Yorkville

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WORLD HEADQUARTERS

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Quality and Innovation Since 1963

Printed in Canada

Yorkville

SERVICE MANUAL

ES12P

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.

Manual-Service-ES12P-00-1v5 ĚFeb 16/2022

IMPORTANT SAFETY INSTRUCTIONS

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

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

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 • AVIS

RISK OF ELECTRIC SHOCK DO NOT OPEN
RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

DO NOT PUSH OR PULL

IEC 60417-5041

CAUTION: HOT SURFACE
ATTENTION: SURFACE CHAUDE

NOT TO BE SERVICED BY USERS

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.

CAUTION: OVERHEAD LOAD
ATTENTION: CHARGE AÉRIENNE

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.

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 or fire or electric shock, do not expose this apparatus to rain or moisture. *Do not use this apparatus near water!*

Warning: When using electric products, basic precautions should always be followed, including the following:

Power Sources

Your unit should be connected to a power source only of the voltage specified in the owners manual or as marked on the unit. This unit has a polarized plug. Do not use with an extension cord or receptacle unless the plug can be fully inserted. Precautions should be taken so that the grounding scheme on the unit is not defeated. An apparatus with CLASS I construction shall be connected to a Mains socket outlet with a protective earthing 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!

SUIVEZ TOUTES LES INSTRUCTIONS

Instructions relatives au risque de feu, choc électrique, ou blessures aux personnes

AVIS: AFIN DE REDUIRE LES RISQUE DE CHOC ELECTRIQUE, N'ENLEVEZ PAS LE COUVERT (OU LE PANNEAU ARRIERE) NE CONTIENT AUCUNE PIECE REPARABLE PAR L'UTILISATEUR. CONSULTEZ UN TECHNICIEN QUALIFIE POUR L'ENTRETIENT CE PRODUIT EST POUR L'USAGE À L'INTÉREUR SEULEMENT. LES PACKS BATTERIES INSTALLÉS NE DOIVENT PAS ÊTRE EXPOSÉS À UNE CHALEUR EXCESSIVE TELLE QUE LE ENSOLEILLEMENT, LE FEU OU SIMILAIRES.

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

Nettoyage: Nettoyez seulement avec le tissu sec.

Emballage: Conservez la boite au cas ou l'appareil devait être retourner pour réparation.

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

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

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

Risque - Ne pas placer cet appareil sur un chariot, un support, un trépied ou une table instables. L'appareil pourrait tomber et blesser quelqu'un ou subir des dommages importants. Utiliser seulement un chariot, un support, un trépied ou une table recommandés par le fabricant ou vendus avec le produit. Suivre les instructions du fabricant pour installer l'appareil et utiliser les accessoires recommandés par le fabricant. Utilisez seulement les attachements/accessoires indiqués par le fabricant.

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

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

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

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

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

Service - 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 ou est tombé. Débranchez l'alimentation avant l'entretien!

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 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.
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. Respecter tous les avertissements.
4. Suivez toutes les instructions.
5. N'utilisez pas l'appareil près de l'eau.
6. Nettoyer uniquement avec chiffon sec.
7. Ne bloquez pas les ouvertures de ventilation. Installer 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 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 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. Utiliser uniquement avec un charriot, 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 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.

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'ÉLECTROCUTION, NE PAS RACCORDER A L'ALIMENTATION ÉLECTRIQUE ALORS QUE LA GRILLE EST RETIRÉE.

POWER

ACTIVITY

CLIP

LIMIT

X-MAX TEMP

*SUB LEVEL

0 ∞ dB +12

*MODE

1. Punchy
2. Smooth
3. Deep

1 2 3

* Controls may not reflect the applied settings if Bluetooth remote function is enabled.

*HI FREQ. ROLLOFF

80 90 100 110 120 130 150 Hz

Recommended for élite speaker cabinets.

WIRELESS CONTROL

Bluetooth™ SMART

LED Flashing: Ready to Connect

LED On: Connected

Enable / Disable

Hold 4 sec. to reset

INPUT MODE

SPKR

LINE

MONO BLEND INPUT

Line Level Sources Only!

INPUT OUTPUT

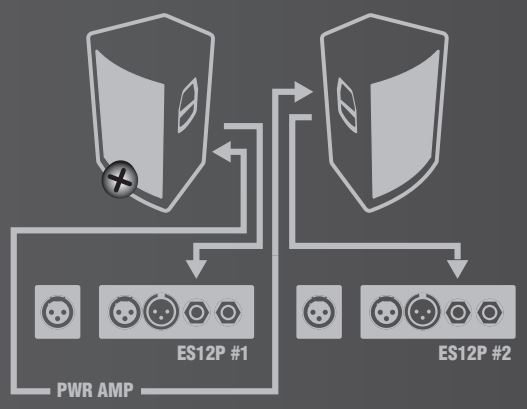
INPUT OUTPUT BAL

LINK

NOTE: THE YORKVILLE APP IS NEEDED TO CONTROL FUNCTIONS THROUGH BLUETOOTH™ AND IS NOT FOR STREAMING AUDIO!

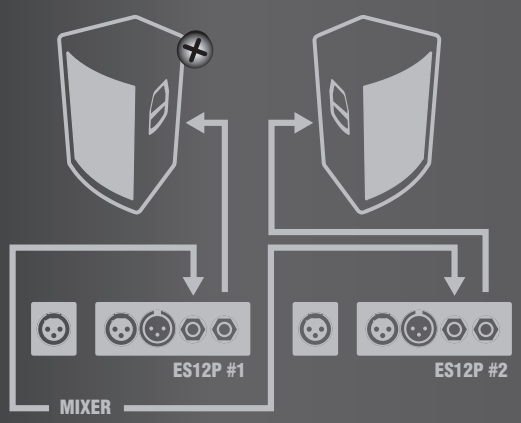
STEREO PASSIVE SPEAKER CONFIG

* INPUT Switch set to SPKR



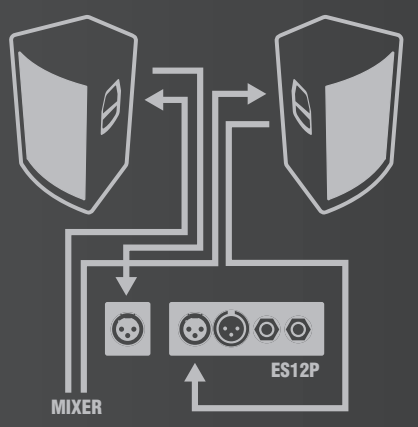
STEREO ACTIVE SPEAKER CONFIGURATION

* INPUT Switch set to LINE



STEREO ACTIVE SPEAKER CONFIGURATION

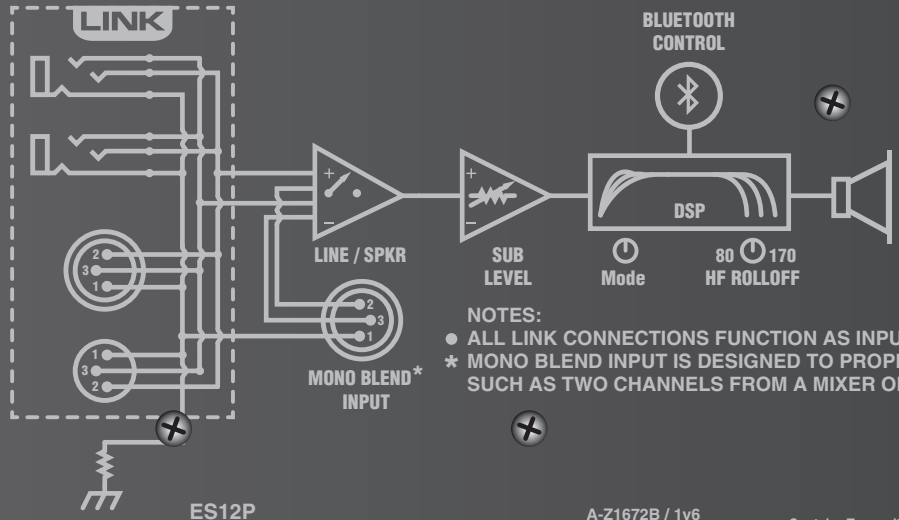
* INPUT Switch set to LINE



Yorkville

élite ES12P

1200 WATT ACTIVE SUBWOOFER ENCLOSURE



NOTES:
- ALL LINK CONNECTIONS FUNCTION AS INPUTS OR OUTPUTS.
* MONO BLEND INPUT IS DESIGNED TO PROPERLY SUM TWO LINE SOURCES SUCH AS TWO CHANNELS FROM A MIXER OR A STEREO SOURCE

POWER

ON

OFF

PUSH TO RESET

Certified Electrical Safety LR1004

ES12P A-Z1672B / 1v6

4080001

120V~ 60Hz 4.0A

DESIGNED & MANUFACTURED BY YORKVILLE SOUND • TORONTO, CANADA

NO USER SERVICEABLE PARTS INSIDE.

NE CONTIENT AUCUNE PIECE REPARABLE PAR L'UTILISATEUR.

DISCONNECT POWER BEFORE SERVICING!

DEBRANCHER L'APPAREIL AVANT D'ENLEVER LES COUVERCLES!

CAUTION • AVIS

RISK OF ELECTRIC SHOCK DO NOT OPEN

RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

Contains Transmitter Module FCC ID: WAP2011
Contains Transmitter Module ID: 7922A-2011
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Specifications				
	ES12P	**ES15P**	**ES18P**	**ES21P**
System Type	Rear Horn Loaded Subwoofer	Rear Horn Loaded Subwoofer	Rear Horn Loaded Subwoofer	Rear Horn Loaded Subwoofer
Active or Passive	Active	Active	Active	Active
Program Power (watts)	1200 watts (1600 watts Peak)	1800 watts (3600 watts Peak)	1600 watts (3200 watts Peak)	2400 watts (3600 watts Peak)
Max SPL (dB)	132dB Peak (126dB Continuous)	138 dB Peak (132dB Continuous)	140 dB Peak (134dB Continuous)	145dB Peak (136dB Continuous)
Frequency Response (Hz +/- 3dB)	45 - 150 (Hz +/- 3dB)	45 - 150 (Hz +/- 3dB)	43 - 150 (Hz +/- 3dB)	32 - 150 (Hz +/- 3dB)
LF Driver(s)	12-inch Cast Frame Woofer w/4-inch Voicecoil	15-inch Cast Frame Woofer w/4-inch Voicecoil	18-inch Cast Frame Woofer w/4-inch Voicecoil	21-inch Cast Frame Woofer w/6-inch Voicecoil
LF Protection	Thermal / Overcurrent (X-max) / Clip	Thermal / Overcurrent (X-max) / Clip	Thermal / Overcurrent (X-max) / Clip	Thermal / Overcurrent (X-max) / Clip
Power Consumption (typ/max)	120V (4.0A / 5.6A), 230V (2.0A / 2.8A)	120V (5.5A / 6.9A), 230V (2.9A / 3.6A)	120V (4A /4.5A), 230V (2A / 2.3A)	120V (6.5A / 12A), 230V (3.25A / 6A)
In / Out Connections	1 x XLR Input 1 x XLR Mono Blend Input 1 x ¼-inch Link Input 1 x ¼-inch Link Output 1 x XLR Link Output	1 x XLR Input 1 x XLR Mono Blend Input 1 x ¼-inch Link Input 1 x ¼-inch Link Output 1 x XLR Link Output	1 x XLR Input 1 x XLR Mono Blend Input 1 x ¼-inch Link Input 1 x ¼-inch Link Output 1 x XLR Link Output	1 x XLR Input 1 x XLR Mono Blend Input 1 x ¼-inch Link Input 1 x ¼-inch Link Output 1 x XLR Link Output
Level Controls	Master - Sub Level	Master - Sub Level	Master	Master - Sub Level
LED Indicators	Power, Activity, Protection (Clip, X-Max, Temp)	Power, Activity, Protection (Clip, X-Max, Temp)	Power, Activity, Protection (Clip, X-Max, Temp)	Power, Activity, Protection (Clip, X-Max, Temp)
Other Controls / Features	Active Controls: Mode - 1 Punchy, 2 Smooth, 3 Deep High Frequency Roll-off - 80Hz to 150 Hz	Active Controls: Mode - 1 Punchy, 2 Smooth, 3 Deep High Frequency Roll-off - 80Hz to 150 Hz	Active Controls: Mode - 1 Punchy, 2 Smooth, 3 Deep High Frequency Roll-off - 80Hz to 150 Hz	Active Controls: Mode - 1 Punchy, 2 Smooth, 3 Deep High Frequency Roll-off - 80Hz to 150 Hz
Wheels	NONE	2 x Rear tilt-back	2 x Rear tilt-back	2 x Rear tilt-back
Bar Handles	1 x (Left Side), 1 x (Right side)	1 x (Top Rear Edge), 1 x (Bo	2 x top, 2 x bottom	2 x Top Rear, 2 x Bottom Front, 3 x Each Side
Pole Mount Adapter (1 3/8-inch-3.5cm)	1 (Top) (1 3/8-inch-3.5cm)	1 (Top) (1 3/8-inch-3.5cm)	1 (Top) (1 3/8-inch-3.5cm)	1 (Top) (1 3/8-inch-3.5cm)
Enclosure Materials	15mm (5/8inch) 11-ply Russian Birch	15mm (5/8inch) 11-ply Russian Birch	15mm (5/8inch) 11-ply Russian Birch	15mm (5/8inch) 11-ply Russian Birch
Covering / Finish	Black Ultrathane Paint	Black Ultrathane Paint	Black Ultrathane Paint	Black Ultrathane Paint
Dimensions (DWH xbackW, inches)	17.7 x 17 x 27	21 x 18 x 32	24.64 x 22.86 x 34	30.5 x 25.25 x 36
Dimensions (DWH x backW, cm)	45 x 43 x 69	53.3 x 45.7 x 81.3	62.6 x 58 x 86.36	77.5 x 64.1 x 91
Weight (lbs/kg)	85/38.5	110 / 50	137 / 62	202 / 92

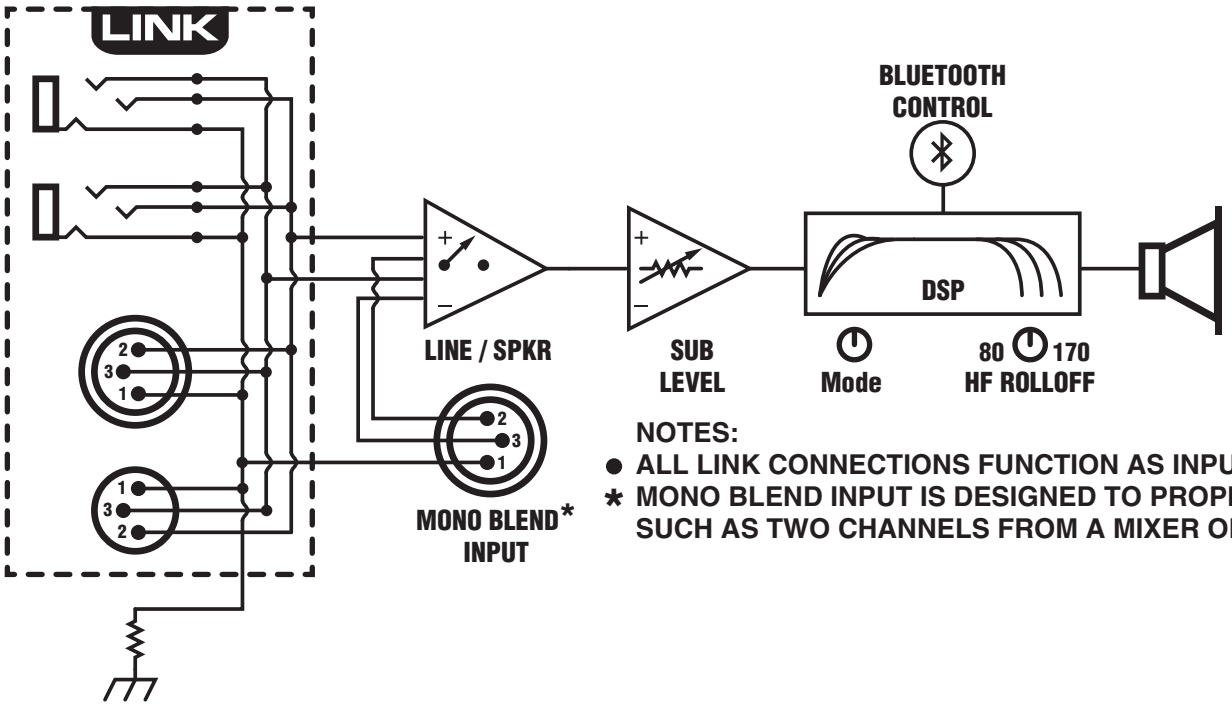
Specifications subject to change without notice

Spécifications				
	ES12P	**ES15P**	**ES18P**	**ES21P**
Type de Système	Caisson de Basse à pavillon avec driver monté à l'arrière	Caisson de Basse à pavillon avec driver monté à l'arrière	Caisson de Basse à pavillon avec driver monté à l'arrière	Caisson de Basse à pavillon avec driver monté à l'arrière
Actif ou Passif	Actif	Actif	Actif	Actif
Puissance Nominale (watts)	1200 watts (1600 watts crête)	1800 watts (3600 watts crête)	1600 watts (3200 watts crête)	2400 watts (3600 watts crête)
Max SPL (dB)	132dB crête (126dB Continu)	138dB crête (132dB Continu)	140dB crête (134dB Continu)	145dB crête (136dB Continu)
Réponse en Fréquence (Hz +/- 3dB)	45 - 150 (Hz +/- 3dB)	45 - 150 (Hz +/- 3dB)	43 - 150 (Hz +/- 3dB)	32 - 150 (Hz +/- 3dB)
HP Basses Fréquences	HP 12 pouces, Saladier en fonte, Bobine Mobile 4 pouces	HP 15 pouces, Saladier en fonte, Bobine Mobile 4 pouces	HP 18 pouces, Saladier en fonte, Bobine Mobile 4 pouces	HP 21 pouces, Saladier en fonte, Bobine Mobile 6 pouces
Protection Basses Fréquences	Thermique / Surintensité (X-max) / Clip	Thermique / Surintensité (X-max) / Clip	Thermique / Surintensité (X-max) / Clip	Thermique / Surintensité (X-max) / Clip
Consommation de Puissance (typ/max)	120V (4.0A / 5.6A), 230V (2.0A / 2.8A)	120V (5.5A / 6.9A), 230V (2.9A / 3.6A)	120V (4A /4.5A), 230V (2A / 2.3A)	120V (6.5A / 12A), 230V (3.25A / 6A)
Connexions Entrée / Sortie	1 x XLR Entrée 1 x XLR Entrée Mono Blend 1 x ¼-pouce Entrée Link 1 x ¼-pouce Sortie Link 1 x XLR Sortie Link	1 x XLR Entrée 1 x XLR Entrée Mono Blend 1 x ¼-pouce Entrée Link 1 x ¼-pouce Sortie Link 1 x XLR Sortie Link	1 x XLR Entrée 1 x XLR Entrée Mono Blend 1 x ¼-pouce Entrée Link 1 x ¼-pouce Sortie Link 1 x XLR Sortie Link	1 x XLR Entrée 1 x XLR Entrée Mono Blend 1 x ¼-pouce Entrée Link 1 x ¼-pouce Sortie Link 1 x XLR Sortie Link
Commandes de Niveau	Principale - Niveau du Subwoofer	Master - Sub Level	Principale	Principale
Indicateurs DEL	Alimentation, Activité, Protection (Clip, X-Max, Temp)	Alimentation, Activité, Protection (Clip, X-Max, Temp)	Alimentation, Activité, Protection (Clip, X-Max, Temp)	Alimentation, Activité, Protection (Clip, X-Max, Temp)
Autres commandes / Caractéristiques	Commandes Actives: Mode - 1 Punchy, 2 Smooth, 3 Deep Pente d'Atténuation de hautes fréquences - 80Hz to 150 Hz	Commandes Actives: Mode - 1 Punchy, 2 Smooth, 3 Deep Pente d'Atténuation de hautes fréquences - 80Hz to 150 Hz	Commandes Actives: Mode - 1 Punchy, 2 Smooth, 3 Deep Pente d'Atténuation de hautes fréquences - 80Hz to 150 Hz	Commandes Actives: Mode - 1 Punchy, 2 Smooth, 3 Deep Pente d'Atténuation de hautes fréquences - 80Hz to 150 Hz
Roues	Aucune	2 x à inclinaison arrière	2 x à inclinaison arrière	2 x à inclinaison arrière
Poignés	1 x (Côté Gauche), 1 x (Côté Droit)	1 x (Dessus, Bord Arrière), 1 x (Dessous)	2 x Dessus, 2 x Dessous	2 x Dessus, 2 x Dessous
Adaptateur de montage sur poteau (1 3/8-inch-3.5cm)	1 (Dessus) (1 3/8-pouce - 3.5cm)	1 (Dessus) (1 3/8-pouce - 3.5cm)	1 (Dessus) (1 3/8-pouce - 3.5cm)	1 (Dessus) (1 3/8-pouce - 3.5cm)
Matériel de Construction	15mm (5/8 pouce) Bouleau Russe 11-plis	15mm (5/8 pouce) Bouleau Russe 11-plis	15mm (5/8 pouce) Bouleau Russe 11-plis	15mm (5/8 pouce) Bouleau Russe 11-plis
Finition	Peinture noire d'Ultrathane	Peinture noire d'Ultrathane	Peinture noire d'Ultrathane	Peinture noire d'Ultrathane
Dimensions (PLH x L arrière, pouces)	17.7 x 17 x 27	21 x 18 x 32	24.64 x 22.86 x 34	30.5 x 25.25 x 36
Dimensions (PLH x L arrière, cm)	45 x 43 x 69	53.3 x 45.7 x 81.3	62.6 x 58 x 86.36	77.5 x 64.1 x 91
Poids (livres/kg)	85/38.5	110 / 50	137 / 62	202 / 92

Specifications subject to change without notice

Block Diagram for ES Series Powered Subwoofers

DESIGNED & MANUFACTURED BY YORKVILLE SOUND



NOTES:

- ALL LINK CONNECTIONS FUNCTION AS INPUTS OR OUTPUTS.
- * MONO BLEND INPUT IS DESIGNED TO PROPERLY SUM TWO LINE SOURCES SUCH AS TWO CHANNELS FROM A MIXER OR A STEREO SOURCE

ES12P
ES15
ES18P
ES21P

M1691 03 Parts Reference List 11/10/2021

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
AI-SUB	M1691-59	ES12P AMP/SUPPLY PCB	D305		MURS120T3 200V 1A DIO DO214AA SMT	R255		W125 82K5 1% 0805 SMT RES
BLANK	M1691BLANK	2 OZ 2SD 83.13SQIN 1PER ELITE PSA	D306		MURS120T3 200V 1A DIO DO214AA SMT	R256		W125 82K5 1% 0805 SMT RES
C200		100N 50V 5%CAP 0805 SMT X7R	D307		MURS120T3 200V 1A DIO DO214AA SMT	R257		W125 4K7 5% 0805 SMT RES
C202		100N 50V 5%CAP 0805 SMT X7R	D308		ES1J 600V 1A0 DO214AC SMT SMA	R258		W100 20K5 1% 0805 SMT RES
C203		100N 50V 5%CAP 0805 SMT X7R	D309		ES1J 600V 1A0 DO214AC SMT SMA	R259		W100 182K 1% 0805 SMT RES
C204		100N 50V 5%CAP 0805 SMT X7R	F301		FUSE SLOW 7A 125V SMT 6125	R260		470K 5% THERMISTOR NTC 0805 SMT
C205		100N 50V 5%CAP 0805 SMT X7R	F302		FUSE SLOW 7A 125V SMT 6125	R261		W100 274K 1% 0805 SMT RES
C206		100N 50V 5%CAP 0805 SMT X7R	HS1	4181	TO220 THERMO PAD CERAMIC .080 THK	R262		W100 274K 1% 0805 SMT RES
C207		100N 50V 5%CAP 0805 SMT X7R	HS2	4181	TO220 THERMO PAD CERAMIC .080 THK	R263		W100 13K 1% 0805 SMT RES
C208		100N 50V 5%CAP 0805 SMT X7R	HS3	ZC1611	ES PSA SERIES HEATSPREADER	R264		W125 1K4 1% 0805 SMT RES
C209		100N 50V 5%CAP 0805 SMT X7R	HW1	8871	4-40X5/8 PAN PHILIPS MS BLACK ZINC	R265		W250 330R 5% 1206 SMT RES
C210		100N 50V 5%CAP 0805 SMT X7R	HW2	8902	4-40X3/4 PAN PHILIPS MS TBZ	R266		1W00 100K 5% 2512 SMT RES
C211		100N 50V 5%CAP 0805 SMT X7R	HW4	8485	#6 SPLIT WASHER ZINC	R267		1W00 100K 5% 2512 SMT RES
C212		100N 50V 5%CAP 0805 SMT X7R	HW5	3501	COMPRESSION WASHER	R268		W125 4K02 0.1% 0805 SMT RES
C213		680P 50V 5%CAP 0805 SMT C0G	HW6	8742	4-40X3/8 PAN PH TAPTITE BO&W	R301		1W00 1K8 5% 2512 SMT RES
C214		470N 50V 5%CAP 1206 SMT X7R	HW7	8835	6-32X1/2 PAN QUAD MS TIN PLATE	R303	6664	10W0 25K 5% BLK RES
C215		__1U 50V 20%CAP 4.3X3.9 SMT ELC	HW8	8800	6-32 KEPS NUT ZINC	R304	6664	10W0 25K 5% BLK RES
C216		__1U 25V 20%CAP 1206 SMT X7R	HW9	8871	4-40X5/8 PAN PHILIPS MS BLACK ZINC	U200		LTV-8141S ACINPUT OPTOCOUPLER SMT
C217		470P 50V 5%CAP 0603 SMT NPO	HW10	8902	4-40X3/4 PAN PHILIPS MS TBZ	U201		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	U202		LM311 COMPARATOR IC SMT SO-8
C219	5972	680N 400V 5%CAP BLK RAD POLY FLM	HW12	8800	6-32 KEPS NUT ZINC	U203		IRS21844SPBF IC HILO FET DRVR SO14
C220		220N 50V 10%CAP 1206 SMT X7R	HW13	8701	4-40 KEPS NUT ZINC	U204		33078 DUAL OPAMP SMT SO-8
C221		100N 100V 10%CAP 1206 SMT X7R	HW14	8701	4-40 KEPS NUT ZINC	U205		33078 DUAL OPAMP SMT SO-8
C222	5951	__3U3 340VDC10%CAP BLK MPOLYP FL	HW15	8701	4-40 KEPS NUT ZINC	U206		TL331 COMPARATOR IC SMT SOT235
C223	5962	__2U2 140AC10%CAP BLK RAD POLYP FLM	HW16	8701	4-40 KEPS NUT ZINC	U207		LNK302G OFFLINE SWITCH SMT SMD8B
C224		__1U 50V 20%CAP 4.3X3.9 SMT ELC	HW17	8485	#6 SPLIT WASHER ZINC	U302	6856	NJM7815FA TO220 P 15V0 REG IS V1
C225		470P 50V 5%CAP 0603 SMT NPO	HW18	3501	COMPRESSION WASHER	U303	6857	NJM7915FA TO220 N 15V0 REG IS V2
C226		_47N 100V 10%CAP 1206 SMT X7R	L200	6663	_533UH CHOKE 120T19AWG/77908CORE	W201	2328	8 CIR XH-HEADER 0.098IN
C227		100N 50V 5%CAP 0805 SMT X7R	L202		1000UH 10% COIL 12MM SMT	W301	4147	6 PIN POWER PIN HEADER MALE POLZED
C228	5972	680N 400V 5%CAP BLK RAD POLY FLM	L300	3817	_1.5MH COIL INPUT COM MODE	W302	4162	2 PIN POWER PIN HEADER MALE POLZED
C229	5221	470P 1000V 5%CAP POLYPROP BULK	L301	3128	__15UH COIL VTM160-4 22T 16AWG	W304	4146	3 PIN POWER PIN HEADER MALE POLZED
C230		_47P 50V 5%CAP 0805 SMT NPO	L401		486UH COIL COMMON MODE 8A SMT	W306	4147	6 PIN POWER PIN HEADER MALE POLZED
C231		100N 50V 5%CAP 0805 SMT X7R	Q200		MMBTA92 PNP SOT-23 SMT	W307	4151	4 PIN POWER PIN HEADER MALE POLZED
C232		_33U 25V 20%CAP 6.3X5.5 SMT EL	Q201		MMBF4391LT1 NCH JFET SOT-23 SMT T&R	W402	4215	CONN HEADER STRAIGHT PIN 4POS 0.156
C233		100N 50V 5%CAP 0805 SMT X7R	Q203	2496	IRGP50B60PD1PBF T0247 NPN IGBT T	ZD200		MM3Z18VT1G 18V0 0W2 5% SMT ZEN
C234		100N 50V 5%CAP 0805 SMT X7R	Q204		MMBTA92 PNP SOT-23 SMT			
C235		_10U 16V 20%CAP 0805 SMT X5R	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		_10U 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 'X2' 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 'X2' 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 'Y' 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 'X2' 15MM AC	R225		W250 10R 5% 1206 SMT RES			
C316	5242	100N 250V 20%CAP BLK 'X2' 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		1W00 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		1W00 2R0 1% 2512 SMT RES			
D211		MURA240T3 400V 2A DIO 403D SMT	R242		2W00 0R02 1% OARS SMT RES			
D212		ES1J 600V 1A0 DO214AC SMT SMA	R243		2W00 0R05 1% OARS SMT RES			
D213		BZX84C15LT1 15V0 0W225 ZEN SOT23	R247		W125 4K7 5% 0805 SMT RES			
D214		CDSF4148 75V 0A15 1005 SMT	R248		1W00 2R0 1% 2512 SMT RES			
D300		BRIDGE 45A 600V WIRE LEAD SIP	R249		W250 10R 5% 1206 SMT RES			
D301		ES1J 600V 1A0 DO214AC SMT SMA	R250		W250 10R 5% 1206 SMT RES			
D302		MURS120T3 200V 1A DIO DO214AA SMT	R251		W125 4K7 5% 0805 SMT RES			
D304		ES1J 600V 1A0 DO214AC SMT SMA	R252		W100 1M0 1% 0805 SMT RES			

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	2339	_10K B LIN 12MM DUAL 21DET P34	ZD2		MM3Z18VT1G 18V0 0W2 5% SMT ZEN
C1		__1U 25V 20%CAP 1206 SMT X7R	PCB1	1696BLANK	1_OZ 2SD 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 NP0	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 NP0	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 2V8 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 2V8 20MA 1206 SMT	W1		10 CIR DUAL ROW HDR 0.05 SPC SMT			
LD6A		GRN LED 2V8 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			

M1823 Parts Reference List 3/9/2020

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
AI-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 0A5 250VDC 350AC SMT 3912	R241		1W00 2R0 1% 2512 SMT RES
C204		100N 50V 5%CAP 0805 SMT X7R	F2		FUSE FAST 0A5 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 HEATSPREADER	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 C0G	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 TAPTITE 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	_10U 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	SNL1	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 DRVR SO14
C234		100N 50V 5%CAP 0805 SMT X7R	L202	7974	1000UH 10% COIL 12MM SMT	U204		33078 DUAL OPAMP SMT SO-8
C235		_10U 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 OZ 2SD 89.81SQIN 1PER ES PSA2S	U302	6856	NJM7815FA TO220 P 15V0 REG IS V1
C239	5270	__2U2 250V 20%CAP BLK RAD .1EL	Q200		MMBTA92 PNP SOT-23 SMT	U303	6857	NJM7915FA TO220 N 15V0 REG IS V2
C241		__4U7 50V 10%CAP 1210 SMT CER	Q201		MMBF4391LT1 NCH JFET SOT-23 SMT T&R	W201	2328	8 CIR XH-HEADER 0.098IN
C242		_10U 16V 10%CAP 1206 SMT X7R	Q203	2496	IRGP50B60PD1PBF T0247 NPN IGBT T	W301	4243	6 POS HEADER ASSY (MALE) PCB MOUNT
C301		100N 100V 10%CAP 1206 SMT X7R	Q204		MMBTA92 PNP SOT-23 SMT	W302	4244	2 POS HEADER ASSY (MALE) PCB MOUNT
C302	5242	100N 250V 20%CAP BLK 'X2' 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 'X2' 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 'X2' 15MM AC	R204		W100 12K1 1% 0603 SMT RES			
C316	5242	100N 250V 20%CAP BLK 'X2' 15MM AC	R206		1W00 100K 5% 2512 SMT RES			
C401		150P 1000V 5%CAP 1206 SMT C0G	R207		W100 1K0 1% 0805 SMT RES			
C402		150P 1000V 5%CAP 1206 SMT C0G	R208		W125 4M7 5% 0805 SMT RES			
COR1	6663CORE	77908-A7 KOOL MU POWDER CORES	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 SCHTKY	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 SCHTKY	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			

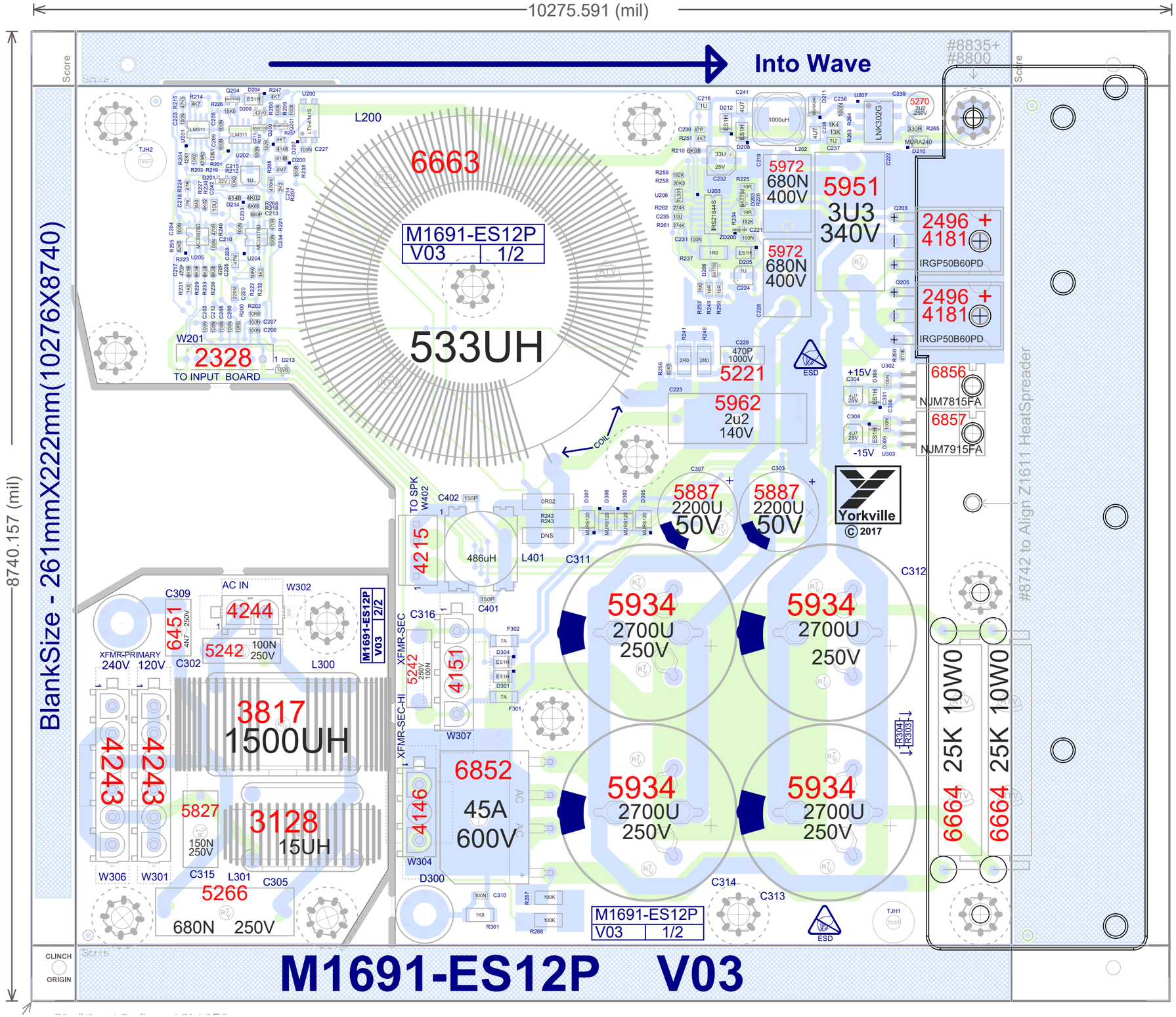
M2115 03 Parts Reference List 11/10/2021

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
AI-ASS	M2115-59	ES12P/ES15P/ES18P INPUT/DSP PCB	L3		220UH COIL 10X10MM SMT	R176		W125 3K32 1% 0805 SMT RES
C1		1U 25V 20%CAP 1206 SMT X7R	L6		8.2UH COIL 1210 SMT	R177		W125 100K 5% 0805 SMT RES
C2		100N 16V 10%CAP 0603 SMT X7R	L7		8.2UH COIL 1210 SMT	R180		W125 31K6 0.1% 0805 SMT RES
C3		1U 25V 20%CAP 1206 SMT X7R	L10		15.0UH COIL 0805 SMT	R181		W125 31K6 0.1% 0805 SMT RES
C4		100N 16V 10%CAP 0603 SMT X7R	L11		15.0UH COIL 0805 SMT	S1	4202	SP3T NONSHORTING VERT ROT SWT 3POS
C5		1U 25V 20%CAP 1206 SMT X7R	L12		15.0UH COIL 0805 SMT	S2	3439	DPDT MINI PC VERT MOMENTARY
C6	5669	470U 6V3 20%CAP RAD EL T&R	L25		15.0UH COIL 0805 SMT	S3	3522	DPDT MINI PC VERT SNP ALT
C7		100N 50V 5%CAP 0805 SMT X7R	LD1A		GRN LED 2V8 20MA 1206 SMT	S4	4221	SP7T NONSHORTING VERT ROT SWT 7POS
C8		10U 16V 20%CAP SMT ELC	LD2A		YEL LED 1V7 20MA 1206 SMT	SNL1	8370	1 MIL POLYIMIDE LABEL, 1" X .380"
C9		2N2 50V 10%CAP 0805 SMT X7R	LD3A		RED LED 1V5 20MA 1206 SMT	TP1		TEST POINT MINIATURE SMT
C10		6N8 50V 5%CAP 1206 SMT X7R	LD4A		YEL LED 1V7 20MA 1206 SMT	TP2		TEST POINT MINIATURE SMT
C11	5212	100N 100V 5%CAP T&R RAD .2FLM	LD5A		BLU LED 2V8 20MA 1206 SMT	TP3		TEST POINT MINIATURE SMT
C12		100N 50V 5%CAP 0805 SMT X7R	LD6A		GRN LED 2V8 20MA 1206 SMT	TP7		TEST POINT MINIATURE SMT
C13		100N 50V 5%CAP 0805 SMT X7R	P5	2339	10K B LIN 12MM DUAL 21DET P34	TP8		TEST POINT MINIATURE SMT
C14		100N 50V 5%CAP 0805 SMT X7R	PCB1	M2115BLANK	1 OZ 2SD 83.9SQIN 03PER ES18/15P	TP9		TEST POINT MINIATURE SMT
C15		100N 50V 5%CAP 0805 SMT X7R	R1		W125 47R 5% 0805 SMT RES	TP10		TEST POINT MINIATURE SMT
C16	5212	100N 100V 5%CAP T&R RAD .2FLM	R2		W125 4K12 1% 0805 SMT RES	TP12		TEST POINT MINIATURE SMT
C17		10U 16V 20%CAP SMT ELC	R3		W125 1K21 1% 0805 SMT RES	TP13		TEST POINT MINIATURE SMT
C18		10U 16V 20%CAP 0805 SMT X5R	R4		W125 37K4 1% 0805 SMT RES	TP14		TEST POINT MINIATURE SMT
C19		100N 50V 5%CAP 0805 SMT X7R	R5		W125 22K1 1% 0805 SMT RES	TP15		TEST POINT MINIATURE SMT
C20		100N 50V 5%CAP 0805 SMT X7R	R6		W125 10K00 0.1% 0805 SMT RES	U1		PROC4 BLE MODULE 14X19MM SMT
C21		100N 50V 5%CAP 0805 SMT X7R	R7		W100 499R 1% 0805 SMT RES	U2		MC33063ADR BUCK/BOOST INV IC SO8
C22		1U 25V 20%CAP 1206 SMT X7R	R8		W100 499R 1% 0805 SMT RES	U3		CS4271 CODEC SMT IC TSSOP28
C23		100N 50V 5%CAP 0805 SMT X7R	R9		W100 499R 1% 0805 SMT RES	U4		MK10DN512VLK10 100MHZ MCU IC LQFP80
C24		1U 25V 20%CAP 1206 SMT X7R	R10		W125 1K5 5% 0805 SMT RES	U5	7012	LP2950-33 LDRP TO92 FIXED 3V3 REG
C25		100N 50V 5%CAP 0805 SMT X7R	R11		W125 470R 5% 0805 SMT RES	U6	6796	LP2950-50 LDRP TO92 5V0 REG T&R
C26		1U 25V 20%CAP 1206 SMT X7R	R12		W125 10K00 0.1% 0805 SMT RES	U7		TL072 DUAL OPAMP SMT SO-8
C27		1U 25V 20%CAP 1206 SMT X7R	R13		W100 200R 1% 0805 SMT RES	U8		TL072 DUAL OPAMP SMT SO-8
C28		100N 50V 5%CAP 0805 SMT X7R	R14		W125 47R 5% 0805 SMT RES	U9		NE5532D DUAL OPAMP SMT SO-8
C29		100N 50V 5%CAP 0805 SMT X7R	R15		W250 0R27 5% 1206 SMT RES	U10		AT25010B EEPROM 1K SMT IC SO8
C30		100N 50V 5%CAP 0805 SMT X7R	R16		W100 4K99 1% 0805 SMT RES	U11		NE5532D DUAL OPAMP SMT SO-8
C31		47U 35V 20%CAP 6.3MM SMT ELE	R17		W125 1K50 1% 0805 SMT RES	U12		NE5532D DUAL OPAMP SMT SO-8
C32		470P 50V 5%CAP 0603 SMT NPO	R18		W100 100R 1% 0805 SMT RES	W1		10 CIR DUAL ROW HDR 0.05 SPC SMT
C33		470P 250V 5%CAP 0603 SMT NP0	R19		W125 47R 5% 0805 SMT RES	W2	2328	8 CIR XH-HEADER 0.098IN
C34		10U 25V 20%CAP 5X5.4 SMT EL	R20		W125 47R 5% 0805 SMT RES	W3		10 CIR DUAL ROW HDR 0.05 SPC SMT
C35		100N 50V 5%CAP 0805 SMT X7R	R21		W125 1K800 0.1% 0805 SMT RES	X1	6543	48R 265V RESETTABLE THERMISTOR PTC
C36		100N 50V 5%CAP 0805 SMT X7R	R22		W100 100R 1% 0805 SMT RES	ZD1		MM3Z18VT1G 18V0 0W2 5% SMT ZEN
C37		470P 250V 5%CAP 0603 SMT NP0	R23		W100 100R 1% 0805 SMT RES	ZD2		MM3Z18VT1G 18V0 0W2 5% SMT ZEN
C38		100N 50V 5%CAP 0805 SMT X7R	R24		W125 10K00 0.1% 0805 SMT RES			
C39		100N 50V 5%CAP 0805 SMT X7R	R25		W125 10K00 0.1% 0805 SMT RES			
C40		10U 25V 20%CAP 5X5.4 SMT EL	R26		W125 10K00 0.1% 0805 SMT RES			
C41	5212	100N 100V 5%CAP T&R RAD .2FLM	R27		W100 499R 1% 0805 SMT RES			
C42	5212	100N 100V 5%CAP T&R RAD .2FLM	R28		W100 2K0 1% 0805 SMT RES			
C43		20P 100V 5%CAP 0805 SMT NPO	R29		W125 0R 5% 0805 SMT RES			
C44		20P 100V 5%CAP 0805 SMT NPO	R30		W100 2K32 1% 0805 SMT RES			
C45		20P 100V 5%CAP 0805 SMT NPO	R33		W100 100R 1% 0805 SMT RES			
C46		1U 25V 20%CAP 1206 SMT X7R	R35		W125 249R0 1% 0805 SMT RES			
C47		100N 50V 5%CAP 0805 SMT X7R	R36		W125 0R 5% 0805 SMT RES			
C48		10U 16V 20%CAP SMT ELC	R37		W100 100R 1% 0805 SMT RES			
C49		470P 50V 5%CAP 0603 SMT NPO	R38		W100 100R 1% 0805 SMT RES			
C50		100N 50V 5%CAP 0805 SMT X7R	R39		W125 0R 5% 0805 SMT RES			
C51		100N 50V 5%CAP 0805 SMT X7R	R40		W125 0R 5% 0805 SMT RES			
C52		330P 50V 5%CAP 0805 SMT NPO	R42		W125 1K800 0.1% 0805 SMT RES			
C53		22U 25V 20%CAP 1210 SMT X7R	R44		W125 4K7 5% 0805 SMT RES			
C54		2N2 50V 10%CAP 0805 SMT X7R	R45		W125 750R 1% 0805 SMT RES			
C55		100U 25V 20%CAP 8X5.4 SMT ELE	R46		W100 2K32 1% 0805 SMT RES			
C56		330P 50V 5%CAP 0805 SMT NPO	R47		W125 4K32 1% 0805 SMT RES			
C57		100N 50V 5%CAP 0805 SMT X7R	R48		W125 750R 1% 0805 SMT RES			
C58		1N5 50V 5%CAP 0805 SMT NPO	R49		W125 750R 1% 0805 SMT RES			
C59		22U 16V 5%CAP 5X5.5 SMT ELC	R51		W125 750R 1% 0805 SMT RES			
C60		2N7 100V 10%CAP 0805 SMT C0G	R52		W125 560R 5% 0805 SMT RES			
C61		470P 50V 5%CAP 0603 SMT NPO	R53		W125 698R 1% 0805 SMT RES			
C62		2N7 100V 10%CAP 0805 SMT C0G	R54		W125 1K27 1% 0805 SMT RES			
C63		470P 50V 5%CAP 0603 SMT NPO	R55		W125 560R 5% 0805 SMT RES			
C134		100N 50V 5%CAP 0805 SMT X7R	R56		W100 200R 1% 0805 SMT RES			
C135		100N 50V 5%CAP 0805 SMT X7R	R57		W125 187K 0.1% 0805 SMT RES			
D1		B160-E3 60V 1A0 SCH DO214AC SMT	R58		W125 187K 0.1% 0805 SMT RES			
D2		CDSF4148 75V 0A15 1005 SMT	R65		W125 47K 5% 0805 SMT RES			
D3		CDSF4148 75V 0A15 1005 SMT	R66		W100 100R 1% 0805 SMT RES			
D10		CDSF4148 75V 0A15 1005 SMT	R69		W100 100R 1% 0805 SMT RES			
D11		CDSF4148 75V 0A15 1005 SMT	R74		W125 10K 5% 0805 SMT RES			
D39		CDSF4148 75V 0A15 1005 SMT	R75		W100 100R 1% 0805 SMT RES			
D40		CDSF4148 75V 0A15 1005 SMT	R76		W125 10K 5% 0805 SMT RES			
J1	4140	XLR MALE PCB MT VERT 24MM A-SERIES	R77		W063 634R 1% 0603 SMT RES			
J2	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	R78		W100 100R 1% 0805 SMT RES			
J3	4063	1/4IN ISO JCK PCMT VT STER RT SWT	R79		W063 634R 1% 0603 SMT RES			
J5	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	R107		W125 22K1 1% 0805 SMT RES			
J7	4063	1/4IN ISO JCK PCMT VT STER RT SWT	R117		W125 31K6 0.1% 0805 SMT RES			
L1		FERRITE BEAD 600R @100MHZ 0805 SMT	R164		W125 1K5 5% 0805 SMT RES			
L2		15.0UH COIL 0805 SMT	R165		W125 31K6 0.1% 0805 SMT RES			

M2125-02 Parts Reference List 2/16/2022

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
AI-ASS	M2125-59	ES12P/ES15P/ES18P INPUT/DSP PCB	L12		15.0UH COIL 0805 SMT	S1	4202	SP3T NONSHORTING VERT ROT SWT 3POS						
C1		1U 25V 20%CAP 1206 SMT X7R	L25		15.0UH COIL 0805 SMT	S2	3439	DPDT MINI PC VERT MOMENTARY						
C2		100N 16V 10%CAP 0603 SMT X7R	LD1A		GRN LED 2V8 20MA 1206 SMT	S3	3522	DPDT MINI PC VERT SNP ALT						
C3		1U 25V 20%CAP 1206 SMT X7R	LD2A		YEL LED 1V7 20MA 1206 SMT	S4	4221	SP7T NONSHORTING VERT ROT SWT 7POS						
C4		100N 16V 10%CAP 0603 SMT X7R	LD3A		RED LED 1V5 20MA 1206 SMT	SNL1	8370	1 MIL POLYIMIDE LABEL, 1" X .380"						
C5		1U 25V 20%CAP 1206 SMT X7R	LD4A		YEL LED 1V7 20MA 1206 SMT	TP1		TEST POINT MINIATURE SMT						
C6	5669	470U 6V3 20%CAP RAD EL T&R	LD5A		BLU LED 2V8 20MA 1206 SMT	TP2		TEST POINT MINIATURE SMT						
C7		100N 50V 5%CAP 0805 SMT X7R	LD6A		GRN LED 2V8 20MA 1206 SMT	TP3		TEST POINT MINIATURE SMT						
C8		10U 16V 20%CAP SMT ELC	P5	2339	10K B LIN 12MM DUAL 21DET P34	TP4		TEST POINT MINIATURE SMT						
C9		2N2 50V 10%CAP 0805 SMT X7R	PCB1	M2125BLANK	1 OZ 2SD 83.9SQIN 03PER ES18/15P	TP5		TEST POINT MINIATURE SMT						
C10		6N8 50V 5%CAP 1206 SMT X7R	PTB11		TEST POINT MINIATURE SMT	TP7		TEST POINT MINIATURE SMT						
C11	5212	100N 100V 5%CAP T&R RAD .2FLM	R1		W125 47R 5% 0805 SMT RES	TP8		TEST POINT MINIATURE SMT						
C12		100N 50V 5%CAP 0805 SMT X7R	R2		W125 4K12 1% 0805 SMT RES	TP9		TEST POINT MINIATURE SMT						
C13		100N 50V 5%CAP 0805 SMT X7R	R3		W125 1K21 1% 0805 SMT RES	TP10		TEST POINT MINIATURE SMT						
C14		100N 50V 5%CAP 0805 SMT X7R	R4		W125 37K4 1% 0805 SMT RES	TP12		TEST POINT MINIATURE SMT						
C15		100N 50V 5%CAP 0805 SMT X7R	R5		W125 22K1 1% 0805 SMT RES	TP13		TEST POINT MINIATURE SMT						
C16	5212	100N 100V 5%CAP T&R RAD .2FLM	R6		W125 10K00 0.1% 0805 SMT RES	TP14		TEST POINT MINIATURE SMT						
C17		10U 16V 20%CAP SMT ELC	R7		W100 499R 1% 0805 SMT RES	TP15		TEST POINT MINIATURE SMT						
C18		10U 16V 20%CAP 0805 SMT X5R	R8		W100 499R 1% 0805 SMT RES	U1		PROC4 BLE MODULE 14X19MM SMT						
C19		100N 50V 5%CAP 0805 SMT X7R	R9		W100 499R 1% 0805 SMT RES	U2		MC33063ADR BUCK/BOOST INV IC SO8						
C20		100N 50V 5%CAP 0805 SMT X7R	R10		W125 1K5 5% 0805 SMT RES	U3		CS4271 CODEC SMT IC TSSOP28						
C21		1U 25V 20%CAP 1206 SMT X7R	R11		W125 470R 5% 0805 SMT RES	U4		MK40DX64VLK7 72MHZ MCU IC LQFP80						
C22		1U 25V 20%CAP 1206 SMT X7R	R12		W125 10K00 0.1% 0805 SMT RES	U5	7012	LP2950-33 LDRP TO92 FIXED 3V3 REG						
C23		100N 50V 5%CAP 0805 SMT X7R	R13		W100 200R 1% 0805 SMT RES	U6	6796	LP2950-50 LDRP TO92 5V0 REG T&R						
C24		1U 25V 20%CAP 1206 SMT X7R	R14		W125 47R 5% 0805 SMT RES	U7		TL072 DUAL OPAMP SMT SO-8						
C25		100N 50V 5%CAP 0805 SMT X7R	R15		W250 0R27 5% 1206 SMT RES	U8		TL072 DUAL OPAMP SMT SO-8						
C26		1U 25V 20%CAP 1206 SMT X7R	R16		W100 4K99 1% 0805 SMT RES	U9		NE5532D DUAL OPAMP SMT SO-8						
C29		100N 50V 5%CAP 0805 SMT X7R	R17		W125 1K47 1% 0805 SMT RES	U10		AT25010B EEPROM 1K SMT IC SO8						
C30		100N 50V 5%CAP 0805 SMT X7R	R18		W100 100R 1% 0805 SMT RES	U11		NE5532D DUAL OPAMP SMT SO-8						
C31		47U 35V 20%CAP 6.3MM SMT ELE	R19		W125 47R 5% 0805 SMT RES	U12		NE5532D DUAL OPAMP SMT SO-8						
C32		470P 50V 5%CAP 0603 SMT NPO	R20		W125 47R 5% 0805 SMT RES	W1		10 CIR DUAL ROW HDR 0.05 SPC SMT						
C33		470P 250V 5%CAP 0603 SMT NP0	R21		W125 1K800 0.1% 0805 SMT RES	W2	2328	8 CIR XH-HEADER 0.098IN						
C34		10U 25V 20%CAP 5X5.4 SMT EL	R22		W100 100R 1% 0805 SMT RES	W3		10 CIR DUAL ROW HDR 0.05 SPC SMT						
C35		100N 50V 5%CAP 0805 SMT X7R	R23		W100 100R 1% 0805 SMT RES	X1	6543	48R 265V RESETTABLE THERMISTOR PTC						
C36		100N 50V 5%CAP 0805 SMT X7R	R24		W125 10K00 0.1% 0805 SMT RES	ZD1		MM3Z18VT1G 18V0 0W2 5% SMT ZEN						
C37		470P 250V 5%CAP 0603 SMT NP0	R25		W125 10K00 0.1% 0805 SMT RES	ZD2		MM3Z18VT1G 18V0 0W2 5% SMT ZEN						
C38		100N 50V 5%CAP 0805 SMT X7R	R26		W125 10K00 0.1% 0805 SMT RES									
C39		100N 50V 5%CAP 0805 SMT X7R	R27		W100 499R 1% 0805 SMT RES									
C40		10U 25V 20%CAP 5X5.4 SMT EL	R28		W100 2K0 1% 0805 SMT RES									
C41	5212	100N 100V 5%CAP T&R RAD .2FLM	R29		W125 0R 5% 0805 SMT RES									
C42	5212	100N 100V 5%CAP T&R RAD .2FLM	R30		W100 2K32 1% 0805 SMT RES									
C43		20P 100V 5%CAP 0805 SMT NPO	R33		W100 100R 1% 0805 SMT RES									
C44		20P 100V 5%CAP 0805 SMT NPO	R35		W125 249R0 1% 0805 SMT RES									
C45		20P 100V 5%CAP 0805 SMT NPO	R36		W125 0R 5% 0805 SMT RES									
C48		10U 16V 20%CAP SMT ELC	R37		W100 100R 1% 0805 SMT RES									
C49		470P 50V 5%CAP 0603 SMT NPO	R38		W100 100R 1% 0805 SMT RES									
C50		100N 50V 5%CAP 0805 SMT X7R	R39		W125 0R 5% 0805 SMT RES									
C51		100N 50V 5%CAP 0805 SMT X7R	R40		W125 0R 5% 0805 SMT RES									
C52		330P 50V 5%CAP 0805 SMT NPO	R42		W125 1K800 0.1% 0805 SMT RES									
C53		22U 25V 20%CAP 1210 SMT X7R	R44		W125 4K7 5% 0805 SMT RES									
C54		2N2 50V 10%CAP 0805 SMT X7R	R45		W125 750R 1% 0805 SMT RES									
C55		100U 25V 20%CAP 8X5.4 SMT ELE	R46		W100 2K32 1% 0805 SMT RES									
C56		330P 50V 5%CAP 0805 SMT NPO	R47		W125 4K32 1% 0805 SMT RES									
C57		100N 50V 5%CAP 0805 SMT X7R	R48		W125 750R 1% 0805 SMT RES									
C58		1N5 50V 5%CAP 0805 SMT NPO	R49		W125 750R 1% 0805 SMT RES									
C60		2N7 100V 10%CAP 0805 SMT C0G	R51		W125 750R 1% 0805 SMT RES									
C61		470P 50V 5%CAP 0603 SMT NPO	R52		W125 560R 5% 0805 SMT RES									
C62		2N7 100V 10%CAP 0805 SMT C0G	R53		W125 698R 1% 0805 SMT RES									
C63		470P 50V 5%CAP 0603 SMT NPO	R54		W125 1K27 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	R65		W125 47K 5% 0805 SMT RES									
D10		CDSF4148 75V 0A15 1005 SMT	R66		W100 100R 1% 0805 SMT RES									
D11		CDSF4148 75V 0A15 1005 SMT	R69		W100 100R 1% 0805 SMT RES									
D39		CDSF4148 75V 0A15 1005 SMT	R74		W125 10K 5% 0805 SMT RES									
D40		CDSF4148 75V 0A15 1005 SMT	R75		W100 100R 1% 0805 SMT RES									
J1	4140	XLR MALE PCB MT VERT 24MM A-SERIES	R76		W125 10K 5% 0805 SMT RES									
J2	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	R77		W063 634R 1% 0603 SMT RES									
J3	4063	1/4IN ISO JCK PCMT VT STER RT SWT	R78		W100 100R 1% 0805 SMT RES									
J5	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	R79		W063 634R 1% 0603 SMT RES									
J7	4063	1/4IN ISO JCK PCMT VT STER RT SWT	R107		W125 22K1 1% 0805 SMT RES									
L1		FERRITE BEAD 600R @100MHZ 0805 SMT	R117		W125 31K6 0.1% 0805 SMT RES									
L2		15.0UH COIL 0805 SMT	R164		W125 1K5 5% 0805 SMT RES									
L3		220UH COIL 10X10MM SMT	R165		W125 31K6 0.1% 0805 SMT RES									
L6		8.2UH COIL 1210 SMT	R176		W125 3K32 1% 0805 SMT RES									
L7		8.2UH COIL 1210 SMT	R177		W125 100K 5% 0805 SMT RES									
L10		15.0UH COIL 0805 SMT	R180		W125 31K6 0.1% 0805 SMT RES									
L11		15.0UH COIL 0805 SMT	R181		W125 31K6 0.1% 0805 SMT RES									

M1691-ES12P


10275.591 (mil)
8740.157 (mil)
BlankSize - 261mmX222mm(10276X8740)
Into Wave
#8835+
#8800
Score
L200
6663
M1691-ES12P
V03 1/2
533UH
W201
2328
TO INPUT BOARD
5972
680N
400V
5951
3U3
340V
5972
680N
400V
2496 +
4181
IRGP50B60PD
2496 +
4181
IRGP50B60PD
5270
ESD
6856
NJM7815FA
6857
NJM7915FA
+15V
-15V
5962
2u2
140V
5221
470P
1000V
COIL
TO SPK
W402
4215
486uH
L401
C311
5887
2200U
50V
5887
2200U
50V
Yorkville
© 2017
C312
5934
2700U
250V
5934
2700U
250V
5934
2700U
250V
5934
2700U
250V
6664
25K
10W0
6664
25K
10W0
#8742 to Align Z1611 HeatSpreader
AC IN
W302
C309
6451
4244
5242
100N
250V
XFMR-PRIMARY
240V
120V
C302
L300
M1691-ES12P
V03 2/2
3817
1500UH
4243
4243
5827
150N
250V
3128
15UH
W306
W301
C315
L301
C305
5266
680N 250V
XFMR-SEC
XFMR-SEC-HI
4151
4146
W307
W304
6852
45A
600V
D300
M1691-ES12P
V03 1/2
C314
C313
ESD
TJH1
TJH2
CLINCH
ORIGIN
M1691-ES12P V03

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.

YS#: 8742
DESC: 4-40X3/8 PAN

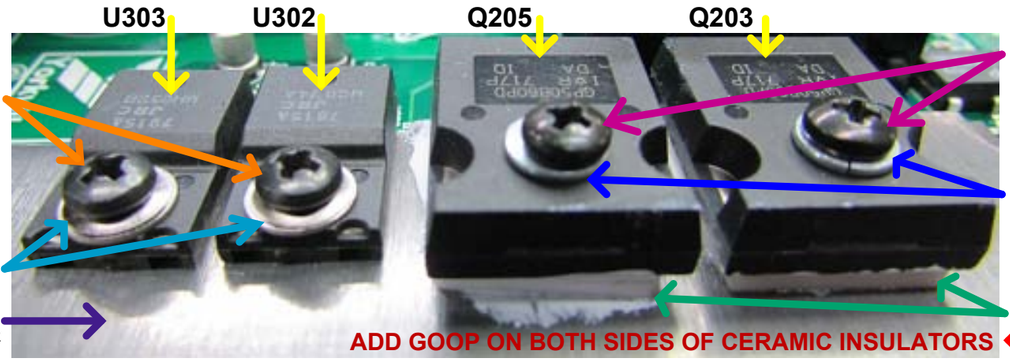
YS#: ZC1611
DESC: HEAT SPREADER

YS#: 8800
DESC: 6-32 KEPS NUT

YS#: 8835
DESC: 6-32X1/2 PAN
INSERT FROM BOTTOM

MOUNTING HARDWARE FOR U302/U303 AND Q203/Q205:

TOP VIEW:



YS#: 8871
DESC: 4-40X5/8 PAN

YS#: 8902
DESC: 4-40X3/4 PAN

YS#: 8485
DESC: #6 ZINC WASHER

YS#: 3501
DESC: COMP WASHER

YS#: Z1611
DESC: HEAT SPREADER

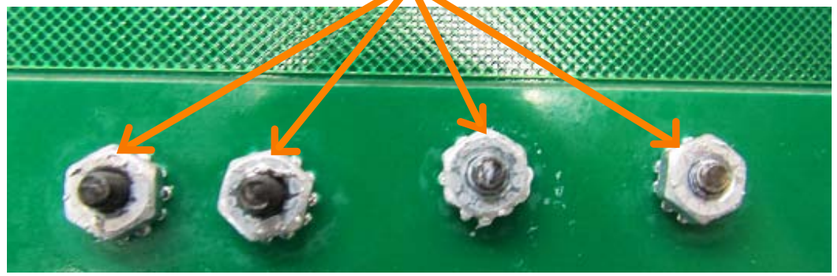
YS#: 4181
DESC: CERAMIC INSULATOR

ADD GOOP ON BOTH SIDES OF CERAMIC INSULATORS

IMPORTANT!

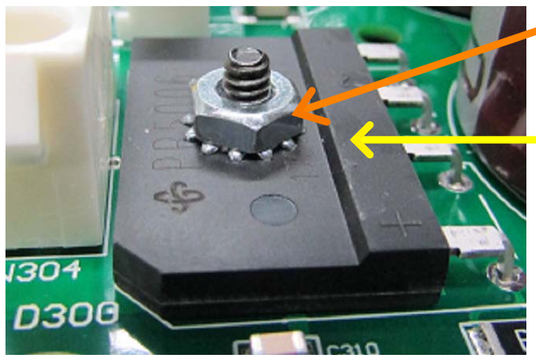
BOTTOM VIEW:

YS#: 8701
DESC: 4-40 KEPS NUT



MOUNTING HARDWARE FOR D300:

TOP VIEW:

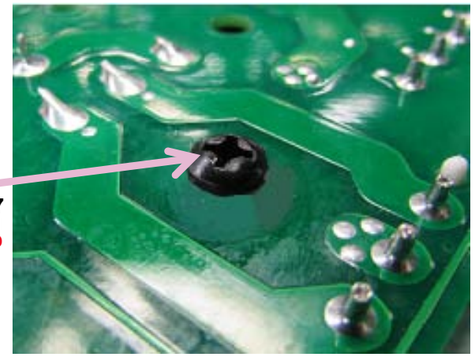


YS#: 8800
DESC: 6-32 KEPS NUT

D300

YS#: 8837
DESC: 6-32X1/2 PAN
NO WASHER NEEDED

BOTTOM VIEW:



RTV INSTRUCTIONS:

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

ADD RTV

Add RTV UNDER R303 AND R304 on the heatspreader

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

Yorkville	Section:	Assembly Documentation			
	Product(s):	ES12P/ES15P/ES18P/ES21P/PSA1S/PSA2S			
	PCB#:	Rev#: V03	EML Rev#: 01	Sheet 3 Of 3	
	Modified: 2019-02-01	File: Assembly.SchDoc		Tmp Date: TemplateRevDate	

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	27-OCT-2016	V01		RELEASED FOR PRODUCTION
2	07-JUL-2017	V01	9077	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	.	.	.	.
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS				
REF	FUNCTION	POT#	STYLE	KNOB#
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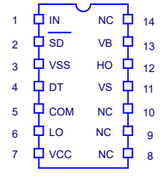
PINOUT DIAGRAMS

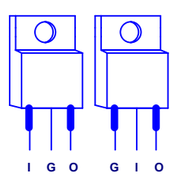
CASES AND PINS

IRS21844S



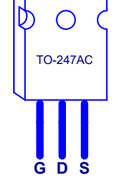
#6686

NJM7815 NJM7915



#6856 #6857

IRGP50B60PDPBF
IRGP35B60PDPBF



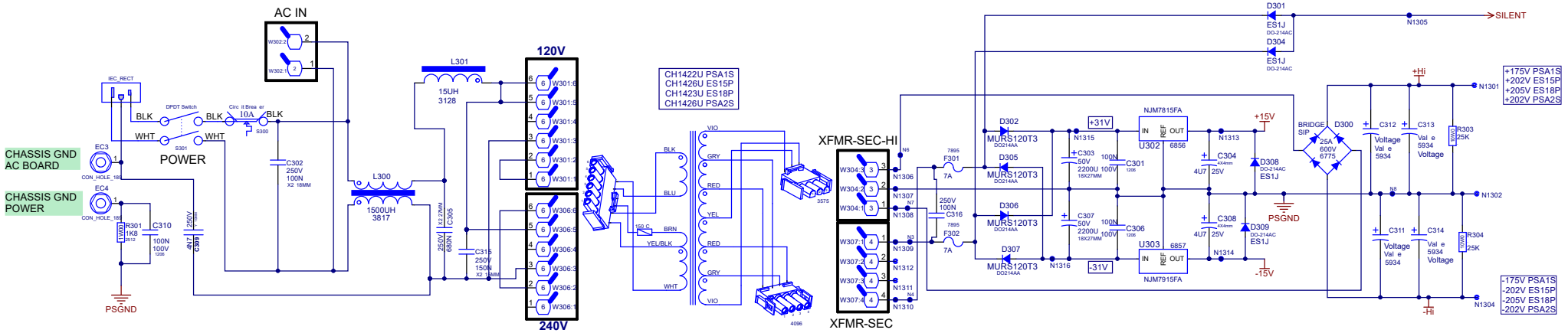
#2496 #2307

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

Yorkville

Section:	Design Information And History				
Product(s):	ES12P/ES15P/ES18P/ES21P/PSA1S/PSA2S				
PCB#:		Rev#: V03	EML Rev#: 01	Sheet 2	Of 3
Modified: 2019-02-01		File: History.SchDoc		Tmp Rev: V028	

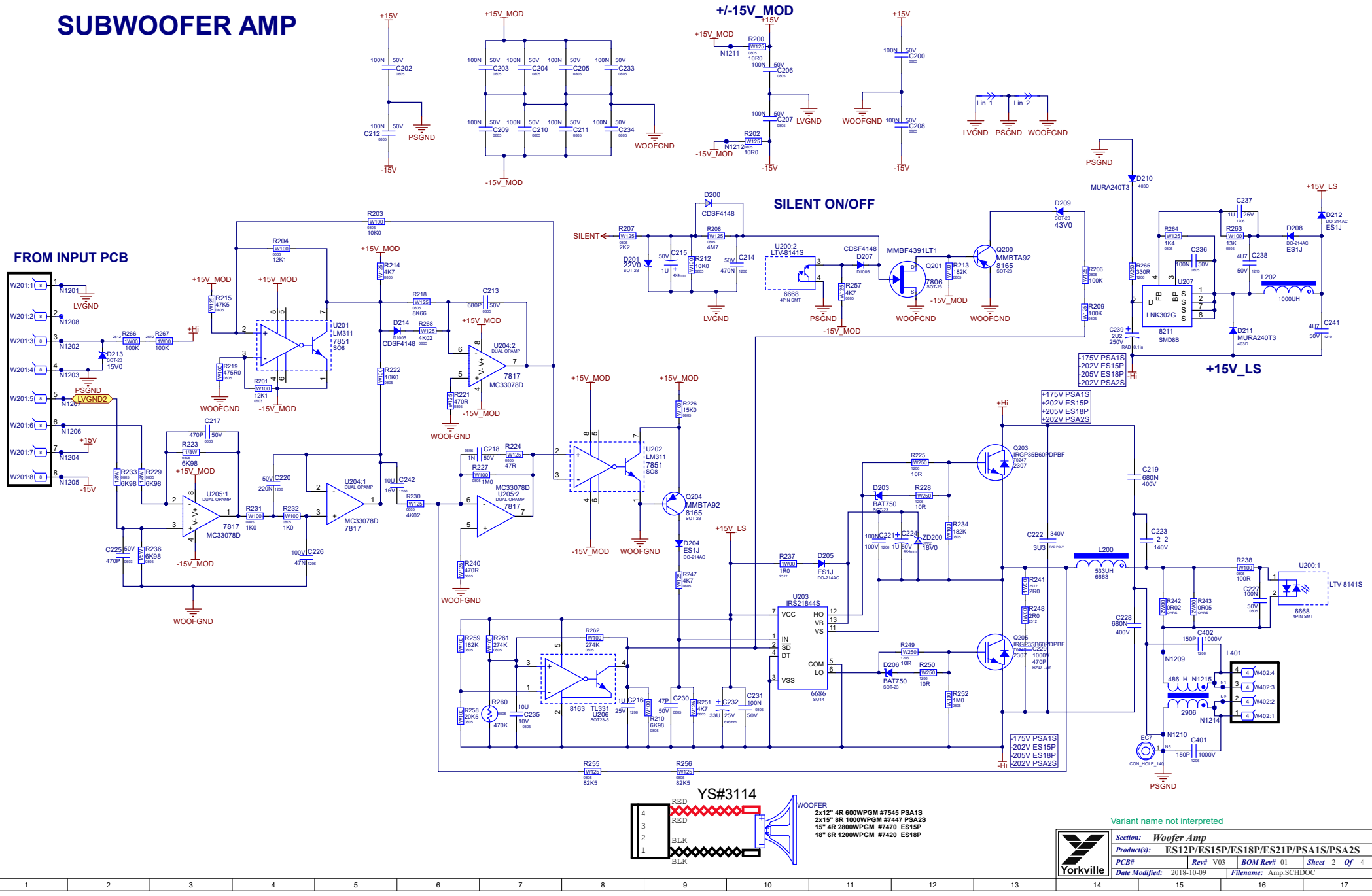
POWER SUPPLY



Variant name not interpreted

Yorkville	Section: Power Supply		
	Product(s): ES12P/ES15P/ES18P/ES21P/PSA1S/PSA2S		
	PCB#	Rev# V03	BOM Rev# 01	Sheet 3 Of 4
	Date Modified: 2018-10-09	Filename: Supply.SCHDOC	

SUBWOOFER AMP



Variant name not interpreted

Yorkville	Section: Woofer Amp		
	Product(s): ES12P/ES15P/ES18P/ES21P/PSA1S/PSA2S		
	PCB#	Rev# V03	BOM Rev# 01
	Date Modified: 2018-10-09		Filename: Amp.SCHDOC

Sheet 2 Of 4

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	27-OCT-2016	V01		RELEASED FOR PRODUCTION
2	07-JUL-2017	V01	9077	REMOVE SIL PADS YS# 3797 AND CHANGE SCREW 8741 TO 8871
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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
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS				
REF	FUNCTION	POT#	STYLE	KNOB#
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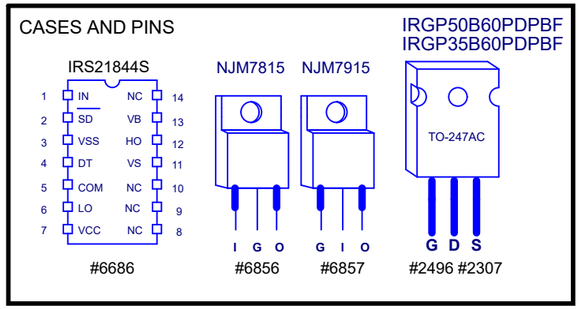
PINOUT DIAGRAMS



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

Yorkville

Section:	Design Information And History			
Product(s):	ES12P/ES15P/ES18P/ES21P/PSA1S/PSA2S			
PCB#:		Rev#: V03	EML Rev#: 01	Sheet 2 Of 3
Modified: 2019-02-01		File: History.SchDoc		Tmp Rev: V028

DSP SHEET

CODEC B OUTPUT FOR TEST PURPOSE

SIGNAL TO AMP INPUT

CHECK 10R RESISTER VALUES WITH TOM

MUST BE PLACED ON INPUT PCB NEAR RIBBON

SPACER GROUND HERE

REMOVE R40 TO USE CODEC RIGHT OUTPUT FOR AMP SIGNAL GND

TO CHASSIS GROUND

TO POWER AMP PCB

W1
13in 8C-26AWG
RIB 1 W/LCK

OUTPUT2
OUTPUT1
INPUT1
INPUT2
VSS
ANALOG GND
W2-PIN2
+15V
GNDA
+VPS
FROM POWER SUPPLY
+15VIP
-15VIP
GNDAMP
INPUTGND
CHSGND1
RIBBON_GND
POWER LED

Yorkville	www.yorkville.com
Product(s):	ES12/15/18/21P/NS21P
Description:	POWERED SUBWOOFER INPUT PCB
PCB#: M1696	Rev#: V04
EML Rev#: XX	Sheet 1 Of 5
Modified: 2021-08-19	File: INPUT.SchDoc
Tmp Rev: V031	

BLUE PROGRAM HEADER

BLUETOOTH

U1

CYBLE-012011-00

6793

14X19mm SMT Mod le

BLUE PROGRAM HEADER

W2-PIN2

R44 W125 4K7 0805

R25 W125 10K00 0805

+3V3

50V C135 0805 100N

VREFL

RAIL SENSE FROM MAIN SUPPLY

+VPS

R176 W125 3K32 0805

R10 W125 1K5 0805

50V C134 0805 100N

BT LD5A BLU 7030

ACTIVE LD6A GRN 7031

CLIP LD3A RED 7033

TLIM LD4A YEL 7032

XLIM LD2A YEL 7032

R8 W100 499R 0805

R35 W125 249R0 0805

R7 W100 499R 0805

R9 W100 499R 0805

R27 W100 499R 0805

DGGND

S4 4221 SW VERT 7POS

ROLL OFF

CHSGND1

S2:2 MOMENTARY 3439 2PDT MINI

S2:1

DOWN UP

BLUE TOOTH

50V C47 0805 100N

25V C46 1206 1U

+3V3

UART2_RX

R1 W125 47R 0805

BLE_RESET

W4 Program

SWO GND CLK RST DIO VCC

U10 6694 AT25010B SO8

GND WP SO CS SI SCK HOLD VCC

50V C23 0805 100N

1U C24 1206 25V

R14 W125 47R 0805

UART2_TX

U4 MK10DN512VLK10 6667 LQFP-80

PTE0/UART1_TX
PTE1UART1_RX
PTE2
PTE3
PTE4
PTE5
VDD
VSS
PTE16/UART2_TX
PTE17/UART2_RX
PTE18/ADC0_SE6a
PTE19/ADC0_SE6a
ADC1_DP3
ADC1_DM3
ADC1_DP0/
ADC1_DM0/
VDDA
VREFH
VREFL
VSSA

PTD7 PTD6 PTD5 PTD4 PTD3 PTD2 PTD1 PTD0
PTC17/UART3_TX
PTC16/UART3_RX
PTC11 PTC10 PTC9 PTC8 PTC7 PTC6 PTC5 PTC4

VDD VSS PTC3 PTC2 PTC1 PTC0 PTB19 PTB17 PTB16 PTB18 VDD VSS PTB11 PTB10 PTB3 ADC0_SE12 ADC0_SE9 ADC0_SE8 RESET_b PTA19

VREF_OUT/ DAC0_OUT/ XTAL32 EXTAL32 VBAT PTA0/SWD_CLK PTA1 PTA2 PTA3/SWD_DIO PTA4 PTA5/I2S0_TX_BCLK PTA12/I2S2_TXD0 PTA13/I2S0_TX_FS PTA14/I2S0_RX_BCLK PTA15/I2S0_RXD0 PTA16/I2S0_RX_FS PTA17/I2S_MCLK VDD VSS PTA18

C21 50V 0805 100N

C22 1U 1206 25V

MODE SELECT

SW VERT 3POS

FX Select

S1 4202

CHSGND1

C27 1U 1206 25V

C28 50V 0805 100N

L1 600R F0805

C5 1U 25V 1206

C1 25V 1U 1206

C2 100N 16V 0805

C3 25V 1U 1206

C4 100N 16V 0805

+3V3_BLE

DGNDBLU

NET TIE

R11 W125 470R 0805

PUT BESIDE EACH OTHER

8200NH L6

+3V3POT

ADC1_MP/DP TP9

TP10 ANALOG TP S

C18 10V 0805 10U

C29 50V 0805 100N

VREFL

C43 20P 0805 100V

C44 20P 0805 100V

R177 W125 100K 0805

N1

PROGRAM HEADER

SWD_DIO

SWD_CLK

RESET

W5 Program

SWO GND CLK RST DIO VCC

R20 W125 47R 0805

C25 50V 0805 100N

C26 1U 1206 25V

C45 100V 20P 0805

GAIN

P5:1 10K B 2339 D

P5:2 10K B 2339 D

P5:3 10K B 2339 D

GNDA

C41 63V 100N RAD .2in

C30 50V 0805 100N

RAD FILM CLOSE TO MICRO

ALUMINUM SPACER TO CHASSIS

+15V

L11 7967

+15SUPPLY

+5V SUPPLY FOR U1 DSP STEP DOWN CONVERTER

U2 MC33063A SO8

VCC SW_C DRV_C SW_E ISEN TCAP INV GND

7719

C55 100U 25V ELE 6mm

R15 W250 0R27 1206

470P C32 0603 50V

D1 SOD214AC B160-13-F

L3 220UH 8152

R2 W100 3K74 0805

R3 W125 1K21 0805

C6 RAD 6V3 470U

+5V

U5 LP2950-33 IN GND OUT TO92 7012

U6 LP2950-33 IN GND OUT TO92 7012

8200NH L7

C16 63V 100N RAD .2in

C11 63V 100N RAD .2in

C42 63V 100N RAD .2in

TP1 TP12 TP7 TP8 +3V3CD +3V3 +5V DGGND

VOLTAGE TEST POINTS

TP13 TP14 GND VSS

CODEC

U3 AK4558 6670 QFN28

VCOC PS CKS3 CKS2 CKS1 CKS0/TDMI LRCK SDTO BICK SDTI MCKI TVDD VSS2 VDD18

ROUT LOUT VCOM VSS1 AVDD RIN LIN LDOE LOPS PMDAR/CAD1 PMDAL/CAD0 PMADR/SDA PMADL/SCL PDN

OUTPUT2 OUTPUT1 INPUT2 INPUT1

C36 25V 1U 1206

C7 RAD .2in 10U 63V

C34 50V 0805 100N

R19 W0603 49R9

C35 1U 25V 1206

C8 50V 10U 63V RAD .2in

C12 50V 0805 100N

R24 W125 10K00 0805

GROUND GNDA NODES ON POWER AMP

GND VSS

Section:	ES12P-ES15P-ES18P-ES21P-NS21P		
Product(s):	ES12/15/18/21P /NS21P		
PCB#: M1696	Rev#: V04	EML Rev#: XX	Sheet 1 Of 5
Modified: 2021-08-19	File: DSP.SchDoc		Tmp Rev: V031

Yorkville

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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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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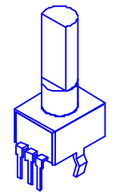
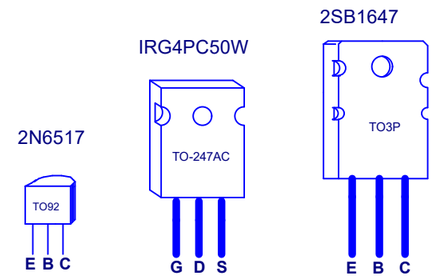


STYLE P32

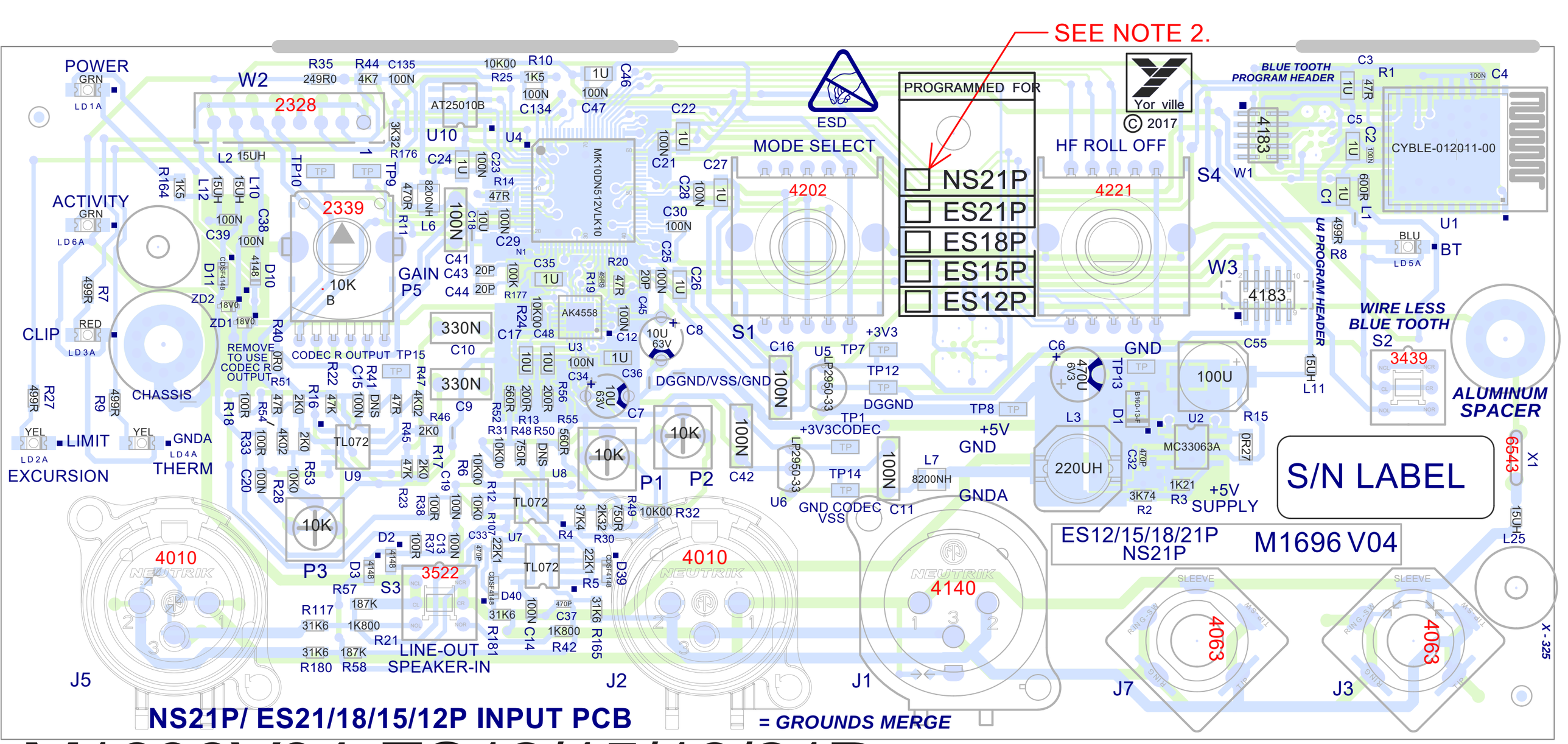
PINOUT DIAGRAMS



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

Yorkville

Section: Design Information And History				
Product(s): ES12/15/18/21P/NS21P				
PCB#: M1696	Rev#: V04	EML Rev#: XX	Sheet 1	Of
Modified: 2021-08-19	File: History.SchDoc		Tmp Rev: V031	


SEE NOTE 2.
PROGRAMMED FOR
NS21P
ES21P
ES18P
ES15P
ES12P
POWER
ACTIVITY
CLIP
CHASSIS
LIMIT
EXCURSION
GNDA
THERM
ESD
MODE SELECT
HF ROLL OFF
Yor ville
© 2017
BLUE TOOTH PROGRAM HEADER
CYBLE-012011-00
U4 PROGRAM HEADER
WIRE LESS BLUE TOOTH
ALUMINUM SPACER
S/N LABEL
ES12/15/18/21P NS21P
M1696 V04
GAIN P5
P1
P2
P3
S1
S2
S3
S4
W1
W2
W3
BT
CODEC R OUTPUT TP15
REMOVE TO USE CODEC R OUTPUT
DGGND/VSS/GND
DGGND
+3V3
+3V3CODEC
+5V
GND
GNDA
GND CODEC VSS
+5V SUPPLY
LINE-OUT
SPEAKER-IN
J5
J2
J1
J7
J3
4010
4140
4063
NEUTRIK
NS21P/ ES21/18/15/12P INPUT PCB
= GROUNDS MERGE
M1696V04 ES12/15/18/21P

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.

Yorkville

Section: **Assembly Documentation**			
Product(s): **ES12/15/18/21P /NS21P**			
PCB#: M1696	*Rev#:* V04	*EML Rev#:* XX	*Sheet* 1 *Of*
Modified: 2021-08-19	*File:* Assembly.SchDoc		*Tmp 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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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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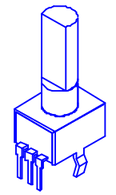
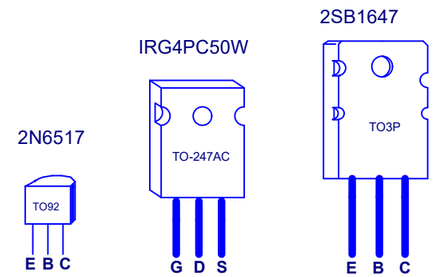


STYLE P32

PINOUT DIAGRAMS

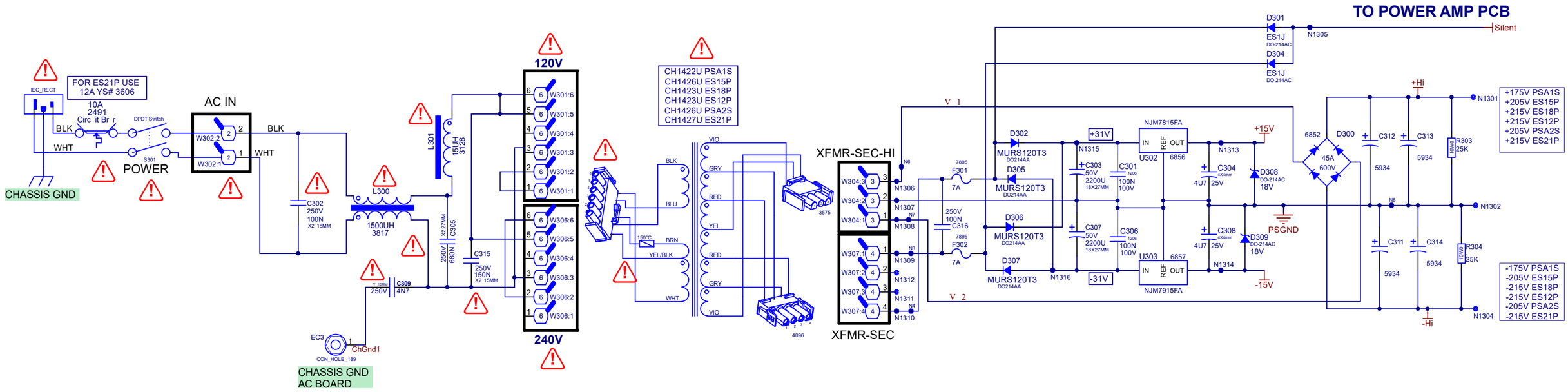


THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

Yorkville

Section: Design Information And History				
Product(s): ES12/15/18/21P/NS21P				
PCB#: M1696	Rev#: V04	EML Rev#: XX	Sheet 1	Of
Modified: 2021-08-19	File: History.SchDoc		Tmp Rev: V031	

POWER SUPPLY



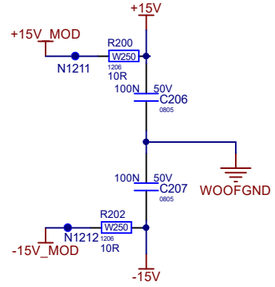
Critical Safety Components

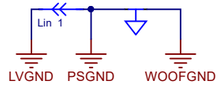
⚠ This symbol is placed next to Safety Critical Components

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

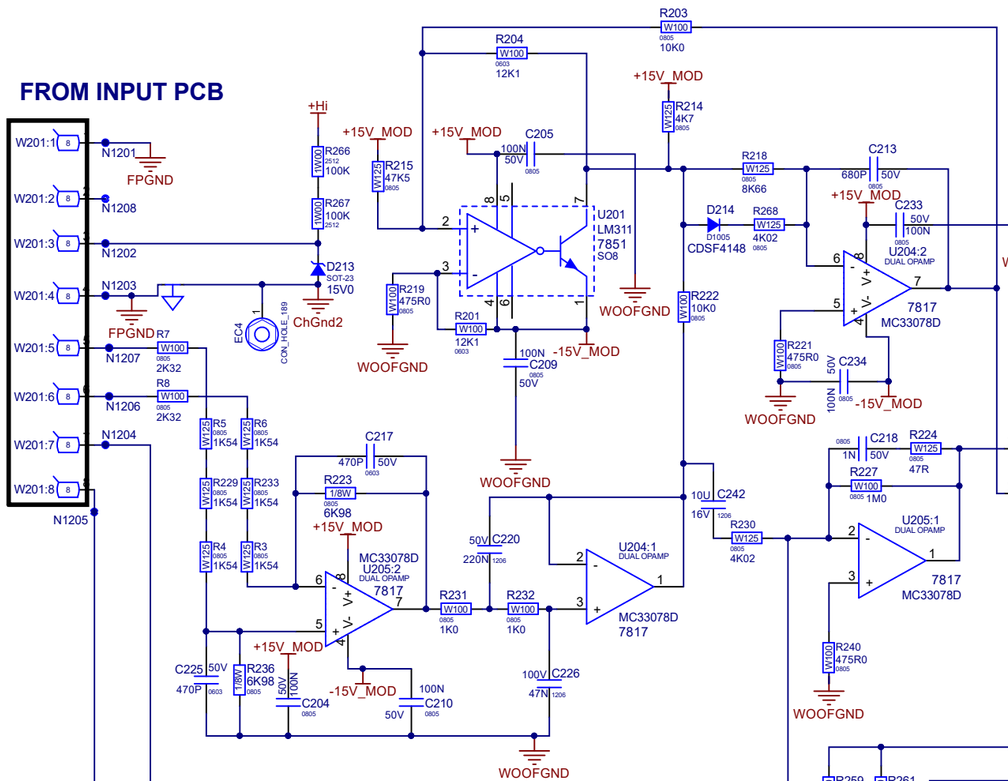
SUBWOOFER AMP

/-15V MOD

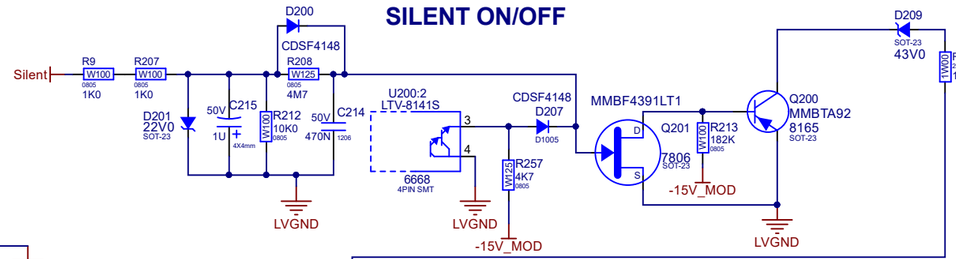


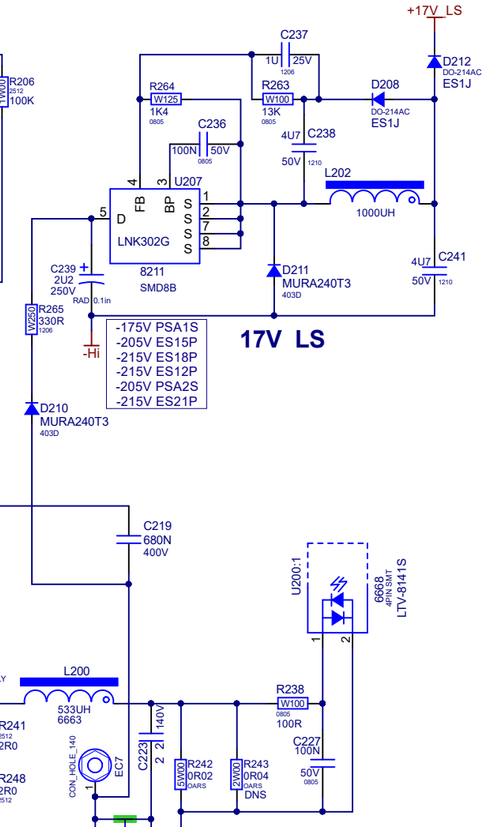


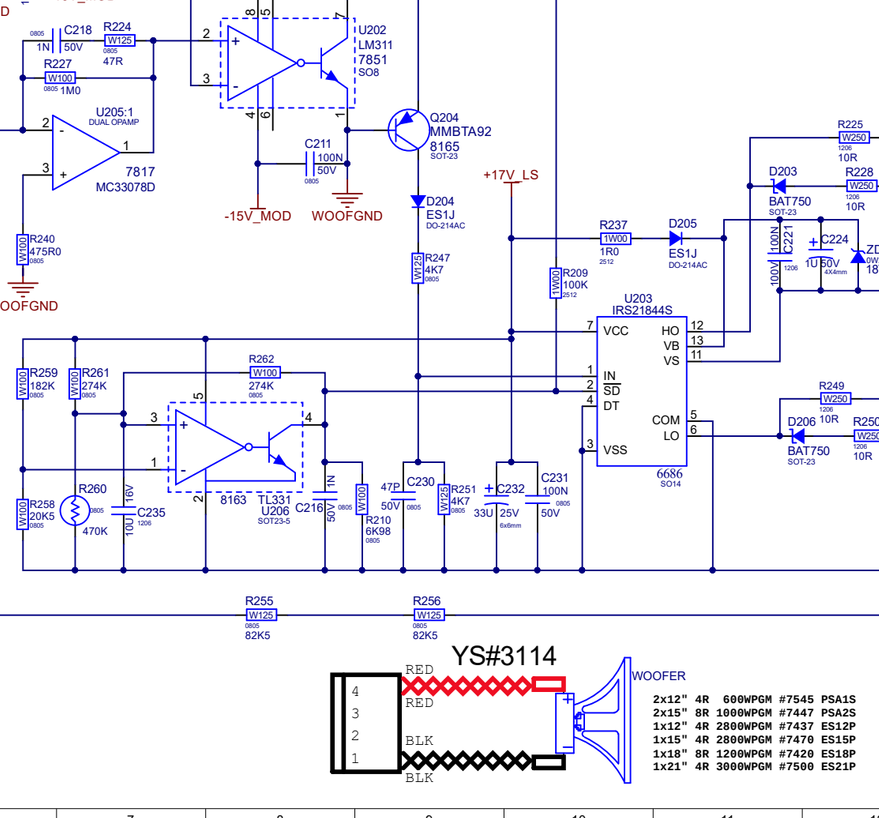
FROM INPUT PCB



SILENT ON/OFF







Yorkville	Section: Woofer Amp		
	Product(s): M1823-ES12P-15P-18P-PSA2S		
	PCB# 1823	Rev# V02	BOM Rev# 01
	Date Modified: 2020-10-2	Filename: Amp.SCHDOC	

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	08-May-2019	V01	.	New EMC compliant board
2	22-A g-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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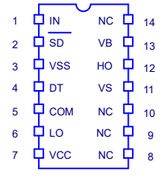
POTENTIOMETERS AND KNOBS

PINOUT DIAGRAMS

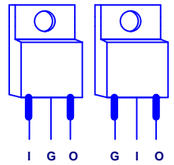
CASES AND PINS

IRS21844S



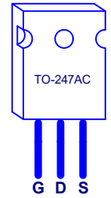
#6686

NJM7815 NJM7915



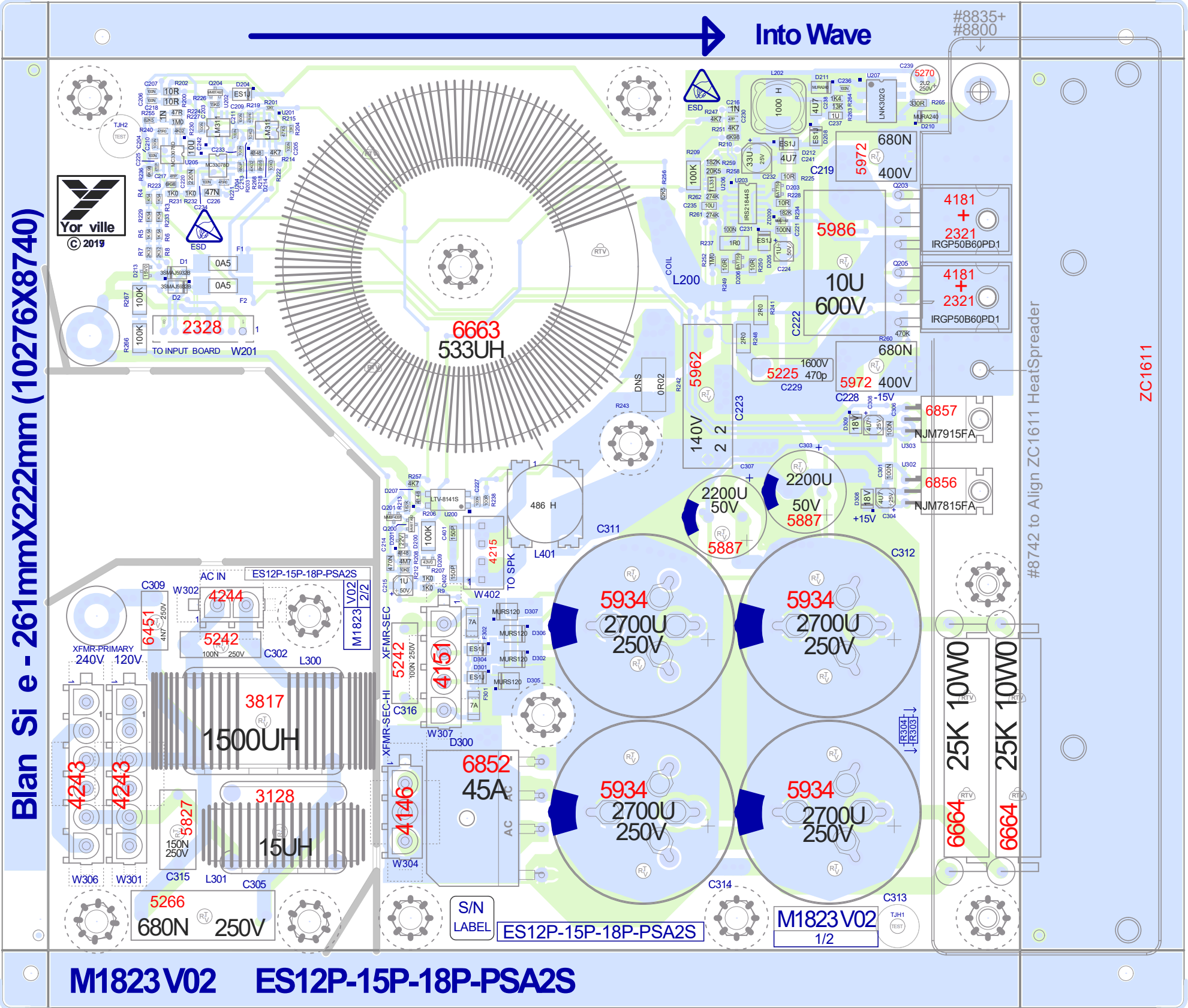
#6856 #6857

IRGP50B60PDPBF
IRGP35B60PDPBF



#2496 #2307

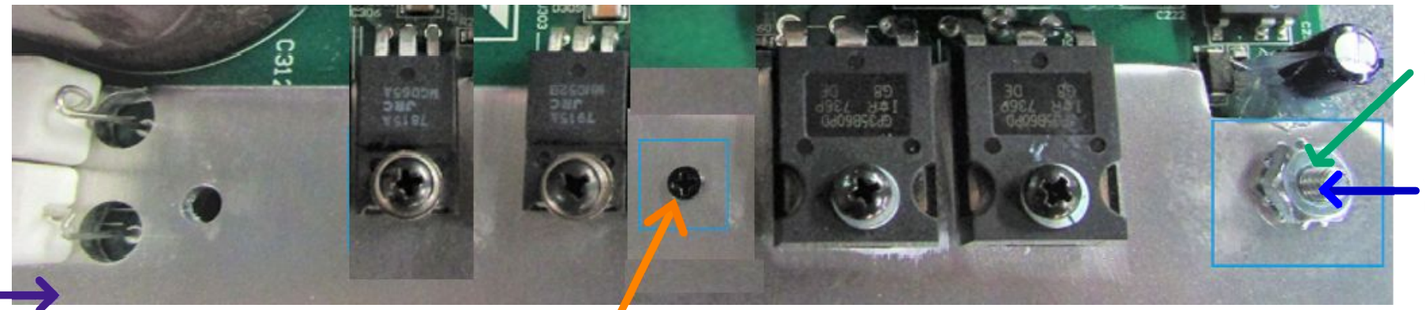
THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.


Into Wave
#8835+
#8800
Blan Si e - 261mmX222mm (10276X8740)
#8742 to Align ZC1611 HeatSpreader
ZC1611
Yor ville
© 2019
TJH2
TEST
ESD
F1
F2
0A5
0A5
D1
D2
3SMAJ5932B
3SMAJ5932B
2328
TO INPUT BOARD W201
6663
533UH
COIL
L200
5986
10U
600V
4181
+
2321
IRGP50B60PD1
4181
+
2321
IRGP50B60PD1
5962
140V
5225 1600V 470p
C229
5972 680N 400V
C228 -15V
6857
NJM7915FA
6856
NJM7815FA
2200U 50V
5887
2200U 50V
5887
+15V
C311
C312
5934 2700U 250V
5934 2700U 250V
5934 2700U 250V
5934 2700U 250V
25K 10W0
25K 10W0
6664
6664
R304
R303
AC IN
ES12P-15P-18P-PSA2S
W302
4244
5242
100N 250V
C302
L300
C309
6451
4N7 250V
XFMR-PRIMARY
240V 120V
3817
1500UH
4243
4243
5827
150N 250V
C315
L301
3128
15UH
C305
W306
W301
5266
680N 250V
XFMR-SEC
XFMR-SEC-HI
5242
100N 250V
C316
4151
W307
4146
W304
D300
6852
45A
AC
TO SPK
4215
W402
L401
486 H
S/N
LABEL
ES12P-15P-18P-PSA2S
M1823 V02
1/2
C314
C313
TJH1
TEST
M1823 V02
2/2
ES12P-15P-18P-PSA2S
M1823 V02 ES12P-15P-18P-PSA2S

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.



YS#: ZC1611
DESC: HEAT SPREADER

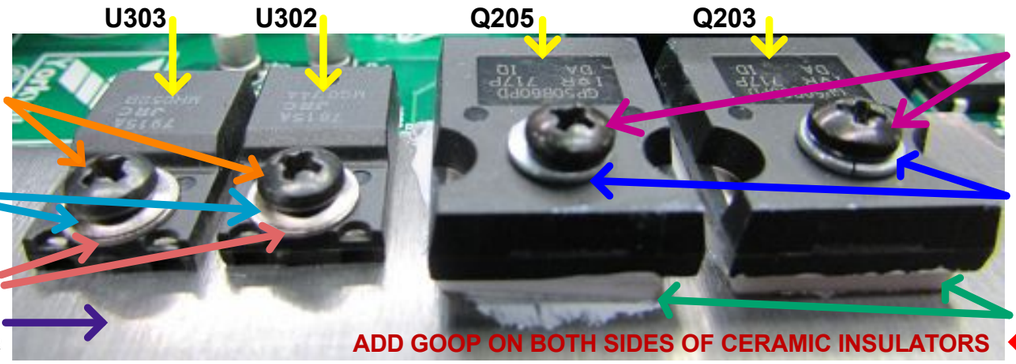
YS#: 8742
DESC: 4-40X3/8 TT Pan

YS#: 8800
DESC: 6-32 KEPS NUT

YS#: 8835
DESC: 6-32X1/2 PAN
INSERT FROM BOTTOM

MOUNTING HARDWARE FOR U302/U303 AND Q203/Q205:

TOP VIEW:



YS#: 8871
DESC: 4-40X5/8 PAN

YS#: 3501
DESC: COMP WASHER

2 X YS#: 8921
DESC: FLAT WASHER

YS#: Z1611
DESC: HEAT SPREADER

YS#: 8902
DESC: 4-40X3/4 PAN

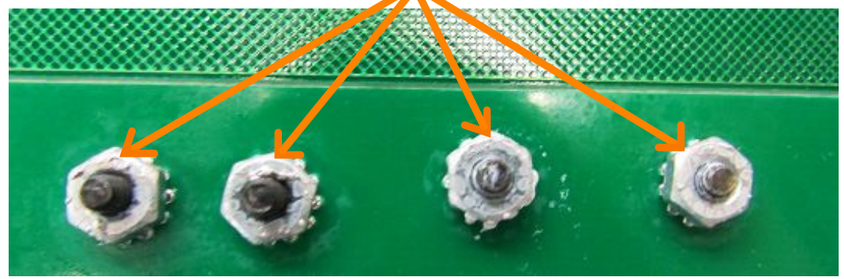
YS#: 8485
DESC: #6 ZINC WASHER

YS#: 4181
DESC: CERAMIC INSULATOR

ADD GOOP ON BOTH SIDES OF CERAMIC INSULATORS

IMPORTANT!

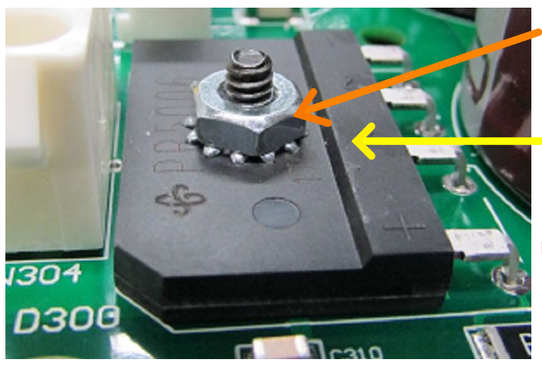
BOTTOM VIEW:



YS#: 8701
DESC: 4-40 KEPS NUT

MOUNTING HARDWARE FOR D300:

TOP VIEW:



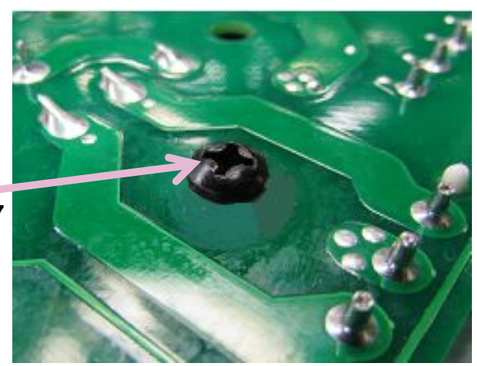
YS#: 8800
DESC: 6-32 KEPS NUT

D300

YS#: 8837
DESC: 6-32X1/2 PAN
NO WASHER NEEDED

Clip all 4 leads short on D300:

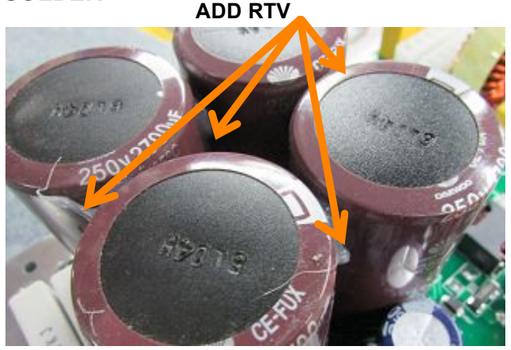
BOTTOM VIEW:



RTV INSTRUCTIONS:

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

ADD RTV



Add RTV UNDER R303 AND R304 on the heatspreader

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

Yorkville	Section: Assembly Documentation				
	Product(s): ES12P/ES15P/ES18P/ES21P/PSA1S/PSA2S				
	PCB#: M1823	Rev#: V02	EML Rev#: 01	Sheet 2 Of 3	
	Modified: 2021-02-24	File: Assembly.SchDoc		Tmp Date:	

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	08-May-2019	V01	.	New EMC compliant board
2	22-A g-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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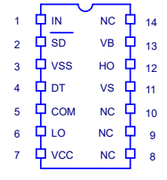
POTENTIOMETERS AND KNOBS

PINOUT DIAGRAMS

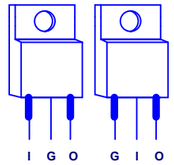
CASES AND PINS

IRS21844S



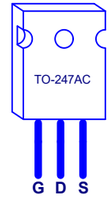
#6686

NJM7815 NJM7915



#6856 #6857

IRGP50B60PDBF
IRGP35B60PDBF



#2496 #2307

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

DSP SHEET

CODEC B OUTPUT
FOR TEST PURPOSE

REMOVE R40 TO USE
AMP- TESTPOINT
INPUT (TP3)

MUST BE PLACED
ON INPUT PCB
NEAR RIBBON

SPACER GROUND
HERE

TO CHASSIS
GROUND

TO POWER
AMP PCB

SIGNAL TO
AMP INPUT

FROM POWER SUPPLY
+VPS

POWER LED

W1
13in 8C-26AWG
RIB 1 W/LCK

Product(s):	ES12 15 18 21P		
Description:	POWERED SUBWOOFER INPUT PCB		
PCB#: M2125	Rev#: V01	EML Rev#: XX	Sheet 1 Of 5
Modified: 2022-02-11	File: INPUT.SchDoc		Tmp Rev: V031

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BLUE PROGRAM HEADER

BLUETOOTH

BT ACTIVE CLIP TLIM XLIM

ROLL OFF

BLUE TOOTH

MODE SELECT

GAIN

RAIL SENSE FROM MAIN SUPPLY

+VPS

MK40DX64VLK7
6723
LQFP-80

U1
CYBLE-012011-00
6793
14X19mm SMT Mod le

U4

U10
6694
AT25010B
SO8

W4
Program

PROGRAM HEADER
W5
Program

+5V SUPPLY
FOR U1 DSP
STEP DOWN CONVERTER

U2
MC33063A
SO8
7719

D1
DO214AC
B160-13-F

L3
220UH
8152

L11
7967

L7
8200NH

U5
LP2950-33
TO92
7012

U6
LP2950-50
TO92
6796

+5VCD

+15V

+15SUPPLY

+3V3

+3V3POT

+6V

VREFL

VSS

GND

DGND

DGNDBLU

GNDA

CHSGND1

+3V3_BLE

UART2_RX

UART2_TX

BLE_RESET

SWD_DIO

SWD_CLK

RESET

PUT BESIDE EACH OTHER

NET TIE

VOLTAGE TEST POINTS

TP1 TP12 TP7 TP8 TP13 TP14 TP2 TP3 TP9 TP10

N1

S1
FX Select
SW VERT 3POS
4202

S2:1 S2:2
MOMENTARY
3439
2PDT MINI

S4
4221
SW VERT 7POS

LD5A BLU 7030
LD6A GRN 7031
LD3A RED 7033
LD4A YEL 7032
LD2A YEL 7032

CODEC

U3
8655
CS4272
TSSOP-28
Stand-alone Mode

DIGITAL I/O SERIES RES. OR JUMPER 0805 / M2012 (Place close to signal so rce)

SLAVE P.D.

PUT CLOSE TO IC

OUTPUT2 FOR T.P.

OUTPUT2+ OUTPUT2- OUTPUT1+ OUTPUT1-

INPUT2 INPUT1 VBIAS VQ

GROUND GNDA NODES ON POWER AMP

RAD FILM CLOSE TO MICRO

ALUMINUM SPACER TO CHASSIS

Yorkville	Section: DSP				
	Product(s): ES12 15 18 21P				
	PCB#: M2125	Rev#: V01	EML Rev#: XX	Sheet 1 Of 5	
	Modified: 2022-02-11	File: DSP.SchDoc		Tmp Rev: V031	

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	11-FEB-2022	V01	.	RELEASE FOR PRODUCTION
2	.	.	.	.
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS/SWITCHES AND KNOBS				
REF	FUNCTION	POT/SW YS#	STYLE	KNOB#
S1	MODE SELECT	4221	ROT	8653C
S4	HF ROLL OFF	4202	ROT	8653C
P5	GAIN	2339	P34	8653C
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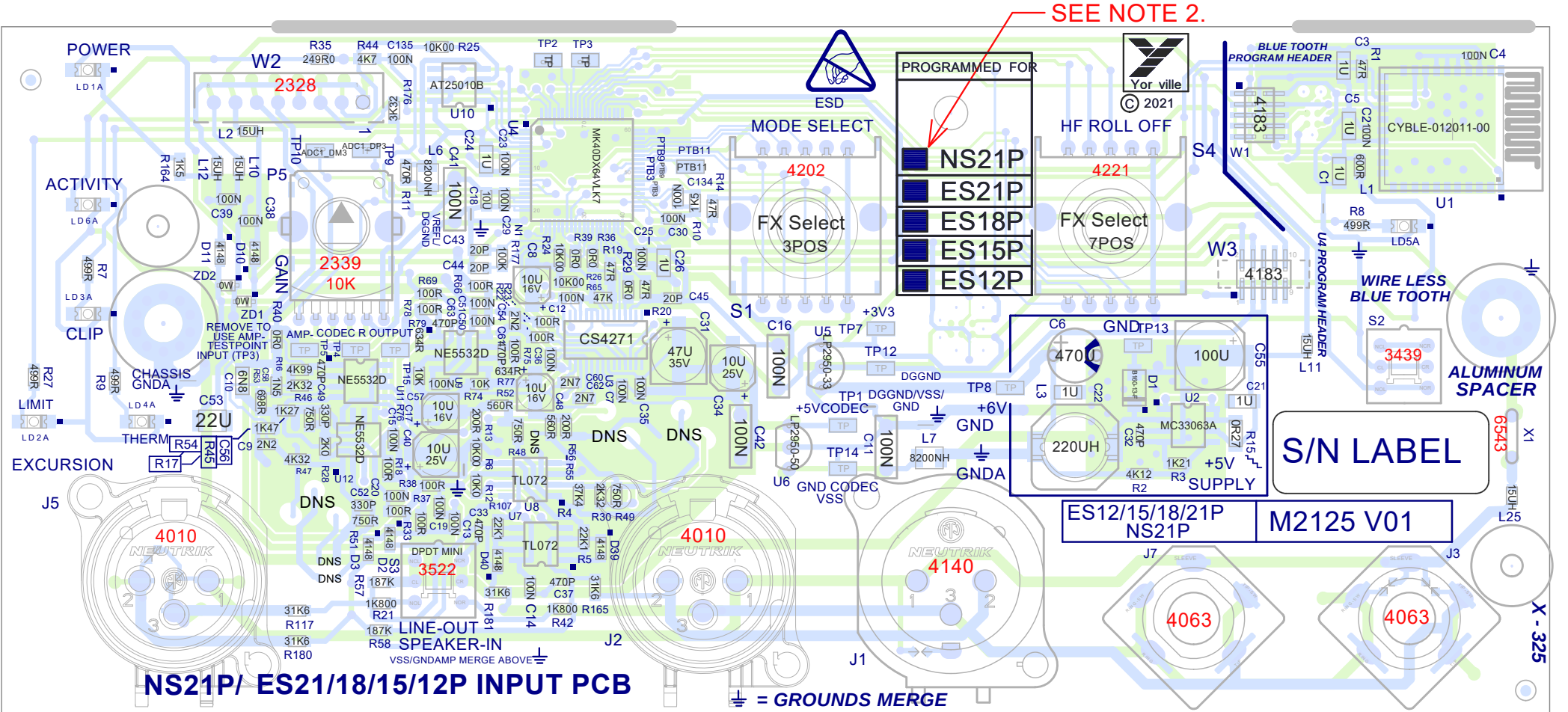
PINOUT DIAGRAMS

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

Yorkville

Section:	Design Information And History		
Product(s):	ES12/15/18/21P/NS21P		
PCB#: M2125	Rev#: V01	EML Rev#: XX	Sheet 1 Of
Modified: 2022-02-11	File: History.SchDoc		Tmp Rev: V031



M2125V01 ES12/15/18/21P

PCB ASSEMBLY DOCUMENTATION

SPECIAL PRODUCTION NOTES

1. PCBSA: RTV BETWEEN ALL TALL COMPONENTS AND WHERE INDICATED.

2. 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 AND

3. PCBSA: AFTER WAVE USE PIZZA CUTTER TO SEPARATE THE BOARDS.

4. PRIOR TO INPUT INTO WAVE SOLDER MACHINE, USE A JIG FOR INPUT JACK ALIGNMENT.

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.

Yorkville	*Section:* **Assembly Documentation**			
	Product(s): **ES12/15/18/21P /NS21P**			
	PCB#: M2125	*Rev#:* V01	*EML Rev#:* XX	*Sheet* 1 *Of*
	Modified: 2022-02-11	*File:* Assembly.SchDoc		*Tmp Rev:* V031

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	11-FEB-2022	V01	.	RELEASE FOR PRODUCTION
2	.	.	.	.
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS/SWITCHES AND KNOBS				
REF	FUNCTION	POT/SW YS#	STYLE	KNOB#
S1	MODE SELECT	4221	ROT	8653C
S4	HF ROLL OFF	4202	ROT	8653C
P5	GAIN	2339	P34	8653C
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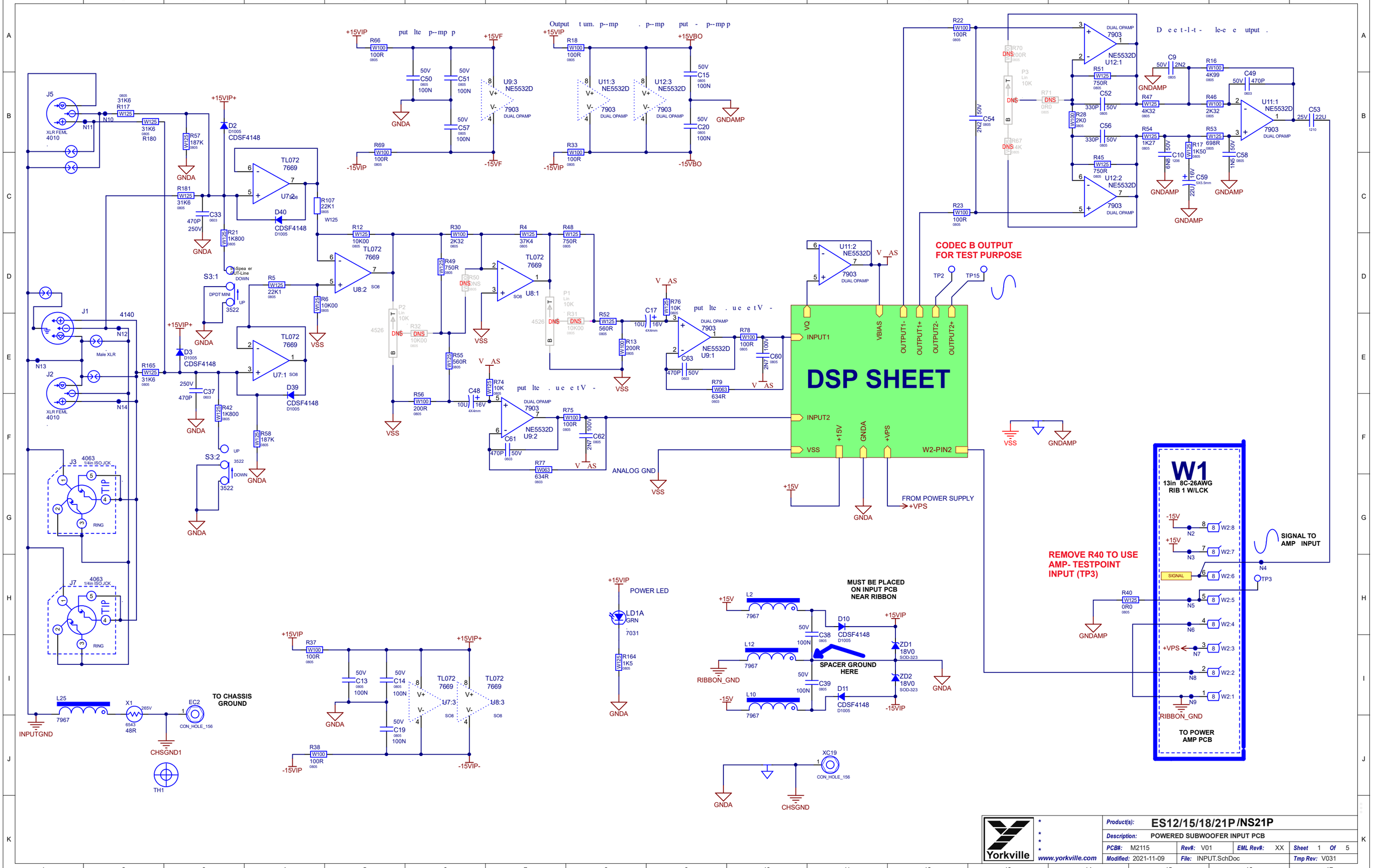
PINOUT DIAGRAMS

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

Yorkville

Section:	Design Information And History		
Product(s):	ES12/15/18/21P/NS21P		
PCB#: M2125	Rev#: V01	EML Rev#: XX	Sheet 1 Of
Modified: 2022-02-11	File: History.SchDoc		Tmp Rev: V031


DSP SHEET
INPUT1
INPUT2
VQ
VBIAS
OUTPUT1-
OUTPUT1+
OUTPUT2-
OUTPUT2+
+15V
GNDA
+VPS
VSS
W2-PIN2
CODEC B OUTPUT
FOR TEST PURPOSE
TP2
TP15
FROM POWER SUPPLY
+VPS
ANALOG GND
TO CHASSIS
GROUND
INPUTGND
CHSGND1
TH1
POWER LED
LD1A
GRN
MUST BE PLACED
ON INPUT PCB
NEAR RIBBON
SPACER GROUND
HERE
RIBBON_GND
CHSGND
REMOVE R40 TO USE
AMP- TESTPOINT
INPUT (TP3)
SIGNAL TO
AMP INPUT
TP3
W1
13in 8C-26AWG
RIB 1 W/LCK
TO POWER
AMP PCB
XLR FEML
4010
Male XLR
DPDT MINI
3522
TL072
7669
NE5532D
7903
DUAL OPAMP
CDSF4148
D1005
7967
CON_HOLE_156
4063
1/4in ISO JCK
TIP
RING
Yorkville
www.yorkville.com
Product(s): ES12/15/18/21P/NS21P
Description: POWERED SUBWOOFER INPUT PCB
PCB#: M2115
Rev#: V01
EML Rev#: XX
Sheet 1 Of 5
Modified: 2021-11-09
File: INPUT.SchDoc
Tmp Rev: V031

BT ACTIVE CLIP TLIM XLIM

BLUE PROGRAM HEADER

BLUETOOTH

RAIL SENSE FROM MAIN SUPPLY

ROLL OFF

BLUE TOOTH

MODE SELECT

GAIN

CODEC

NET TIE

PROGRAM HEADER

VOLTAGE TEST POINTS

PUT BESIDE EACH OTHER

ANALOG TP S

SLAVE P.D

DIGITAL I/O SERIES RES. OR JUMPER 0805 / M2012 (Place close to signal so rce)

GROUND GNDA NODES ON POWER AMP

ALUMINUM SPACER TO CHASSIS

RAD FILM CLOSE TO MICRO

PUT CLOSE TO IC

OUTPUT2 FOR T.P.

Section:	ES12P-ES15P-ES18P-ES21P-NS21P
Product(s):	ES12/15/18/21P /NS21P
PCB#: M2115	Rev#: V01 EML Rev#: XX Sheet 1 Of 5
Modified: 2021-11-09	File: DSP.SchDoc Tmp Rev: V031

Yorkville

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	01-OCT-2021	V01	.	RELEASE FOR PRODUCTION
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS/SWITCHES AND KNOBS				
REF	FUNCTION	POT/SW YS#	STYLE	KNOB#
S1	MODE SELECT	4221	ROT	8653C
S4	HF ROLL OFF	4202	ROT	8653C
P5	GAIN	2339	P34	8653C
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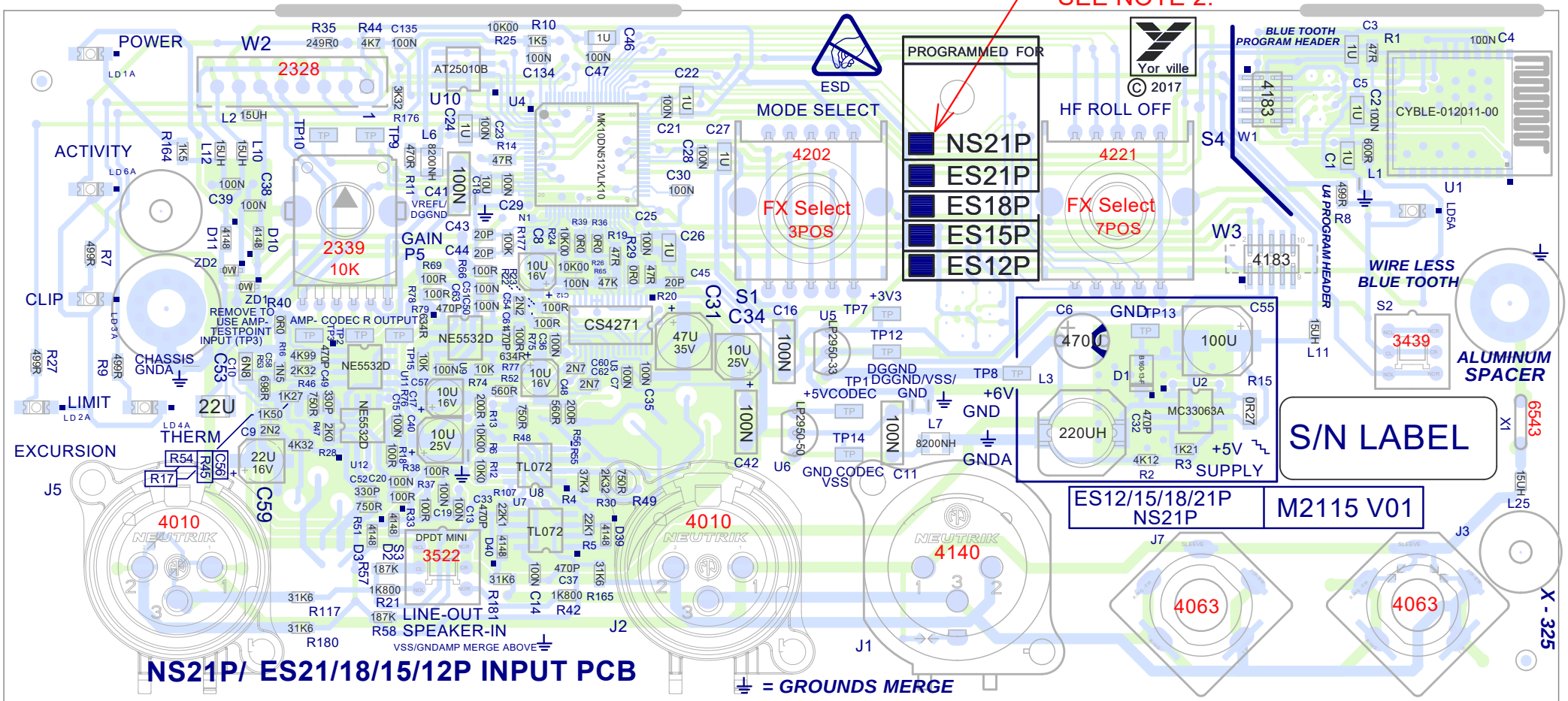
PINOUT DIAGRAMS

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

Yorkville

Section:	Design Information And History			
Product(s):	ES12/15/18/21P/NS21P			
PCB#: M2115	Rev#: V01	EML Rev#: XX	Sheet 1 Of	
Modified: 2021-11-09	File: History.SchDoc		Tmp Rev: V031	



M2115V01 ES12/15/18/21P

PCB ASSEMBLY DOCUMENTATION

SPECIAL PRODUCTION NOTES

1. PCBSA: RTV BETWEEN ALL TALL COMPONENTS AND WHERE INDICATED.

2. 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 AND

3. PCBSA: AFTER WAVE USE PIZZA CUTTER TO SEPARATE THE BOARDS.

4. PRIOR TO INPUT INTO WAVE SOLDER MACHINE, USE A JIG FOR INPUT JACK ALIGNMENT.

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.

Yorkville

Section:	**Assembly Documentation**				
Product(s):	**ES12/15/18/21P /NS21P**				
PCB#: M2115	*Rev#:* V01	*EML Rev#:* XX	*Sheet* 1 *Of*		
Modified: 2021-11-09	*File:* Assembly.SchDoc		*Tmp Rev:* V031		

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	01-OCT-2021	V01	.	RELEASE FOR PRODUCTION
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ES-Series Active Subwoofers

Input Mode

Line Level - Use when fed a signal directly from a line level output. It's recommended to use balanced cables with XLR connectors or TRS ¼-inch phone plugs (Tip, Ring, Sleeve) to help reduce the unit's sensitivity to hum and buzz.

Speaker Level - Set to speaker level when fed from an amplifier or speaker out from a 'powered' mixer!

WARNING: Do not plug in two speaker level sources to a single ES Powered Subwoofer!

Note: The ES Powered Sub can be plugged in before or after the full range enclosure, it does not alter the signal to the daisy chained enclosures. An external crossover is not necessary.

Tip: The Link jacks allow many ES Series Powered Subs to be connected in a string (parallel). There is no practical limit to the number of ES Powered Subs that may be connected together.

WARNING: Do not plug in two speaker level sources to a single ES Powered Sub

Sub Level

Adjusts the bass added to the sound system by the ES Powered Sub. It's recommended to set the control while operating at a low sound level. A '12 o'clock' setting on the ES Series Powered Subwoofer's Level control is the correct starting point when setting up a sound system.

Note: At high output levels, this control may be overridden by the internal limiter.

Mode

Punch Mode processes the sound so it's perceived as punchier, giving less power into deep bass and more into the upper bass.

Smooth Mode will keep the original signal character with no preference for deep or upper bass.

Deep mode processes the signal with a deeper sound, giving more power into deep bass while keeping the upper bass similar to the Smooth Mode.

Hi Freq. Rolloff

Sets the upper bass frequency which the ES Powered Sub rolls off, providing part of the 'crossover' function. Ideally the ES Powered Sub would be used with an élite powered top cabinet (both cabinets set at 100 Hz).

Input / Output LINK Jacks

All Link jacks are connected in parallel, use them to daisy-chain other ES Powered Subs or full-range enclosures. For normal operation, connect the ES Series Powered Subwoofer just like an ordinary speaker along with the full range enclosures.

Note: the Mono Blend Input is designed for Line Level signals only!

Line Level - If receiving the signal from a *non-powered* mixer, a line level signal processor or another line-level source, set the input switch to Line.

Speaker Level - Set the Input Level switch to Speaker if the signal is coming directly from a power amplifier, 'powered' mixer, or another powered source.

Mono Blend Input Jack

This input jack enables you to connect a secondary line level signal without needing to externally sum two signals (e.g. Left and Right). This is helpful when you are adding a single ES Powered Sub to a stereo system.

Bluetooth™ Control

This control enables or disables the Bluetooth™ connection between a tablet or a smart phone using the Yorkville App. Pressing the Bluetooth™ button for more than 4 seconds resets the ES-Series powered subwoofer to factory settings.

Note: The Bluetooth™ functionality on this product is intended for control only. It does not allow for Bluetooth™ audio connection

Protection

The ES Series Powered Subs use a DSP-based circuit to prevent clipping, over power and over excursion. At high levels, the limiter will limit the gain. The level control should be set while operating at low levels. Turn the master volume of the signal going to the subwoofer down to allow the balancing and setting of the bass along with the full range speaker top in use.

Note: At high power levels, when the limiter is operating, increasing the Subwoofer's Level Control will NOT increase the output.. Do NOT continue to increase this setting while operating at high levels.

Stand Mounting Adapter

The ES Series Powered Subs come equipped with a built-in stand mounting adapter that can be used with Yorkville SW-Teletube accessory to support élite powered top cabinets. The support tube can be adjusted up to its full 5-foot 4-inch extension safely as long as the ES Series Powered Subwoofer is not inclined more than 10° (10-degrees).

WARNING: Larger or heavier cabinets should not be used! Do not use larger than the recommended top cabinets!

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**

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Caisson de Basse Actifs Série ES

Mode d'Entrée

Niveau Ligne - À utiliser lorsque la source de signal provient d'un appareil avec sortie de niveau ligne. Il est recommandé d'utiliser des câbles symétriques avec des connecteurs XLR ou des prises jack TRS (Tip, Ring, Sleeve), ce qui réduit la sensibilité de l'appareil au bourdonnement.

Niveau Haut Parleur - Réglez le commutateur à la position haut parleur (spkr) lorsque le caisson de basse actif de la série ES est alimenté à partir de la sortie d'un amplificateur ou sortie haut parleur d'une table de mixage "amplifiée!"

AVERTISSEMENT: Ne branchez pas deux sources de niveau haut parleur à un seul caisson de basse actif de série ES!

Commande de Niveau "SUB LEVEL"

Cette commande permet de régler la quantité de graves ajoutée au système audio par le caisson de basse actif de la Série ES. Il est recommandé de régler la commande en écoutant lors d'un fonctionnement à un niveau bas. Le réglage "12 heures" de la commande de niveau du caisson de basse actif de la série ES est le bon point de départ lors de la configuration d'un système sonore.

Remarque: à des niveaux de sortie élevés, cette commande peut être contournée par le limiteur interne.

Mode

Le Mode Punch traitera le son afin qu'il soit perçu comme un son plus percutant, donnant moins de puissance dans les basses profondes et plus dans les graves supérieurs.

Le Mode Smooth conserve le caractère du signal d'origine sans préférence pour les basses profondes ou hautes.

Le Mode Deep traitera le signal pour fournir un son plus profond, donnant plus de puissance dans les basses profondes tout en conservant les basses supérieures similaires au mode Smooth.

Pente d'Atténuation des Hautes Fréquences

Cette commande règle la fréquence des graves supérieurs à laquelle le caisson de basse actif de la série ES est désactivé, fournissant une partie de la fonction 'crossover'. Idéalement, le Caisson de basse actif de la série ES serait utilisé avec une enceinte pleine gamme active élite avec les deux enceintes réglées à 100 Hz (les enceintes élite ont le réglage du filtre caisson de basse à 100 Hz).

Jacks d'Entrée / Sortie LINK

Les prises Link sont connectées en parallèle, vous pouvez les utiliser pour relier en série d'autres caissons de basse actifs de la série ES ou des enceintes pleine gamme. Pour un fonctionnement normal, connectez le Caisson de basse actif de la série ES comme un haut parleur ordinaire avec les enceintes pleine gamme.

Remarque: l'entrée Mono Blend est conçue uniquement pour les signaux de niveau ligne!

Niveau Ligne

Si le caisson de basse actif série ES reçoit le signal d'une table de mixage non-amplifiée, d'un processeur de signal de niveau ligne ou d'une autre source de niveau ligne, réglez le commutateur d'entrée sur la position Line.

Niveau Haut Parleur

Réglez le sélecteur de niveau d'entrée à la position "spkr" si le signal provient directement d'un amplificateur de puissance, d'une console de mixage amplifiée ou d'une autre source amplifiée.

Remarque: Le caisson de basse actif de la série ES peut être branché avant ou après l'enceinte pleine gamme. Il ne modifie pas le signal des enceintes connectées en chaîne et ne tire aucune puissance de l'amplificateur / processeur qui les alimente. Notez également qu'un crossover externe n'est pas nécessaire.

Conseil: Les prises Link permettent de connecter plusieurs caissons de basse actif de la série ES en parallèle. Il n'y a pas de limite pratique au nombre de caissons de basse actif de la série ES qui peuvent être connectés ensemble.

AVERTISSEMENT: Ne branchez pas deux sources de niveau haut parleur à un seul caisson de basse actif de la série ES

Prise d'Entrée Mono Blend

La prise d'entrée Mono Blend vous permet de connecter un signal secondaire de niveau de ligne au système sans avoir besoin de sommer de manière externe deux signaux (par exemple, Gauche et Droite). Ceci est utile lorsque vous ajoutez un seul caisson de basse actif de la série ES à un système stéréo.

Commande Bluetooth™

Cette commande active ou désactive la connexion Bluetooth ™ avec une tablette ou un téléphone intelligent en utilisant l'application Yorkville. Appuyez sur le bouton Bluetooth ™ pendant plus de 4 secondes pour réinitialiser le caisson de basse actif de la série ES aux réglages d'usine

Remarque: La fonctionnalité Bluetooth de ce produit est uniquement destinée au contrôle. Il ne permet pas la connexion audio Bluetooth

Protection

Les caissons de basse actifs de la série ES disposent d'un circuit basé sur DSP pour éviter l'écrêtage, la suralimentation et les surexcursions. À des niveaux élevés, le limiteur limitera le gain. La commande de niveau doit être réglée en fonctionnement à des niveaux bas. Ceci est accompli en réduisant le volume principal du signal acheminé au caisson de basse pour permettre l'équilibrage et le réglage de la basse avec l'enceinte pleine bande utilisé.

Remarque: À des niveaux de puissance élevés, lorsque le limiteur fonctionne, l'augmentation de la commande de niveau du caisson de basse n'augmentera PAS le niveau de sortie. Ne continuez PAS à augmenter le niveau de cette commande lors de fonctionnement à des niveaux élevés.

Adaptateur de Montage de Tube de Support

Les caissons de basse amplifiés de la série ES sont équipés d'un adaptateur de montage de pied intégré qui peut être utilisé avec l'accessoire Yorkville SW-Teletube pour supporter les enceintes pleine bande amplifiée élite. Le tube de support peut être ajusté jusqu'à sa pleine extension de 4 pieds 5 pouces en toute sécurité tant que le caisson de basse actif de la série ES n'est pas incliné de plus de 10 ° (10 degrés).

AVERTISSEMENT: Les enceintes plus grandes ou plus lourdes ne doivent pas être utilisées! Ne pas utiliser d'enceintes supérieures plus grandes que celles recommandées!

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**

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