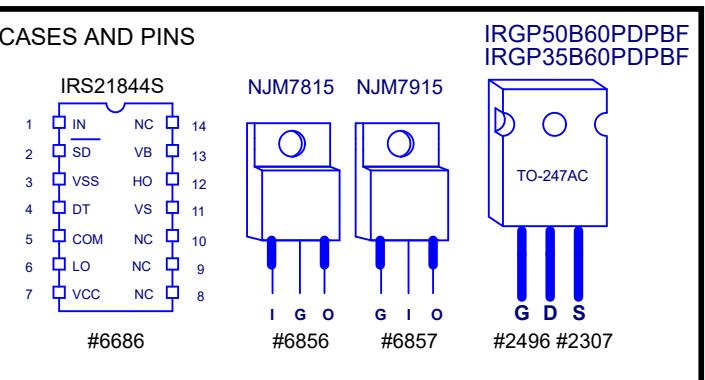
DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

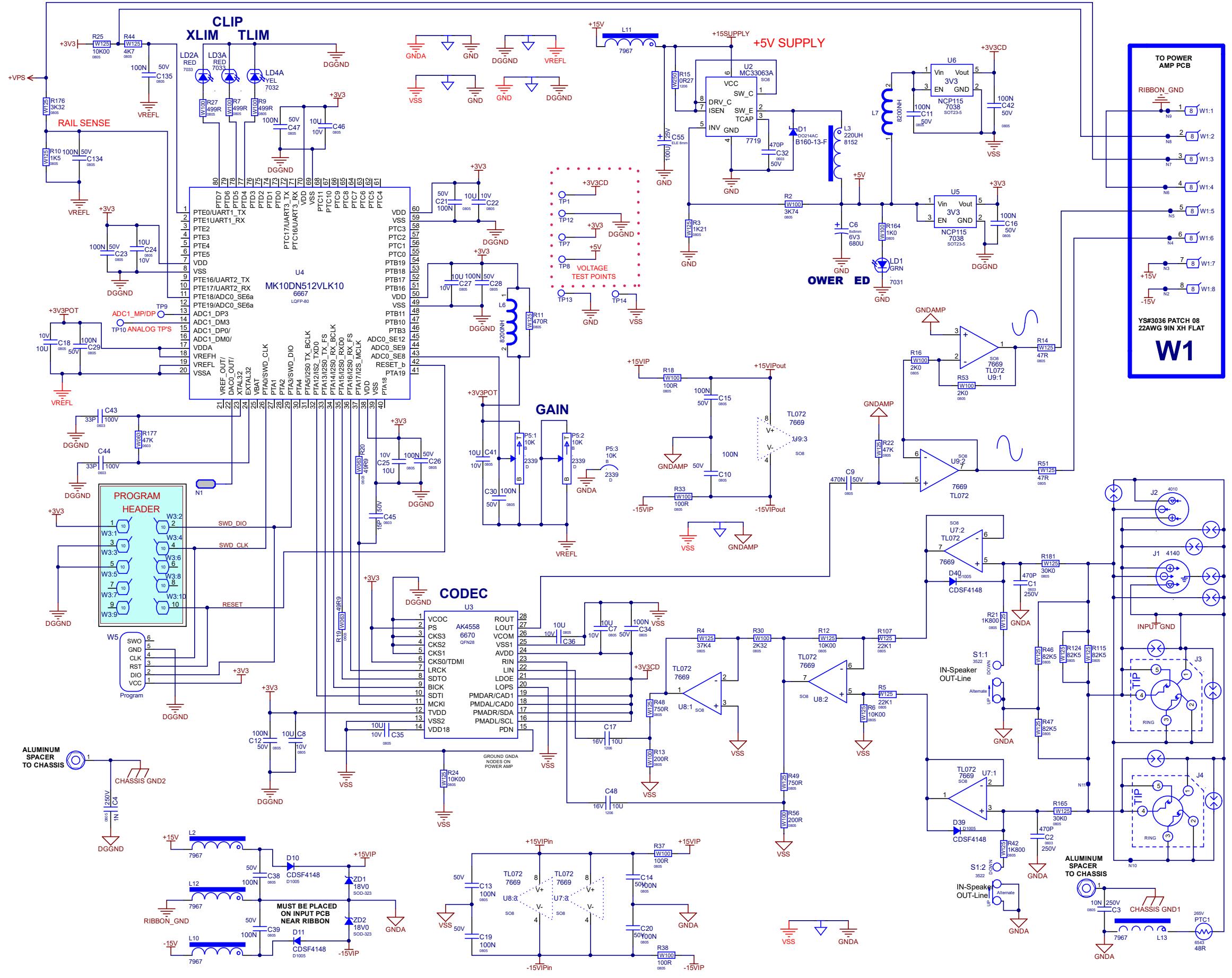
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	08-May-2019	V01	.	New EMC compliant board
2	22-Aug-2019	.	9440	FOR ES12P-ES21P and PSA2S: Replace R242 #5110 0R04 2W with #5142 0R02 5W and DNS R243
3	.	.	.	
4	23-Sept-2019	V02	9454	REPLACE D308 AND D309 FROM YS#8814 ES1J TO YS#8159 SMAZ18 18V ZENER
5	.	9456		R247 moved close to C230 to eliminate oscillation
6	27-Oct-2020	.	9411	Replaced #2496 with #2321
7	.	.	.	
8	.	.	.	
9	.	.	.	
10	.	.	.	
11	.	.	.	
12	.	.	.	
13	.	.	.	
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
2
3
4
5
6
7
8
9
10
11
12
13
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
2
3
4
5
6
7
8
9
10
11
12
13

POTENTIOMETERS AND KNOBS

PINOUT DIAGRAMS



THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.



Section: PS Subs / PSA Subs / DSP Input
 Products: PS12S / PS15S / PS18S / PSA1S / PSA2S
 PCB# M1996 Rev# V01 EML Rev# XX Sheet 1 Of 3
 Modified: 2020-11-05 File: DSP.SchDoc

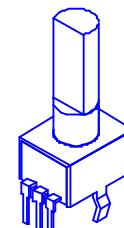
DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	14-MAR-2020	V01	.	RELEASE FOR PRODUCTION
2
3
4
5
6
7
8
9
10
11
12
13

POTENTIOMETERS AND KNOBS

POTENTIOMETERS/SWITCHES AND KNOBS				
REF	FUNCTION	POT/SW YS#	STYLE	KNOB#
P5	GAIN	2339	P34	8653C
S1	Speaker/Line Mode	3522	DPDT	8637
.
.
.
.
.
.
.
.
.
.
.
.
.



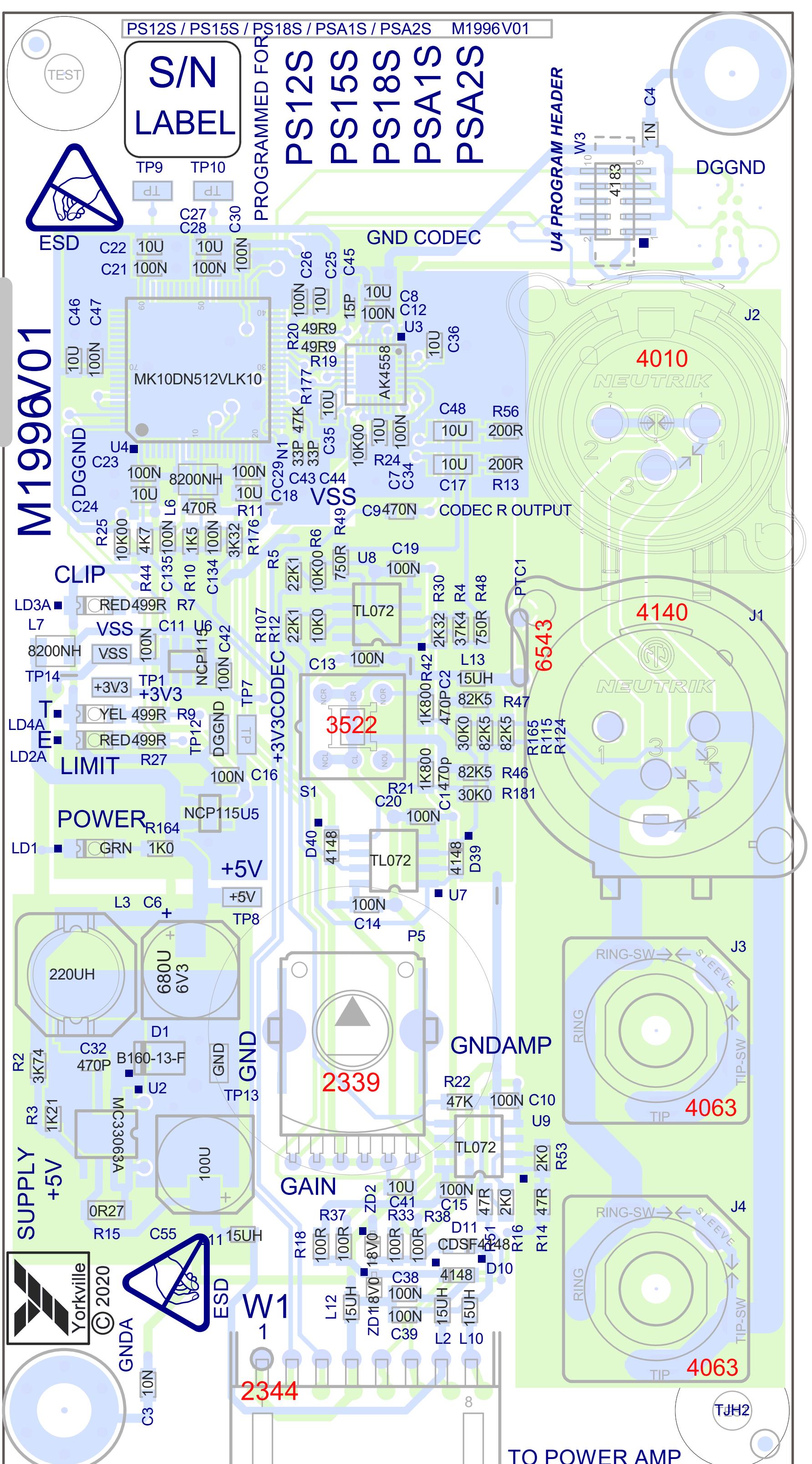
STYLE P32

PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

Design Information And History	
Product(s):	PS12S / PS15S / PS18S / PSA1S / PSA2S
PCB#:	M1996
Rev#:	V01
EML Rev#:	XX
Sheet	3 Of 3
Modified:	2020-11-05
File:	History.SchDoc
Tmp Rev:	V031

M1996V01



PCB ASSEMBLY DOCUMENTATION

SPECIAL PRODUCTION NOTES

1. THIS BOARD IS FOR :

M1996 FOR PS12S
M1996 FOR PS15S
M1996 FOR PS18S
M1996 FOR PSA1S
M1996 FOR PSA2S

SEE MARKINGS TO IDENTIFY SOFTWARE VERSIONS

PCB HARDWARE

THIS SHEET CONTAINS SPECIAL PRODUCTION NOTES AND A LIST OF PCB HARDWARE PARTS REQUIRED FOR THE BUILD.



Assembly Documentation			
Product(s):	PS12S / PS15S / PS18S / PSA1S / PSA2S	Rev#:	V01
PCB#:	M1996	EML Rev#:	XX
Modified: 2020-11-05	File: Assembly.SchDoc	Sheet 2 Of 3	Tmp Date:

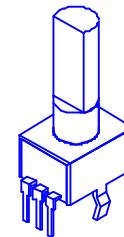
DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	14-MAR-2020	V01	.	RELEASE FOR PRODUCTION
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

POTENTIOMETERS AND KNOBS

POTENTIOMETERS/SWITCHES AND KNOBS



STYLE P3

PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.



Design Information And History

Product(s):	PS12S / PS15S / PS18S / PSA1S / PSA2S		
#:	M1996	Rev#:	V01
Modified:	2020-11-05	EML Rev#:	XX
File:	History.SchDoc		
Sheet	3	Of	3
	Tmp Rev: V031		

1. Input Level

Choose between line-level and speaker-level signals.

The Line-Level position is used when the PSA1s/ PSA2s is fed a line-level signal from a processor, an electronic crossover, an un-powered mixer, or the loop-through of a powered speaker cabinet. When using the line-level mode, using balanced 1/4-inch (Tip, Ring, Sleeve) and/or XLR cables will reduce the unit's sensitivity to hum and buzz.

The Speaker Level position should be used when the PSA1s/ PSA2s is fed with a 1/4-inch speaker cable from the output of an amplifier, a powered-mixer, or from the parallel connection on an un-powered speaker cabinet. For speaker level operation, connect the PSA1s/ PSA2s just like an ordinary speaker (in parallel using the loop-through jacks) along with the passive full-range loudspeakers.

2. Level Control

Adjusts the amount of bass added to the sound system. This control should be set by listening with a medium-level input signal (such that the limiter is not firing).

Note: It is not recommended to set this control at high levels since the limiter determines the output level. A setting at the center detent on the PSA1s/ PSA2s Level control is the correct starting point when setting up a sound system. The detent is the setting that will give full power when the line input is used and the input signal is at a level of +3 dBV.

3. Input Jacks

Designed to make it easy to hook up the PSA1s/ PSA2s to almost any audio system with minimal hassle. 1/4-inch and XLR inputs with Thru connections are supplied. The PSA1s/ PSA2s may be plugged in before or after a full-range loudspeaker, it does not alter the signal



PARALINE SERIES PSA1S / PSA2S

to the daisy-chained (thru) loudspeakers and will not draw any power from the host amplifier/processor driving them. Also, note that an external crossover is not necessary when using the PSA1s/ PSA2s.

Note: the Thru jacks allow many PSA1s/ PSA2s subwoofers to be connected in a chain (parallel). There is no practical limit to the number of PSA1s/ PSA2s that may be connected together.

4. Protection

The PSA1s/ PSA2s has several internal protection mechanisms against over-current, over-excitation, clipping, and excessive average power output. In some cases, when protection is activated, the output will be cut off. In these cases, the power LED will blink, and the PSA1s/ PSA2s will attempt to restart itself. If the fault persists, you should take your PSA1s/ PSA2s to the nearest authorized service center for repair by a qualified service technician.

At high power levels when the limiter is operating, increasing the subwoofer level control will not increase the output. For the best results, set the system so that the limiter LED occasionally (a few times per second) lights up. The limiter is present in the circuit at all times to prevent distortion and to prevent over-excitation of the speakers.

Note: The PSA1s/ PSA2s' built-in stand mounting adapter can be used with the Yorkville SW-TUBEHD accessory to support either one or two of our PSA1 cabinets. The support tube can be used safely as long as the PSA1s/ PSA2s is on a flat, level surface.

WARNING: Larger or heavier cabinets should NOT be used!



To get the full Owner's Manual please visit our website at

<http://www.yorkville.com/manuals/> or, if you need a printed version call 905-837-8777

**REAL Gear.
REAL People.**



Canada
Voice: (905) 837-8481
Fax: (905) 837-8746

U.S.A.
Voice: (716) 297-2920
Fax: (716) 297-3689

www.yorkville.com

Yorkville Sound
550 Granite Court
Pickering, Ontario
L1W-3Y8 CANADA

Yorkville Sound Inc.
4625 Witmer Industrial Estate
Niagara Falls, New York
14305 USA



1. Niveau d'Entrée

Choisissez entre des signaux de niveau ligne et de niveau haut-parleur.

La position niveau ligne est utilisée lorsque les PSA1/PSA2 reçoivent un signal de niveau ligne provenant d'un processeur, d'un filtre électronique, d'un mélangeur non alimenté ou de la boucle d'un haut-parleur alimenté. En mode niveau ligne, l'utilisation de câbles symétriques 1/4-pouce (Pointe, Anneau, Manchon) et/ou XLR permet de réduire la sensibilité de l'appareil aux ronflements et aux bourdonnements.

La position "Speaker Level" doit être utilisée lorsque les PSA1/PSA2 sont alimentés par un câble de haut-parleur de 1/4 pouce provenant de la sortie d'un amplificateur, d'un mélangeur amplifié ou de la connexion parallèle d'un haut-parleur non amplifié. Pour le fonctionnement au niveau haut-parleurs, connectez les PSA1/PSA2 comme un haut-parleur ordinaire (en parallèle à l'aide des prises en boucle) avec les haut-parleurs passifs pleine gamme.

2. Commande de Niveau

La commande de niveau ajuste la quantité de basses ajoutées au système de sonorisation. Ce réglage doit être effectué en écoutant avec un signal d'entrée de niveau moyen (de telle sorte que le limiteur ne se déclenche pas).

Remarque : il n'est pas recommandé de régler cette commande à des niveaux élevés, car le limiteur détermine le niveau de sortie.

Un réglage au cran central sur la commande de niveau PSA1/PSA2s est le bon point de départ lors du réglage d'un système de sonorisation. Le cran est le réglage qui donne la pleine puissance lorsque l'entrée ligne est utilisée et que le signal d'entrée est à un niveau de +3 dBV.

3. Prises d'Entrée

Conçu pour faciliter le branchement à presque tous les systèmes audio avec un minimum de difficultés, les PSA1 et PSA2 sont équipés d'entrées 1/4-pouce et XLR avec des connexions Thru. Les PSA1/PSA2 peuvent être branchés avant ou après un haut-parleur pleine

PARALINE SERIES PSA1S / PSA2S

bande, ils n'altèrent pas le signal des haut-parleurs en chaîne (Thru) et ne tirent aucune puissance de l'amplificateur/processeur qui les entraîne. Notez également qu'un filtre externe n'est pas nécessaire lorsque vous utilisez les PSA1/PSA2.

Remarque : les prises Thru permettent de connecter en parallèle de nombreux subwoofers PSA1/PSA2. Il n'y a pas de limite pratique au nombre de PSA1/PSA2 qui peuvent être connectés ensemble.

4. Protection

Les PSA1 et PSA2 disposent de plusieurs mécanismes de protection internes contre les surintensités, les sur-excursions, les écrétages et une puissance moyenne de sortie excessive. Dans certains cas, lorsque la protection est activée, la sortie sera coupée. Dans ce cas, la DEL d'alimentation clignote et les PSA1/PSA2 tentent de redémarrer. Si le problème persiste, vous devez amener vos PSA1/PSA2 au centre de service agréé le plus proche pour qu'un technicien qualifié les répare.

À des niveaux de puissance élevés lorsque le limiteur est en fonctionnement, l'augmentation de la commande de niveau du subwoofer n'augmentera pas le niveau de sortie. Pour obtenir les meilleurs résultats, réglez le système de manière

à ce que la DEL du limiteur s'allume de temps en temps (quelques fois par seconde). Le limiteur est présent dans le circuit à tout moment pour éviter toute distorsion et pour empêcher la sur-excursion des haut-parleurs.

Note : L'adaptateur intégré pour le montage sur pied des PSA1/PSA2 peut être utilisé avec l'accessoire Yorkville SW-TUBEHD pour supporter une ou deux de nos enceintes PSA1. Le tube de support peut être utilisé en toute sécurité à condition que les PSA1/PSA2 se trouvent sur une surface plane et horizontale.

AVERTISSEMENT : les enceintes plus grandes ou plus lourdes ne doivent PAS être utilisées !



Pour obtenir le manuel de utilisateur visitez notre site Web à <http://www.yorkville.com/manuals/> ou, si vous avez besoin d'une version imprimée appelez-nous au 905-837-8777

**REAL Gear.
REAL People.**



Canada
Voice: (905) 837-8481
Fax: (905) 837-8746

U.S.A.
Voice: (716) 297-2920
Fax: (716) 297-3689

www.yorkville.com

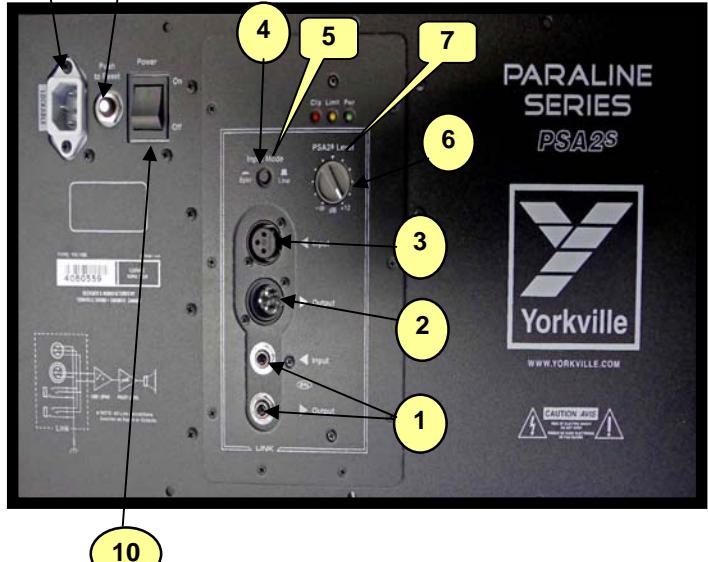
Yorkville Sound
550 Granite Court
Pickering, Ontario
L1W-3Y8 CANADA

Yorkville Sound Inc.
4625 Witmer Industrial Estate
Niagara Falls, New York
14305 USA

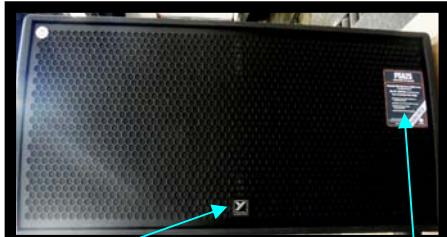
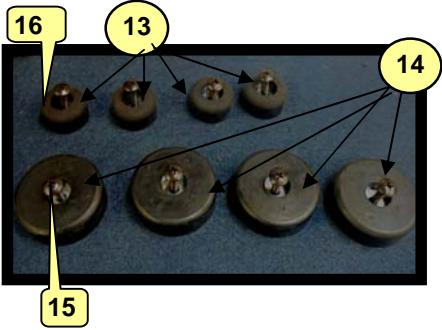


PSA2S POWERED

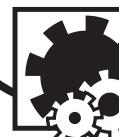
SUB WOOFER



#	Part#	Description	qty
Labeled Components			
1	4063	1/4IN ISO JCK PCMT VT STER RT SWT	2
2	4100	XLR MALE PCB MT VERT	1
3	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	1
4	3522	DPDT MINI PC VERT SNP ALT	1
5	8637	ROUND PUSH BUTTON 1/4" BLK 24MM	1
6	2339	_10K_B LIN 12MM DUAL 21DET_P34	1
7	9014	KNOB LS901 POINTER AT 9-O'CLOCK	1
8	4088	RECEPTACLE:V-LOCK INLET	1
9	3606	12.00 AMP CIRCUIT BREAKER	1
10	3585	DPST ROKR SW QUIK 250° AC/PWR IEC6	1
11	7447	15" 8R 1000WPGM SPEAKER	2
12	3074	POWER CORD 3M V-LOCK (N.A.)	1
13	8545	RECESSED RUBBER BUMPER WITH WASHER	4
14	8529	RUBBER FOOT 65 X 20MM	4
15	9401SS	#10 X 3/4 SS PAN PH TYPE A BO&W	54
16	9419SS	1/4-20X11/4 SS TRUSS PH MS B.O.&WAX	16
17	8551	BAR HANDLE RIGHT ANGLE TOP LOAD	1
18	8565	BAR HANDLE ALL METAL RECTANGULAR	3
19	9170	STAND ADAPTER CAST	1
20	8206	YORKVILLE LOGO METALPHOTO	1
21	POPLABEL	4"X5" POLYJET LABEL W/PERM ADHESIVE	1



EYEBOLT INSTALLATION



1. DESCRIPTION

Many of the popular models in the Yorkville speaker cabinet line are now equipped with flying hardware for overhead suspension applications. Depending on the model, two or more internal braces have been provided for rigging purposes. Each brace contains two bolt holes and provides center-of-gravity fly-points for use with in-line or angular loads. Many of the models will support additional suspended cabinets according to their specified working load limits.



IMPORTANT!!

THE RIGGING OF LOUDSPEAKER SYSTEMS IS AN EXTREMELY SERIOUS MATTER. OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, INCLUDING (BUT NOT LIMITED TO) CALCULATING WORKING LOAD LIMITS, HARDWARE INSTALLATION, AND PERIODIC SAFETY INSPECTION OF ALL HARDWARE AND CABINERY. IF YOU LACK THESE QUALIFICATIONS, DO NOT ATTEMPT THE INSTALLATION YOURSELF, BUT INSTEAD USE A PROFESSIONAL STRUCTURAL RIGGER. IMPROPER INSTALLATION CAN RESULT IN BODILY INJURY OR DEATH. CONSULT A STRUCTURAL ENGINEER TO CALCULATE ADDED LOADS FOR A BUILDING. STRUCTURAL REINFORCEMENT MAY BE NECESSARY TO INSURE A SAFE INSTALLATION.

2. REQUIRED TOOLS

4.5mm (7/32") Hex Wrench

Thread lock adhesive (Removable Type)

3. EYEBOLT INSTALLATION

a) Using a 4.5mm (7/32") hex wrench, remove the flat head bolts from the top or bottom of the speaker enclosure to expose the tapped holes (on TX models, the flat head bolts are located within the track rails), as shown below. Be sure to keep these handy as they will be needed to seal the cabinet after the eyebolts are removed.



IMPORTANT!!

USE ONLY LOAD RATED FORGED EYEBOLTS. THESE MAY BE PURCHASED THROUGH YORKVILLE SOUND OR ATM FLY-WARE™. TO INSURE CABINET-BRACING STRENGTH, MAKE SURE ALL FLY-POINTS ARE SECURED WITH EITHER AN EYEBOLT OR FLAT HEAD HEX BOLT.

b) Place a drop of thread-lock adhesive on the threads of the eyebolt and insert one into exposed hole. Tighten each eyebolt by hand until it fits snugly against the cabinet. Further tighten each eyebolt by rotating it another half turn. Be sure to insert eyebolts in the threaded hole directly in-line with the suspension cable. Always follow the eyebolt manufacturers installation and use instructions.

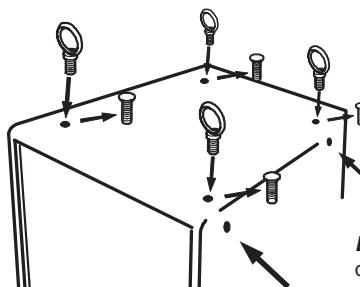
c) Suspend each cabinet according to working load calculations and practices recommended by the rigging hardware manufacturer.



IMPORTANT!!

ON MODELS WITH ONLY TWO TOP SUSPENSION POINTS THE SUPPLIED PULL BACK AT THE REAR OF THE BOTTOM CENTER PANEL OF THE CABINET IS NOT TO BE USED AS A SUSPENSION POINT. THIS POINT TO BE USED FOR PULL BACK PURPOSES ONLY.

*Remove Flat-Head Bolt and
replace with Forged Shoulder Eyebolt!*



*DO NOT Remove Flat-Head Bolts
on the Side of Cabinet/s.*

4. WORKING LOAD LIMITS

Specified working load limits have been determined for the enclosure as follows:

PSA2SF	4 fly points on top	3/8-inch	weight of cabinet only
--------	---------------------	----------	------------------------



IMPORTANT!!

READ ALL ENCLOSED INSTRUCTIONS ABOUT PROPER USE OF HARDWARE. TO INSURE PROPER INSTALLATION, FOR TECHNICAL INFORMATION ON SUSPENSION TECHNIQUES AND EXTERIOR ACCESSORY INFORMATION WE SUGGEST CALLING ATM FLY-WARE'S TECHNICAL SERVICES IN THE UNITED STATES AT (310)639-8282 MONDAY THROUGH FRIDAY FROM 9 AM TO 6 PM (PST) OR FAX AT (310)639-8284. YORKVILLE SOUND MAKES NO CLAIMS AS TO THE SAFETY OF THE ENCLOSURES IF RECOMMENDED LOAD LIMITS AND HARDWARE ARE NOT STRICTLY ADHERED TO. NOR DOES IT MAKE ANY SAFETY CLAIMS TO THE RESULTANT INSTALLATION.



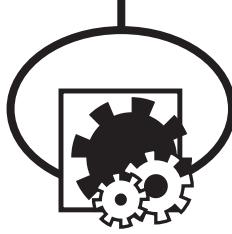
IMPORTANT!!

TRACK RAILINGS: UNITS THAT INCORPORATE THE TRACK RAILING SYSTEM HAVE THE SAME WORKING LOAD LIMITS AS THEY DO WHEN THEY ARE USED WITH EYEBOLTS. THESE RATINGS MAY BE LIMITED AND BASED ON THE RATINGS OF THE TRACK FITTINGS THEMSELVES. PLEASE ENSURE THAT THE RATING OF THE CERTIFIED TRACK FITTINGS EXCEEDS NECESSARY WORKING LOAD LIMITS.

EYEBOLT INSTALLATION

1. DESCRIPTION

Plusieurs des modèles populaires de la ligne d'enceinte à haut-parleur Yorkville sont maintenant équipés de quincaillerie de montage pour les applications requérant une suspension aérienne. Dépendamment du modèle, deux ou plusieurs attaches internes sont prévues pour de tels montages. Chaque attache contient deux trous de boulon et offre des points de montage centre de gravité pour utilisation avec charges droites ou anguleuses. Plusieurs des modèles permettent la suspension de cabinets additionnels selon leur limite de charge de travail spécifique.



IMPORTANT!! LE MONTAGE DE SYSTÈME DE HAUT-PARLEUR EST UNE AFFAIRE TRÈS SÉRIEUSE. LES MONTAGES IMPLIQUANT UNE SUSPENSION AÉRIENNE NÉCESSITENT UNE CONNAISSANCE APPROFONDIE, INCLUANT (MAIS NON-LIMITÉE) AU CALCUL DES LIMITES DE CHARGE DE TRAVAIL, LA QUINCAILLERIE D'INSTALLATION, ET INSPECTIONS PÉRIODIQUES DE SÉCURITÉ DE TOUTE LA QUINCAILLERIE ET DE L'ÉBÉNISTERIE. SI VOUS N'AVEZ PAS CES QUALIFICATIONS, NE TENTEZ PAS DE FAIRE VOUS-MÊME L'INSTALLATION, AYEZ PLUTÔT RECOURS À UN PROFESSIONNEL DU DOMAINE. UNE INSTALLATION INADÉQUATE PEUT CAUSER DES BLESSURES CORPORELLES OU MÊME LA MORT. CONSULTEZ UN INGÉNIEUR EN STRUCTURE POUR CALCULER LA CHARGES ADDITIONNELLE AJOUTÉE AU BÂTIMENT. UN RENFORCEMENT DE LA STRUCTURE DU BÂTIMENT POURRAIT ÊTRE NÉCESSAIRE POUR ASSURER UNE INSTALLATION SÛRE.

2. OUTILS REQUIS

Clé Hex 4.5mm (7/32")

Adhésif de verrouillage pour filetage (Type amovible)

3. INSTALLATION DES BOULONS À OEIL

a) À l'aide d'une Clé Hex 4.5mm (7/32"), enlevez le boulon à tête plate du dessus ou du dessous de l'enceinte à haut-parleur pour découvrir les trous filetés (sur les modèles TX, les boulons à tête plate sont situés à l'intérieur des quincailleries de montage intégré), tel qu'indiqué ci-dessous.

Assurez-vous de ne pas perdre ces boulons à tête plate. Vous devrez les ré-utiliser pour fermer hermétiquement le cabinet quand les boulons œil seront enlevés.



IMPORTANT!! N'UTILISEZ QUE DES BOULONS À OEIL CLASSIFIÉ POUR LES CHARGES REQUISES. VOUS POUVEZ VOUS LES PROCURER DE YORKVILLE SOUND OU ATM FLYWARE™. POUR PRÉSERVER UNE FORCE MAXIMALE DE L'ENTRETOISEMENT DU CABINET, ASSUREZ-VOUS QUE TOUS LES POINTS DE SUSPENSION SONT FIXÉS SOLIDEMENT AVEC SOIT UN BOULON À OEIL, SOIT UN BOULON HEX À TÊTE PLATE

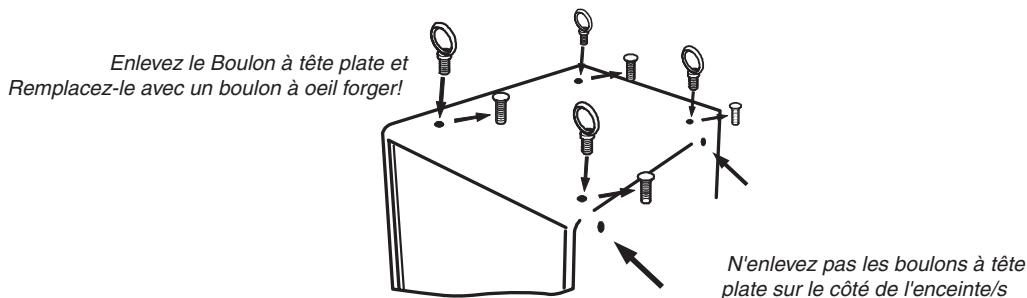
b) Placez une goutte d'adhésif de verrouillage sur le filetage du boulon à œil et placez-en une dans le trou exposé. Resserrez chaque boulon à œil à la main jusqu'à ce qu'ils soient bien serrés contre l'enceinte. Serrez encore chaque boulon à œil en les tournant un autre demi-tour.

Assurez-vous d'insérer les boulons à œil dans les trous filetés directement en ligne avec le câble de suspension. Toujours suivre les instructions d'installation et d'utilisation du fabricant des boulons à œil.

c) Suspendez chaque enceinte selon le calcul de charge de travail et les pratiques recommandées par le fabricant de la quincaillerie de montage.



IMPORTANT!! LES MODÈLES ÉQUIPÉS DE SEULEMENT DEUX POINT DE SUSPENSION SUR LE DESSUS, SONT DOTÉ D'UN POINT DE TIRE À L'ARRIÈRE SUR LE PANNEAU CENTRAL DU BAS. CE POINT DE TIRE NE DOIT PAS ÊTRE UTILISÉ COMME POINT DE SUSPENSION. CE POINT DE TIRE NE DOIT SEULEMENT ÊTRE UTILISÉ QUE POUR TIRER L'ENCEINTE VERS L'ARRIÈRE..



4. LIMITES DE CHARGE DE TRAVAIL

Les limites de charge spécifiées ont été déterminées pour chaque enceinte comme suit:

PSA2SF	Attaches aérienne au dessus	3/8-po	Poids de l'enceinte seule
--------	-----------------------------	--------	---------------------------



IMPORTANT!! LIRE TOUTE LA DOCUMENTATION INCLUSE AU SUJET DE L'UTILISATION APPROPRIÉ DE LA QUINCAILLERIE. POUR ASSURER UNE BONNE INSTALLATION, POUR OBTENIR DE L'INFORMATION TECHNIQUE SUR LES DIVERSES TECHNIQUES DE SUSPENSION ET POUR OBTENIR DE L'INFORMATION SUR LES ACCESOIRES EXTÉRIEURS NOUS VOUS SUGGÉRONS D'APPELER LE SERVICE TECHNIQUE DE ATM FLY-WARE AUX ETATS-UNIS AU (310)639-8282 DU LUNDI AU VENDREDI DE 9 AM À 6 PM (HSP) OU PAR FAX AU (310)639-8284. YORKVILLE SOUND NE GARANTIE PAS UNE UTILISATION SÉCURITAIRE DES ENCEINTES SI LES LIMITES DE CHARGE RECOMMANDÉES NE SONT PAS RESPECTÉES ET SI VOUS N'ADHÉREZ PAS STRICTEMENT À LA LISTE DE QUINCAILLERIE RECOMMANDÉE.



IMPORTANT!! RAILS DE MONTAGE (TRACK RAILINGS): LES ENCEINTES INCORPORANT LE SYSTEME DE RAIL DE MONTAGE ONT LES MÊMES LIMITES DE CHARGE DE TRAVAIL QU'ILS SOIENT SUSPENDUS AVEC LE SYSTEME DE RAIL OU AVEC LES BOULONS À OEIL. CES VALEURS ASSIGNNÉES DE LIMITÉ DE CHARGE PEUVENT ÊTRE LIMITÉS ET BASÉS SUR LA VALEUR DE LIMITÉ DE CHARGE ASSIGNNÉE AUX APPAREILLAGES DE RAIL (TRACK FITTINGS) ELLE-MÊMES. ASSUREZ-VOUS S.V.P. QUE LA VALEUR ASSIGNNÉE DE LIMITÉ CHARGE DE TRAVAIL SUR LES APPAREILLAGES CERTIFIÉS DE RAIL (TRACK FITTINGS) EXÈDE LES LIMITES NÉCESSAIRES DE CHARGE DE TRAVAIL.



Yorkville Sound

550 Granite Court
Pickering, Ontario
Canada L1W 3Y8

Auto Attend: (905) 837-8550

Fax: (905) 837-8746

www.yorkville.com
