

# NS21P

## REV1+REV2

### CANADA

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#### 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.

# Service Manual

## IMPORTANT SAFETY INSTRUCTIONS

 <p>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.</p> <p>Ce symbole d'éclair avec tête de flèche dans un triangle équilatéral est prévu pour alerter l'utilisateur de la présence d'un «voltage dangereux» non-isolé à proximité de l'enceinte du produit qui pourrait être d'ampleur suffisante pour présenter un risque de choc électrique.</p>	 <p><b>CAUTION • AVIS</b> <b>RISK OF ELECTRIC SHOCK DO NOT OPEN</b> <b>RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR</b></p>	 <p><b>DO NOT PUSH OR PULL</b></p>	 <p>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.</p> <p>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.</p>
 <p>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.</p> <p>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.</p>	 <p><b>CAUTION: HOT SURFACE ATTENTION: SURFACE CHAUDE</b></p>	 <p><b>NOT TO BE SERVICED BY USERS</b></p>	 <p><b>CAUTION: OVERHEAD LOAD ATTENTION: CHARGE AÉRIENNE</b></p>

### 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 RÉDUIRE LES RISQUES DE CHOC ÉLECTRIQUE, N'ENLEVEZ PAS LE COUVERT (OU LE PANNEAU  
ARRIÈRE) NE CONTIENT AUCUNE PIÈCE RÉPARABLE PAR L'UTILISATEUR. CONSULTEZ UN TECHNICIEN  
QUALIFIÉ POUR L'ENTRETIEN CE PRODUIT EST POUR L'USAGE À L'INTÉRIEUR SEULEMENT. LES PACKS  
BATTERIES INSTALLÉS 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.

**Cleaning:** 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 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.

Equipment that is suspended overhead must use a secondary safeguard to prevent personal injury in the event the primary mounting mechanism fails. Safety eyebolts attached to the equipment and galvanized steel wire can be used together to implement a failsafe mounting thus ensuring the safety of the equipment and anyone positioned below the equipment.

Improper installation can result in bodily injury or death. If you are not qualified to attempt the installation get help from a professional structural rigger.

*Note: Prolonged use of headphones at a high volume may cause health damage to 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, requires battery pack replacement or has been dropped. Disconnect power before servicing!

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

**Nettoyage:** Nettoyez seulement avec le tissu sec.

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

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

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

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

**Risque** - Ne pas placer cet appareil sur un chariot, un support, un trépied ou une table instables. L'appareil pourrait tomber et blesser quelqu'un ou subir des dommages importants. Utilisez 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.

L'équipement suspendu au-dessus de la tête doit utiliser une protection secondaire pour éviter les blessures en cas de défaillance du mécanisme de montage principal. Les boulons à œil de sécurité fixés à l'équipement et le fil d'acier galvanisé peuvent être utilisés ensemble pour mettre en œuvre un montage à sécurité intégrée, assurant ainsi la sécurité de l'équipement et de toute personne placée sous l'équipement.

Une installation incorrecte peut entraîner des blessures corporelles ou la mort. Si vous n'êtes pas qualifié pour tenter l'installation, demandez l'aide d'un gréer structurel professionnel.

*Remarque : L'utilisation prolongée d'écouteurs à un volume élevé peut nuire à la santé de vos oreilles.*

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

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

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





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


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

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

**Service** - L'appareil ne doit être entretenu que par un personnel de service qualifié. Une réparation est nécessaire lorsque l'appareil a été endommagé de quelque manière que ce soit, comme le cordon d'alimentation ou la fiche est endommagé, du liquide a été renversé ou des objets sont tombés dans l'appareil, l'appareil a été exposé à la pluie ou à l'humidité, ne fonctionne pas normalement, nécessite le remplacement de la batterie et est tombé. Débranchez l'alimentation avant l'entretien!


## IMPORTANT SAFETY INSTRUCTIONS


 <p>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</p>	 <p>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</p>
 <p>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</p>	 <p>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</p>
<ol style="list-style-type: none"> <li>1. Read these instructions.</li> <li>2. Keep these instructions.</li> <li>3. Heed all warnings.</li> <li>4. Follow all instructions.</li> <li>5. Do not use this apparatus near water.</li> <li>6. Clean only with dry cloth.</li> <li>7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.</li> <li>8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.</li> <li>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 prongs are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.</li> <li>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.</li> <li>11. Only use attachments/accessories specified by the manufacturer.</li> <li>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.</li> <li>13. Unplug this apparatus during lightning storms or when unused for long periods of time.</li> <li>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.</li> </ol> <p><b>WARNING:</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• To completely disconnect this apparatus from the ac mains, disconnect the power supply cord plug from the ac receptacle.</li> <li>• The mains plug of the power supply cord or appliance coupler shall remain readily accessible.</li> </ul>	<ol style="list-style-type: none"> <li>1. Lisez ces instructions.</li> <li>2. Conservez ces instructions.</li> <li>3. Respecter tous les avertissements.</li> <li>4. Suivez toutes les instructions.</li> <li>5. N'utilisez pas l'appareil près de l'eau.</li> <li>6. Nettoyer uniquement avec chiffon sec.</li> <li>7. Ne bloquez pas les ouvertures de ventilation. Installer en suivant les instructions du fabricant.</li> <li>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.</li> <li>9. N'annulez pas l'objectif sécuritaire de la fiche polarisée ou de la tige de mise à la terre. Une fiche polarisée possède deux lames avec une plus large 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 fournis pour votre sécurité. Si la fiche rentre pas dans votre prise, consultez un électricien pour remplacer la prise obsolète.</li> <li>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.</li> <li>11. Utilisez uniquement les accessoires spécifiés par le fabricant.</li> <li>12. Utilisez uniquement avec un charriot, stand, trépied ou une table spécifiée par le fabricant, ou vendus avec l'appareil.</li> <li>13. Débranchez l'appareil durant un orage ou lorsqu'il reste inutilisé pendant de longues périodes de temps.</li> <li>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 du 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.</li> </ol> <p><b>AVERTISSEMENT:</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Pour isoler totalement cet appareil de l'alimentation secteur, débranchez totalement son cordon d'alimentation du réceptacle CA.</li> <li>• La prise du cordon d'alimentation ou du prolongateur, si vous en utilisez un comme dispositif de débranchement, doit rester facilement accessible</li> </ul>



**CAUTION**


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





**AVIS**

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



VTC  
PRO AUDIO

INCEPTION  
NS21P

2400 WATT ACTIVE SUBWOOFER ENCLOSURE  
INTEGRATED DIGITAL SIGNAL PROCESSOR

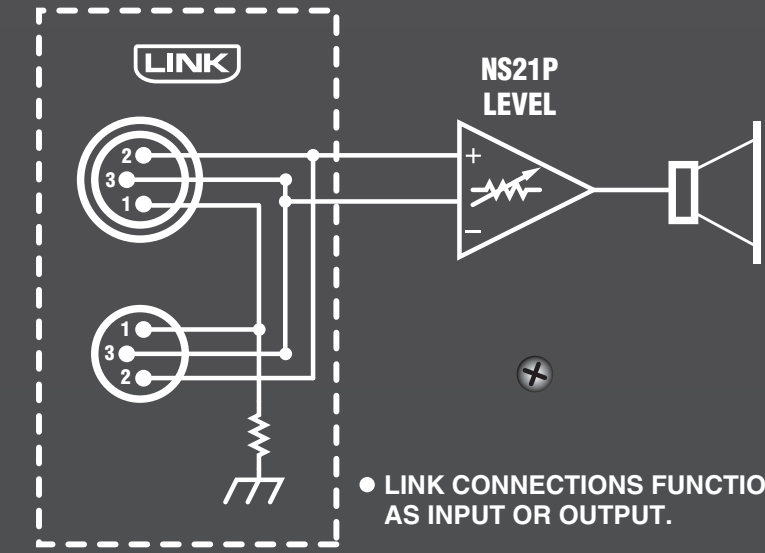
NS21P LEVEL

POWER  
LIMIT  
CLIP

-∞ dB +12

LINK

OUTPUT



**CAUTION AV/IS**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR



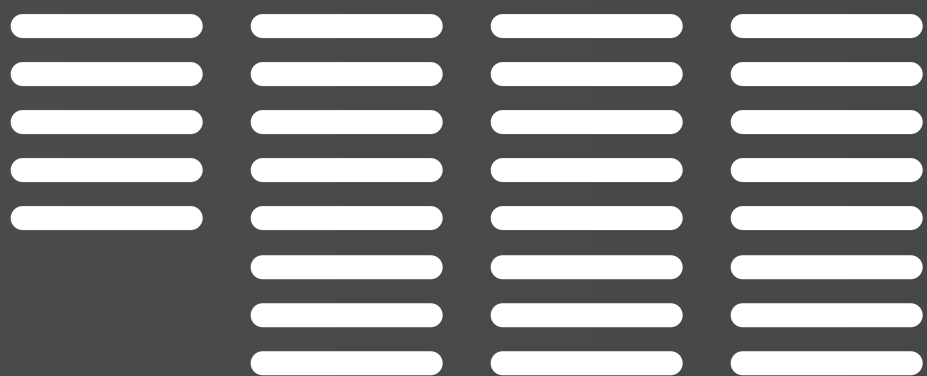
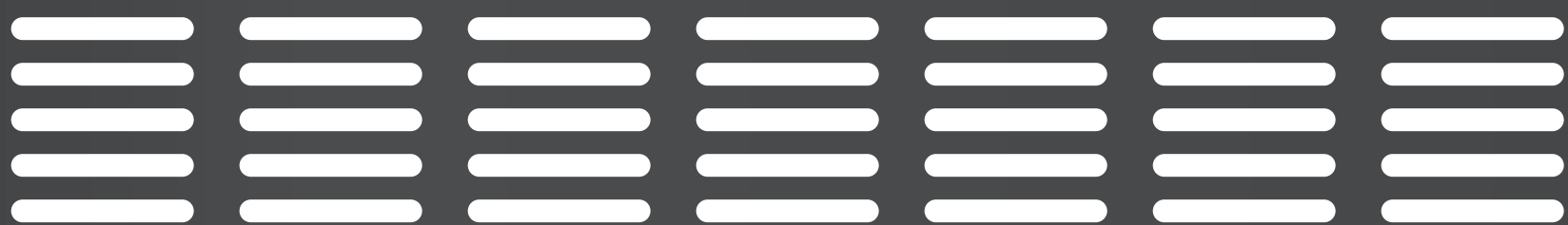
MODEL TYPE: YS1074 A-212068 / 1v1  
230V~ 50Hz 5.0A CE 120VAC 60Hz 12.0A

MANUFACTURED BY  
YORKVILLE SOUND • TORONTO, CANADA

PUSH TO RESET

OFF ON

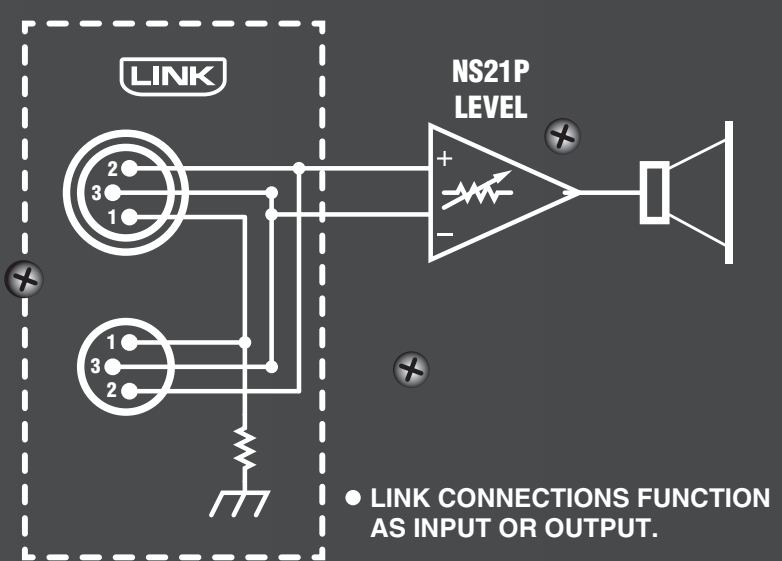
POWER



VTC  
PRO AUDIO

INCEPTION  
NS21P

2400 WATT ACTIVE SUBWOOFER ENCLOSURE  
INTEGRATED DIGITAL SIGNAL PROCESSOR



POWER

ACTIVITY

CLIP

X-MAX

LIMIT

TEMP

NS21P LEVEL

dB +12

LINK

INPUT

OUTPUT

**CAUTION • AVIS**  
 RISK OF ELECTRIC SHOCK  
 DO NOT OPEN  
 RISQUE DE CHOC ELECTRIQUE  
 NE PAS OUVRIR

NS21P REV2 A-Z1721B / 110

CE	230V ~ 50Hz 3,25A	120V ~ 60Hz 6.5A
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MANUFACTURED BY  
YORKVILLE SOUND • TORONTO, CANADA

PUSH TO RESET

OFF ON

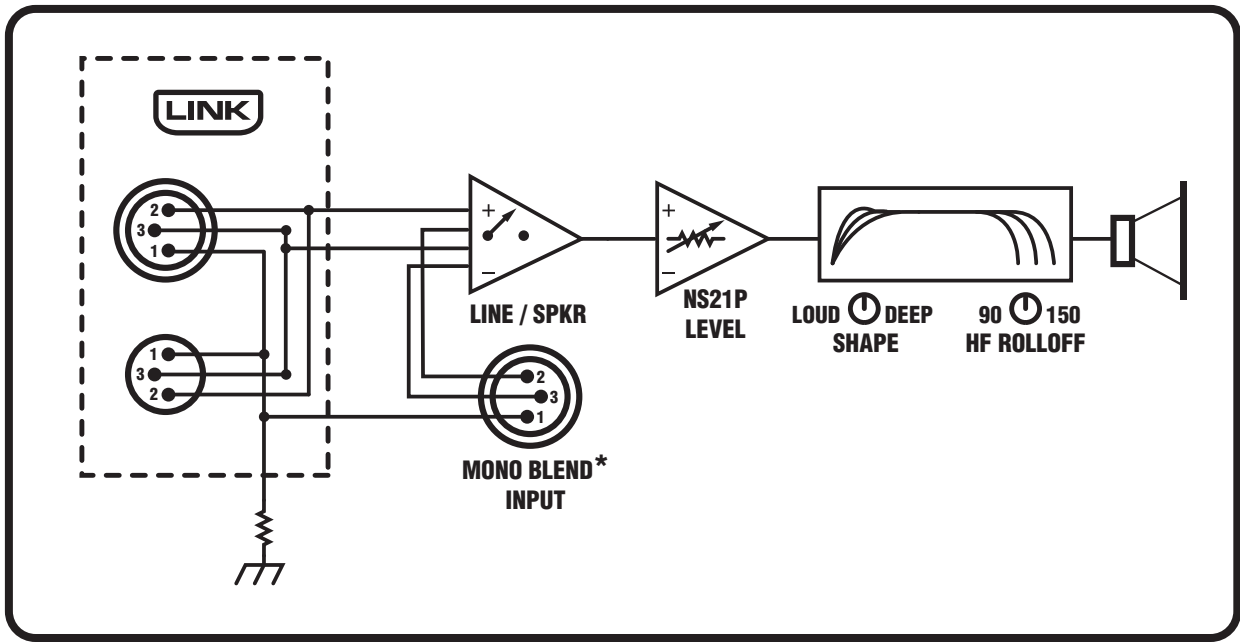
POWER

## Specifications - NS21P

<b>System Type</b>	Rear Horn Loaded Subwoofer
<b>Active or Passive</b>	Active
<b>Program Power (Watts)</b>	2400
<b>Max SPL (dB)</b>	135
<b>Frequency Response (Hz +/- 3db)</b>	32 - 150
<b>LF Driver(s)</b>	Single 21 inch with 6 inch voicecoil
<b>LF Program Power(Watts)</b>	2400
<b>LF Protection</b>	Thermal / Overcurrent / Clip
<b>Power Consumption (typ/max)</b>	800 / 1440VA (12A@120V, 6A@230V)
<b>Inputs - XLR</b>	1 line inputs, 1 link output
<b>Level Controls</b>	Master
<b>Bar Handles</b>	6 Side / 2 Top / 2 Bottom
<b>Pole Mount Adapter (1 3/8-inch-3.5cm)</b>	1 Top
<b>Enclosure Materials</b>	15mm 11-ply Birch
<b>Grille</b>	Perforated Metal
<b>Covering / Finish</b>	Black Ultrathane Paint
<b>Dimensions (DWH xbackW, inches)</b>	31 x 25.25 x 36
<b>Dimensions (DWH xbackW, cm)</b>	78.7 x 64.1 x 94.1
<b>Weight (lbs/kg)</b>	209 / 94.8

## Spécifications - NS21P

<b>Type de système</b>	Caisson subwoofer avec chargement arrière du pavillon
<b>Active ou Passive</b>	Active
<b>Puissance Nominale (Watts)</b>	2400
<b>Niveau de Pression Sonore Max (dB)</b>	135
<b>Réponse en Fréquence (Hz +/- 3db)</b>	32 - 150
<b>Haut-Parleur - Fréquences Graves</b>	HP unique de 21 pouces avec bobine de 6 pouces
<b>Puissance Nominale pour Fréquences Graves (Watts)</b>	2400
<b>Protection - Fréquences Graves</b>	Thermique / surcharge de courant / Clip
<b>Consommation de Puissance (typ/max)</b>	800 / 1440VA (12A@120V, 6A@230V)
<b>Entrées - XLR</b>	1 entrée ligne, 1 sortie link
<b>Contrôles de Niveau</b>	Volume général
<b>Poignées</b>	6 côtés / 2 Dessus / 2 Dessous
<b>Adaptateur pour montage sur poteau (1 3/8-pouce-3.5cm)</b>	1 Dessus
<b>Matériaux</b>	Bouleau Russe 15mm 11-plis
<b>Grille</b>	Métal Perforé
<b>Recouvrement/ Finition</b>	Peinture Noire Ultrathane
<b>Dimensions (PLH x L arrière, pouces)</b>	31 x 25.25 x 36
<b>Dimensions (PLH x L arrière, cm)</b>	78.7 x 64.1 x 94.1
<b>Poids (livres/kg)</b>	209 / 94.8







REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
R90	4832	W250 22K 5% T&R RES	R170	2010	W167 10R0 2%FLAME PROOF T&R RES	ZD1	6432	1N5248B 18V0 0W5 ZENER 5% T&R
R91	4832	W250 22K 5% T&R RES	R171	6136	W250 3K3 5%MINI T&R RES	ZD2	6432	1N5248B 18V0 0W5 ZENER 5% T&R
R92	6119	W250 47K 5%MINI T&R RES	R172	6136	W250 3K3 5%MINI T&R RES	ZD3	2308	1N4753A-T 36V0 1W0 ZENER 5% T&R
R93	6119	W250 47K 5%MINI T&R RES	R173	6136	W250 3K3 5%MINI T&R RES	ZD4	6432	1N5248B 18V0 0W5 ZENER 5% T&R
R94	6119	W250 47K 5%MINI T&R RES	R174	4585	W250 1K2 5%MINI T&R RES	ZD5	6432	1N5248B 18V0 0W5 ZENER 5% T&R
R95	4828	W250 6K8 5% T&R RES	R175	4832	W250 22K 5% T&R RES	ZD6	6432	1N5248B 18V0 0W5 ZENER 5% T&R
R96	4831	W250 18K 5% T&R RES	R176	4832	W250 22K 5% T&R RES	ZD7	6432	1N5248B 18V0 0W5 ZENER 5% T&R
R97	4856	W250 12K 5% T&R RES	R177	4827	W250 4K7 5% T&R RES	ZD8	6432	1N5248B 18V0 0W5 ZENER 5% T&R
R98	4774	W250 4K12 1% T&R RES	R178	2010	W167 10R0 2%FLAME PROOF T&R RES	ZD9	6432	1N5248B 18V0 0W5 ZENER 5% T&R
R99	4748	2W00 3R9 5% T&R RES	R179	2010	W167 10R0 2%FLAME PROOF T&R RES	ZD10	2308	1N4753A-T 36V0 1W0 ZENER 5% T&R
R100	4748	2W00 3R9 5% T&R RES	R180	5016	1W00 9K760 0.5% *** T&R RES	ZD11	6486	1N5244B 14V0 0W5 ZENER 5% T&R
R101	2010	W167 10R0 2%FLAME PROOF T&R RES	R181	5016	1W00 9K760 0.5% *** T&R RES	ZD12	6450	1N5242B 12V0 0W5 ZENER 5% T&R
R102	2010	W167 10R0 2%FLAME PROOF T&R RES	R182	4703	2W00 2R 5% T&R RES	ZD13	6475	1N5262B 51V0 0W5 ZENER 5% T&R
R103	4768	5W00 12K 5% BLK RES	R183	4703	2W00 2R 5% T&R RES	ZD14	6440	1N750ARL 4V7 0W5 ZENER 5% T&R
R104	4768	5W00 12K 5% BLK RES	R184	4703	2W00 2R 5% T&R RES			
R105	4982	W250 4K7 5%MINI T&R RES	R185	6119	W250 47K 5%MINI T&R RES			
R106	4911	W250 2R2 5% T&R RES	R186	4703	2W00 2R 5% T&R RES			
R107	4784	W250 17K40 0.1% *** T&R RES	R187	4844	W250 1M 5% T&R RES			
R108	4844	W250 1M 5% T&R RES	R188	4703	2W00 2R 5% T&R RES			
R109	4817	W250 47R 5% T&R RES	R189	4703	2W00 2R 5% T&R RES			
R110	4714	W250 2K21 1% T&R RES	R190	4703	2W00 2R 5% T&R RES			
R111	4982	W250 4K7 5%MINI T&R RES	R191	6467	10K 10% THERMISTOR TO-92 NTC			
R112	4982	W250 4K7 5%MINI T&R RES	R192	2037	W250 10R FUSIBLE T&R RES			
R113	4988	W250 1K5 5%MINI T&R RES	R193	2037	W250 10R FUSIBLE T&R RES			
R114	6129	W250 27K 5%MINI T&R RES	R195	2039	W250 22R0 FUSIBLE T&R RES			
R115	4942	W250 100K 5% .2INU T&R RES	R196	4639	W250 4K99 1% T&R RES			
R116	4864	W250 2K7 5% T&R RES	R197	4748	2W00 3R9 5% T&R RES			
R117	5016	1W00 9K760 0.5% *** T&R RES	R198	4844	W250 1M 5% T&R RES			
R118	4714	W250 2K21 1% T&R RES	R199	4844	W250 1M 5% T&R RES			
R119	6135	W250 270K 5%MINI T&R RES	R200	4857	W250 220R 5% T&R RES			
R120	6122	W250 33K 5%MINI T&R RES	R201	4714	W250 2K21 1% T&R RES			
R121	4983	W250 10K 5%MINI T&R RES	R202	5005	2W00 1K8 5% T&R RES			
R122	4845	W250 2M2 5% T&R RES	R203	4714	W250 2K21 1% T&R RES			
R123	4981	W250 1K 5%MINI T&R RES	R204	3899	18UH MINI INDUCTOR HI-Q T&R			
R124	2010	W167 10R0 2%FLAME PROOF T&R RES	U1	6882	TL072CP IC FET DUAL OP AMP			
R125	2010	W167 10R0 2%FLAME PROOF T&R RES	U4	6882	TL072CP IC FET DUAL OP AMP			
R126	4983	W250 10K 5%MINI T&R RES	U5	6884	NE5532N IC DUAL OP AMP			
R127	4983	W250 10K 5%MINI T&R RES	U6	6882	TL072CP IC FET DUAL OP AMP			
R128	4844	W250 1M 5% T&R RES	U7	6882	TL072CP IC FET DUAL OP AMP			
R129	6119	W250 47K 5%MINI T&R RES	U8	6840	MC33078P IC DUAL OP AMP			
R130	4864	W250 2K7 5% T&R RES	U9	6542	LM318 IC OP AMP			
R131	4936	W250 2K7 5% .2INU T&R RES	U10	6640	LM311 IC VOLTAGE COMPARATOR DIP8			
R132	2051	W250 1K5 FUSIBLE T&R RES	U11	6856	NJM7815FA TO220 P 15V0 REG IS V1			
R133	2051	W250 1K5 FUSIBLE T&R RES	U12	2318	LM6172IN 8PIN DIP FAST DUAL OPAMP			
R134	2051	W250 1K5 FUSIBLE T&R RES	U13	6586	IRS21844PBF IC HILO FET DRIVER			
R135	2319	2W00 33R 5% MIN FUSIBLE T&R RES	U14	6586	IRS21844PBF IC HILO FET DRIVER			
R136	2319	2W00 33R 5% MIN FUSIBLE T&R RES	U15	6745	LM13600N IC XCONDUCTANCE AMP			
R137	4682	W500 1R 5%PHILIPS SMAL T&R RES	U17	6840	MC33078P IC DUAL OP AMP			
R138	4911	W250 2R2 5% T&R RES	U18	6882	TL072CP IC FET DUAL OP AMP			
R139	4827	W250 4K7 5% T&R RES	U19	6882	TL072CP IC FET DUAL OP AMP			
R140	4948	W250 1M 5% .2INU T&R RES	U20	6603	74HC14N IC HEX INV SCHMID			
R141	4827	W250 4K7 5% T&R RES	U21	6640	LM311 IC VOLTAGE COMPARATOR DIP8			
R142	4983	W250 10K 5%MINI T&R RES	U22	6856	NJM7815FA TO220 P 15V0 REG IS V1			
R143	4832	W250 22K 5% T&R RES	U23	6745	LM13600N IC XCONDUCTANCE AMP			
R144	4832	W250 22K 5% T&R RES	U24	6840	MC33078P IC DUAL OP AMP			
R145	4981	W250 1K 5%MINI T&R RES	U25	6882	TL072CP IC FET DUAL OP AMP			
R146	4841	W250 220K 5% T&R RES	U26	6603	74HC14N IC HEX INV SCHMID			
R147	6122	W250 33K 5%MINI T&R RES	U27	6882	TL072CP IC FET DUAL OP AMP			
R148	4940	W250 10K 5% .2INU T&R RES	U29	6728	MC78L05ACP TO92 P 5V0 REG T&R V4			
R149	4842	W250 330K 5% T&R RES	U30	6856	NJM7815FA TO220 P 15V0 REG IS V1			
R150	4832	W250 22K 5% T&R RES	U31	6857	NJM7915FA TO220 N 15V0 REG IS V2			
R151	6120	W250 100K 5%MINI T&R RES	U32	2306	FOD816 4PINDIP ACINPUT OPTOCOUPLER			
R152	4857	W250 220R 5% T&R RES	U40	6882	TL072CP IC FET DUAL OP AMP			
R153	4809	W250 10M 5% T&R RES	W1	2328	8 CIR XH-HEADER 0.098IN			
R154	6116	W250 10K0 1%MINI MF T&R RES	W3	3538	24 PIN BREAKAWAY LOCK .156			
R155	6116	W250 10K0 1%MINI MF T&R RES	W5	4146	3 PIN POWER PIN HEADER MALE POLZED			
R156	6116	W250 10K0 1%MINI MF T&R RES	W6	4145	9PIN 3X3 POWER PIN HEADER			
R157	6116	W250 10K0 1%MINI MF T&R RES	W8	2328	8 CIR XH-HEADER 0.098IN			
R158	6116	W250 10K0 1%MINI MF T&R RES	W10	3538	24 PIN BREAKAWAY LOCK .156			
R159	4844	W250 1M 5% T&R RES	W12	4147	6 PIN POWER PIN HEADER MALE POLZED			
R160	4585	W250 1K2 5%MINI T&R RES	W14	3538	24 PIN BREAKAWAY LOCK .156			
R161	4703	2W00 2R 5% T&R RES	W16	4056	2 CIR XH-HEADER 0.098IN			
R162	4748	2W00 3R9 5% T&R RES	W29	3583	.8 CIR WAFER W/LCK 0.1"			
R163	4748	2W00 3R9 5% T&R RES	W33	4147	6 PIN POWER PIN HEADER MALE POLZED			
R164	4935	W250 1K5 5% .2INU T&R RES	W34	4147	6 PIN POWER PIN HEADER MALE POLZED			
R165	5016	1W00 9K760 0.5% *** T&R RES	X2	5299	24AWG SOLID SC WIR RAD JMP			
R166	4939	W250 5K1 5% .2INU T&R RES	X3	5299	24AWG SOLID SC WIR RAD JMP			
R167	4940	W250 10K 5% .2INU T&R RES	X8	6543	48R 265V RESETTABLE THERMISTOR PTC			
R168	6116	W250 10K0 1%MINI MF T&R RES	XC1	3745	DUAL XSISTOR PBL SPRING CLEAR ZINC			
R169	2010	W167 10R0 2%FLAME PROOF T&R RES	XC2	3745	DUAL XSISTOR PBL SPRING CLEAR ZINC			

M1696-04 Parts Reference List 8/30/2021

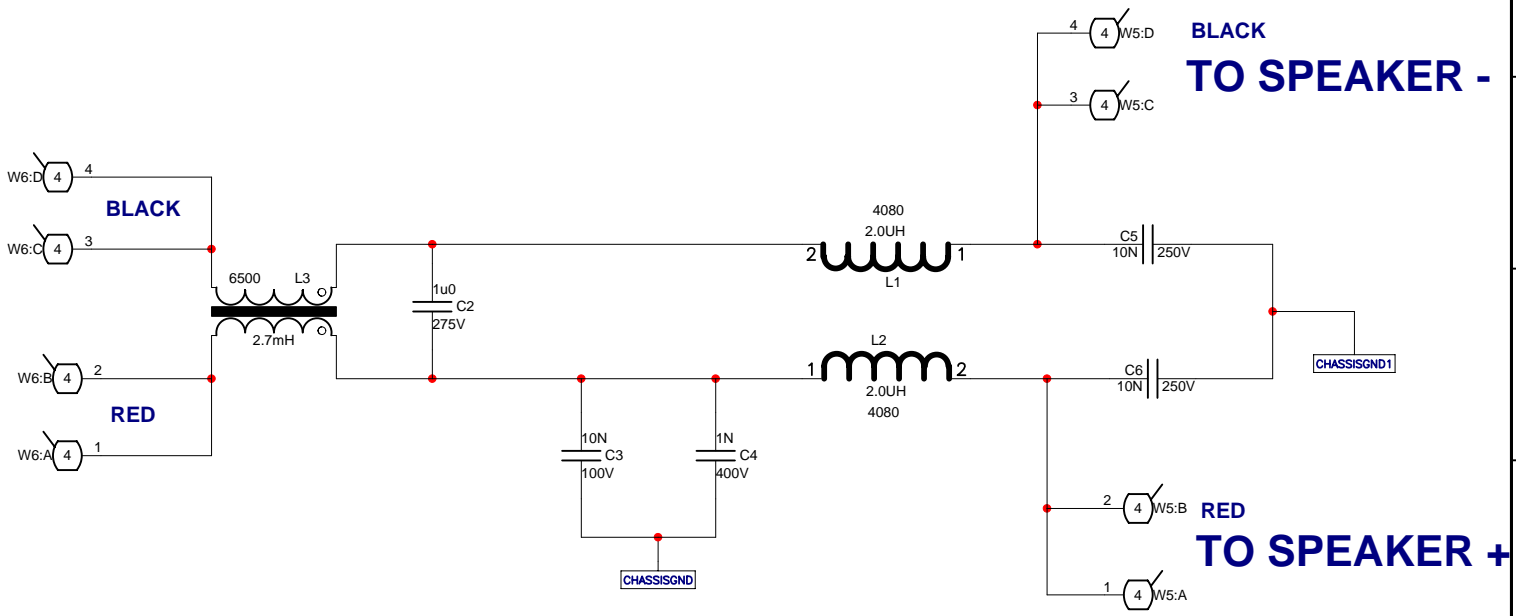
REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
AI-ASS	1696-59	ES12P/ES15P/ES18P INPUT/DSP PCB	P5		10K B LIN 12MM DUAL 21DET P34	ZD2		MM3Z18VT1G 18V0 0W2 5% SMT ZEN
C1		1U 25V 20%CAP 1206 SMT X7R	PCB1	2339	1 OZ ZSD 83.9SQIN 03PER ES18/15P			
C2		100N 16V 10%CAP 0603 SMT X7R	R1		W125 47R 5% 0805 SMT RES			
C3		1U 25V 20%CAP 1206 SMT X7R	R2		W100 3K74 1% 0805 SMT RES			
C4		100N 16V 10%CAP 0603 SMT X7R	R3		W125 1K21 1% 0805 SMT RES			
C5		1U 25V 20%CAP 1206 SMT X7R	R4		W125 37K4 1% 0805 SMT RES			
C6	5669	470U 6V3 20%CAP RAD EL T&R	R5		W125 22K1 1% 0805 SMT RES			
C7	5945	10U 63V 20%CAP T&R RAD .2EL	R6		W125 10K00 0.1% 0805 SMT RES			
C8	5945	10U 63V 20%CAP T&R RAD .2EL	R7		W100 499R 1% 0805 SMT RES			
C9	5233	330N 63V 5%CAP T&R RAD .2FLM	R8		W100 499R 1% 0805 SMT RES			
C10	5233	330N 63V 5%CAP T&R RAD .2FLM	R9		W100 499R 1% 0805 SMT RES			
C11	5212	100N 100V 5%CAP T&R RAD .2FLM	R10		W125 1K5 5% 0805 SMT RES			
C12		100N 50V 5%CAP 0805 SMT X7R	R11		W125 470R 5% 0805 SMT RES			
C13		100N 50V 5%CAP 0805 SMT X7R	R12		W125 10K00 0.1% 0805 SMT RES			
C14		100N 50V 5%CAP 0805 SMT X7R	R13		W100 200R 1% 0805 SMT RES			
C15		100N 50V 5%CAP 0805 SMT X7R	R14		W125 47R 5% 0805 SMT RES			
C16	5212	100N 100V 5%CAP T&R RAD .2FLM	R15		W250 0R27 5% 1206 SMT RES			
C17		10U 16V 10%CAP 1206 SMT X7R	R16		W100 2K0 1% 0805 SMT RES			
C18		10U 16V 20%CAP 0805 SMT X5R	R17		W100 2K0 1% 0805 SMT RES			
C19		100N 50V 5%CAP 0805 SMT X7R	R18		W100 100R 1% 0805 SMT RES			
C20		100N 50V 5%CAP 0805 SMT X7R	R19		W063 49R9 1% 0603 SMT RES			
C21		100N 50V 5%CAP 0805 SMT X7R	R20		W125 47R 5% 0805 SMT RES			
C22		1U 25V 20%CAP 1206 SMT X7R	R21		W125 1K800 0.1% 0805 SMT RES			
C23		100N 50V 5%CAP 0805 SMT X7R	R22		W125 47K 5% 0805 SMT RES			
C24		1U 25V 20%CAP 1206 SMT X7R	R23		W125 47K 5% 0805 SMT RES			
C25		100N 50V 5%CAP 0805 SMT X7R	R24		W125 10K00 0.1% 0805 SMT RES			
C26		1U 25V 20%CAP 1206 SMT X7R	R25		W125 10K00 0.1% 0805 SMT RES			
C27		1U 25V 20%CAP 1206 SMT X7R	R27		W100 499R 1% 0805 SMT RES			
C28		100N 50V 5%CAP 0805 SMT X7R	R28		W100 10K0 1% 0805 SMT RES			
C29		100N 50V 5%CAP 0805 SMT X7R	R30		W100 2K32 1% 0805 SMT RES			
C30		100N 50V 5%CAP 0805 SMT X7R	R31		W125 10K00 0.1% 0805 SMT RES			
C32		470P 50V 5%CAP 0603 SMT NPO	R32		W125 10K00 0.1% 0805 SMT RES			
C33		470P 250V 5%CAP 0603 SMT NPO	R33		W100 100R 1% 0805 SMT RES			
C34		100N 50V 5%CAP 0805 SMT X7R	R35		W125 249R0 1% 0805 SMT RES			
C35		1U 25V 20%CAP 1206 SMT X7R	R37		W100 100R 1% 0805 SMT RES			
C36		1U 25V 20%CAP 1206 SMT X7R	R38		W100 100R 1% 0805 SMT RES			
C37		470P 250V 5%CAP 0603 SMT NPO	R40		W125 0R 5% 0805 SMT RES			
C38		100N 50V 5%CAP 0805 SMT X7R	R42		W125 1K800 0.1% 0805 SMT RES			
C39		100N 50V 5%CAP 0805 SMT X7R	R44		W125 4K7 5% 0805 SMT RES			
C41	5212	100N 100V 5%CAP T&R RAD .2FLM	R45		W125 47R 5% 0805 SMT RES			
C42	5212	100N 100V 5%CAP T&R RAD .2FLM	R46		W100 2K0 1% 0805 SMT RES			
C43		20P 100V 5%CAP 0805 SMT NPO	R47		W125 4K02 0.1% 0805 SMT RES			
C44		20P 100V 5%CAP 0805 SMT NPO	R48		W125 750R 1% 0805 SMT RES			
C45		20P 100V 5%CAP 0805 SMT NPO	R49		W125 750R 1% 0805 SMT RES			
C46		1U 25V 20%CAP 1206 SMT X7R	R51		W125 47R 5% 0805 SMT RES			
C47		100N 50V 5%CAP 0805 SMT X7R	R52		W125 560R 5% 0805 SMT RES			
C48		10U 16V 10%CAP 1206 SMT X7R	R53		W100 2K0 1% 0805 SMT RES			
C55		100U 25V 20%CAP 8X5.4 SMT ELE	R54		W125 4K02 0.1% 0805 SMT RES			
C134		100N 50V 5%CAP 0805 SMT X7R	R55		W125 560R 5% 0805 SMT RES			
C135		100N 50V 5%CAP 0805 SMT X7R	R56		W100 200R 1% 0805 SMT RES			
D1		B160-E3 60V 1A0 SCH DO214AC SMT	R57		W125 187K 0.1% 0805 SMT RES			
D2		CDSF4148 75V 0A15 1005 SMT	R58		W125 187K 0.1% 0805 SMT RES			
D3		CDSF4148 75V 0A15 1005 SMT	R107		W125 22K1 1% 0805 SMT RES			
D10		CDSF4148 75V 0A15 1005 SMT	R117		W125 31K6 0.1% 0805 SMT RES			
D11		CDSF4148 75V 0A15 1005 SMT	R164		W125 1K5 5% 0805 SMT RES			
D39		CDSF4148 75V 0A15 1005 SMT	R165		W125 31K6 0.1% 0805 SMT RES			
D40		CDSF4148 75V 0A15 1005 SMT	R176		W125 3K32 1% 0805 SMT RES			
J1	4140	XLR MALE PCB MT VERT 24MM A-SERIES	R177		W125 100K 5% 0805 SMT RES			
J2	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	R180		W125 31K6 0.1% 0805 SMT RES			
J3	4063	1/4IN ISO JCK PCMT VT STER RT SWT	R181		W125 31K6 0.1% 0805 SMT RES			
J5	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	S1	4202	SP3T NONSHORTING VERT ROT SWT 3POS			
J7	4063	1/4IN ISO JCK PCMT VT STER RT SWT	S2	3439	DPDT MINI PC VERT MOMENTARY			
L1		FERRITE BEAD 600R @100MHZ 0805 SMT	S3	3522	DPDT MINI PC VERT SNP ALT			
L2		15.0UH COIL 0805 SMT	S4	4221	SP7T NONSHORTING VERT ROT SWT 7POS			
L3		220UH COIL 10X10MM SMT	SNL1	8370	1 MIL POLYIMIDE LABEL, 1" X .380"			
L6		8.2UH COIL 1210 SMT	U1		PROC4 BLE MODULE 14X19MM SMT			
L7		8.2UH COIL 1210 SMT	U2		MC33063ADR BUCK/BOOST INV IC SO8			
L10		15.0UH COIL 0805 SMT	U3		AK4558 32BIT CODEC SMT QFN28			
L11		15.0UH COIL 0805 SMT	U4		MK10DN512VLK10 100MHZ MCU IC LQFP80			
L12		15.0UH COIL 0805 SMT	U5	7012	LP2950-33 LDRP TO92 FIXED 3V3 REG			
L25		15.0UH COIL 0805 SMT	U6	7012	LP2950-33 LDRP TO92 FIXED 3V3 REG			
LD1A		GRN LED V28 20MA 1206 SMT	U7		TL072 DUAL OPAMP SMT SO-8			
LD2A		YEL LED 1V7 20MA 1206 SMT	U8		TL072 DUAL OPAMP SMT SO-8			
LD3A		RED LED 1V5 20MA 1206 SMT	U9		TL072 DUAL OPAMP SMT SO-8			
LD4A		YEL LED 1V7 20MA 1206 SMT	U10		AT25010B EEPROM 1K SMT IC SO8			
LD5A		BLU LED V28 20MA 1206 SMT	W1		10 CIR DUAL ROW HDR 0.05 SPC SMT			
LD6A		GRN LED V28 20MA 1206 SMT	W2	2328	8 CIR XH-HEADER 0.098IN			
P1	4526	10K TRIM POT 6MM TOP ADJ RAD	W3		10 CIR DUAL ROW HDR 0.05 SPC SMT			
P2	4526	10K TRIM POT 6MM TOP ADJ RAD	X1	6543	48R 265V RESETTABLE THERMISTOR PTC			
P3	4526	10K TRIM POT 6MM TOP ADJ RAD	ZD1		MM3Z18VT1G 18V0 0W2 5% SMT ZEN			

M1822 Parts Reference List 3/9/2020

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
AI-SUB	M1822-5	ES21P AMP/SUPPLY PCB	F1		FUSE FAST 0A5 250VDC 350AC SMT 3912	R241		1W00 2R0 1% 2512 SMT RES
C203		100N 50V 5%CAP 0805 SMT X7R	F2		FUSE FAST 0A5 250VDC 350AC SMT 3912	R242		5W00 0R02 1% OARS SMT RES
C204		100N 50V 5%CAP 0805 SMT X7R	F301		FUSE SLOW 7A 125V SMT 6125	R247		W125 4K7 5% 0805 SMT RES
C205		100N 50V 5%CAP 0805 SMT X7R	F302		FUSE SLOW 7A 125V SMT 6125	R248		1W00 2R0 1% 2512 SMT RES
C206		100N 50V 5%CAP 0805 SMT X7R	H51	4181	TO220 THERMO PAD CERAMIC .080 THK	R249		W250 10R 5% 1206 SMT RES
C207		100N 50V 5%CAP 0805 SMT X7R	H52	4181	TO220 THERMO PAD CERAMIC .080 THK	R250		W250 10R 5% 1206 SMT RES
C209		100N 50V 5%CAP 0805 SMT X7R	H53	ZC1611	ES PSA SERIES HEATSPREADER	R251		W125 4K7 5% 0805 SMT RES
C210		100N 50V 5%CAP 0805 SMT X7R	HW1	8871	4-40X5/8 PAN PHILIPS MS BLACK ZINC	R252		W100 1M0 1% 0805 SMT RES
C211		100N 50V 5%CAP 0805 SMT X7R	HW2	8902	4-40X3/4 PAN PHILIPS MS TBZ	R255		W125 82K5 1% 0805 SMT RES
C213		680P 50V 5%CAP 0805 SMT C0G	HW4	8485	#6 SPLIT WASHER ZINC	R256		W125 82K5 1% 0805 SMT RES
C214		470N 50V 5%CAP 1206 SMT X7R	HW5	3501	#4 B52200F006 COMP WASH SMALL	R257		W125 4K7 5% 0805 SMT RES
C215		1U 50V 20%CAP 4.3X3.9 SMT ELC	HW6	8742	4-40X3/8 PAN PH TAPITTE BO&W	R258		W100 20K5 1% 0805 SMT RES
C216		1N 50V 5%CAP 0805 SMT NPO	HW7	8835	6-32X1/2 PAN QUAD MS TIN PLATE	R259		W100 182K 1% 0805 SMT RES
C217		470P 50V 5%CAP 0603 SMT NPO	HW8	8800	6-32 KEPS NUT ZINC	R260		470K 5% THERMISTOR NTC 0805 SMT
C218		1N 50V 5%CAP 0805 SMT NPO	HW9	8871	4-40X5/8 PAN PHILIPS MS BLACK ZINC	R261		W100 274K 1% 0805 SMT RES
C219	5972	680N 400V 5%CAP BLK RAD POLY FLM	HW10	8902	4-40X3/4 PAN PHILIPS MS TBZ	R262		W100 274K 1% 0805 SMT RES
C220		220N 50V 10%CAP 1206 SMT X7R	HW11	8837	6-32 X 1/2 PAN PHILIP MS TBZ	R263		W100 13K 1% 0805 SMT RES
C221		100N 100V 10%CAP 1206 SMT X7R	HW12	8800	6-32 KEPS NUT ZINC	R264		W125 1K4 1% 0805 SMT RES
C222	5986	10U 600VDC 5%CAP BLK MPOLYP FLM	HW13	8701	4-40 KEPS NUT ZINC	R265		W250 330R 5% 1206 SMT RES
C223	5962	2U2 140AC10%CAP BLK RAD POLYP FLM	HW14	8701	4-40 KEPS NUT ZINC	R266		1W00 100K 5% 2512 SMT RES
C224		1U 50V 20%CAP 4.3X3.9 SMT ELC	HW15	8701	4-40 KEPS NUT ZINC	R267		1W00 100K 5% 2512 SMT RES
C225		470P 50V 5%CAP 0603 SMT NPO	HW16	8701	4-40 KEPS NUT ZINC	R268		W125 4K02 0.1% 0805 SMT RES
C226		47N 100V 10%CAP 1206 SMT X7R	HW17	8485	#6 SPLIT WASHER ZINC	R303	6664	10W0 25K 5% BLK RES
C227		100N 50V 5%CAP 0805 SMT X7R	HW18	8921	ALUM FLAT WASHER .128"ID .272" OD	R304	6664	10W0 25K 5% BLK RES
C228	5972	680N 400V 5%CAP BLK RAD POLY FLM	HW19	3501	#4 B52200F006 COMP WASH SMALL	SN1	8372	1 MIL POLYIMIDE LABEL,.375" X .375"
C229	5225	470P 1600V 20%CAP POLYPROP BULK	HW20	8921	ALUM FLAT WASHER .128"ID .272" OD	U200		LTV-8141S ACINPUT OPTOCOUPLER SMT
C230		47P 50V 5%CAP 0805 SMT NPO	HW21	8921	ALUM FLAT WASHER .128"ID .272" OD	U201		LM311 COMPARATOR IC SMT SO-8
C231		100N 50V 5%CAP 0805 SMT X7R	HW22	8921	ALUM FLAT WASHER .128"ID .272" OD	U202		LM311 COMPARATOR IC SMT SO-8
C232		33U 25V 20%CAP 6.3X5.5 SMT EL	L200	6699	453UH CHOKE 91T14.5AWG/79912CORE	U203		IRS21844SPBF IC HILO FET DRVR SO14
C233		100N 50V 5%CAP 0805 SMT X7R	L202		1000UH 10% COIL 12MM SMT	U204		33078 DUAL OPAMP SMT SO-8
C234		100N 50V 5%CAP 0805 SMT X7R	L300	3817	1.5MH COIL INPUT COM MODE	U205		33078 DUAL OPAMP SMT SO-8
C235		10U 16V 10%CAP 1206 SMT X7R	L301	3128	15UH COIL VTM160-4 22T 16AWG	U206		TL331 COMPARATOR IC SMT SOT235
C236		100N 50V 5%CAP 0805 SMT X7R	L401		486UH COIL COMMON MODE 8A SMT	U207		LNK302G OFFLINE SWITCH SMT SMD88
C237		1U 25V 20%CAP 1206 SMT X7R	PCB1	M1822B	2_OZ 2SD 89.81SQIN 1PER ES21P SUB	U302	6856	NJM7815FA TO220 P 15V0 REG IS V1
C238		4U7 50V 10%CAP 1210 SMT CER	Q200		MMBT492 PNP SOT-23 SMT	U303	6857	NJM7915FA TO220 N 15V0 REG IS V2
C239	5270	2U2 250V 20%CAP BLK RAD .1EL	Q201		MMBF4391LT1 NCH JFET SOT-23 SMT T&R	W201	2328	8 CIR XH-HEADER 0.098IN
C241		4U7 50V 10%CAP 1210 SMT CER	Q203	2496	IRGP50B60PD1PBF T0247 NPN IGBT T	W301	4243	6 POS HEADER ASSY (MALE) PCB MOUNT
C242		10U 16V 10%CAP 1206 SMT X7R	Q204		MMBT492 PNP SOT-23 SMT	W302	4244	2 POS HEADER ASSY (MALE) PCB MOUNT
C301		100N 100V 10%CAP 1206 SMT X7R	Q205	2496	IRGP50B60PD1PBF T0247 NPN IGBT T	W304	4146	3 PIN POWER PIN HEADER MALE POLZED
C302	5242	100N 250V 20%CAP BLK 'X2' 15MM AC	R3		W125 1K54 1% 0805 SMT RES	W306	4243	6 POS HEADER ASSY (MALE) PCB MOUNT
C303	5887	2200U 50V 20%CAP BLK 18X27MM EL	R4		W125 1K54 1% 0805 SMT RES	W307	4151	4 PIN POWER PIN HEADER MALE POLZED
C304		4U7 25V 20%CAP 4X5.5 SMT ELC	R5		W125 1K54 1% 0805 SMT RES	W402	4215	4 PIN POWER VH MALE .156 10A
C305	5266	680N 250V 20%CAP BLK 'X2' 27MM AC	R6		W125 1K54 1% 0805 SMT RES	ZD200		MM3Z18V1G 18V0 0W2 5% SMT ZEN
C306		100N 100V 10%CAP 1206 SMT X7R	R7		W100 2K32 1% 0805 SMT RES			
C307	5887	2200U 50V 20%CAP BLK 18X27MM EL	R8		W100 2K32 1% 0805 SMT RES			
C308		4U7 25V 20%CAP 4X5.5 SMT ELC	R9		W100 1K0 1% 0805 SMT RES			
C309	6451	4N7 250V 20%CAP BLK 'Y' 10MM AC	R200		W250 10R 5% 1206 SMT RES			
C311	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R201		W100 12K1 1% 0603 SMT RES			
C312	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R202		W250 10R 5% 1206 SMT RES			
C313	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R203		W100 10K0 1% 0805 SMT RES			
C314	5934	2700U 250V 20%CAP BLK 40X60MM 4PS	R204		W100 12K1 1% 0603 SMT RES			
C315	5827	150N 250V 20%CAP BLK 'X2' 15MM AC	R206		1W00 100K 5% 2512 SMT RES			
C316	5242	100N 250V 20%CAP BLK 'X2' 15MM AC	R207		W100 1K0 1% 0805 SMT RES			
C401		150P 1000V 5%CAP 1206 SMT C0G	R208		W125 4M7 5% 0805 SMT RES			
C402		150P 1000V 5%CAP 1206 SMT C0G	R209		1W00 100K 5% 2512 SMT RES			
D1		3SMAJ5932B 20V 3W0 DO214AC SMT ZEN	R210		W100 6K98 1% 0805 SMT RES			
D2		3SMAJ5932B 20V 3W0 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 22V0 0W3 5% SMT ZEN	R214		W125 4K7 5% 0805 SMT RES			
D203		BAT750 SOT-23 SMT SCHKY	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		BAT750 SOT-23 SMT SCHKY	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 43V0 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		1W00 1R0 5% 2512 SMT RES			
D308		SMAZ18-13-F 18V0 1W0 5% SMT ZEN	R238		W100 100R 1% 0805 SMT RES			
D309		SMAZ18-13-F 18V0 1W0 5% SMT ZEN	R240		W100 475R 1% 0805 SMT RES			



**FROM AMP**



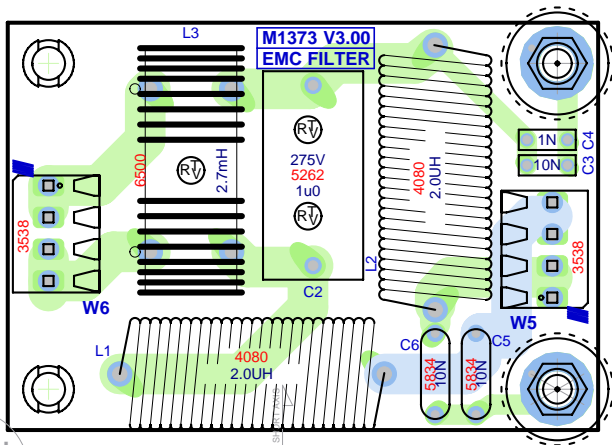
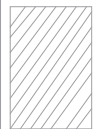
**M1373PCB\_DATABASE\_HISTORY**

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 <b>CROW BAR/FILTER</b>		
Sheet1	PCB# M1373	Sheet 1 of 1
Date: Wed Nov 10, 2010	Rev:V03	YsType:YsType
Filename: M1373V300sch.sch2002		

BlankSize - 15500x7000



2ozCopper

M1373 V3.00



SEE LAYOUT DOCUMENTATION





**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**

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# POWER SUPPLY

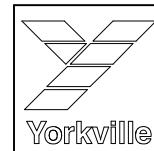
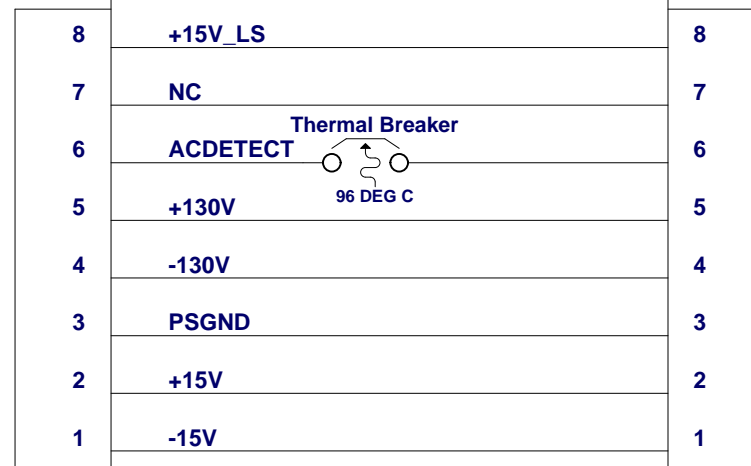
M1375 3/3

W14

# POWER AMP

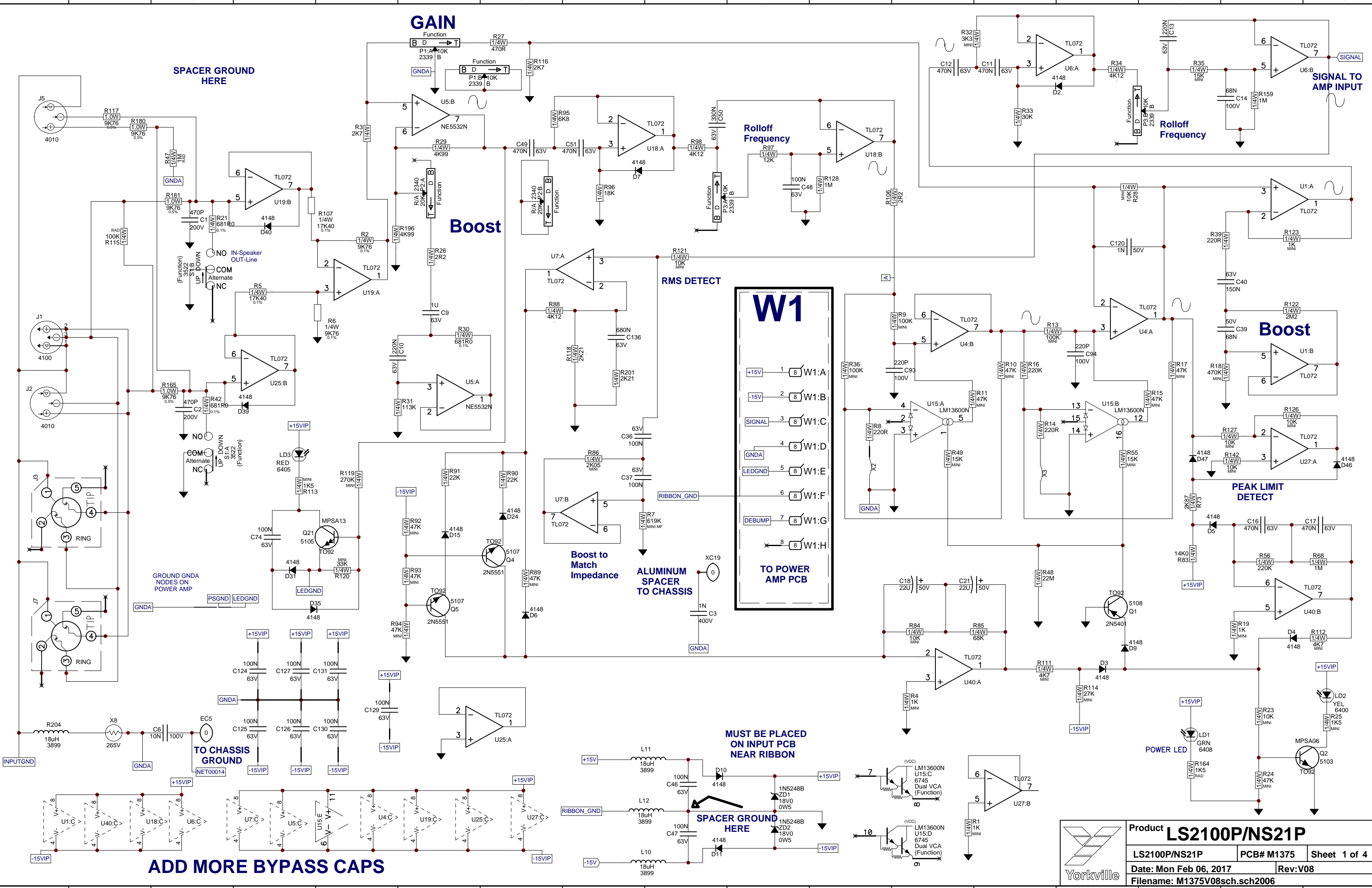
M1375 1/3

W3



Product <b>LS2100P/NS21P</b>		
LS2100P/NS21P	PCB# M1375	Sheet 4 of 4
Date: Mon Feb 06, 2017		Rev: V08
Filename: M1375V08sch.sch2006		





1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11

A B C D E F G H I J K L M N O P Q

**ADD MORE BYPASS CAPS**

**GAIN**

**Boost**

**RMS DETECT**

**Boost to Match Impedance**

**ALUMINUM SPACER TO CHASSIS**

**W1**

+15V 1 W1:A  
-15V 2 W1:B  
SIGNAL 3 W1:C  
GNDA 4 W1:D  
LEDGND 5 W1:E  
DEBUMP 7 W1:F  
TO POWER AMP PCB 8 W1:G

**MUST BE PLACED ON INPUT PCB NEAR RIBBON**

**SPACER GROUND HERE**

**Boost**

**PEAK LIMIT DETECT**

**POWER LED**

**SPACER GROUND HERE**

**SIGNAL TO AMP INPUT**

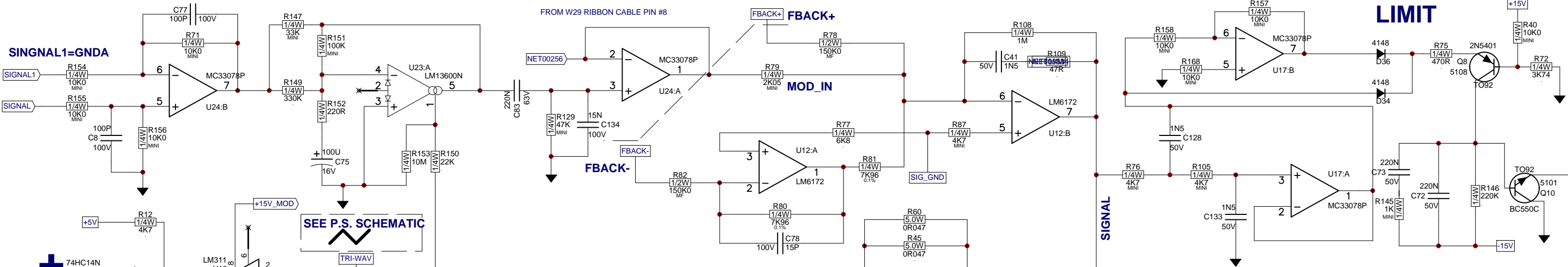
**Rolloff Frequency**

**Rolloff Frequency**

	<b>Product LS2100P/NS21P</b>		
	LS2100P/NS21P	PCB# M1375	Sheet 1 of 4
	Date: Mon Feb 06, 2017	Rev: V08	
	Filename: M1375V08sch.sch2006		

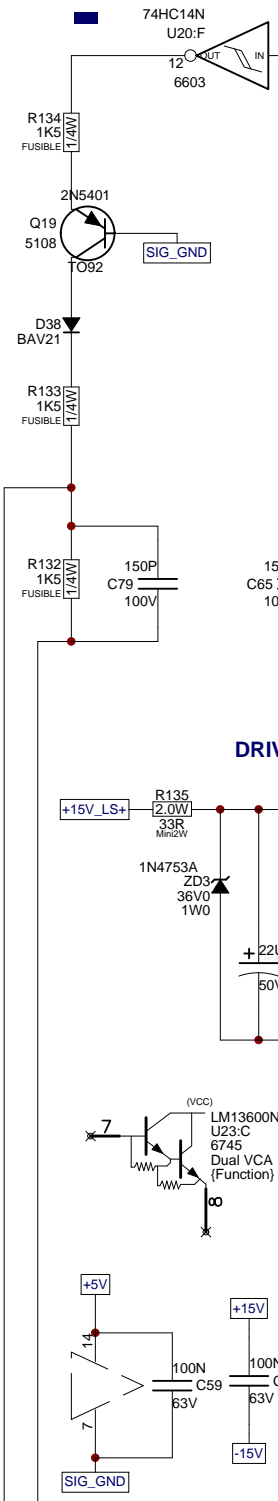
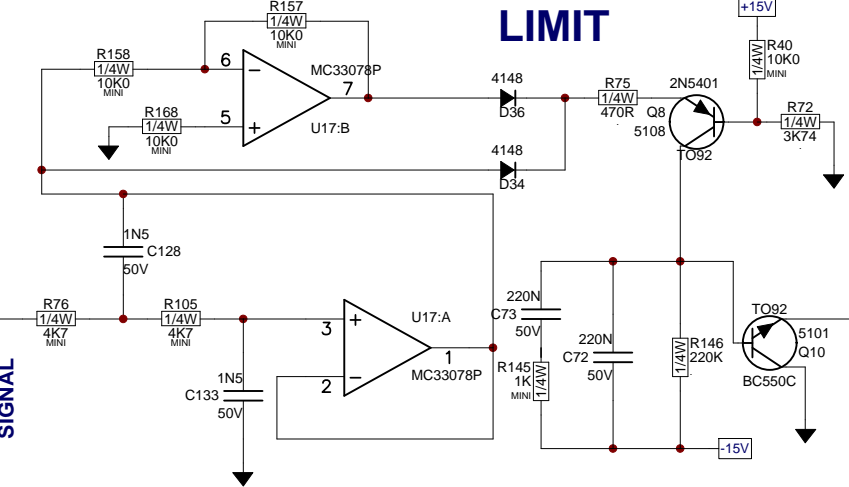
**WOOFER AMP**

**SIGNAL FROM INPUT PCB**



SEE P.S. SCHEMATIC

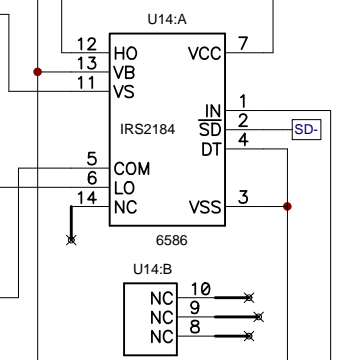
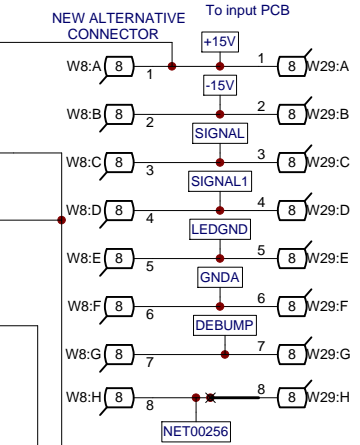
**LIMIT**



SIGNAL ERR\_OUT

SEE P.S. SCHEMATIC

SEE POWER SUPPLY FOR REST OF CIRCUIT



ALUMINUM SPACER

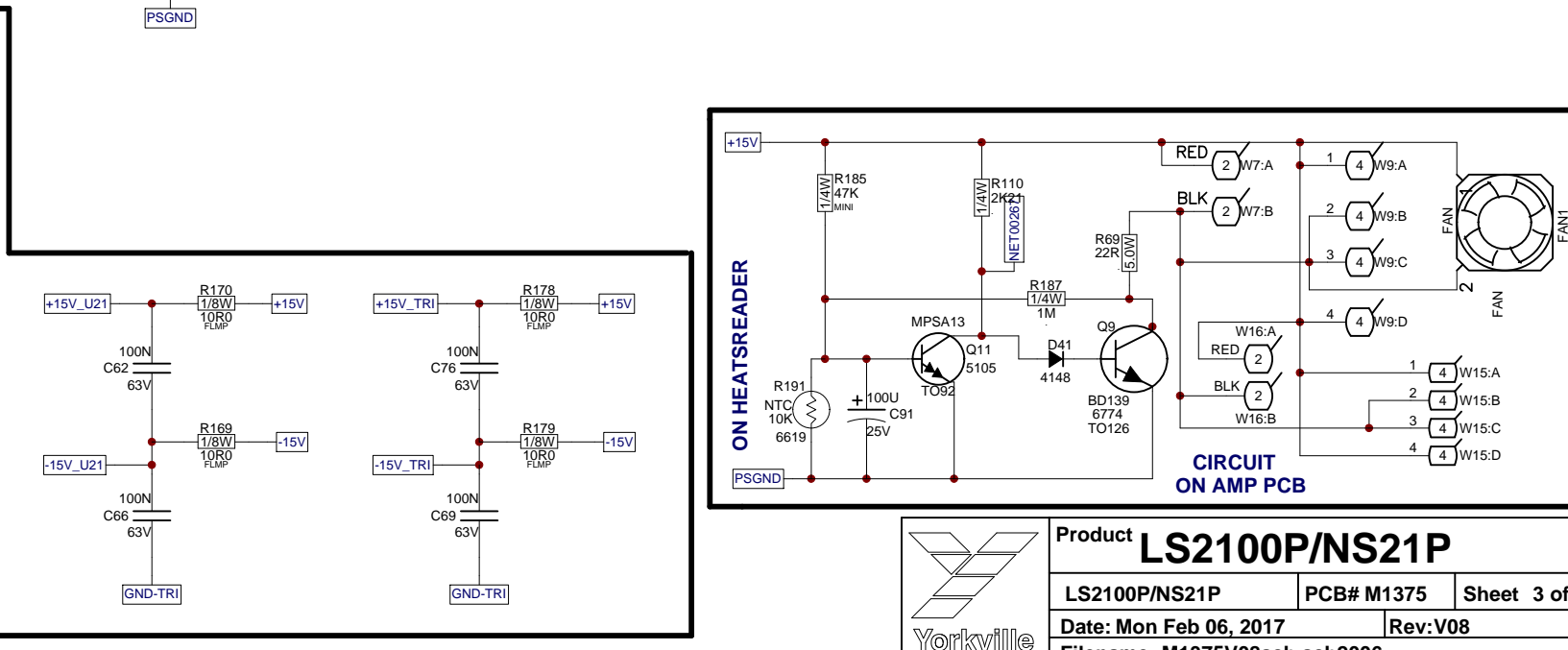
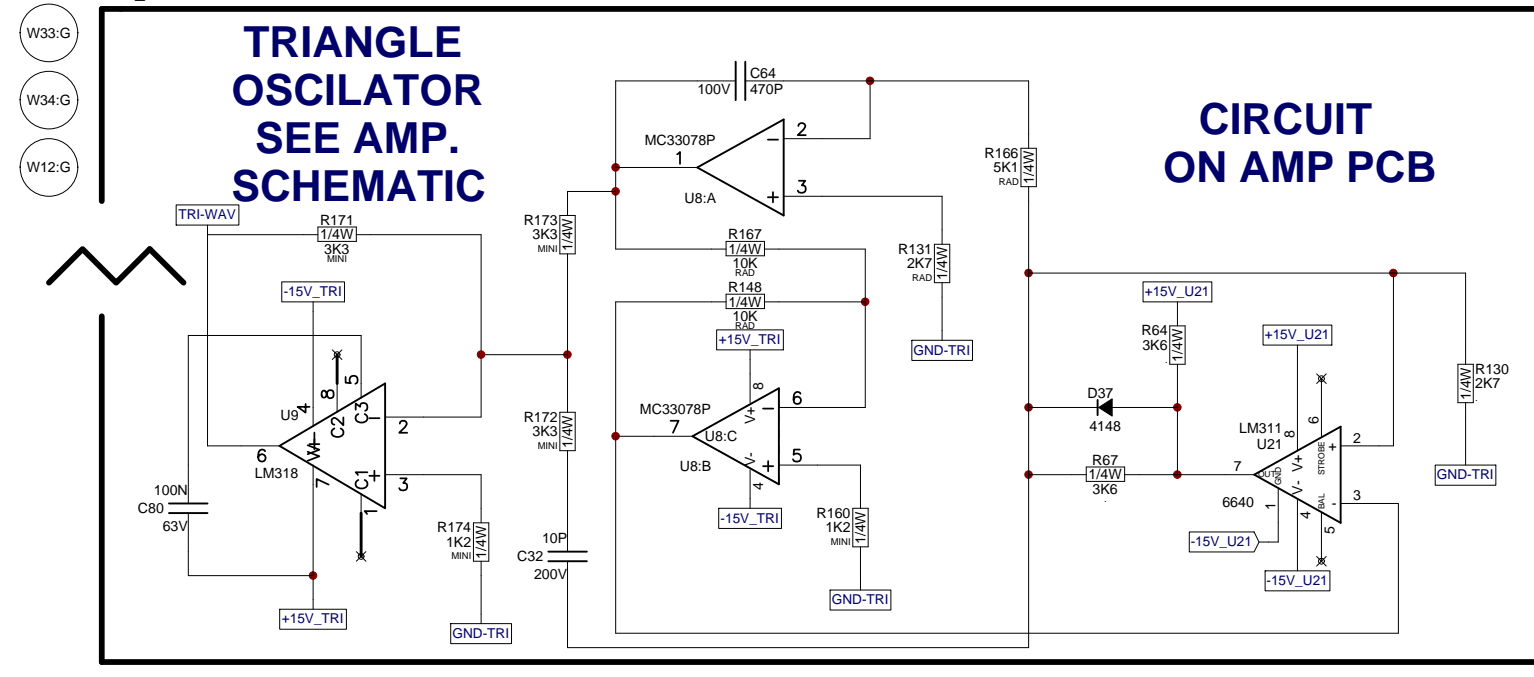
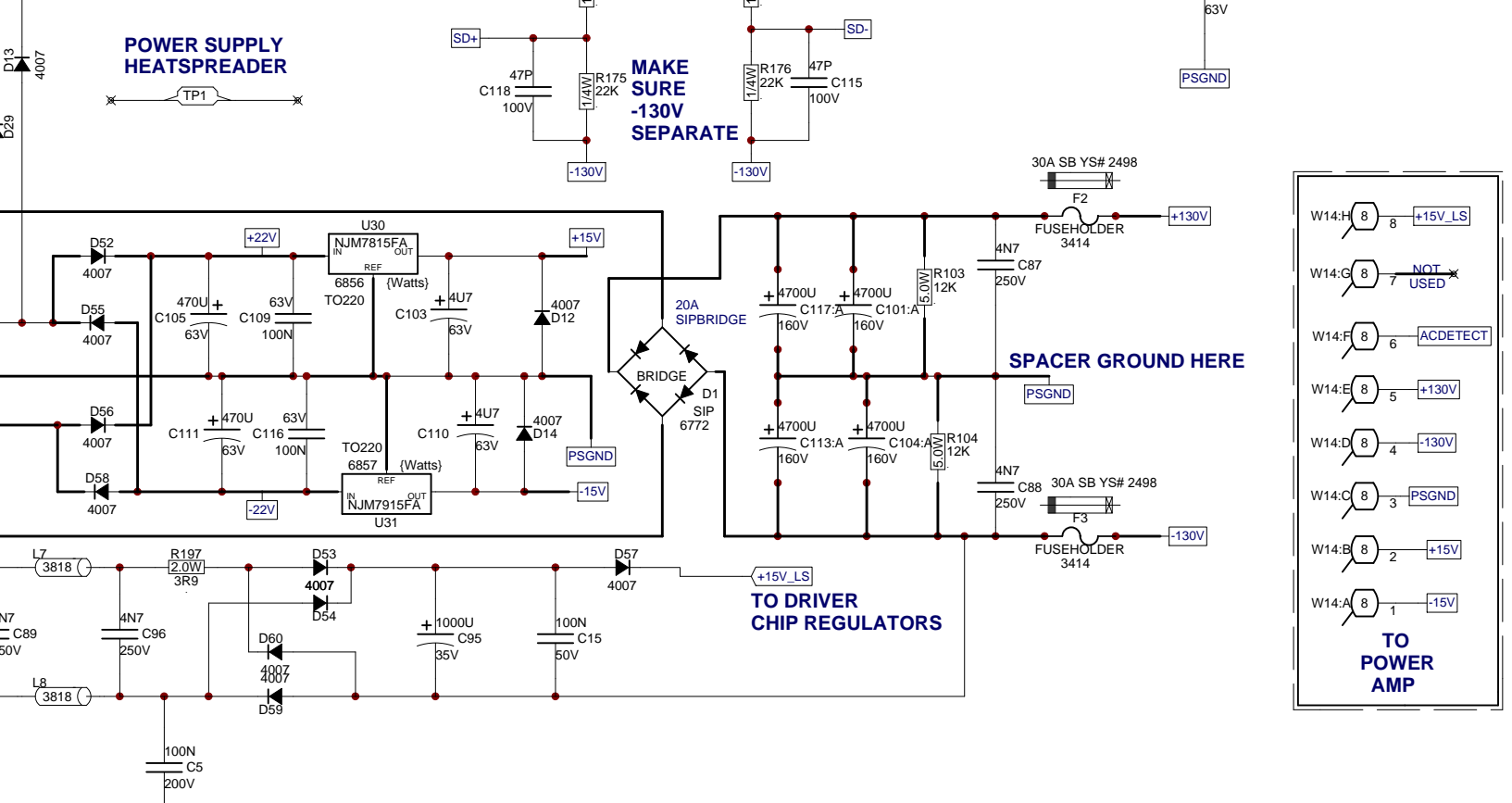
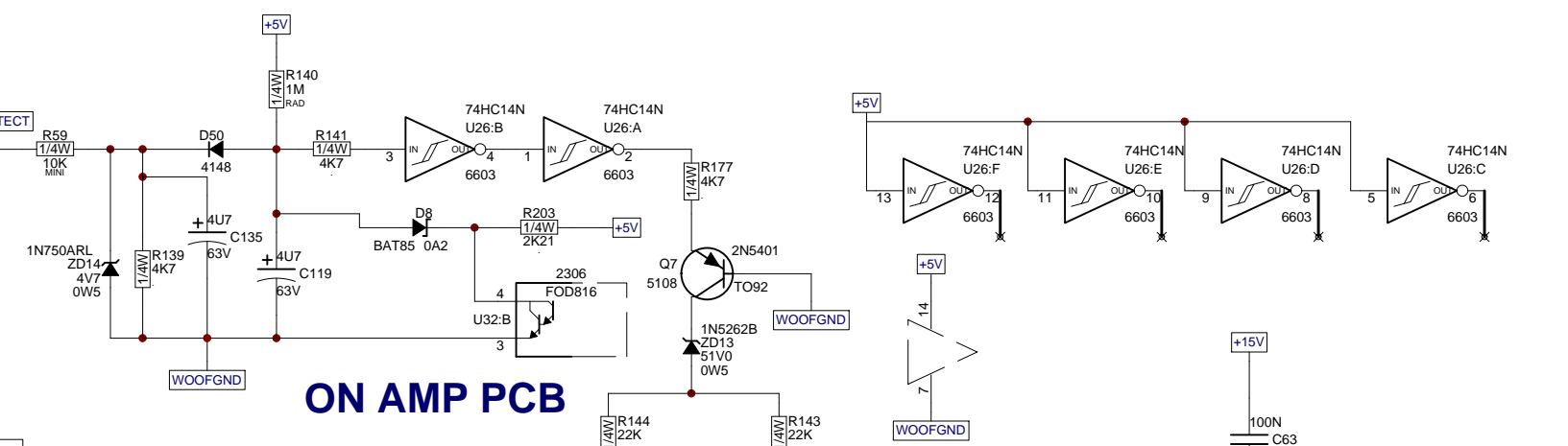
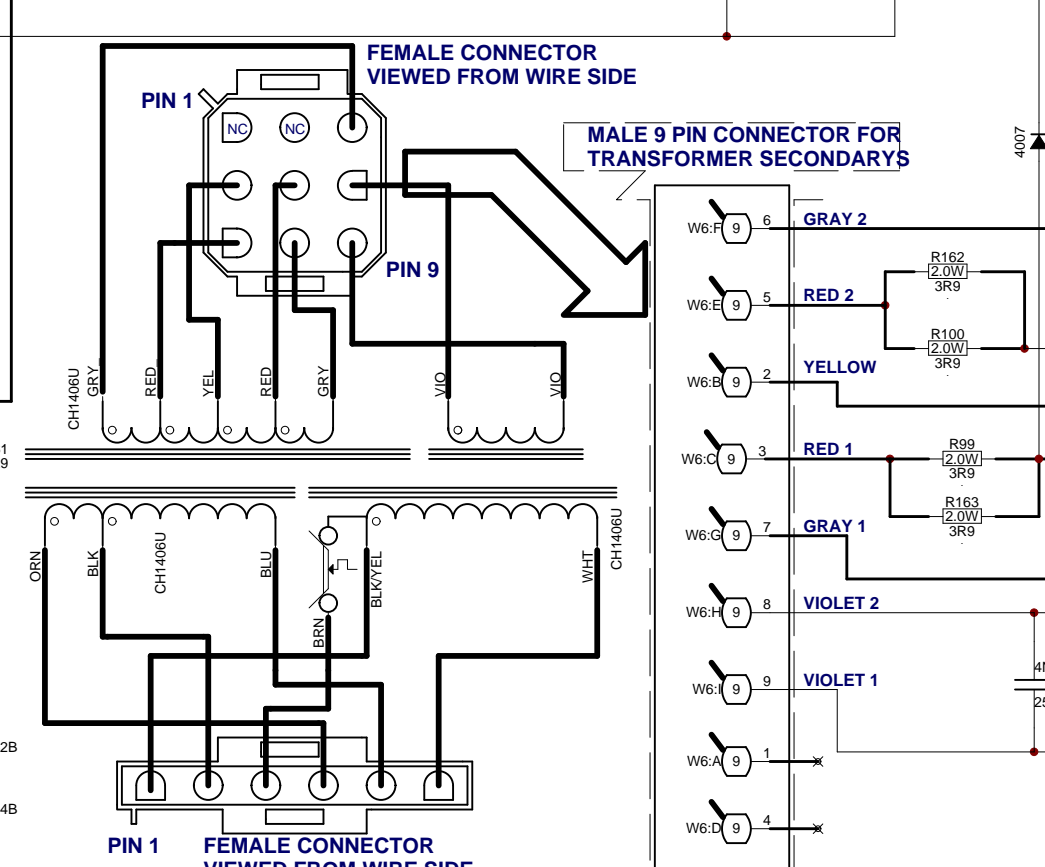
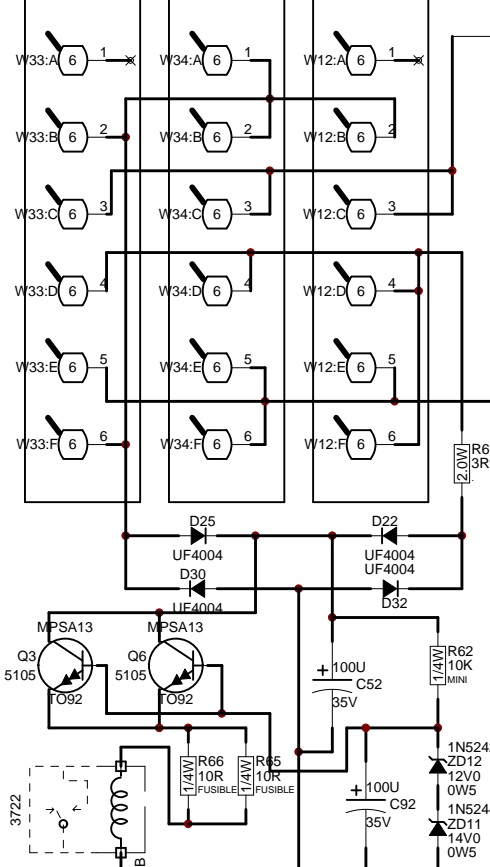
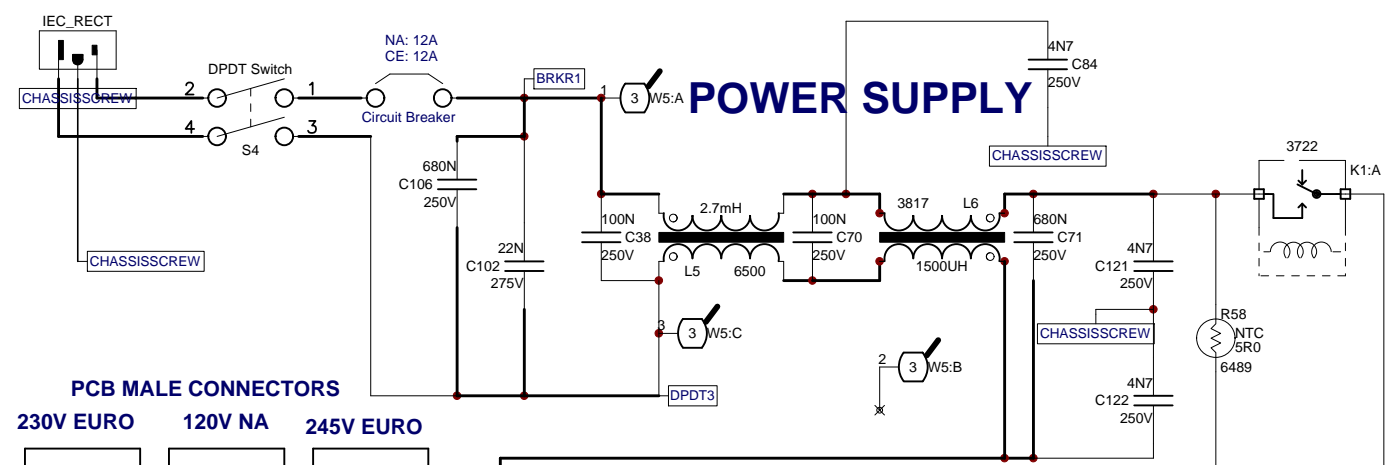
ALUMINUM SPACER

ALUMINUM SPACERS

POWER AMP HEATSREADER

INVERTERS +5V SUPPLY

**Yorkville** Product **LS2100P/NS21P**  
 LS2100P/NS21P PCB# M1375 Sheet 2 of 4  
 Date: Mon Feb 06, 2017 Rev: V08  
 Filename: M1375V08sch.sch2006

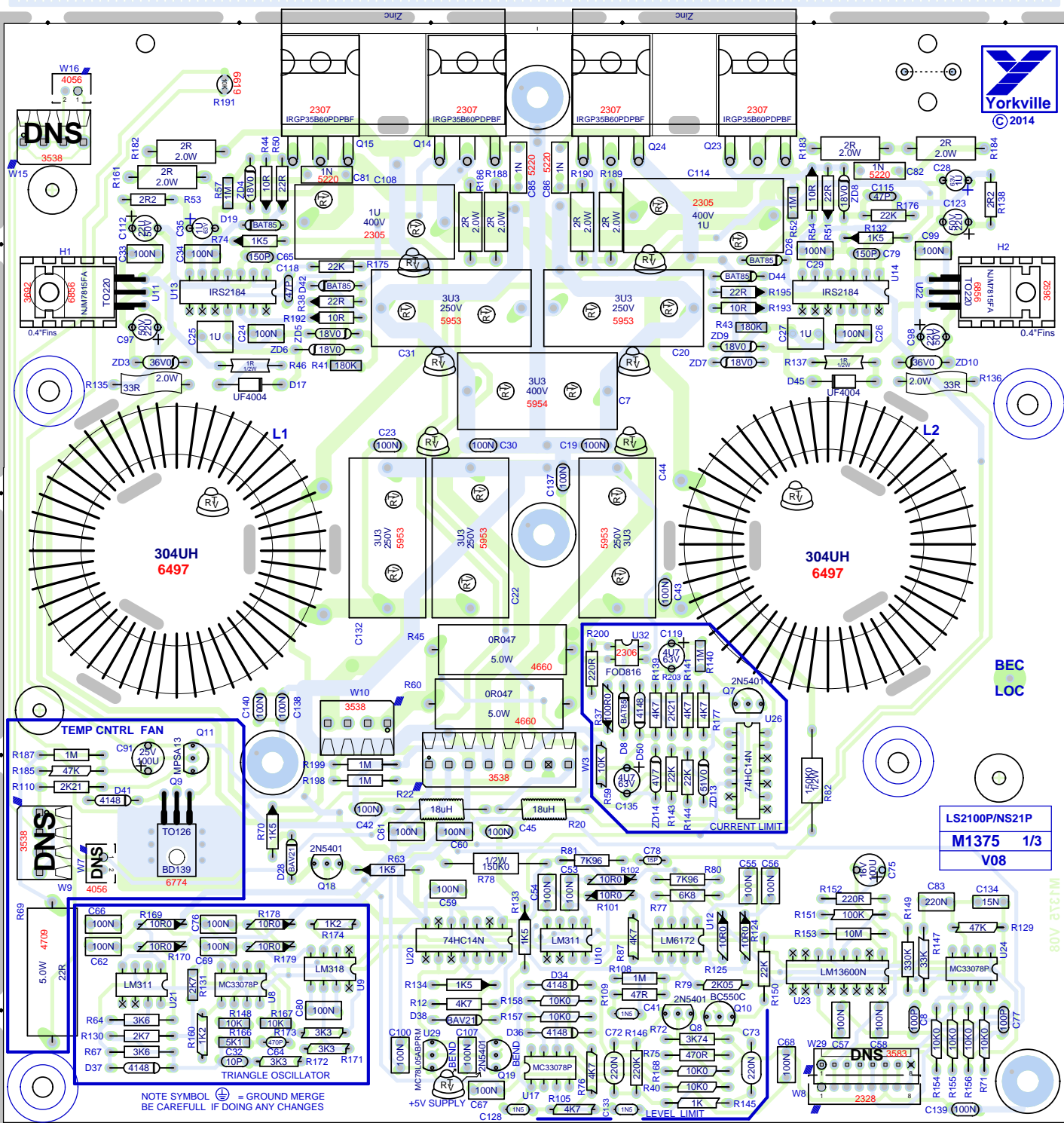




BlankSize - 17000x11125



©2014



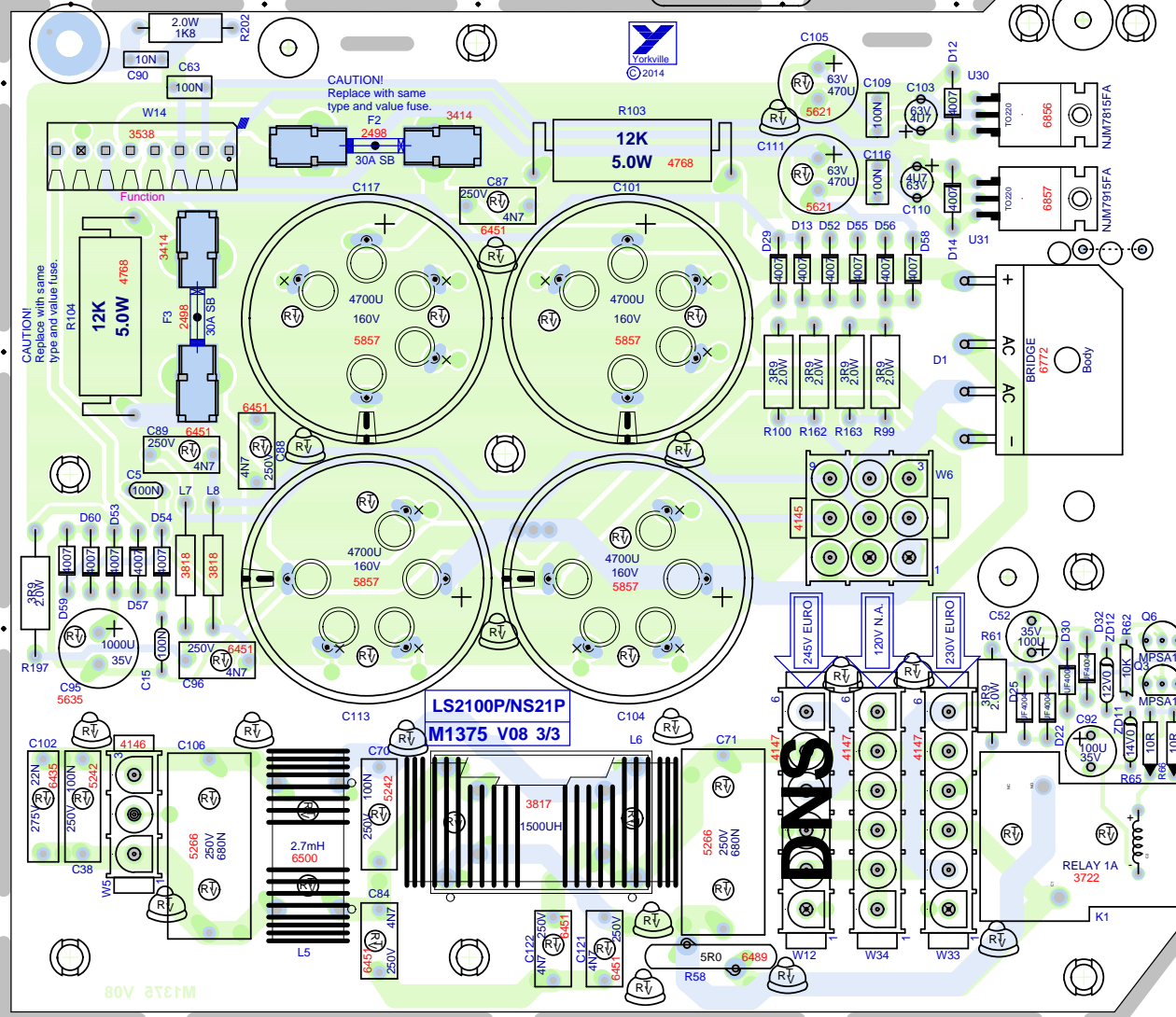
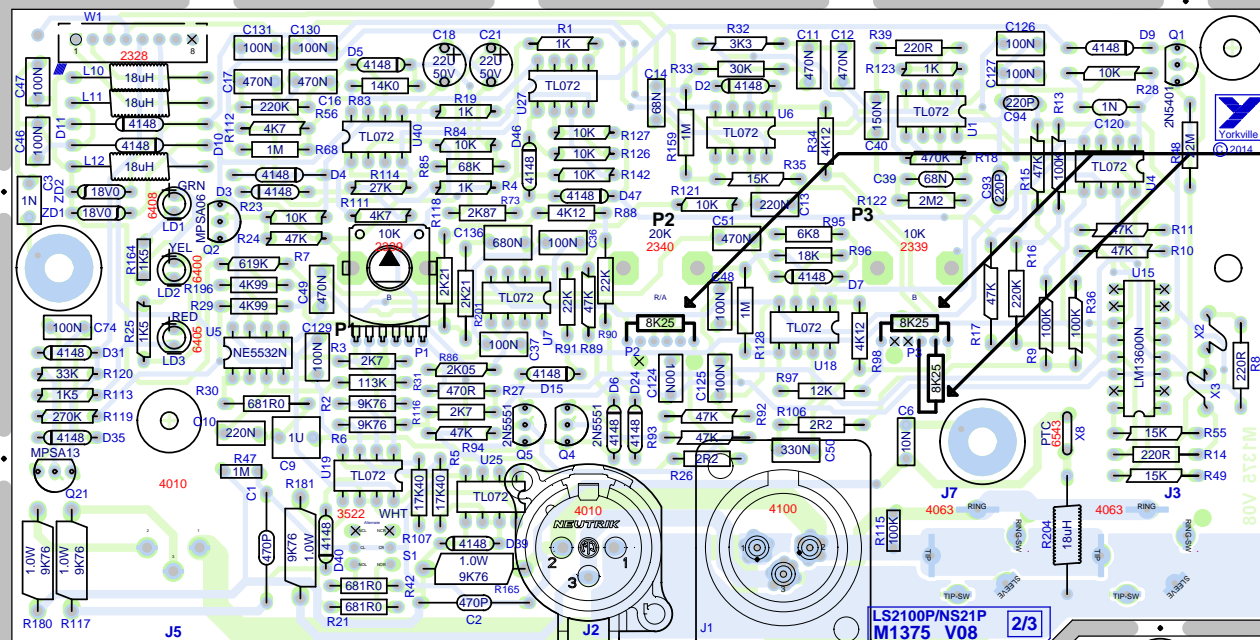
M1375

V08

NS21P

BEND U29 AND Q19 AND RTV

SEE LAYOUT DOCUMENTATION



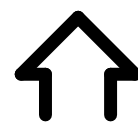
TACK ON 8K25 RESISTORS YS#4792

BlankSize - 17000x11125




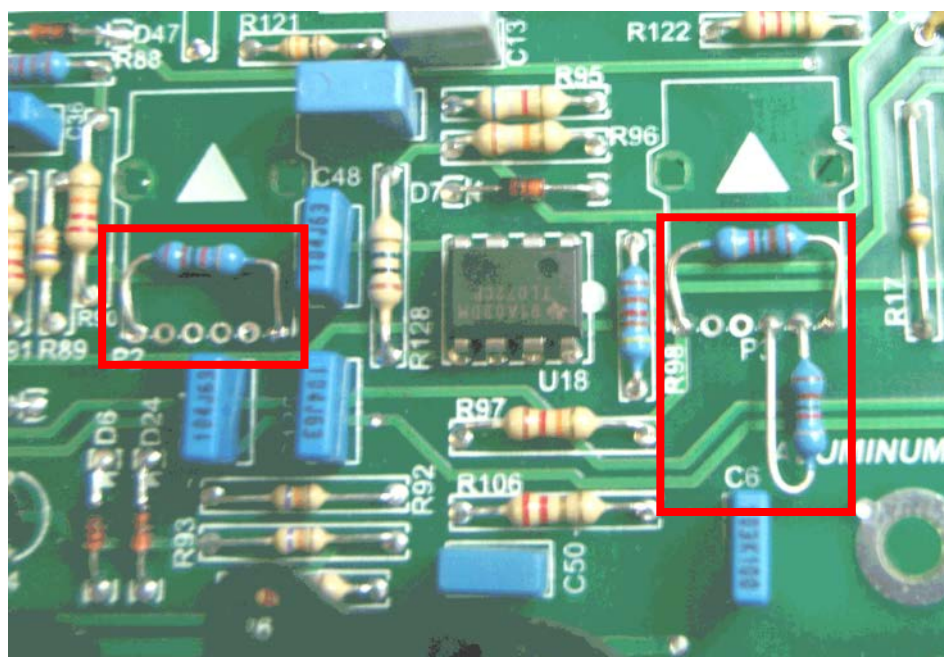
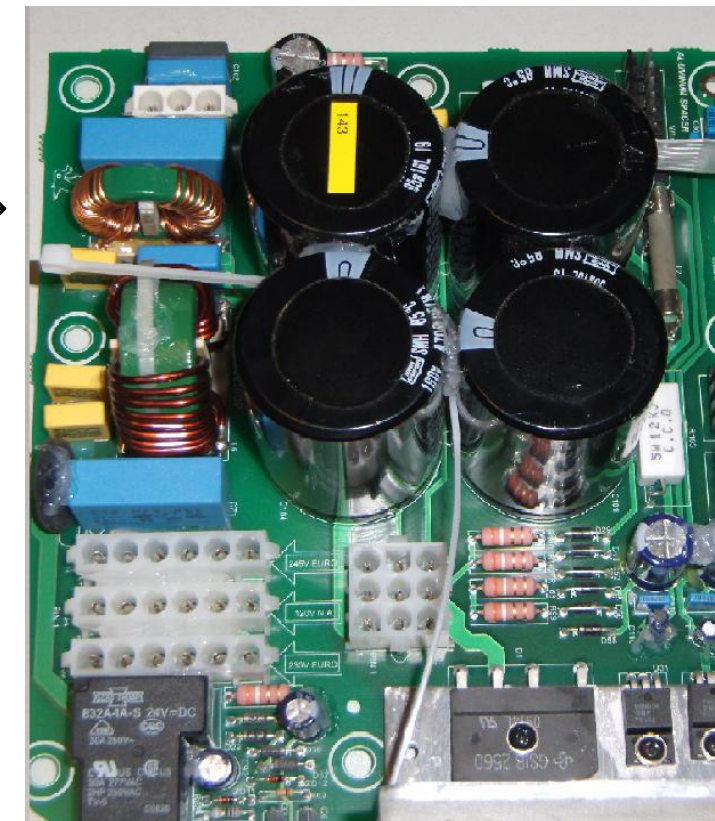


SEE LAYOUT DIAGRAM



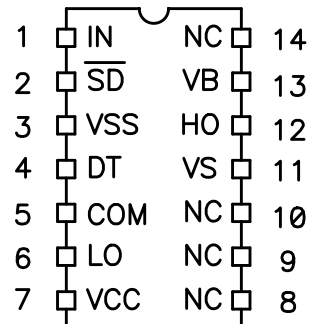
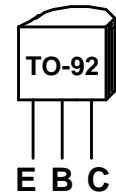
# M1375V08NS21P PRODUCTION NOTES

1. LEADS LD1, LD2, AND LD3 ARE TO BE HAND INSERTED.
2. INSTALL YS#8937 TIE AROUND C104. SEE PIC. 
3. RTV ALL ELECTROLYTIC CAPACITORS.
4. PCBSA: DO NOT STUFF J3, J5, J7, P2, P3, OR S1
5. PCBSA: TACK ON 3 RESISTORS 8K25 #4792 SEE ATTACHED PHOTO.

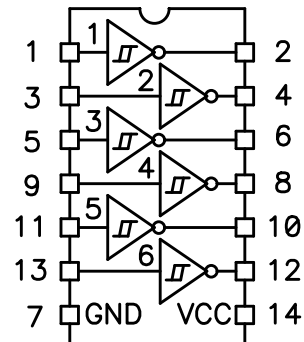


# LEADS & PINS REFERENCE

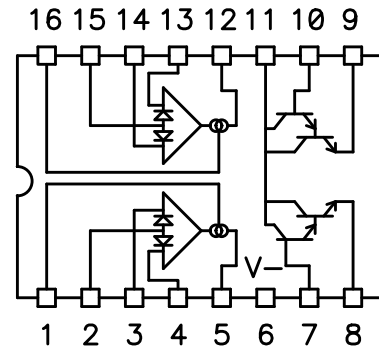
2N5401 (YS#5108)  
 2N5551 (YS#5107)  
 MPSA06 (YS#5103)  
 MPSA13 (YS#5105)



IRS21844PBF (YS#6586)

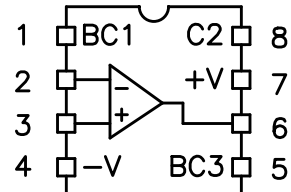
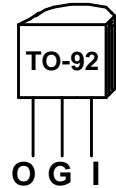


74HC14N (YS#6603)

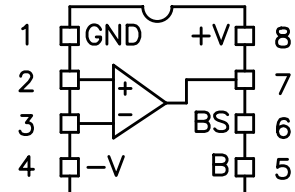


LM13600N (YS#6745)

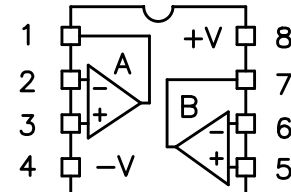
MC78L05ACP (YS#6728)



LM318 (YS#6542)

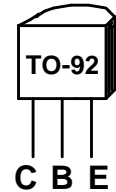


LM311 (YS#6640)

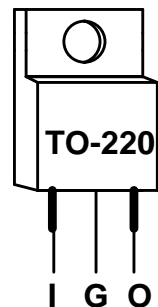


LM6172IN (YS#2318)  
 MC33078P (YS#6840)  
 NE5532N (YS#6884)  
 TL072CP (YS#6882)

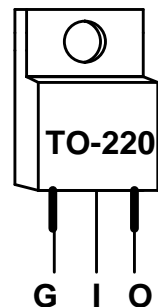
BC550C (YS#5101)



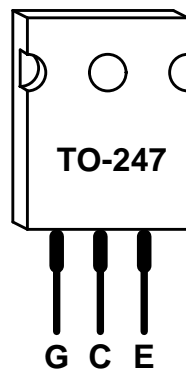
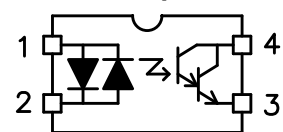
NJM7815FA (YS#6856)



NJM7915FA (YS#6857)



FOD816 (YS#2306)

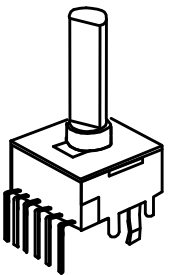


IRGP35B60PDPBF (YS#2307)

# POTENTIOMETERS AND KNOBS

M1375

MODEL(S) LS2100P				
REF	FUNCTION	PART#	KNOB	STYLE
P1	LEVEL	2339	8653	P34
P2	SHAPE	2340	8653	P34
P3	ROLLOFF	2339	8653	P34

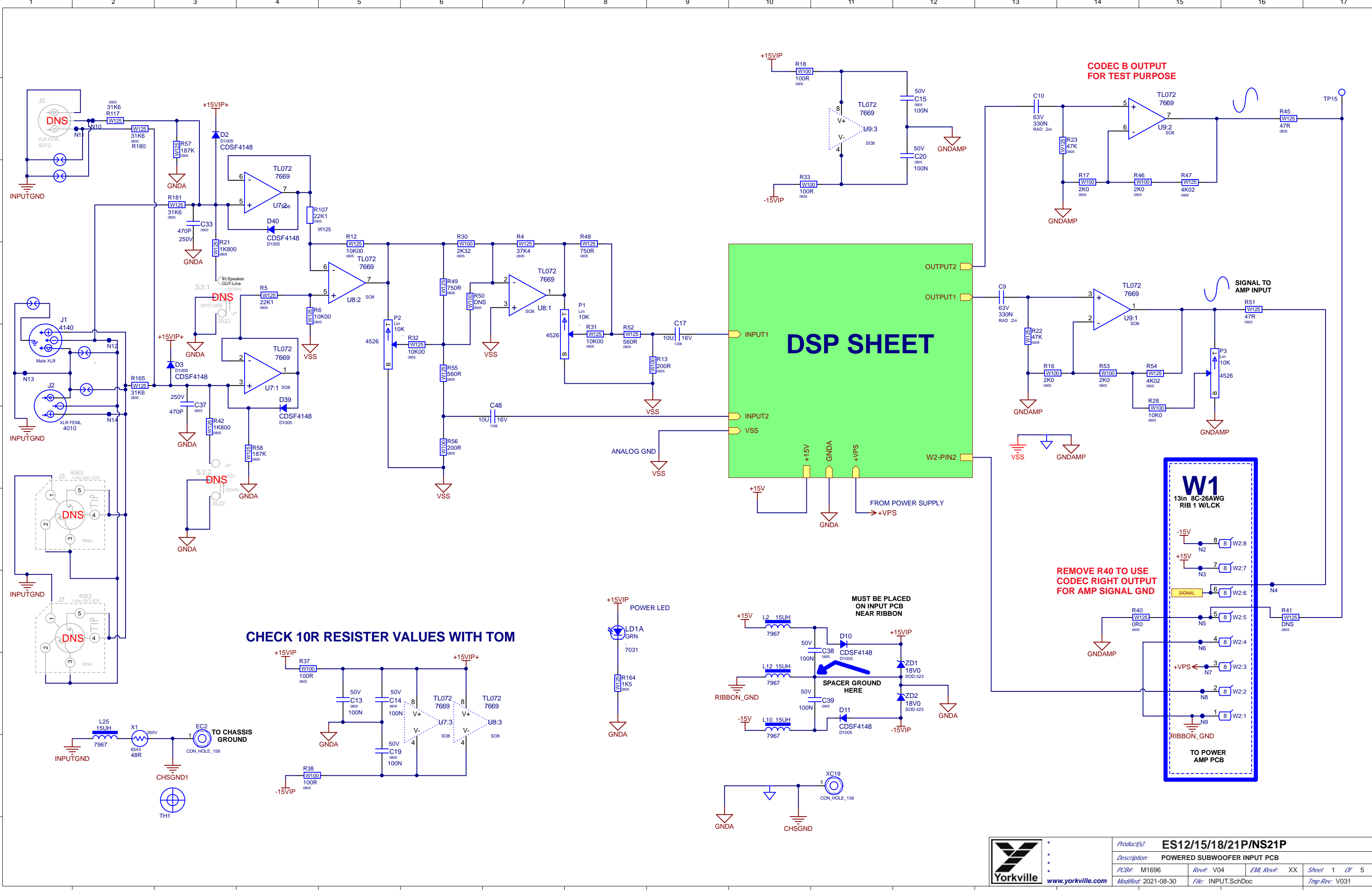


"STYLE\_P34"

M1375

MODEL(S):-LS2100P/NS21P

#	DATE	VER#	DESCRIPTION OF CHANGE
1	28-APR-2009	1.00	RELEASED FOR PRODUCTION
2	28-OCT-2009	2.00	ADDED D41 IN SERIES WITH PIN 1 OF Q9
3	.	.	REMOVED PCB FROM X8010, CHANGED TO M1375
4	06-MAY-2010	3.00	Increased Hole sizes: T0220 packages and 156 spacing Molex
5	24-JUN-10	4.00	PC#
6	.	.	.
7	02-FEB-11	.	PC8198: DNS 245V CONN, ADD FUSE VALUES GG
8	04-JUL-2013	V05	PC8545: Moved vias from under resistors. - ML
9	11-DEC-2013	V06	PC8441 - Changed footprint for J1 to YS#4100. - ML
10	15-JULY-2014	V06	PC#8674 GROUNDING HOLE PATTERN MODIFIED.
11	.	.	T0126 AND T0220 TRANSISTOR PADS UPDATED.
12	17-DEC-2014	.	PC8734 - Add 2 diodes (YS#6438) in location
13	.	.	shown on bottom of board.
1	14-JAN-2015	V07	PC#8734:D12 and D14 added to U30,U31 regulators.
2	16-JUN-2015	.	PC8811: Add NS21P product used on. GG
3	17-JAN-2017	.	PC8988: Change C81, C82, C85, and C86 to 1N YS#5220
4	19-JAN-2017	V08	PC8988: Implemented on board
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



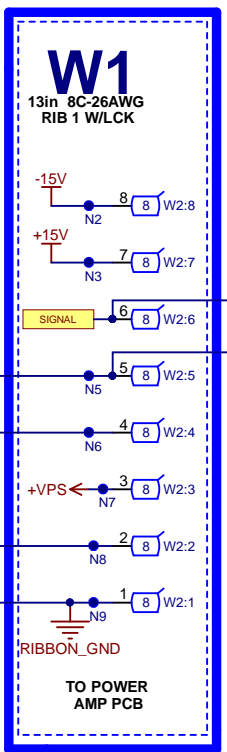
**CODEC B OUTPUT FOR TEST PURPOSE**

**REMOVE R40 TO USE CODEC RIGHT OUTPUT FOR AMP SIGNAL GND**

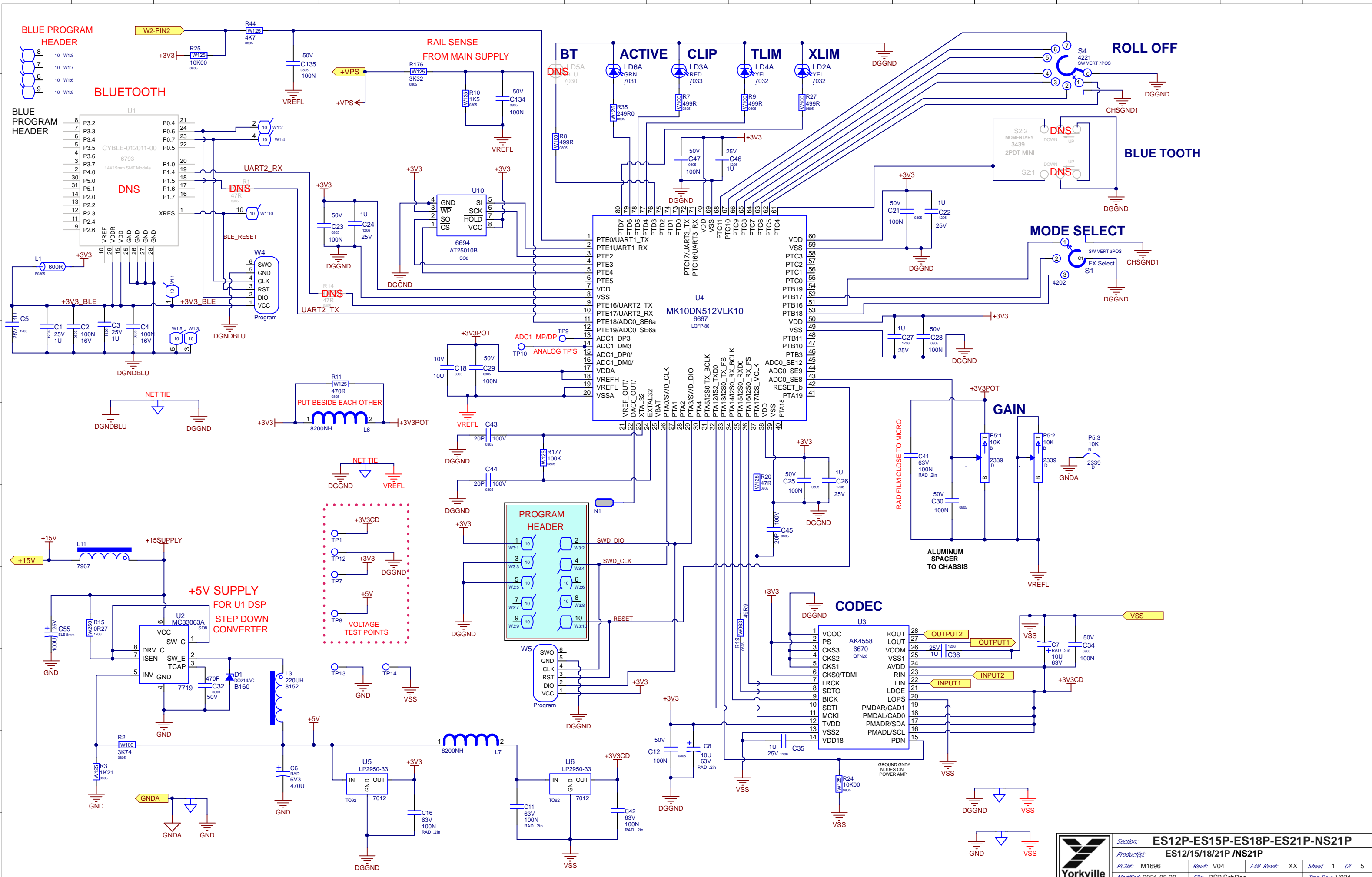
**CHECK 10R RESISTOR VALUES WITH TOM**

**MUST BE PLACED ON INPUT PCB NEAR RIBBON**

**SPACER GROUND HERE**



Production:	<b>ES12/15/18/21P/NS21P</b>		
Description:	<b>POWERED SUBWOOFER INPUT PCB</b>		
PCB#: M1696	Rev#: V04	EML Rev#: XX	Sheet 1 Of 5
Modified: 2021-08-30	File: INPUT.SchDoc		Temp Rev: V031





# DESIGN HISTORY AND INFORMATION

## CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	14-MAR-2017	V01	.	RELEASE FOR PRODUCTION
2	01-SEP-2017	V02	9101	ADDED U10 MEMORY CHIP FOR BLUETOOTH
3	17-SEP-2018	V03	9233	Changed LEDs on pcb to smt LEDs to accommodate light pipes
4	.	.	9323	Added NS21P option
5	18-AUG-2021	V04	9443	Moved P2 and C42 away from J2.
6	.	.	.	.
7	.	.	.	.
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
11	.	.	.	.
12	.	.	.	.
13	.	.	.	.

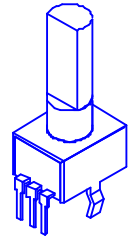
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	.	.	.	.
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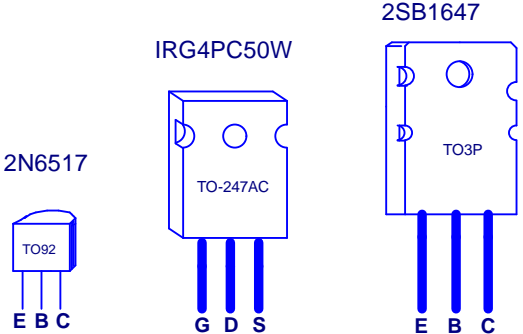
## POTENTIOMETERS AND KNOBS

POTENTIOMETERS/SWITCHES AND KNOBS				
REF	FUNCTION	POT/SW YS#	STYLE	KNOB#
S1	MODE SELECT	4202	ROT	8653C
S4	HF ROLL OFF	4202	ROT	8653C
P5	GAIN	2339	P34	8653C
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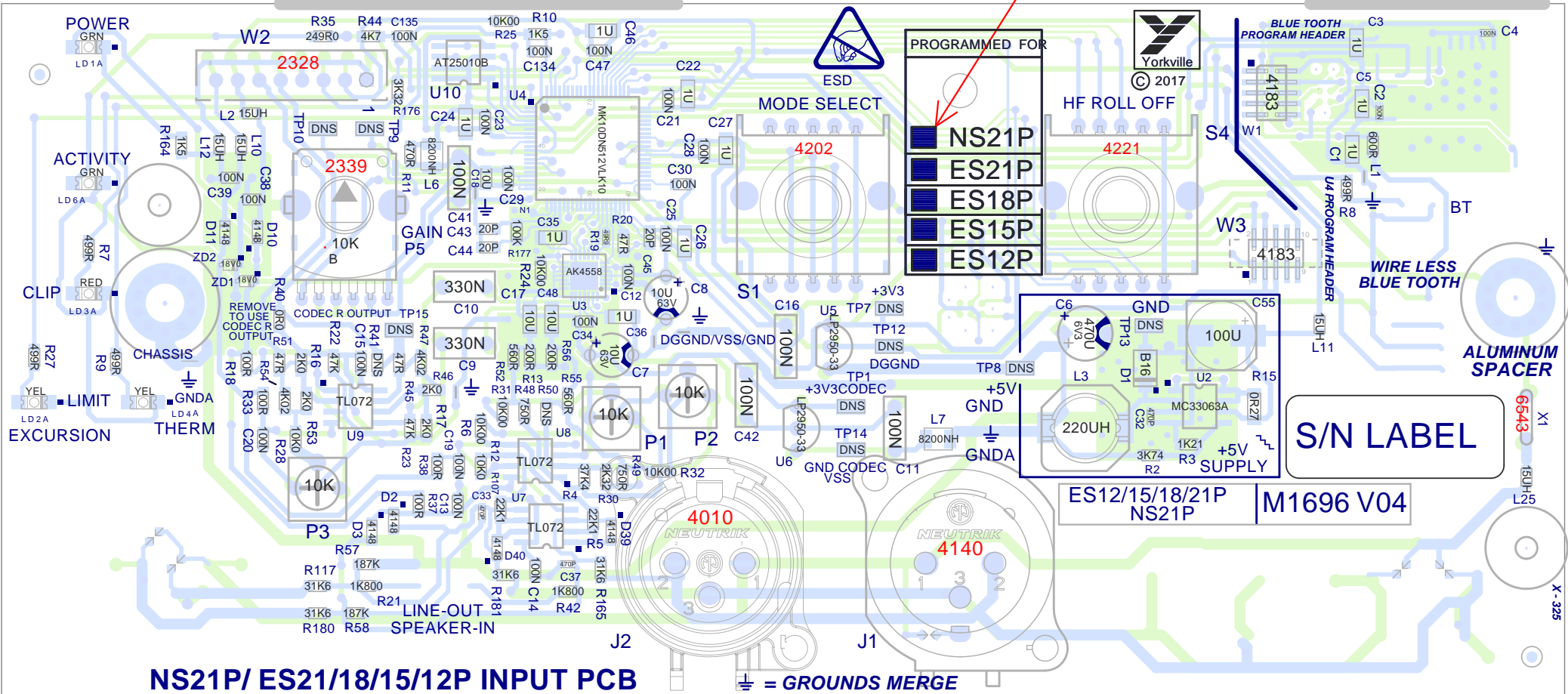


"STYLE\_P32"

## PINOUT DIAGRAMS



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



# M1696V04 NS21P

# PCB ASSEMBLY DOCUMENTATION

## SPECIAL PRODUCTION NOTES

1. PCBSA: RTV BETWEEN ALL TALL COMPONENTS AND WHERE INDICATED.
2. PRIOR TO INPUT INTO WAVE SOLDER MACHINE, USE A JIG FOR INPUT JACK ALIGNMENT.
3. PCBSA: AFTER WAVE USE PIZZA CUTTER TO SEPARATE THE BOARDS.
4. TEST: AFTER BOARD PROGRAMMING PLEASE CHECK APPROPRIATE BOX BESIDE THE MODEL THAT THE PCB WAS PROGRAMMED FOR. ENSURE THE CORRECT BOX IS CHECKED ON BOTH SIDES OF PCB WHERE INDICATED.

## PCB HARDWARE

SCREWS AND BOLTS

NUTS

STANDOFFS

MISCELLANEOUS

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



Section: **Assembly Documentation**

Product(s): **ES12/15/18/21P /NS21P**

PCB#: M1696

Rev#: V04

EML Rev#: XX

Sheet 1 Of \*

Modified: 2021-08-30

File: Assembly.SchDoc

Trp Rev: V031

# DESIGN HISTORY AND INFORMATION

## CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	14-MAR-2017	V01	.	RELEASE FOR PRODUCTION
2	01-SEP-2017	V02	9101	ADDED U10 MEMORY CHIP FOR BLUETOOTH
3	17-SEP-2018	V03	9233	Changed LEDs on pcb to smt LEDs to accommodate light pipes
4	.	.	9323	Added NS21P option
5	18-AUG-2021	V04	9443	Moved P2 and C42 away from J2.
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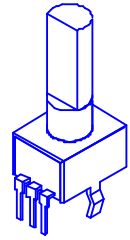
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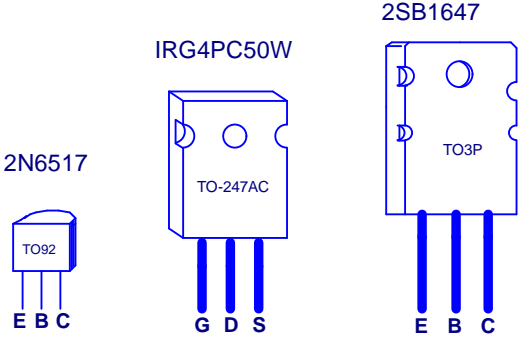
## POTENTIOMETERS AND KNOBS

POTENTIOMETERS/SWITCHES AND KNOBS				
REF	FUNCTION	POT/SW YS#	STYLE	KNOB#
S1	MODE SELECT	4202	ROT	8653C
S4	HF ROLL OFF	4202	ROT	8653C
P5	GAIN	2339	P34	8653C
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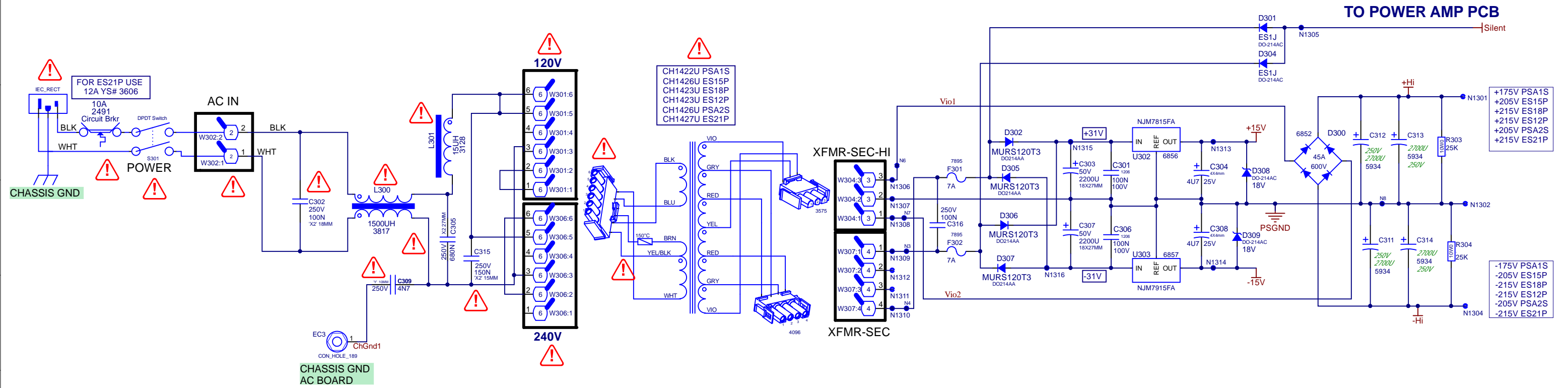
"STYLE\_P32"

## PINOUT DIAGRAMS



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

# POWER SUPPLY



### Critical Safety Components

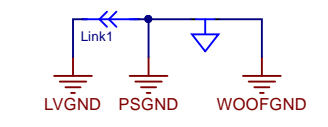
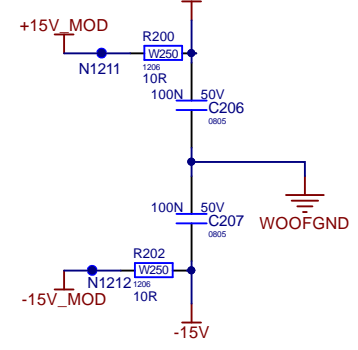
⚠ This symbol is placed next to Safety Critical Components



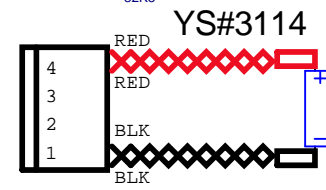
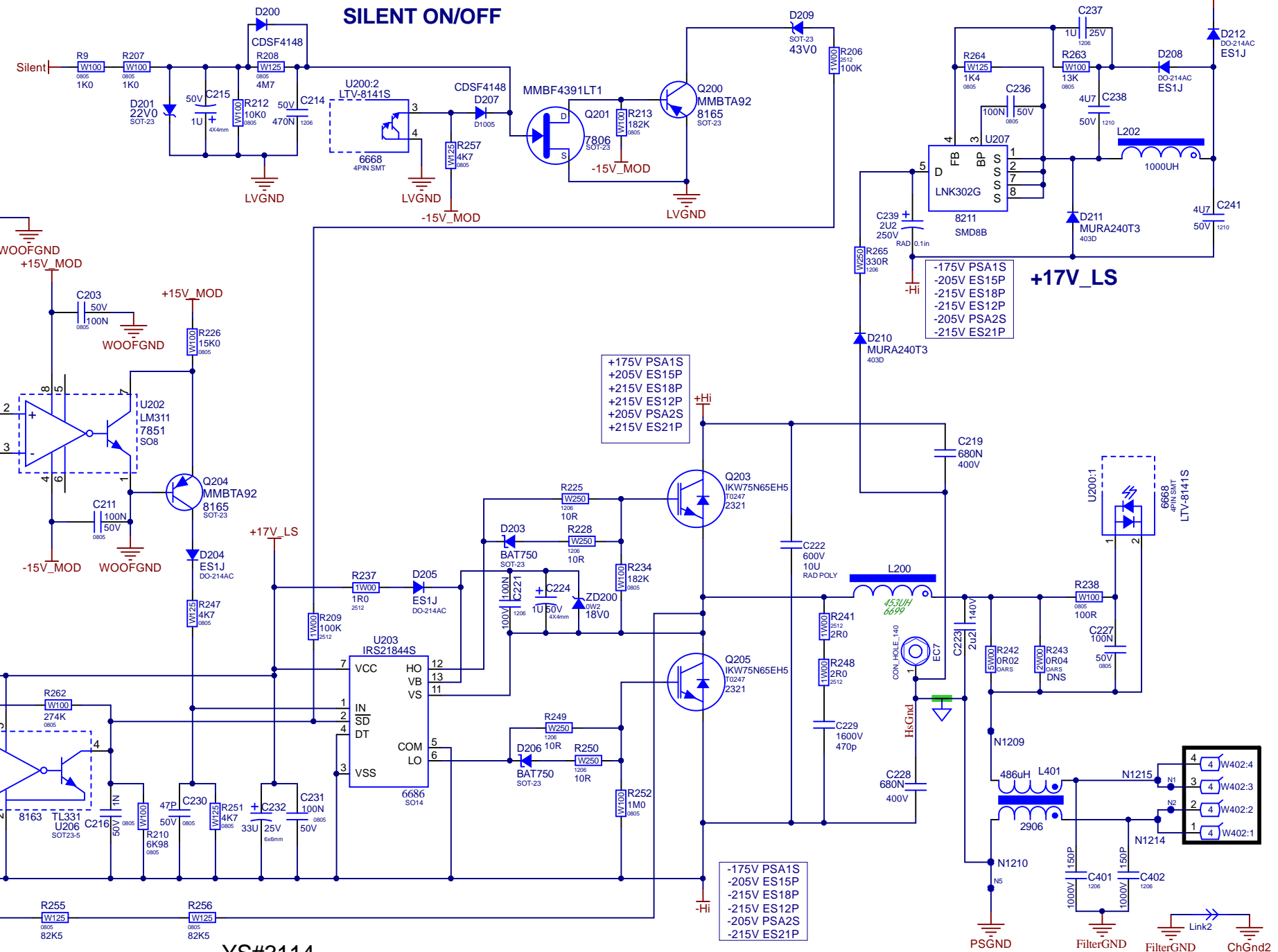
Section: <b>Power Supply</b>			
Product(s): <b>M1822-ES21P-NS21P</b>			
PCB# M1822	Rev# V02	BOM Rev# 01	Sheet 2 Of 5
Date Modified: 2020-10-27		Filename: Supply.SCHDOC	

# SUBWOOFER AMP

## +/-15V\_MOD



## SILENT ON/OFF



- WOOFER**
- 2x12" 4R 600WPGM #7545 PSA1S
  - 2x15" 8R 1000WPGM #7447 PSA2S
  - 1x12" 4R 2800WPGM #7437 ES12P
  - 1x15" 4R 2800WPGM #7470 ES15P
  - 1x18" 8R 1200WPGM #7420 ES18P
  - 1x21" 4R 3000WPGM #7500 ES21P



Section: <b>Woofer Amp</b>	
Product(s): <b>M1822-ES21P-NS21P</b>	
PCB# <b>M1822</b>	Rev# <b>V02</b>
BOM Rev# <b>01</b>	Sheet <b>2</b> Of <b>4</b>
Date Modified: <b>2020-10-27</b>	Filename: <b>Amp.SCHDOC</b>

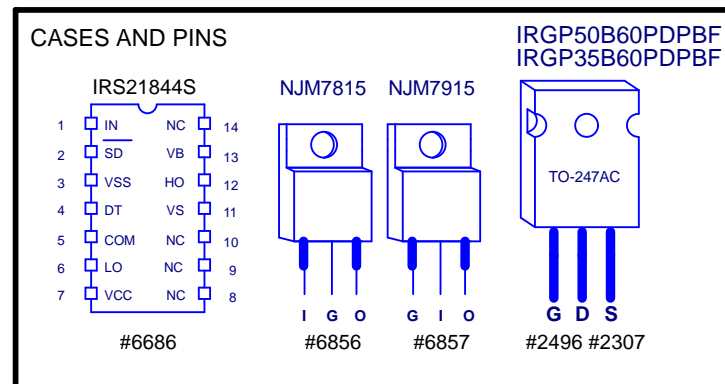
# DESIGN HISTORY AND INFORMATION

## 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
3	.	.	.	with #5142 0R02 5W and DNS R243
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
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## POTENTIOMETERS AND KNOBS

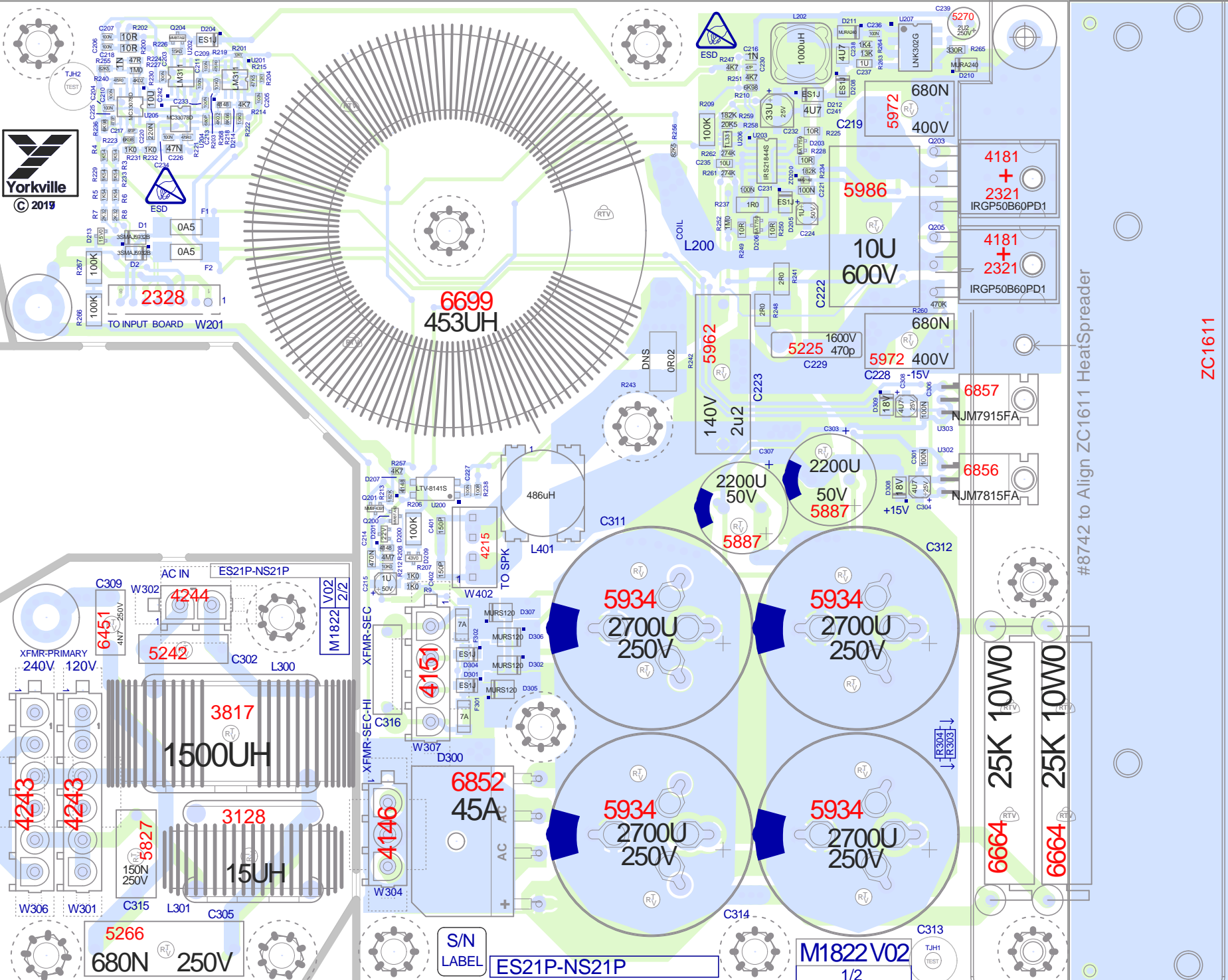
## PINOUT DIAGRAMS





# M1822-ES21P-NS21P

Blank Size - 261mm X 222mm (10276 X 8740)



Into Wave

#8835+  
#8800

6699  
453UH

2328

5986

10U  
600V

4181  
+  
2321  
IRGP50B60PD1

4181  
+  
2321  
IRGP50B60PD1

5225 1600V  
470p

5972 400V

6857  
NJM7915FA

6856  
NJM7815FA

2200U  
50V

2200U  
50V

5934  
2700U  
250V

5934  
2700U  
250V

3817  
1500UH

3128  
15UH

6852  
45A

5934  
2700U  
250V

5934  
2700U  
250V

6664 25K 10W0

6664 25K 10W0

5266  
680N 250V

S/N LABEL  
ES21P-NS21P

M1822 V02  
1/2

#8742 to Align ZC1611 HeatSpreader

ZC1611

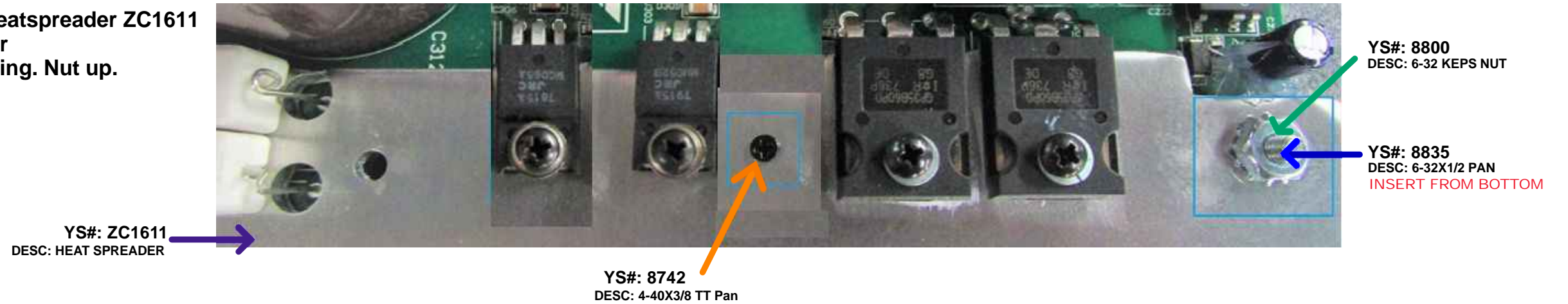
M1822 V02 ES21P-NS21P



# 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.

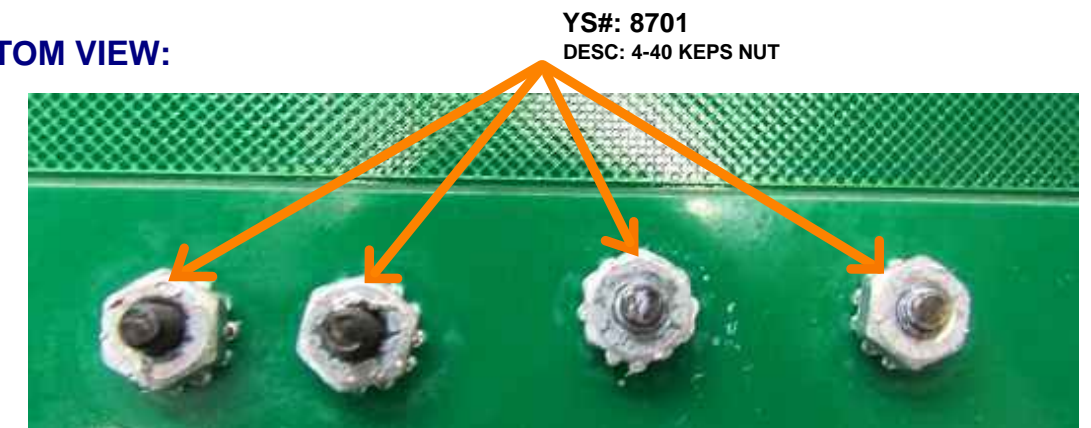


## MOUNTING HARDWARE FOR U302/U303 AND Q203/Q205:

TOP VIEW:



BOTTOM VIEW:

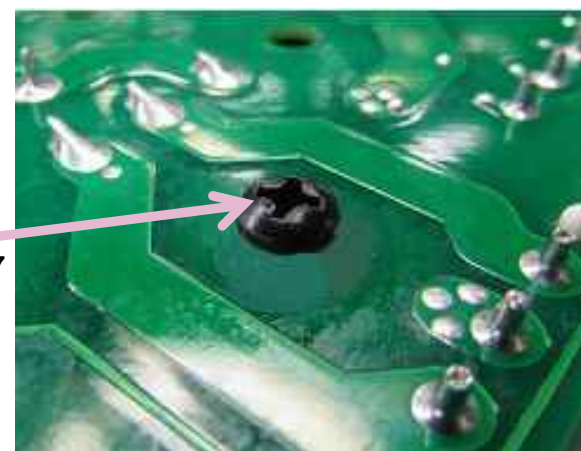


## MOUNTING HARDWARE FOR D300:

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)**

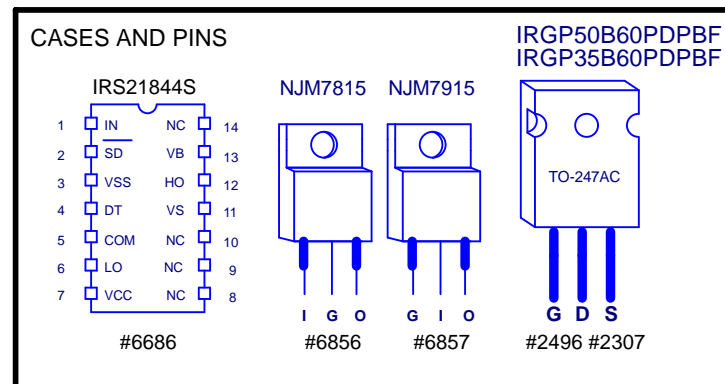
# DESIGN HISTORY AND INFORMATION

## CHANGE HISTORY

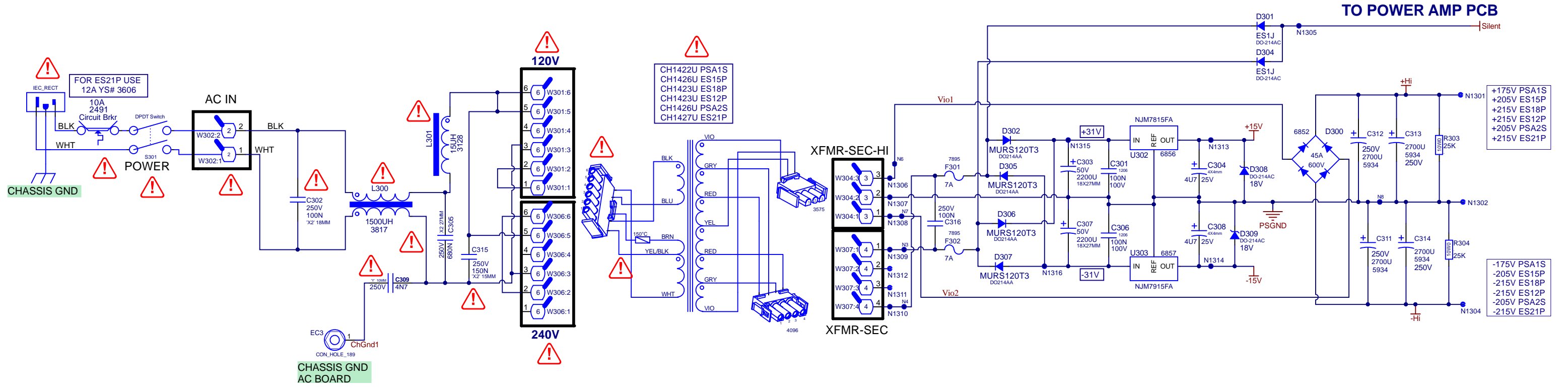
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	08-May-2019	V01	.	New EMC compliant board
2	22-Aug-2019	.	9440	FOR ES12P-ES21P and PSA2S: Replace R242 #5110 0R04 2W
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## POTENTIOMETERS AND KNOBS

## PINOUT DIAGRAMS



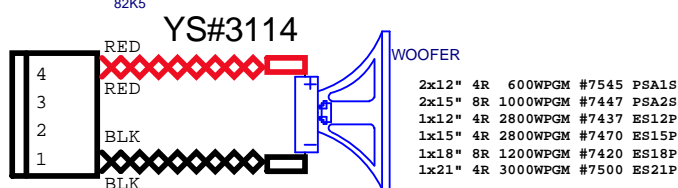
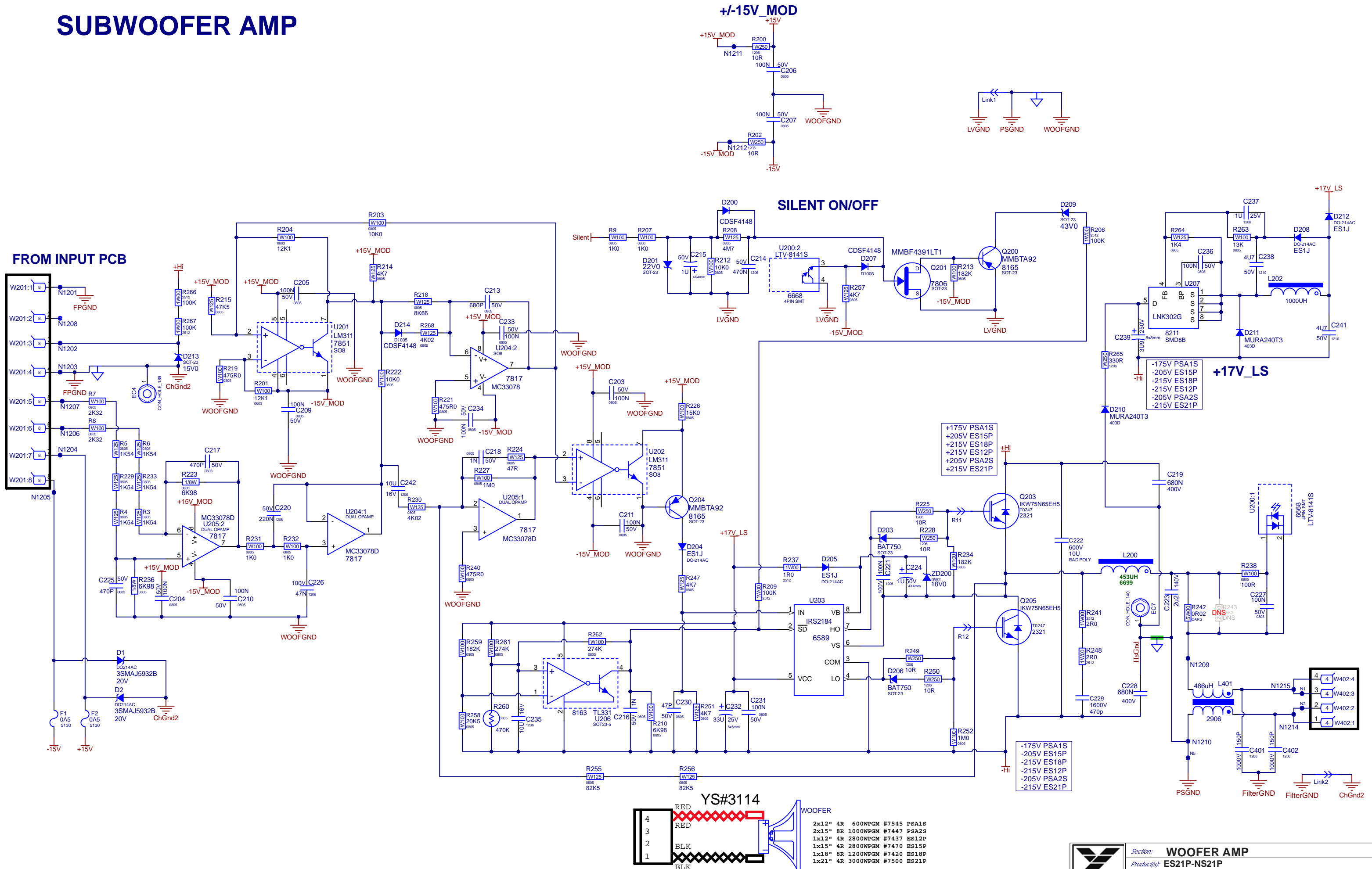
# POWER SUPPLY



**Critical Safety Components**  
 ⚠ This symbol is placed next to Safety Critical Components



# SUBWOOFER AMP



# DESIGN HISTORY AND INFORMATION

## CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	23-FEB-2022	V01	.	RELEASED FOR PRODUCTION
2	.	.	.	.
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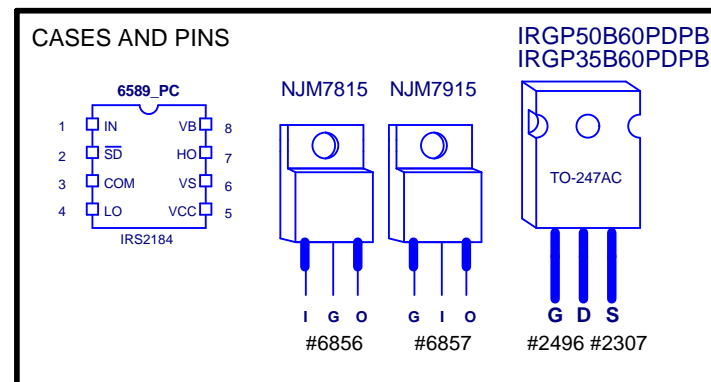
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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## POTENTIOMETERS AND KNOBS

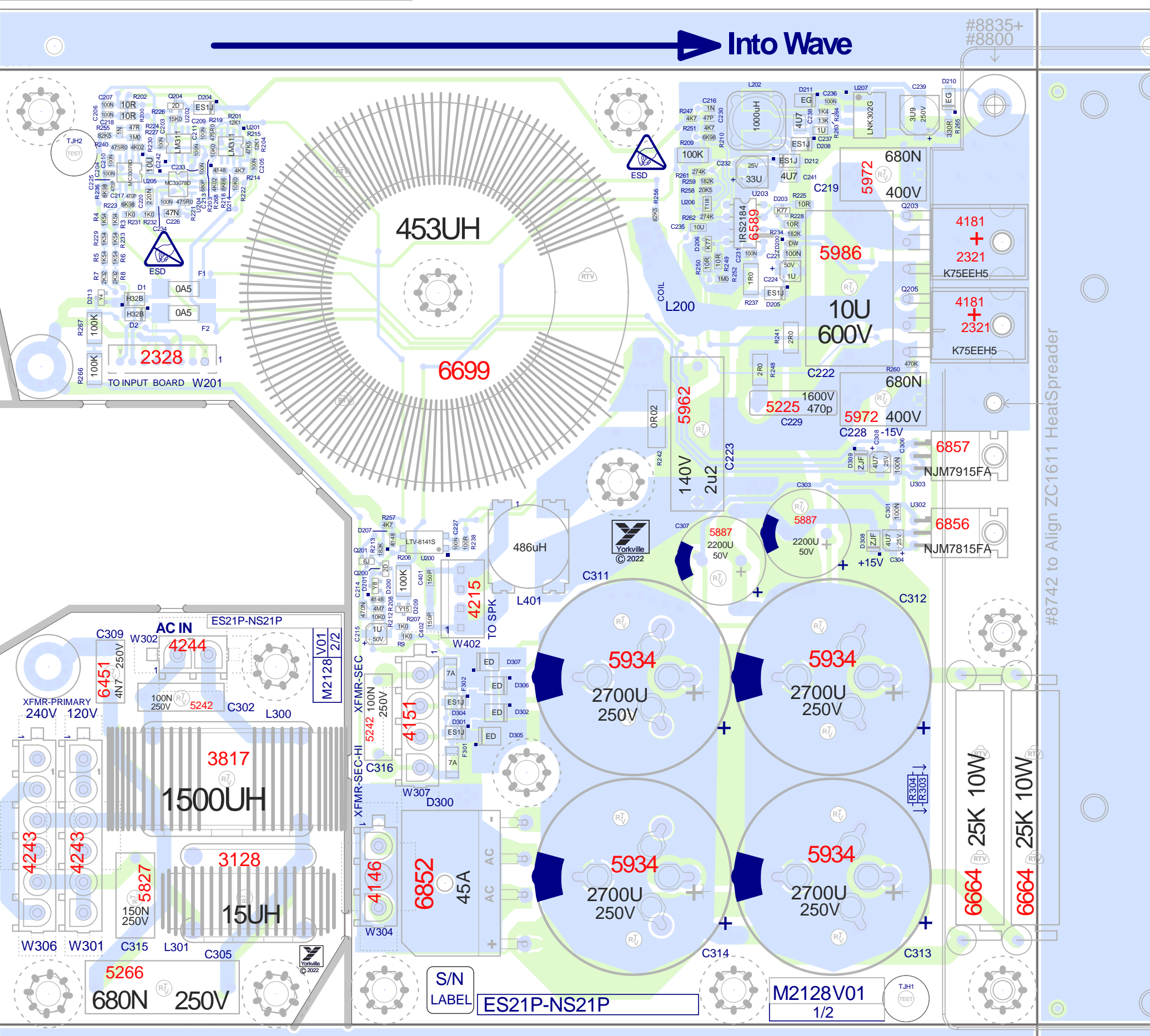
## PINOUT DIAGRAMS



# M2128-ES21P-NS21P

Into Wave

BlankSize - 261mmX222mm (10276X8740)



#8742 to Align ZC1611 HeatSpreader

ZC1611

M2128V01 ES21P-NS21P

M2128V01  
1/2

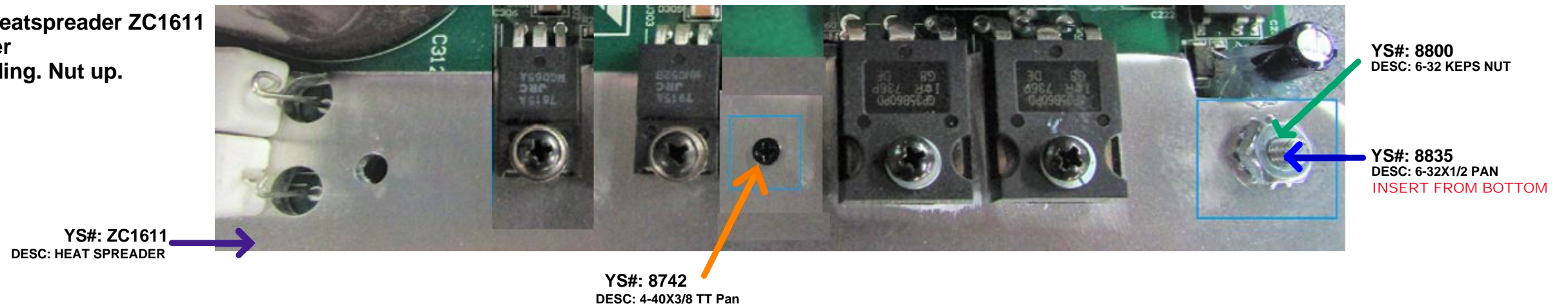
S/N LABEL  
ES21P-NS21P



# PCB ASSEMBLY DOCUMENTATION

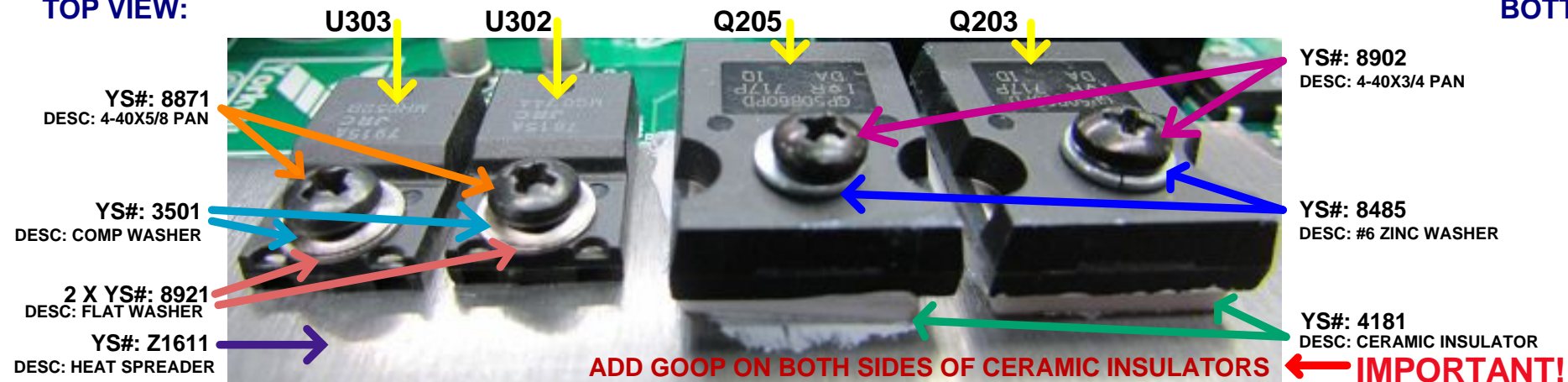
## MOUNTING HARDWARE & INSTRUCTIONS FOR HEAT SPREADER ZC1611:

- 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.

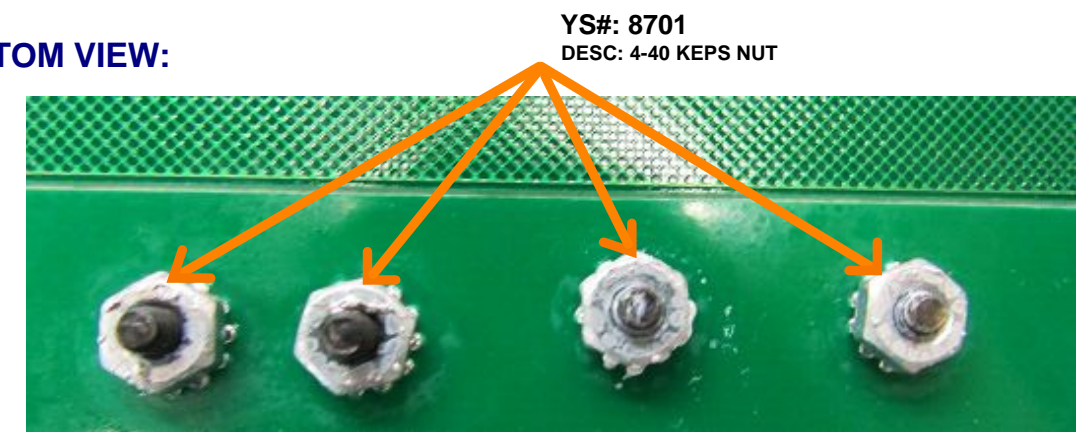


## MOUNTING HARDWARE FOR U302/U303 AND Q203/Q205:

### TOP VIEW:

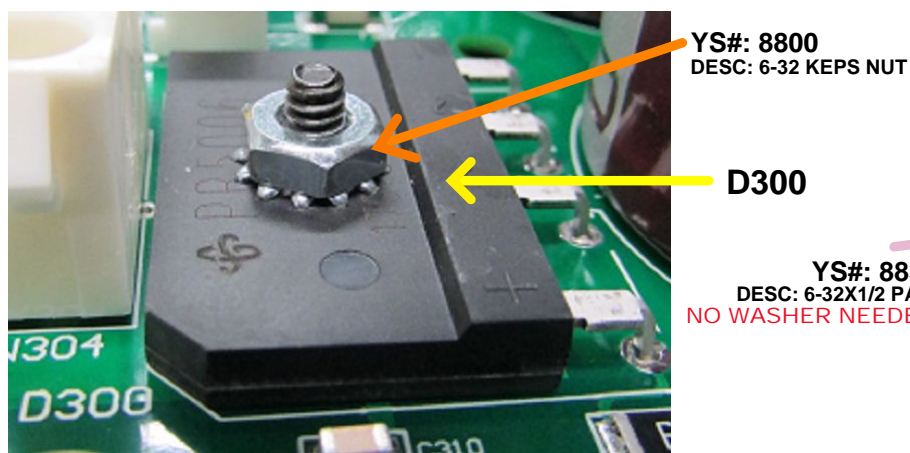


### BOTTOM VIEW:

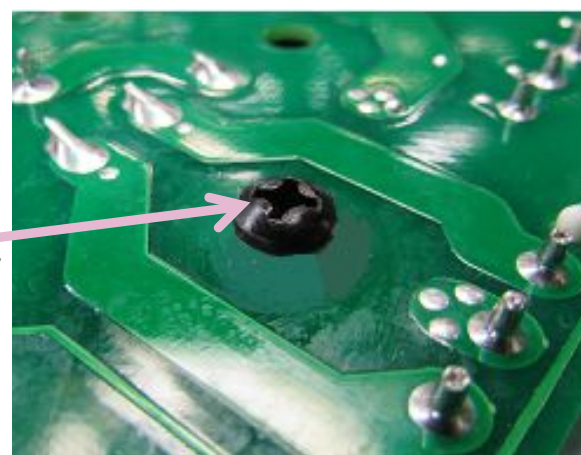


## MOUNTING HARDWARE FOR D300:

### TOP VIEW:



### BOTTOM VIEW:



**Clip all 4 leads short on D300:**

## 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	23-FEB-2022	V01	.	RELEASED FOR PRODUCTION
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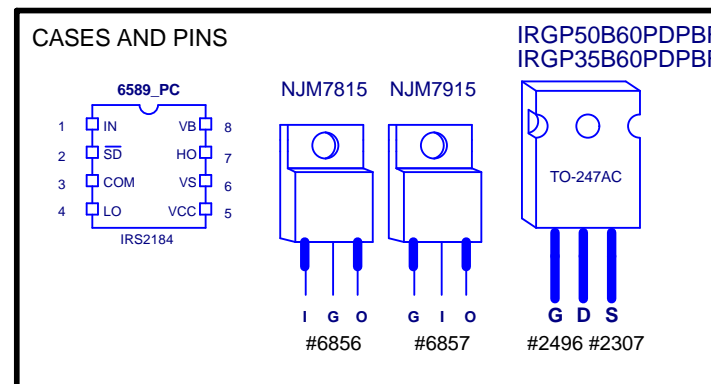
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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## POTENTIOMETERS AND KNOBS

## PINOUT DIAGRAMS







**Yorkville Sound**

550 Granite Court  
Pickering, Ontario  
Canada L1W 3Y8

Auto Attend: (905) 837-8550

Fax: (905) 837-8746

[www.yorkville.com](http://www.yorkville.com)

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