



# ***SERVICE MANUAL***

MODEL TYPE: YS1002

## ***ef500p***

WEB ACCESS: <http://www.yorkville.com>

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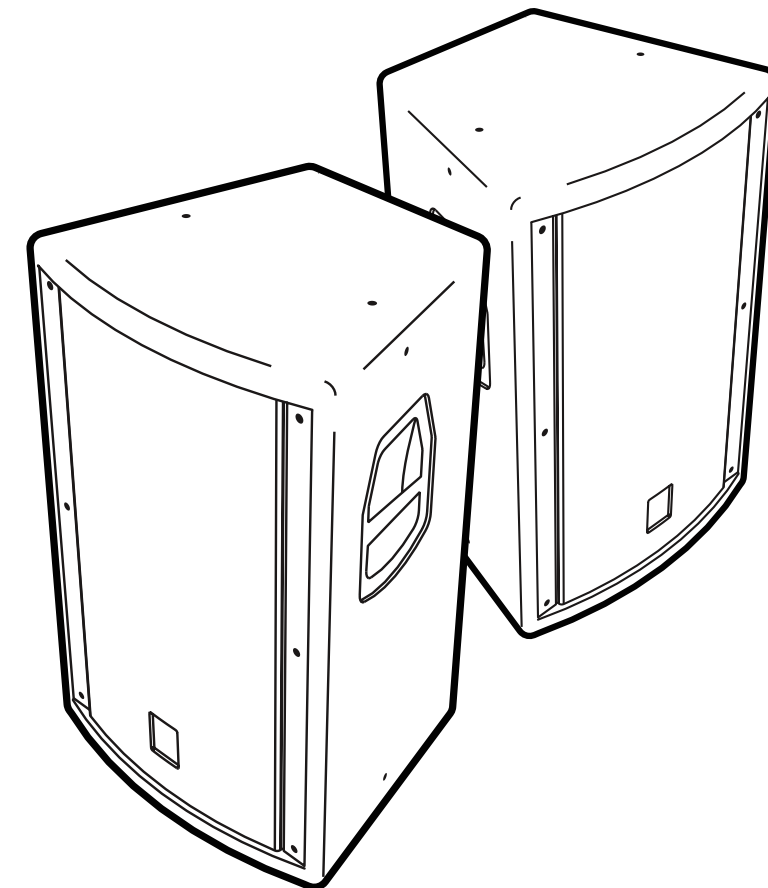
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Printed in Canada



# IMPORTANT SAFETY INSTRUCTIONS



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

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



**CAUTION A/V/S**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN

**RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR**

Caution: hot surface  
Attention: surface chaude



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

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

## FOLLOW ALL INSTRUCTIONS

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

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

**NO USER SERVICEABLE PARTS INSIDE.**

**REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

**THIS DEVICE IS FOR INDOOR USE ONLY!**

## SUIVEZ TOUTES LES INSTRUCTIONS

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

**AVIS: AFIN DE REDUIRE LES RISQUE DE CHOC ELECTRIQUE, N'ENLEVEZ PAS LE COUVERT (OU LE PANNEAU ARRIERE)**

**NE CONTIENT AUCUNE PIECE REPARABLE PAR L'UTILISATEUR.**

**CONSULTEZ UN TECHNICIEN QUALIFIE POUR L'ENTRETIEN**

**CE PRODUIT EST POUR L'USAGE A L'INTERIEUR SEULEMENT**

**Read Instructions:** The Owner's Manual should be read and understood before operation of your unit. Please, save these instructions for future reference and heed all warnings.

Clean only with dry cloth.

**Packaging:** Keep the box and packaging materials, in case the unit needs to be returned for service.

**Warning:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. *Do not use this apparatus near water!*

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

### Power Sources

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

### Hazards

Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious personal injury and serious damage to the product. Use only with cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer. Only use attachments/accessories specified by the manufacturer Note: Prolonged use of headphones at a high volume may cause health damage on your ears.

The apparatus should not be exposed to dripping or splashing water; no objects filled with liquids should be placed on the apparatus.

Terminals marked with the "lightning bolt" are hazardous live; the external wiring connected to these terminals require installation by an instructed person or the use of ready made leads or cords.

Ensure that proper ventilation is provided around the appliance. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

### Power Cord

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. The AC supply cord should be routed so that it is unlikely that it will be damaged. Protect the power cord from being walked on or pinched particularly at plugs. If the AC supply cord is damaged DO NOT OPERATE THE UNIT. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle. The mains plug of the power supply cord shall remain readily operable.

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

### Service

The unit should be serviced only by qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

**Veillez Lire le Manuel:** Il contient des informations qui devraient étre comprises avant l'opération de votre appareil.

Conservez. Gardez S.V.P. ces instructions pour consultations ultérieures et observez tous les avertissements.

Nettoyez seulement avec le tissu sec.

**Emballage:** Conservez la boîte au cas ou l'appareil devait étre 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 étre 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 étre prises afin d'éviter que le système de mise à la terre de l'appareil ne soit désengagé. Un appareil construit selon les normes de CLASS I devrait étre raccorder 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 attaches/accessoires indiqués par le fabricant Note: L'utilisation prolongée des écouteurs à un volume élevé peut avoir des conséquences néfastes sur la santé sur vos oreilles. .

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

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

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

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

### Cordon d'Alimentation

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

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

### Service

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

# IMPORTANT SAFETY INSTRUCTIONS (UL60065)



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



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. 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.

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.



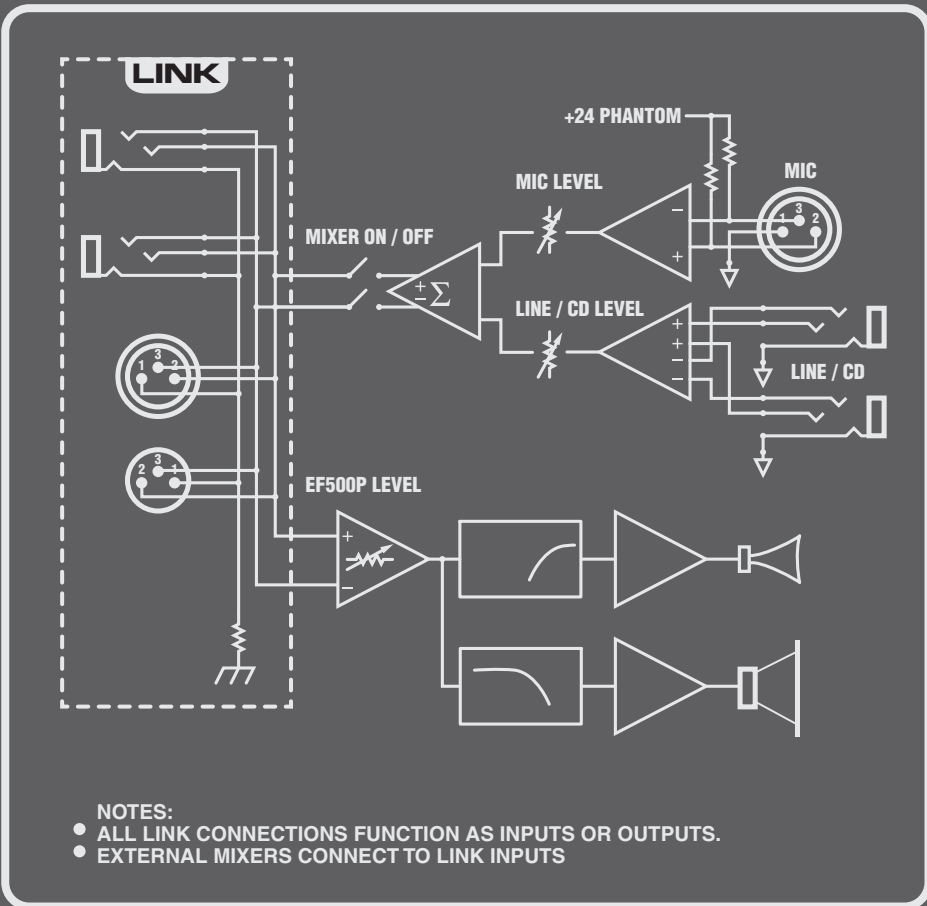
**AVIS**  
POUR PRÉVENIR LES RISQUES D'ÉLECTROCUTION,  
NE PAS RACCORDER A L'ALIMENTATION ÉLECTRIQUE ALORS  
QUE LA GRILLE EST RETIRÉE.





# élite EF500P

800 WATT ACTIVE LOUDSPEAKER ENCLOSURE



CLIP

LIMIT

PWR

EF500P LEVEL

0

-6 dB +6

LF ROLLOFF

50Hz 100Hz

MIXER

OFF ON

TREBLE

BASS

-12 dB +12 -12 dB +12

MIC

LINE/CD

0 10 0 10

MIXER

LINK

OUTPUT

INPUT

LINE / CD

MIC

DOUBLE INSULATED, U-GND REQUIRED FOR PERFORMANCE, NOT SAFETY.

**CAUTION AVIS**

RISK OF ELECTRIC SHOCK  
DO NOT OPEN

RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR

230V ~  
50Hz 1,1A

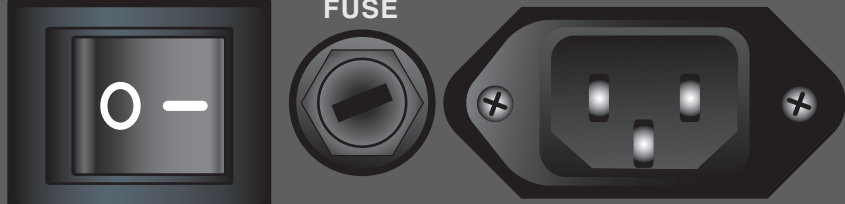
CE

FUSE: F5,0A 250V

120VAC  
60Hz 2.2A

FUSE: F7,0A 250V FastBlo

TYPE: YS1002 A-Z450A / 1v9



CAUTION: REPLACE WITH  
SAME TYPE FUSE AND RATING

ATTENTION: UTILISER UN FUSIBLE DE  
RECHANGE DE MEME TYPE ET CALIBRE

DESIGNED & MANUFACTURED BY  
YORKVILLE SOUND • TORONTO, CANADA



## Specifications

<b>System Type</b>	2-Way
<b>Active or Passive</b>	Active
<b>Program Power (Watts)</b>	800
<b>Biampable</b>	Yes
<b>Biamp Operation Only</b>	Yes
<b>Max SPL (dB)</b>	127
<b>Frequency Response (Hz +/- 3db)</b>	50 - 16k
<b>Crossover Frequency (Hz)</b>	2100
<b>Driver Configuration</b>	15 inch, 2 inch
<b>HF Driver(s)</b>	2 inch, ceramic magnet, 3 inch Titanium voicecoil
<b>HF Program Power (Watts)</b>	150
<b>HF Impedance (ohms)</b>	8
<b>HF Dispersion (degrees-H x degrees-V)</b>	60x40
<b>HF Protection</b>	Thermal / Peak Limiter
<b>LF Driver(s)</b>	15 inch ceramic magnet, 4 inch voicecoil
<b>LF Program Power (Watts)</b>	650
<b>LF Impedance (ohms)</b>	8
<b>LF Protection</b>	Thermal / Peak Limiter
<b>Total Power (Watts)</b>	800
<b>HF Power Amplifier (Watts)</b>	150
<b>HF Amplifier Type</b>	Class H
<b>LF Power Amplifier (Watts)</b>	650
<b>LF Amplifier Type</b>	Class D
<b>Power Cable</b>	Yes
<b>Power Switch</b>	Yes
<b>Inputs - 1/4-inch Jacks</b>	2 line inputs, 2 link (in/out)
<b>Inputs - XLR</b>	1 mic, 2 link (in/out)
<b>Input Impedance (Bal/UnBal)</b>	95KOhms / 90kOhms
<b>Input Sensitivity (Vrms Sine)</b>	+4dBv / 1.23V (+/-6dB with trim control)
<b>Mixer Controls</b>	+/- 6dB Trim control Mic Input w/level 2x 1/4" Line Input
<b>Corners</b>	Black Metal
<b>Feet</b>	Plastic Glides
<b>Included Hardware</b>	3/8 inch x 9 (All Corners)
<b>Bar Handles</b>	2 Side
<b>Pole Mount Adapter (1 3/8-inches/3.5 cm)</b>	1 Bottom
<b>Enclosure Materials</b>	3/4 inch 7-ply Spruce
<b>Grille</b>	Heavy gauge perforated metal
<b>Covering / Finish</b>	Black Ozite (Carpet)
<b>Optional Covering / Finishes</b>	Black Ultrathane Paint (EF500PB) 18mm Birch
<b>Dimensions (DWH x back W, inches)</b>	14.5 x 18.6 x 28.2 x 11.1
<b>Dimensions (DWH x back W, cm)</b>	71.6 x 36.8 x 47.2 x 28.1
<b>Weight (lbs/kg)</b>	89 / 40.4

EF500P Parts List 9/16/2015

YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.
8727	#10X1 PAN PH TYPE A JS500 B	16	4660	5W00 0R047 5% BLK RES	2	4850	W250 3K9 5% T&R RES	1			
8756	#10X3/4 PAN PH TYPE A BLACK O	50	4768	5W00 12K 5% BLK RES	5	4774	W250 4K12 1% T&R RES	1			
8781	#10X7/8 FLAT QUAD TYPE A JS50	4	8800	6-32 KEPS NUT ZINC	2	4982	W250 4K7 5%MINI T&R RES	15			
8777	#14X1 FLAT PH TYPE A JS500	4	8832	6-32X1/4 PAN PH TAPTITE JS500	2	6141	W250 5K6 5%MINI T&R RES	2			
8928	#14X1X1/4 ALLEN FLHD WOOD SCRWB	6	8829	6-32X3/8 FLAT PH TAPTITE BOHC	23	4978	W250 6K8 5%MINI T&R RES	3			
3501	#4 B5220QF006 COMP WASH SMALL	9	8796	6-32X5/8 PAN PH TAPTITE ZINC	11	4813	W250 6R2 5% T&R RES	2			
3858	#4X3/4 PLASTIC HEX SPACER	2	5266	680N 250V 20%CAP BLK 'X2' 27MM AC	1	6116	W250 10K0 1%MINI MF T&R RES	21			
3511	#6 FLAT WASHER NYLON	2	5816	680P 100V 5%CAP T&R RAD CER.2NPO	4	4930	W250 10R 5% .2INU T&R RES	1			
6799	#6X1/4 PAN PH TYPE B JS500	1	6964	74HC74N IC DUAL FLIPFLOP	4	2038	W250 11R FUSIBLE T&R RES	2			
8811	#6X1X1/4 FLAT HD SQ SCKT WS ZN	22	3792CORE	77091-A7 KOOL-MU TOROID CORE	1	4979	W250 15K 5%MINI T&R RES	2			
8785	#8X3/4 OVAL PH TYPE A BLACK	19	3426	8' 3/16 SJT AC LINE CORD REMOV-B CSA	1	6125	W250 18K 5%MINI T&R RES	4			
8667	229X1/8L SHOULDER WASHER	4	8787	8-32 KEPS NUT ZINC	3	6118	W250 22K 5%MINI T&R RES	3			
5422	1N 50V 10%CAP T&R BEAD NPO	2	8804	8-32X1X1/8 PAN PH MS ZINC CLEAR	4	4956	W250 27K 5% .2INU T&R RES	2			
5255	1U 63V 20%CAP T&R RAD .2EL	3	8803	8-32X3/8 PAN PHIL TAPTITE JS50	7	4941	W250 30K 5% .2INU T&R RES	2			
5208	2N2 400V 5%CAP T&R RAD .2FLM	2	2358	9 CIR XH-HEADER .0988IN	2	4947	W250 33K 5% .2INU T&R RES	4			
5257	2U2 63V 20%CAP T&R RAD .2EL	2	3887	ADHESIVE LINED GROMMET EDGING	0.35	4868	W250 36K 5% T&R RES	1			
5275	3N3 100V 5%CAP T&R RAD .2FLM	3	8921	ALUM FLAT WASHER .128"ID .272" OD	4	4686	W250 37K4 1% METAL FILM T&R RES	3			
5951	3US 450DC10%CAP BLK MPOLYP FLM	4	8584	ALUMINUM FOIL TAPE 2" X 50 YDS ROLL	6.22	4878	W250 43K 5% T&R RES	1			
6451	4N7 250V 20%CAP BLK 'Y' 10MM AC	3	8565	BAR HANDLE ALL METAL RECTANGULAR	2	6119	W250 47K 5%MINI T&R RES	11			
5258	4U7 63V 20%CAP T&R RAD 8X7MM .2EL	4	6733	BAT85 .30V 0A2 DIODE SCHK T&R	6	6134	W250 47R 5%MINI T&R RES	1			
5271	5N6 100V 5%CAP T&R RAD .2F	1	6912	BDX53C TO220 NPN TRAN DARL TE	2	4928	W250 56K 5% .2INU T&R RES	1			
4434	10K B LIN 9MM DETENT P32	4	6517	BTB24-600 TO220AB 25A TRIAC 600V	1	4942	W250 100K 5% .2INU T&R RES	4			
5204	10N 100V 10%CAP T&R RAD .2FLM	3	8636	BUTTON 230X465 RND FLAT BLK (3425)	2	4921	W250 100R 5% .2INU T&R RES	4			
5401	10P 500V 5%CAP T&R RAD CER.2NPO	1	3490	CLIP 250X032 14-16AWG DISCOINSL	17	4839	W250 150K 5% T&R RES	1			
5282	10U 16V 20%CAP T&R 5X7MM .2NP	1	3522	DPDT MINI PC VERT SNP ALT	2	4984	W250 150R 5%MINI T&R RES	1			
5945	10U 63V 20%CAP T&R RAD .2EL	4	4184	DPST ROKR SW QUIK 250' AC/PWR IEC6	1	4949	W250 180K 5% .2INU T&R RES	2			
5817	15P 100V 2%CAP T&R RAD CER.2NPO	1	4095	EMI FILTER FOR RIBBON CABLE	2	4796	W250 180K 5%MINI T&R RES	1			
6435	22N 275V 20%CAP BLK 'X2' 15MM AC	3	6408	GRN 3MM LED 2V2 20MA DIFFUSD	2	4977	W250 220R 5%MINI T&R RES	5			
5631	22U 50V 20%CAP T&R 6X7MM .2EL	5	2364	HEYCO LOCKIT STRAIN RELIEF 1852	1	6135	W250 270K 5%MINI T&R RES	2			
3792	288UH CHOKE 89T20AWG/77091MAGNTKS	1	6887	IR2110 IC HILO FET DRIVER	1	4945	W250 270R 5% .2INU T&R RES	1			
5406	33P 50V 10%CAP BLK BEAD NPO	2	6967	IRFP23N50LPBF MOSFET N-CN 500V .247	4	4789	W250 324R0 0.1% *** T&R RES	1			
5961	33U 16V 20%CAP T&R RAD .2IN NP	6	5119	J111 TO92 NCH JFET T&R TC	2	2026	W250 332R0 1%FLAME PROOF T&R RES	1			
5224	47N 100V 10%CAP T&R RAD .2FLM	4	9917	KNOB 0-DEG GRN SOFT GRAY RIB	5	6127	W250 470K 5%MINI T&R RES	1			
5203	47P 100V 2%CAP T&R RAD CER.2NPO	2	6745	LM136000N IC XCONDUCTANCE AMP	1	4980	W250 470R 5%MINI T&R RES	3			
4435	50K B LIN 9MM DETENT P32	1	6640	LM311 IC VOLTAGE COMPARATOR DIP8	3	4799	W250 562R 1% T&R RES	2			
5226	68N 100V 5%CAP T&R RAD .2FLM	5	8259D	LOGO ELITE SERIES LARGE DOMED	1	5014	W250 562R 0.1% *** T&R RES	2			
5265	68U 25V 20%CAP T&R RAD .2EL	1	3482	LOWPROFILE FUSEHOLDER 1/4" BUSSMANN	1	4994	W250 590R 1% T&R RES	1			
2465	7.0 AMP FAST-BLO .25X1.25 FUSE	1	ZC453	M1158/59/1231/1309 HEATSPREADER	1	4923	W250 680R 5% .2INU T&R RES	1			
2487	7.0 AMP SLO-BLO T&R FUSE	2	8737	M6X25 PAN PHIL MS ZINC CLEAR	4	4743	W250 681R 0.1% *** T&R RES	6			
7401	8R 120W 1.50" DRIVER TI DE72P B&C	1	5190	MBS4992 TO92 8V5 DIAC T&R	1	4925	W250 820R 5% .2INU T&R RES	1			
9866	1/4 X 26 X 26 STYRENE BLACK UTILITY	1	6872	MC7815CT TO220 P 15V0 REG V1	3	4682	W500 1R 5%PHILIPS SMALL T&R RES	1			
3921	1/4" JCK PCB MT VERT STER RT SWT	4	6873	MJE340 TO126 NPN TRAN TG	1	4690	W500 442R 1% T&R RES	2			
8602	1/4-20 T NUT	4	5105	MPSA13 TO92 NPN DARL T&R TA	1	4611	W600 18K7 1% MF T&R RES	2			
8489	1/4-20 SPLIT WASHER BLACK OXIDE	4	5114	MPSA92 TO92 PNP TRAN T&R TA	12	CH1255	XFMR:EF500P	1			
8709	1/4-20X1X1/2 PAN PHIL MS ZINC CLEA	4	6421	MR752 200V 6A0 DIODE	4	4100	XLR MALE PCB MT VERT	3			
5314	100N 50V 10%CAP T&R BEAD X7R	54	6934	MR854 400V 3A0 DIODE FASREC	10	6400	YEL 3MM LED 2V1 20MA DIFFUSD	2			
5410	100P 100V 10%CAP T&R BEAD NPO	2	6884	NE5532N IC DUAL OP AMP	18						
8604	10-32 T NUT	4	8888	NEOPRENE DRIVER GASKET 4.4 X 4.4	14						
8786	10-32X1X1/4 PAN QD MS JS500 BLAC	4	6858	NSL-32SR2 OPTO-COUPLER LDR	2						
6492	1300UH COIL COMMON MODE 4AMP	1	3080	PATCH 04 18AWG EF500P TWISTPAIR	1						
7524	15' 8R 500WPGM SPEAK CER B&C	1	3061	PATCH 09 22AWG 10.0 XH FLAT	1						
5229	150N 63V 10%CAP T&R RAD .2FLM	2	8387	PS NEO SC41 1/16" X 0.5" X 100' ROL	7						
5230	180N 63V 5%CAP T&R RAD .2FLM	4	6405	RED 3MM LED 2V1 20MA DIFFUSD	2						
6438	1N4007 1000V 1A0 DIODE T&R	4	3696	RELAY 1C 02AMP DC24 006MA PC-S	1						
6824	1N5246B 16V0 0W5 ZENER 5% T&R	16	3884	SARCON THERMAL GASKET 4.55"X1.00"	1						
2005	1W00 0R47 5%FLAME PROOF T&R RES	4	3852	STICK ON CABLE WRAP ANCHOR	14						
4683	1W00 1K8 5% T&R RES	1	3559	TERM HOUSING 8 CIR .156/RAMP	1						
5912	2200U 63V 20%CAP RADIAL ELECT BULK	4	3395	THERMOBRKR:NCLOSED OPEN@82C	1						
5231	220N 63V 5%CAP T&R RAD .2FLM	1	3549	TRIFURCON TERM .156	8						
5412	220P 100V 10%CAP T&R BEAD NPO	2	6892	UF4004 200V 1A0 DIODE ULTRAFAS	22						
5299	24AWG SOLID SC WIR RAD JMP	7	2010	W167 10R0 2%FLAME PROOF T&R RES	4						
3392	250 MALE TAB .2IN T&R	13	2018	W167 75R 2%FLAME PROOF T&R RES	3						
3392	250 MALE TAB .2IN T&R	4	2024	W167 249R 2%FLAME PROOF T&R RES	2						
5858	2700U 180V 20%CAP RAD 35X63MM ELS	2	2025	W167 274R 1%FLAME PROOF T&R RES	1						
8467	2X2-IB-3/8" FLYING HARDWARE BRACKET	4	2028	W167 475R 1%FLAME PROOF T&R RES	3						
8818	3/4ODX3/8IDX.080 THICK WASHER	4	6110	W250 1K0 1%MINI MF T&R RES	18						
8818	3/4ODX3/8IDX.080 THICK WASHER	1	4996	W250 1K070 0.1% *** T&R RES	1						
8482	3/8 1D FLAT WASHER	4	4585	W250 1K2 5%MINI T&R RES	2						
8724	3/8-16 T-NUT	1	4802	W250 1K21 1% T&R RES	1						
8721	3/8-16X1X1/4 GRD5 FLAT SCKT HD JS50	9	4769	W250 1K4 1% T&R RES	4						
8793	4-40 HEX NUT ZINC	9	4935	W250 1K5 5% .2INU T&R RES	6						
8946	4-40X5/16 FLAT PHIL U/C TRILOB	11	4993	W250 1K87 1% T&R RES	3						
8871	4-40X5/8 PAN PH MS JS500	9	4948	W250 1M 5% .2INU T&R RES	8						
5234	470N 63V 10%CAP T&R RAD .2FLM	1	6113	W250 2K 5%MINI T&R RES	4						
5201	470P 100V 5%CAP T&R RAD CER.2NPO	5	6104	W250 2K2 5%MINI T&R RES	8						
3841	5.5" NYLON CABLE TIE	2	2035	W250 2K21 1%FLAME PROOF T&R RES	2						
3751	5/16 SNAP IN SPACER RICHO	11	6114	W250 2K49 1%MINI MF T&R RES	2						
9977	5/16-18 NYLON INSERT LOK NUT ZN CLR	1	4911	W250 2R2 5% T&R RES	1						
8926	5/16-18X3 CARRIAGE BOLT BLACK	1	6124	W250 3K 5%MINI T&R RES	2						
8580	5/8 CUSTOM LED SPACER	3	4788	W250 3K160 0.1% *** T&R RES	2						

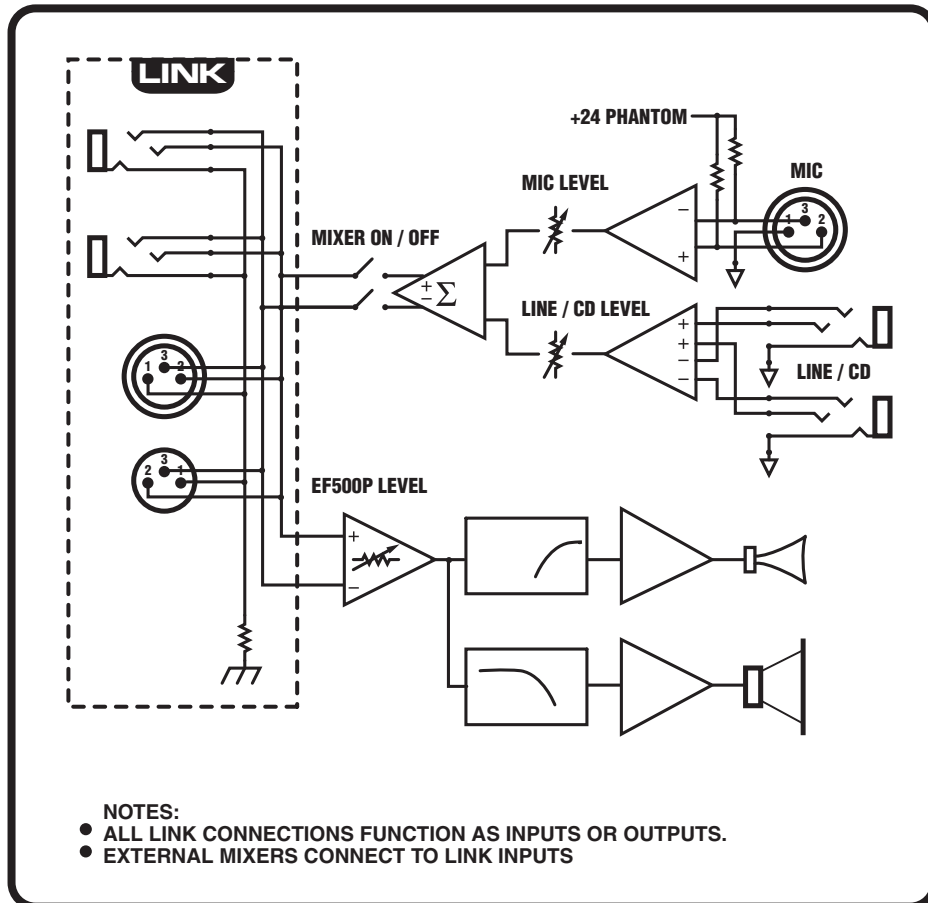
EF500P Parts Reference List 9/16/2015

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description	REF	YS #	Description	REF	YS #	Description	REF	YS #	Description			
C1	5816	680P 100V 5%CAP T&R RAD CER.2inNPO	C81	5212	100N 63V 5%CAP T&R RAD .2inFLM	D17	6892	UF4004 200V 1A0 DIODE ULTRAFAS	Q17	5107	2N5551 TO92 NPN TRAN T&R TA	R74	4769	1/4W 1K4 1% T&R RES	R155	4948	1/4W 1M 5% 2inU T&R RES	U9	6603	74HC14N IC HEX INV SCHMID
C2	5945	10U 63V 20%CAP T&R RAD .2inEL	C82	5230	180N 63V 5%CAP T&R RAD .2inFLM	D18	6440	1N750ARL 4V7 0W5 ZENER 5% T&R	Q18	5108	2N5401 TO92 PNP TRAN T&R TA	R75	4768	5.0W 12K 5% BLK RES	R156	4979	1/4W 15K 5%MINI T&R RES	U10	6603	74HC14N IC HEX INV SCHMID
C3	5258	4U7 63V 20%CAP T&R 4X7MM .2inEL	C83	5230	180N 63V 5%CAP T&R RAD .2inFLM	D19	6733	BAT85 30V 0A2 DIODE SCHTKYT&R	Q19	5114	MPSA92 TO92 NPN TRAN T&R TA	R76	4788	1/4W 3K160 0.1% *** T&R RES	R157	4940	1/4W 10K 5% 2inU T&R RES	U11	6728	MC78L05ACP TO92 P 5V0 REG T&R V4
C4	5265	68U 25V 20%CAP T&R RAD .2inEL	C84	5226	68N 100V 5%CAP T&R RAD .2inFLM	D20	6432	1N5248B 18V0 0W5 ZENER 5% T&R	Q20	5119	2N5638 TO92 NCH JFET T&R TC	R77	4686	1/4W 37K4 1% T&R RES	R158	4928	1/4W 56K 5% 2inU T&R RES	U12	6884	NE5532N IC DUAL OP AMP
C5	5212	100N 63V 5%CAP T&R RAD .2inFLM	C85	5203	47P 100V 2%CAP T&R RAD CER.2inNPO	D21	6825	1N4148 75V 0A45 DIODE T&R	Q21	5105	MPSA13 TO92 NPN DARL T&R TA	R78	4611	0.6W 18K7 1% MF T&R RES	R159	4943	1/4W 4K7 5% 2inU T&R RES	U13	6884	NE5532N IC DUAL OP AMP
C6	5401	10P 500V 5%CAP T&R RAD CER.2inNPO	C86	5224	47N 100V 10%CAP T&R RAD .2inFLM	D22	6461	1N5240BRL 10V0 0W5 ZENER 5% T&R	Q22	5103	MPSA06 TO92 NPN TRAN T&R TA	R79	6110	1/4W 1K0 1%MINI MF T&R RES	R160	4943	1/4W 4K7 5% 2inU T&R RES	U14	6884	NE5532N IC DUAL OP AMP
C7	5945	10U 63V 20%CAP T&R RAD .2inEL	C87	5260	22U 50V 20%CAP T&R RAD .2inEL	D23	6440	1N750ARL 4V7 0W5 ZENER 5% T&R	Q23	5102	BCS60C TO92 PNP TRAN T&R TB	R80	4788	1/4W 3K160 0.1% *** T&R RES	R161	4948	1/4W 1M 5% 2inU T&R RES	U15	6858	NSL-32SR2 OPTO-COUPLER LDR
C8	5816	680P 100V 5%CAP T&R RAD CER.2inNPO	C88	5257	2U2 63V 20%CAP T&R RAD .2inEL	D24	6825	1N4148 75V 0A45 DIODE T&R	R1	6118	1/4W 22K 5%MINI T&R RES	R81	4686	1/4W 37K4 1% T&R RES	R162	4935	1/4W 1K5 5% 2inU T&R RES	U16	6884	NE5532N IC DUAL OP AMP
C9	5258	4U7 63V 20%CAP T&R 4X7MM .2inEL	C89	5631	22U 50V 20%CAP T&R 5X7MM .2inEL	D25	6825	1N4148 75V 0A45 DIODE T&R	R2	2035	1/4W 2K21 1%FLAME PROOF T&R RES	R82	4686	1/4W 37K4 1% T&R RES	R163	4927	1/4W 47K 5% 2inU T&R RES	U17	6884	NE5532N IC DUAL OP AMP
C10	5817	15P 100V 2%CAP T&R RAD CER.2inNPO	C90	5961	33U 16V 20%CAP T&R RAD .2inNP	D26	6825	1N4148 75V 0A45 DIODE T&R	R3	4705	2.0W 2K2 5% BLK RES	R83	2019	1/8W 100R0 1%FLAME PROOF T&R RES	R164	4935	1/4W 1K5 5% 2inU T&R RES	U18	6884	NE5532N IC DUAL OP AMP
C11	5257	2U2 63V 20%CAP T&R RAD .2inEL	C91	5228	100N 100V 5%CAP T&R RAD .2inFLM	D27	6825	1N4148 75V 0A45 DIODE T&R	R4	4705	2.0W 2K2 5% BLK RES	R84	4774	1/4W 4K12 1% T&R RES	R165	4940	1/4W 100K 5% 2inU T&R RES	U19	6884	NE5532N IC DUAL OP AMP
C12	5254	1U 63V 20%CAP T&R 4X7MM .2inEL	C92	5275	3N3 100V 5%CAP T&R RAD .2inFLM	D28	6438	1N4007 1000V 1A0 DIODE T&R	R5	4850	1/4W 3K9 5% T&R RES	R85	2030	1/8W 681R 1%FLAME PROOF T&R RES	R166	6119	1/4W 47K 5%MINI T&R RES	U20	6884	NE5532N IC DUAL OP AMP
C13	5945	10U 63V 20%CAP T&R RAD .2inEL	C93	5231	220N 63V 10%CAP T&R RAD .2inFLM	D29	6733	BAT85 30V 0A2 DIODE SCHTKYT&R	R6	2038	1/4W 11R FUSIBLE T&R RES	R86	2030	1/8W 681R 1%FLAME PROOF T&R RES	R167	6116	1/4W 10K0 1%MINI MF T&R RES	U21	6884	NE5532N IC DUAL OP AMP
C14	5816	680P 100V 5%CAP T&R RAD CER.2inNPO	C94	5631	22U 50V 20%CAP T&R 5X7MM .2inEL	D30	6825	1N4148 75V 0A45 DIODE T&R	R7	4923	1/4W 680R 5% 2inU T&R RES	R87	6110	1/4W 1K0 1%MINI MF T&R RES	R168	4947	1/4W 220R 5%MINI T&R RES	U22	6884	NE5532N IC DUAL OP AMP
C15	5412	220P 100V 10%CAP T&R BEAD NPO	C95	5212	100N 63V 5%CAP T&R RAD .2inFLM	D31	6825	1N4148 75V 0A45 DIODE T&R	R8	4940	1/4W 10K 5% 2inU T&R RES	R88	6110	1/4W 1K0 1%MINI MF T&R RES	R169	4978	1/4W 6K8 5%MINI T&R RES	U23	6858	NSL-32SR2 OPTO-COUPLER LDR
C16	5212	100N 63V 5%CAP T&R RAD .2inFLM	C96	5226	68N 100V 5%CAP T&R RAD .2inFLM	D32	6733	BAT85 30V 0A2 DIODE SCHTKYT&R	R9	6104	1/4W 2K2 5%MINI T&R RES	R89	6113	1/4W 2K 5%MINI T&R RES	R170	6116	1/4W 10K0 1%MINI MF T&R RES	U24	6884	NE5532N IC DUAL OP AMP
C17	5212	100N 63V 5%CAP T&R RAD .2inFLM	C97	5961	33U 16V 20%CAP T&R RAD .2inNP	D33	6436	1N753ARL 6V2 0W5 ZENER 5% T&R	R10	4943	1/4W 4K7 5% 2inU T&R RES	R90	2025	1/8W 274R 1%FLAME PROOF T&R RES	R171	4947	1/4W 47K 5% 2inU T&R RES	U26	6745	LM13600N IC XCONDUCTANCE AMP
C18	5412	220P 100V 10%CAP T&R BEAD NPO	C98	5631	22U 50V 20%CAP T&R 5X7MM .2inEL	D34	6825	1N4148 75V 0A45 DIODE T&R	R11	2005	1.0W 0R47 5%FLAME PROOF T&R RES	R91	4925	1/4W 820R 5% 2inU T&R RES	R172	6110	1/4W 1K0 1%MINI MF T&R RES	U27	6884	NE5532N IC DUAL OP AMP
C19	5212	100N 63V 5%CAP T&R RAD .2inFLM	C99	5961	33U 16V 20%CAP T&R RAD .2inNP	D35	6825	1N4148 75V 0A45 DIODE T&R	R12	2005	1.0W 0R47 5%FLAME PROOF T&R RES	R92	4743	1/4W 681R0 0.1% *** T&R RES	R173	2024	1/8W 249R 2%FLAME PROOF T&R RES	U28	6884	NE5532N IC DUAL OP AMP
C20	5949	3U3 140V 20%CAP BLK RAD POLY FLM	C100	5858	2700U 180V 20%CAP BLK 35X63MM ELS	D36	6438	1N4007 1000V 1A0 DIODE T&R	R13	6104	1/4W 2K2 5%MINI T&R RES	R93	2028	1/8W 475R 1%FLAME PROOF T&R RES	R174	4799	1/4W 562R 1% T&R RES	U29	6884	NE5532N IC DUAL OP AMP
C21	5212	100N 63V 5%CAP T&R RAD .2inFLM	C101	5422	1N 50V 10%CAP T&R BEAD NPO	D37	6825	1N4148 75V 0A45 DIODE T&R	R14	4954	1/4W 18K 5% 2inU T&R RES	R94	4940	1/4W 10K 5% 2inU T&R RES	R175	6114	1/4W 2K49 1%MINI MF T&R RES	U30	6872	MC7815CT TO220 P 15V0 REG V1
C22	5949	3U3 140V 20%CAP BLK RAD POLY FLM	C102	6435	22N 275V 20%CAP BLK X2 15MM AC	D38	6825	1N4148 75V 0A45 DIODE T&R	R15	4945	1/4W 270R 5% 2inU T&R RES	R95	5014	1/4W 562R0 0.1% *** T&R RES	R176	4996	1/4W 1K070 0.1% *** T&R RES	U31	6871	MC7915CT TO220 N 15V0 REG V2
C23	5212	100N 63V 5%CAP T&R RAD .2inFLM	C103	5258	4U7 63V 20%CAP T&R RAD .2inEL	D39	6733	BAT85 30V 0A2 DIODE SCHTKYT&R	R16	6104	1/4W 2K2 5%MINI T&R RES	R96	4690	1/2W 442R 1% T&R RES	R177	4982	1/4W 4K7 5%MINI T&R RES	U32	6884	NE5532N IC DUAL OP AMP
C24	5212	100N 63V 5%CAP T&R RAD .2inFLM	C104	5912	2200U 63V 20%CAP BLK 18X35MM EL	D40	6733	BAT85 30V 0A2 DIODE SCHTKYT&R	R17	2005	1.0W 0R47 5%FLAME PROOF T&R RES	R97	6110	1/4W 1K0 1%MINI MF T&R RES	R178	2018	1/8W 75R 2%FLAME PROOF T&R RES	U33	6884	NE5532N IC DUAL OP AMP
C25	5255	1U 63V 20%CAP T&R RAD .2inEL	C105	5887	2200U 50V 20%CAP BLK 18X27MM EL	D41	6825	1N4148 75V 0A45 DIODE T&R	R18	2005	1.0W 0R47 5%FLAME PROOF T&R RES	R98	2487	7.0 AMP SLO-BLO T&R FUSE	R179	4947	1/4W 30K 5% 2inU T&R RES	W1	2359	9 CIR XH-HEADER 0.098IN
C26	5212	100N 63V 5%CAP T&R RAD .2inFLM	C106	5266	68N 250V 20%CAP BLK X2 30MM AC	D42	6825	1N4148 75V 0A45 DIODE T&R	R19	6104	1/4W 2K2 5%MINI T&R RES	R99	2030	1/8W 681R 1%FLAME PROOF T&R RES	R180	4946	1/4W 2K 5% 2inU T&R RES	W2	3538	8 OF 24 PIN BREAKAWAY LOCK .156
C27	5212	100N 63V 5%CAP T&R RAD .2inFLM	C107	5631	22U 50V 20%CAP T&R 5X7MM .2inEL	D43	6825	1N4148 75V 0A45 DIODE T&R	R20	4948	1/4W 1M 5% 2inU T&R RES	R100	4690	1/2W 442R 1% T&R RES	R181	2024	1/8W 249R 2%FLAME PROOF T&R RES	W4	2359	9 CIR XH-HEADER 0.098IN
C28	5201	470P 100V 5%CAP T&R RAD CER.2inNPO	C108	5422	1N 50V 10%CAP T&R BEAD NPO	D44	6825	1N4148 75V 0A45 DIODE T&R	R21	6125	1/4W 18K 5%MINI T&R RES	R101	2030	1/8W 681R 1%FLAME PROOF T&R RES	R182	4799	1/4W 562R 1% T&R RES	W5	3709	7in 6C-26AWG RIB 1 WLCK HDR 098
C29	5204	10N 100V 10%CAP T&R RAD .2inFLM	C109	5212	100N 63V 5%CAP T&R RAD .2inFLM	D45	6825	1N4148 75V 0A45 DIODE T&R	R22	4940	1/4W 10K 5% 2inU T&R RES	R102	4993	1/4W 1K87 1% T&R RES	R183	4943	1/4W 4K7 5% 2inU T&R RES	W6	3392	250 MALE TAB .2IN T&R
C30	5212	100N 63V 5%CAP T&R RAD .2inFLM	C110	5258	4U7 63V 20%CAP T&R 4X7MM .2inEL	D47	6436	1N753ARL 6V2 0W5 ZENER 5% T&R	R23	2038	1/4W 11R FUSIBLE T&R RES	R103	4948	1/4W 1M 5% 2inU T&R RES	R184	4934	1/4W 1K 5% 2inU T&R RES	W9	3392	250 MALE TAB .2IN T&R
C31	5949	3U3 140V 20%CAP BLK RAD POLY FLM	C111	5887	2200U 50V 20%CAP BLK 18X27MM EL	D48	6421	MR752 200V 6A0 DIODE	R24	6104	1/4W 2K2 5%MINI T&R RES	R104	6110	1/4W 1K0 1%MINI MF T&R RES	R185	6114	1/4W 2K49 1%MINI MF T&R RES	W10	3392	250 MALE TAB .2IN T&R
C32	5229	150N 63V 10%CAP T&R RAD .2inFLM	C112	6451	4N7 250V 20%CAP BLK Y 10MM AC	D49	6438	1N4007 1000V 1A0 DIODE T&R	R25	4942	1/4W 100K 5% 2inU T&R RES	R105	4768	5.0W 12K 5% BLK RES	R186	4943	1/4W 4K7 5% 2inU T&R RES	W12	3392	250 MALE TAB .2IN T&R
C33	5212	100N 63V 5%CAP T&R RAD .2inFLM	C113	5858	2700U 180V 20%CAP BLK 35X63MM ELS	D50	6438	1N4007 1000V 1A0 DIODE T&R	R26	2035	1/4W 2K21 1%FLAME PROOF T&R RES	R106	4993	1/4W 1K8 5% T&R RES	R187	4683	1.0W 1K8 5% T&R RES	W13	3392	250 MALE TAB .2IN T&R
C34	5212	100N 63V 5%CAP T&R RAD .2inFLM	C114	5210	22N 100V 10%CAP T&R RAD .2inFLM	D51	6827	1N5402 200V 3A0 DIODE	R27	4921	1/4W 100R 5% 2inU T&R RES	R107	4935	1/4W 1K5 5% 2inU T&R RES	R188	4940	1/4W 10K 5% 2inU T&R RES	W14	3392	250 MALE TAB .2IN T&R
C35	5255	1U 63V 20%CAP T&R RAD .2inEL	C115	5912	2200U 63V 20%CAP BLK 18X35MM EL	D52	6827	1N5402 200V 3A0 DIODE	R28	4982	1/4W 4K7 5%MINI T&R RES	R108	4948	1/4W 1M 5% 2inU T&R RES	R189	6116	1/4W 10K0 1%MINI MF T&R RES	W17	3392	250 MALE TAB .2IN T&R
C36	5266	68N 100V 5%CAP T&R RAD .2inFLM	C116	5212	100N 63V 5%CAP T&R RAD .2inFLM	D53	6421	MR752 200V 6A0 DIODE	R29	6110	1/4W 1K0 1%MINI MF T&R RES	R109	4942	1/4W 10K 5% 2inU T&R RES	R190	6110	1/4W 1K0 1%MINI MF T&R RES	W18	3392	250 MALE TAB .2IN T&R
C37	5212	100N 63V 5%CAP T&R RAD .2inFLM	C117	5275	3N3 100V 5%CAP T&R RAD .2inFLM	D54	6827	1N5402 200V 3A0 DIODE	R30	6113	1/4W 2K 5%MINI T&R RES	R110	4743	1/4W 681R0 0.1% *** T&R RES	R191	6116	1/4W 10K0 1%MINI MF T&R RES	W20	3392	250 MALE TAB .2IN T&R
C38	5275	3N3 100V 5%CAP T&R RAD .2inFLM	C118	5208	2N2 400V 5%CAP T&R RAD .2inFLM	D55	6827	1N5402 200V 3A0 DIODE	R31	4680	5.0W 0R047 5% BLK RES	R111	5014	1/4W 562R0 0.1% *** T&R RES	R192	4943	1/4W 4K7 5% 2inU T&R RES	W21	3392	250 MALE TAB .2IN T&R
C39	5271	5N6 100V 5%CAP T&R RAD .2inFLM	C119	5212	100N 63V 5%CAP T&R RAD .2inFLM	D56	6827	1N5402 200V 3A0 DIODE	R32	6118	1/4W 22K 5%MINI T&R RES	R112	6124	1/4W 3K 5%MINI T&R RES	R193	4943	1/4W 4K7 5% 2inU T&R RES	W23	3392</	



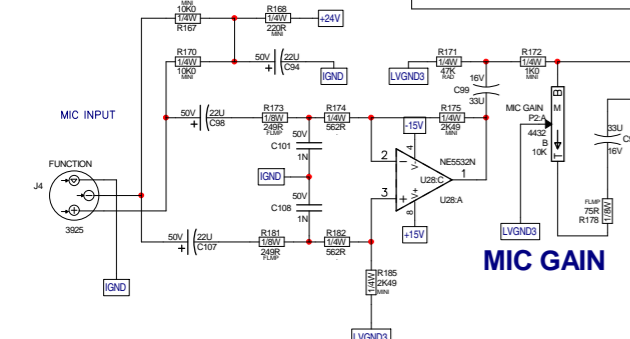
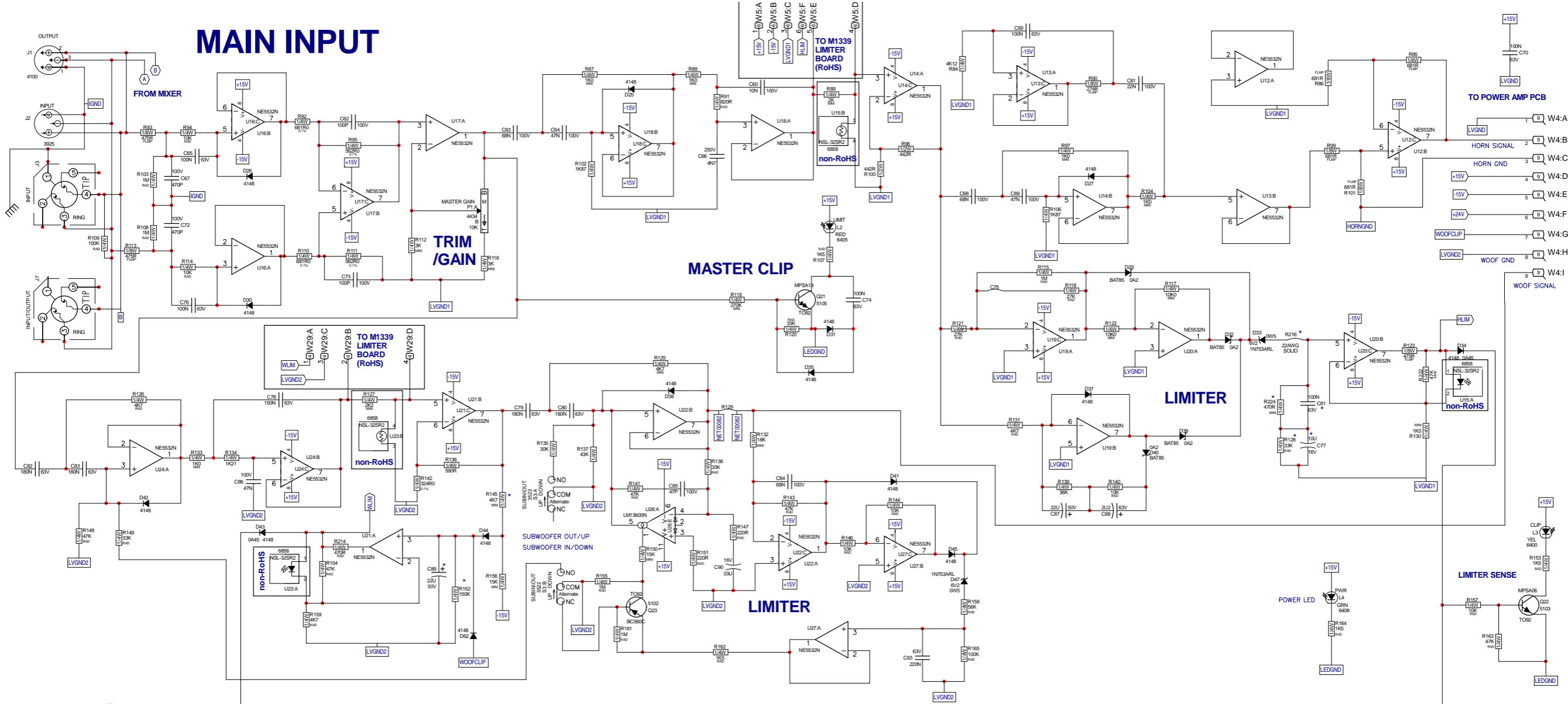
# élite EF500P

800 WATT POWERED LOUDSPEAKER ENCLOSURE

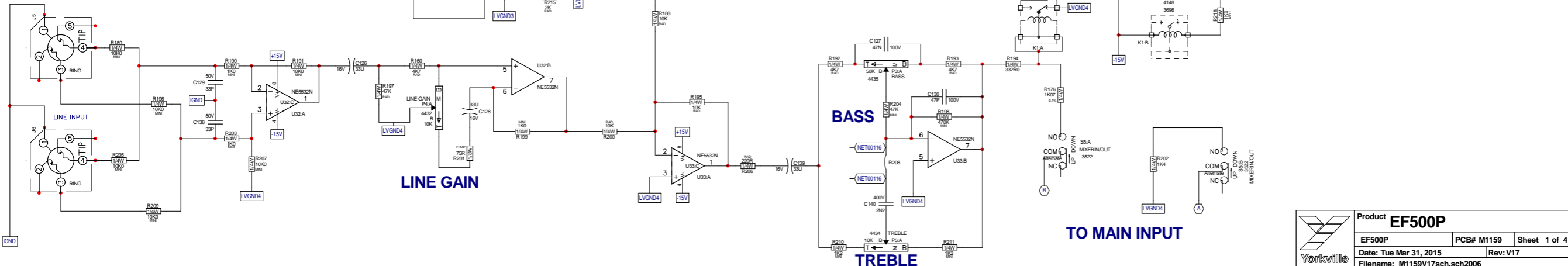




# MAIN INPUT



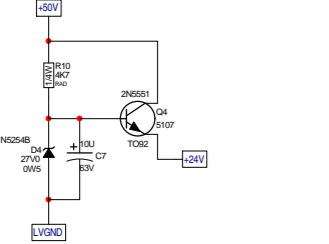
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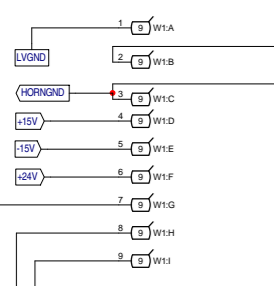


# HORN AMP

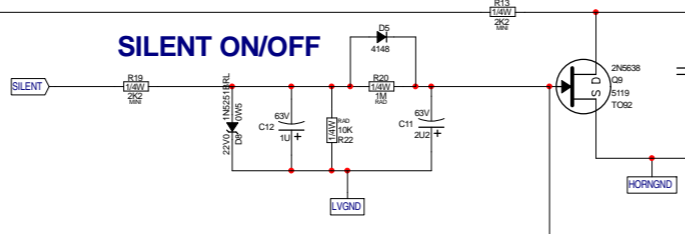
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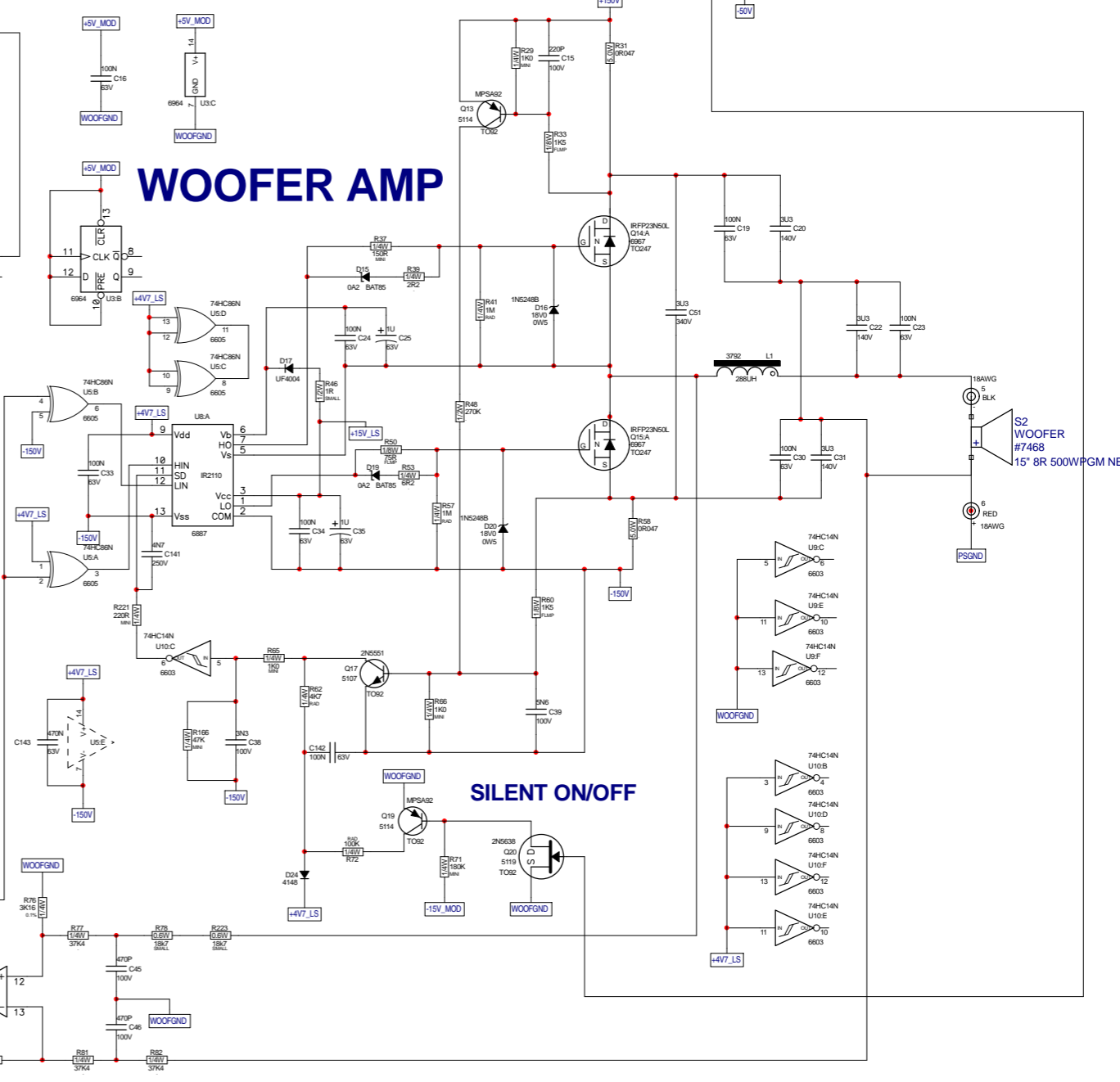
## FROM INPUT PCB



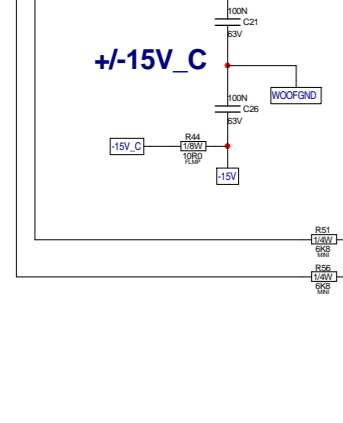
## SILENT ON/OFF



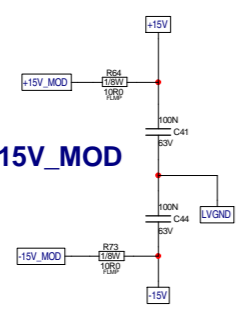
# WOOFER AMP



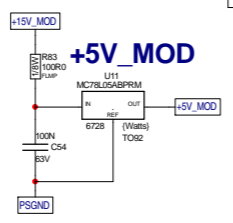
## +15V\_C



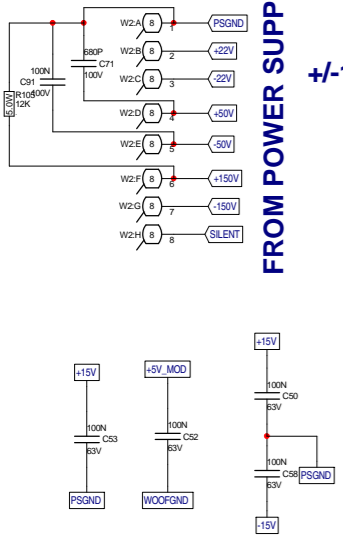
## +15V\_MOD



## +5V\_MOD

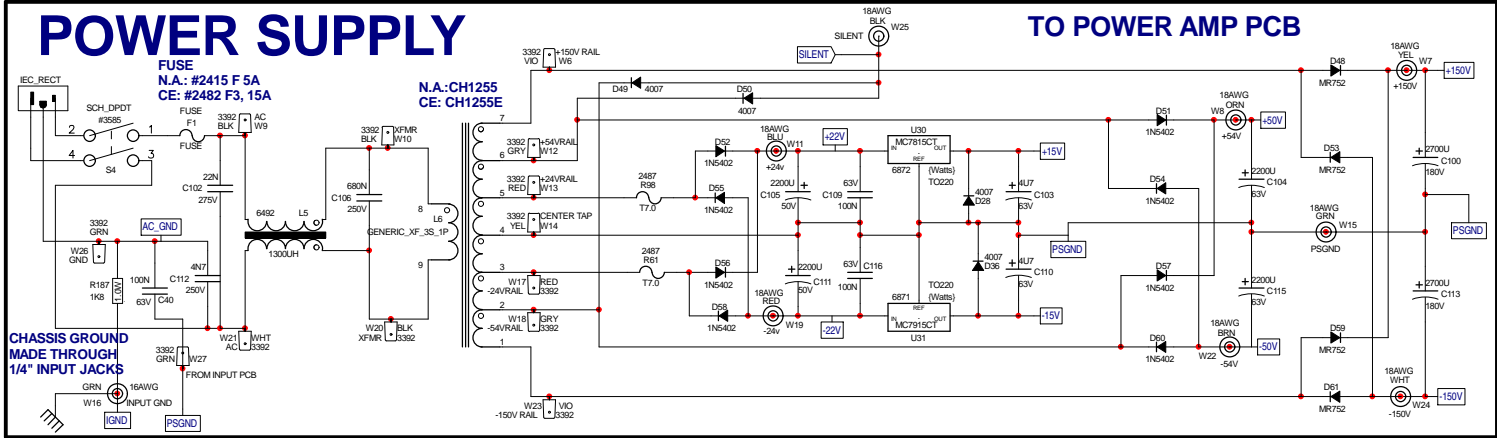


## FROM POWER SUPPLY



# POWER SUPPLY

TO POWER AMP PCB



	N.Am.	CE
R145	4k7(#4982)	5k1(#6138)
R152	150k(#4839)	56k(#4835)
R157	10K(#4940)	3K3(#4938)
C89	22u(#5631)	33u(#5961)
C77	PC7454	4u7(#5258)
D34	1N4148(#6825)	BAT85(#6733)
D43	1N4148(#6825)	BAT85(#6733)
R128	1k(#4981)	220k(#6126)
R89	2k(#6113)	DNS
R124	1K0(6110)	(#4599)
U15	(#6858)	DNS
R127	2k2(#6104)	DNS
U23	(#6858)	DNS
W5	DNS	(#3709)
W29	DNS	(#4036)
_X64	DNS	(#4599)
_X65	(#4599)	DNS

	WITHOUT CROWBAR		WITH CROWBAR	
	N.A.	CE	N.A.	CE
TRANSFORMER	CH1255	CH1255E	CH1255	CH1255E
FUSE F1	#2415 F 5A	#2482 F3.15A	#2465 F 7A	#2479 F 5A



Product **EF500P**

EF500P PCB# M1159 Sheet 3 of 4

Date: Tue Mar 31, 2015 Rev: V17

Filename: M1159V17sch.sch2006

# PIN CONFIGURATION

M1159		
MODEL(S):-	EF500P	
#	DATE	DESCRIPTION OF CHANGE
1	AUG 22 2001	2.00 1st RUN CHANGES FOR VER.2.00
2	D	V SEE ATTACHED NOTES ON DATA BASE.
3	SEPT 18 2001	2.00 CHANGE R28 FROM 10K TO 4K7 AND R34 FROM 33K TO 47K
4	SEPT 20 2001	2.10 PC#6453 R39 6R2 TO 2R2
5	OCT 22 2001	3.00 REPAIR CHASSIS GROUND FOR CSA STANDARD 4mm cr
6	D	V ADD COPPER POURS UNDER ALL OUTPUT DEVICES.
7	NOV 06 2001	3.10 PC#6464 R37 75R TO 150R PC#6469 R130 4K7 TO 2K
8	NOV 29 2001	4.00 MOVED TRACES UNDER 1/4 JACKS #3921
9	D	&V4.10 MOVE R24, ADD D21 AND C144, R27 FROM 47R TO 100R.
10	MAR/27/2002	V4.10 CHANGE R208 3K TO JUMPER, R204 3K TO
11	D	V 47K, R206 1K TO 220R, C140 1N5 TO 2N2
12	D	V AND C91 FROM 680P TO 100N.
13	D	V -INVERT BOTH AMP OUTPUT WIRE COLORS-INVERT BOX

1	1-APR-2002	4.20	PC#6513 R130 2K TO R123 1K TO 470R
2	11-APR-2002	5.00	PC#6523 UPDATE TABS, REMOVE COPPER UNDER XFMR
3	23-OCT-2003	6.00	BOARD NOT USED FOR NX520P - REMOVE M1159A
4	19-FEB-2004	7.00	PC#6671 P.S. MODIFIED TO MEET CE SPACING STNDS.
5	OCT-07-2004	7.10	PC#6694 CHANGE POTS TO P32 STYLE
6	D	8.00	PC#6743 CHANGE C23, C19, C30 TO (DO NOT STUFF)
7	OCT/15/2004	8.00	UPDATE TABS FOR DS PCB'S
8	SEP-13-2005	9.00	PC#6964:INCREASE SPACING OF PADS AT POW. DIODES
9	D	V	WITH 3K3 #4938, REPLACE D34 AND D43 1N4148 #6825
10	OCT-31-2005	.	PC7003:GT:R9 #4979 15K->#6104 2K2, ADD 8921WASHER
11	APR-27-2006	.	PC#7098:GT:Q14&Q15 6914 IRFP350->6967 IRFP23N50L/PBF
12	AUG-16-2006	9.01	HA, PC#7136, REPLACE R77, R81 AND R82 WITH #4686
13	.	.	37K4 1% 1/4W. REPLACE R78 WITH TWO #4611

1	OCT-31-2006	10.00	ROUTE TRACE FROM R22 TO R20 AROUND Q11 MOUNT
2	.	.	PC#7167, ENLARGE HOLE SIZE FOR #3522
3	.	.	PC#7178, Updated limiter for RoHS compliance
4	.	.	PC#7245, CHANGE VCD PARTS VALUE, HEAD LIMITATION
5	28-MAY-2007	11.00	FIX AUTO INSERT PROGRAM
6	05-JUL-2007	12.00	FIX AUTO INSERT PROGRAM
7	06-FEB-2008	13.00	PC#7290, CE VERSION ONLY, REPLACE R157 10K #4940
8	.	.	WITH 3K3 #4938, REPLACE D34 AND D43 1N4148 #6825
9	.	.	WITH BAT85 #6733
10	.	.	PC#7454, ONLY FOR N.A. REMOVE C77, R128 AND R124.
11	.	.	BA WILL PUT 33K,470R,100N AND 10U AS SHOWN, PAGE3
12	.	.	PC#7398, ADD CROWBAR CIRCUIT AND CHANGE FUSE
13	.	.	AT THE SAME TIME SEE PRODUCTION NOTE

1	05-APR-2010	14.00	PC#7356 CHANGED SQUARE PADS TO OVAL
2	.	.	ADD OPTO-COUPLEDERS TO PCB AND REMOVED REWORKS
3	02-FEB-2011	.	PC8185: CHANGE #3453 TO #4100 GG
4	06-DEC-2011	.	NET NAMES UPDATED AS PER PAUL B. - ML
5	23-FEB-2012	V15	PC8373: FORCE UPDATED RELAY PATTERN. - ML
6	.	.	NEW PATTERN FOR J1 AND RADIAL TABS. - ML
7	25-JUN-2012	V16	PC8448: Changed tab pattern to large slot. - ML
8	02-SEP-2014	.	PC8624: Changed LEDs to hand. New control panel. - ML
9	.	.	PC#8693:UPDATES J1,J3,J5,J6,J7.
10	26-MAR-2015	V17	PC#8734:D28 and D36 ADDED TO U30,U31 REGULATORS
11	D	V	N
12	D	V	N
13	D	V	N

POTENTIOMETERS/SWITCHES AND KNOBS				
MODEL(S):-	EF500P	M1159	(TITLE)	
REF	FUNCTION	POT/SW/YS#	KNOB	
P1	MASTER GAIN	4434	3916	
P2	MC GAIN	4432	9915	
P3	BASS	4435	9917	
P4	LINE GAIN	4432	9915	
P5	TREBLE	4434	9917	
S3	L/R ROLLOFF	3522	8636	
S5	MIKER IN/OUT	3522	8636	
R	F	P	K	
R	F	P	K	
R	F	P	K	
R	F	P	K	
R	F	P	K	

J109  
2N5638



D S G  
TO-92

BC550C  
BC560C



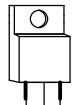
C B E  
TO-92

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2N5551  
MPSA06  
MPSA13  
MPSA43  
MPSA56  
MPSA63



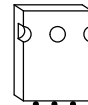
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BDX53B-53C

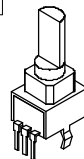


B C E  
TO-220

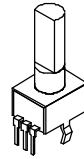
IRFP9040N  
IRFP23N50L



G D S  
TO-247



"STYLE\_P25"



"STYLE\_P32"

BD139  
BD140  
BD237  
BD238  
MJE270  
MJE271  
MJE340  
MJE350



E C B  
TO-126

M1159 PENDING CHANGES		
MODEL(S):-	EF500P	
#	PC#	CHANGING CHANGE
1	7244	PC#7244 CHANGING #4599 TO #4597 IS NOT EXECUTABLE
2	PC	X
3	PC	X
4	PC	X
5	PC	X
6	PC	X
7	PC	X
8	PC	X
9	PC	X
10	PC	X
11	PC	X
12	PC	X
13	PC	X

\*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY



Product **EF500P**

EF500P

PCB# M1159

Sheet 4 of 4

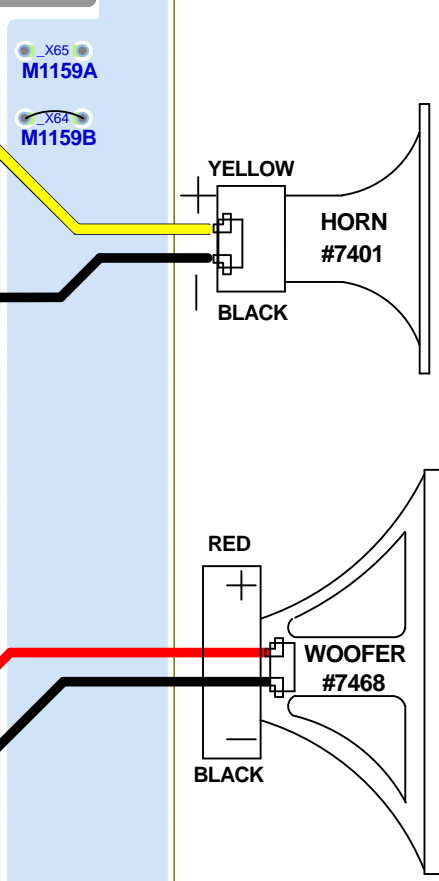
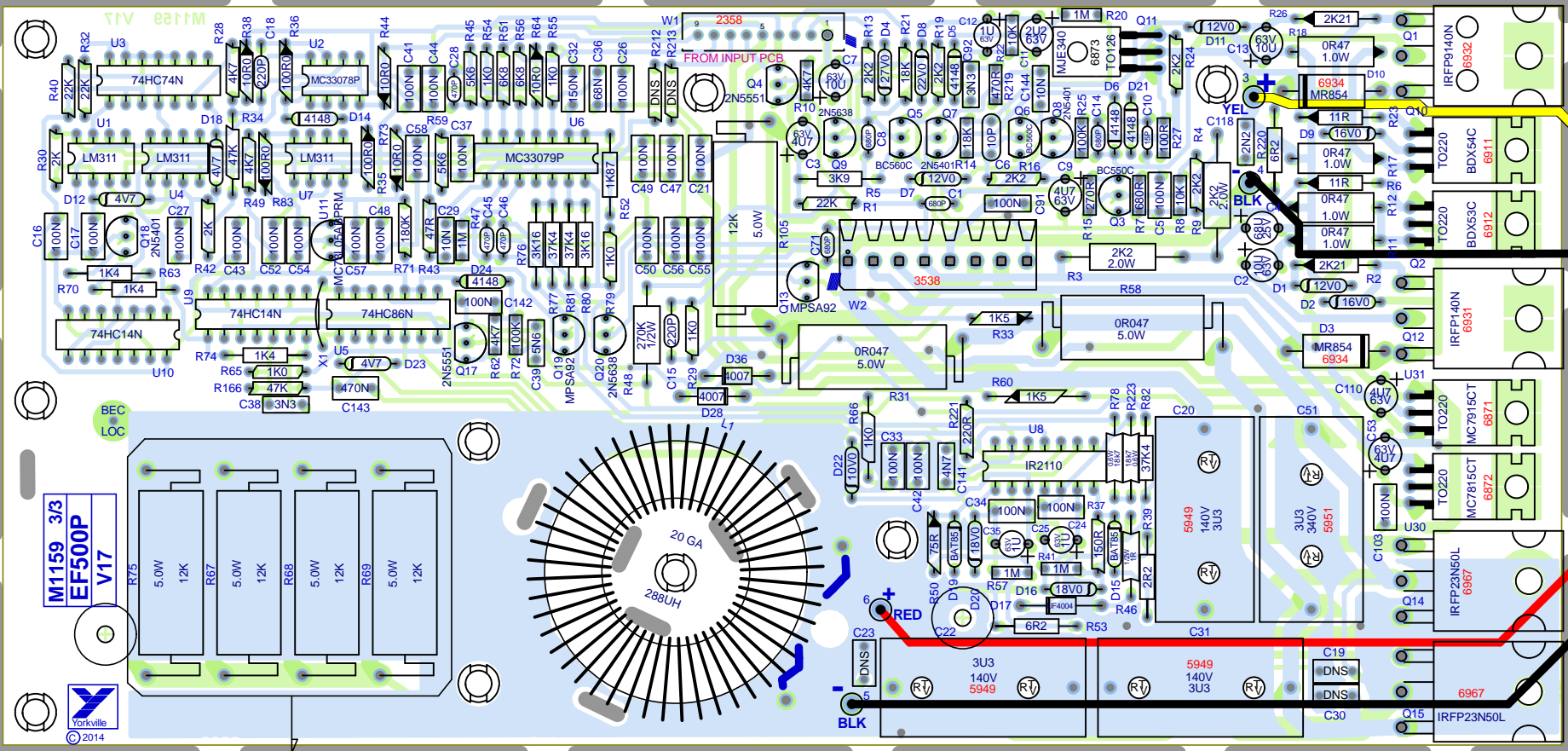
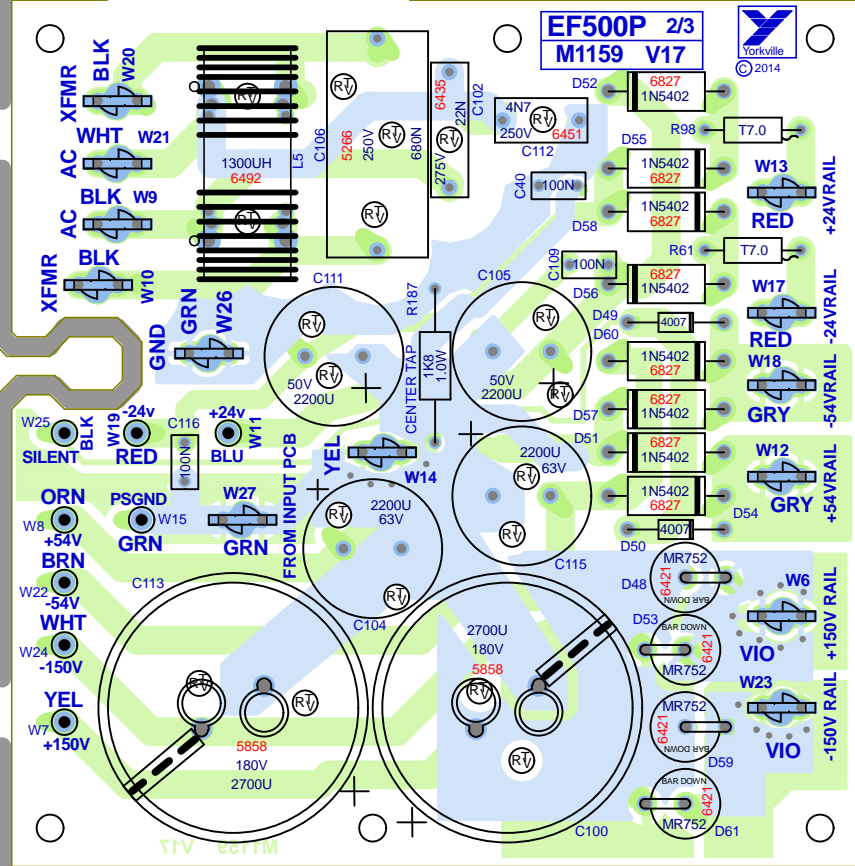
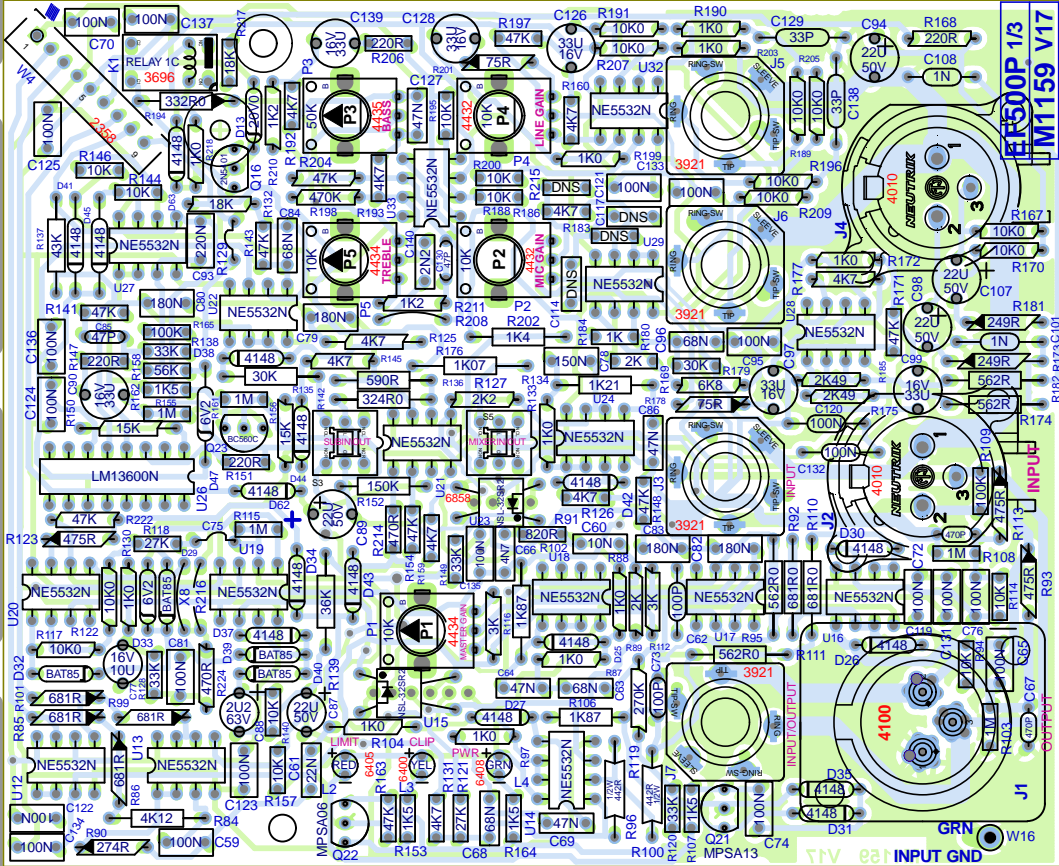
Date: Tue Mar 31, 2015

Rev: V17

Filename: M1159V17sch.sch2006



BlankSize - 11000x10000



EF500P 2/3  
M1159 V17



M1159 3/3  
EF500P  
V17



SEE NOTE 5 EF500P M1159 V17

SEE LAYOUT DOCUMENTATION



SEE LAYOUT DIAGRAM



# M1159B PRODUCTION NOTES

\*\*\*\*\*IMPORTANT\*\*\*\*\*

1. ADD AMPLE RTV UNDER ENTIRE BASE OF OUTPUT COIL L1
2. LEADS FOR 5 WATT RESISTORS MUST BE BENT ON THE MACHINE LEAD LOOP MUST NOT BE ABOVE TOP OF RESISTOR



3. #5858 APPLY A RING OF RTV ON CAPS SLEEVE AS SHOWN.



5. Q11 ONLY: MOUNT #8871 4-40 SCREW WITH HEAD ON BOTTOM. #8793 NUT AND 3501 WASHER ON TOP.

6. FIT #8921 FLAT WASHER BETWEEN #3501 BELL WASHER AND #8667 SHOULDER WASHER FOR Q2, Q10 U30 AND U31.

\*NOTE: IF THE NX520P MODEL IS BEING USED AS A REFERENCE, NOTE THAT THE HORN OF THE EF500P IS WIRED OPPOSITE TO THAT OF THE NX520P.

7. ADD #8580 SPACERS TO LEDS L2, L3 AND L4.

8. PC7398, ADD CROWBAR CIRCUIT AND CHANGE THE FUSE VALUE AT THE SAME TIME.

	WITHOUT CROWBAR		WITH CROWBAR	
	N.A.	CE	N.A.	CE
XFRM	CH1255	CH1255E	CH1255	CH1255E
FUSE F1	#2415 F 5A	#2482 F3.15A	#2465 F 7A	#2479 F 5A

9. M1159, PARTS REFERENCE TABLE

	M1159B
<b>C77</b>	#5282, 10U 16V 20% NP
<b>C81</b>	#5212, 100N 63V 5%
<b>C89</b>	#5631, 22U 50V 20% NP
<b>R127</b>	#6104, 2K2 1/4W 5% MINI
<b>R128</b>	#6122, 33K 1/4W 5% MINI
<b>R145</b>	#4982, 4K7 1/4W 5% MINI
<b>R152</b>	#4839, 150K 1/4W 5%
<b>R157</b>	#4940, 10K 1/4W 5%
<b>R216</b>	#4599, 22AWG SOLID JUMPER
<b>R224</b>	#4980, 470R 1/4W 5%MINI
<b>D34</b>	#6825, 1N4148 75V 0A45
<b>D43</b>	#6825, 1N4148 75V 0A45
<b>U23</b>	#6858 OPTO-COUPLER
<b>U15</b>	#6858 OPTO-COUPLER
<b>X64</b>	#4599, 22AWG SOLID JUMPER
<b>W28</b>	X - NO PART
<b>W5</b>	X - NO PART





# SEE LAYOUT DIAGRAM



M1159			
MODEL(S):-		EF500P	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	AUG 22 2001	2.00	1st RUN CHANGES FOR VER.2.00
2	D	V	SEE ATTACHED NOTES ON DATA BASE.
3	SEPT 18 2001	2.00	CHANGE R28 FROM 10K TO 4K7 AND R34 FROM 33K TO 47K
4	SEPT 20 2001	2.10	PC#6453 R39 6R2 TO 2R2
5	OCT 22 2001	3.00	REPOUR CHASSIS GROUND FOR CSA STANDARD 4mm clr
6	D	V	ADD COPPER POURS UNDER ALL OUTPUT DEVICES.
7	NOV 06 2001	3.10	PC#6464 R37 75R TO 150R PC#6469 R130 4K7 TO 2K
8	NOV 29 2001	4.00	MOVED TRACES UNDER 1/4" JACKS #3921
9	D	&V4.10	MOVE R24, ADD D21 AND C144, R27 FROM 47R TO 100R
10	MAR/27/2002	V4.10	CHANGE R208 3K TO JUMPER, R204 3K TO 47K, R206 1K TO 220R, C140 1N5 TO 2N2
11	D	V	AND C91 FROM 680P TO 100N.
12	D	V	-INVERT BOTH AMP OUTPUT WIRE COLORS-INVERT BOX
13	D	V	

1	1-APR-2002	4.20	PC#6513 R130 2K TO R123 1K TO 470R
2	11-APR-2002	5.00	PC#6523 UPDATE TABS, REMOVE COPPER UNDER XFMR
3	23-OCT-2003	6.00	BOARD NOT USED FOR NX520P - REMOVE M1159A
4	19-FEB-2004	7.00	PC#6671 P.S. MODIFIED TO MEET CE SPACING STNDS.
5	OCT-07-2004	7.10	PC#6694 CHANGE POTS TO P32 STYLE
6	.	.	PC#6743 CHANGE C23, C19, C30 TO (DO NOT STUFF )
7	OCT/15/2004	8.00	UPDATE TABS FOR DS PCB'S
8	SEP-13-2005	9.00	PC#6964:INCREASE SPACING OF PADS AT POW. DIODES
9	.	.	PC#6979:GT:R6&R23 #4815 12R->#2038 11R FUSIBLE
10	OCT-31-2005	.	PC7003:GT:R9 #4979 15K->#6104 2K2, ADD 8921WASHER
11	APR-27-2006	.	PC#7098:GT:Q14&Q15 6914 IRFP350->6967 IRFP23N50LPBF
12	AUG-16-2006	9.01	HA, PC#7136, REPLACE R77, R81 AND R82 WITH #4686
13	.	.	37K4 1% 1/4W. REPLACE R78 WITH TWO #4611

1	OCT-31-2006	10.00	ROUTE TRACE FROM R22 TO R20 AROUND Q11 MOUNT
2	.	.	PC# 7167, ENLARGE HOLE SIZE FOR #3522
3	.	.	PC#7178, Updated limiter for RoHS compliance
4	.	.	PC#7245, CHANGE VCD PARTS VALUE, HEAD LIMITATION
5	28-MAY-2007	11.00	FIX AUTO INSERT PROGRAM
6	05-JUL-2007	12.00	FIX AUTO INSERT PROGRAM
7	06-FEB-2008	13.00	PC#7290,CE VERSION ONLY, REPLACE R157 10K #4940 WITH 3K3 #4938. REPLACE D34 AND D43 1N4148 #6825 WITH BAT85 #6733
8	.	.	PC#7454, ONLY FOR N.A. REMOVE C77, R128 AND R124.
9	.	.	BA WILL PUT 33K,470R,100N AND 10U AS SHOWN, PAGE3
10	.	.	PC#7398, ADD CROWBAR CIRCUIT AND CHANGE FUSE AT THE SAME TIME SEE PRODUCTION NOTE
11	.	.	
12	.	.	
13	.	.	

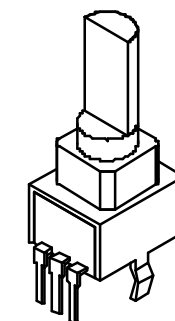
1	05-APR-2010	14.00	PC#7356 CHANGED SQUARE PADS TO OVAL
2	.	.	ADD OPTO-COUPPLERS TO PCB AND REMOVED REWORKS
3	02-FEB-2011	.	PC8185: CHANGE #3453 TO #4100 GG
4	06-DEC-2011	.	NET NAMES UPDATED AS PER PAUL B. - ML
5	23-FEB-2012	V15	PC8373: FORCE UPDATED RELAY PATTERN. - ML
6	.	.	NEW PATTERN FOR J1 AND RADIAL TABS. - ML
7	25-JUN-2012	V16	PC8448: Changed tab pattern to large slot. - ML
8	02-SEP-2014	.	PC8624: Changed LEDs to hand. New control panel. - ML
9	.	.	PC#8693:UPDATES J1,J3,J5,J6,J7.
10	26-MAR-2015	V17	PC#8734:D28 and D36 ADDED TO U30,U31 REGULATORS.
11	D	V	N
12	D	V	N
13	D	V	N

POTENTIOMETERS/SWITCHES AND KNOBS			
MODEL(S):- EF500P		M1159	{TITLE}
REF	FUNCTION	POT/SW YS#	KNOB
P1	MASTER GAIN	4434	9916
P2	MIC GAIN	4432	9915
P3	BASS	4435	9917
P4	LINE GAIN	4432	9915
P5	TREBLE	4434	9917
S3	LF ROLLOFF	3522	8636
S5	MIXER IN/OUT	3522	8636
R	F	P	K
R	F	P	K
R	F	P	K
R	F	P	K
R	F	P	K

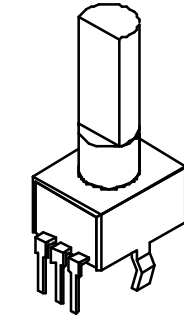
M1159 PENDING CHANGES		
MODEL(S):-		EF500P
#	PC#	PENDING CHANGE
1	7244	CHANGING #4599 TO #4597 IS NOT EXECUTABLE
2	PC	.
3	PC	.
4	PC	X
5	PC	X
6	PC	X
7	PC	X
8	PC	X
9	PC	X
10	PC	X
11	PC	X
12	PC	X
13	PC	X

\*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY

## PIN CONFIGURATION

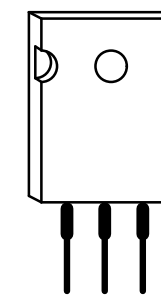


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OLD



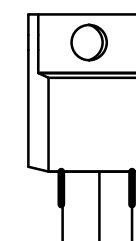
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NEW

IRFP9140N  
IRFP23N50L



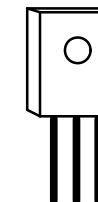
G D S  
TO-247

BDX54B-54C  
BDX53B-53C



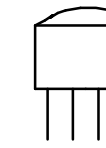
B C E  
TO-220

BD139  
BD140  
BD237  
BD238  
MJE270  
MJE271  
MJE340  
MJE350



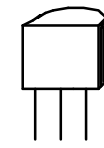
E C B  
TO-126

2N5401  
2N5551  
MPSA06  
MPSA13  
MPSA43  
MPSA56  
MPSA63  
MPSA92



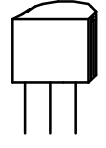
E B C  
TO-92

J109  
2N5638



D S G  
TO-92

BC550C  
BC560C



C B E  
TO-92

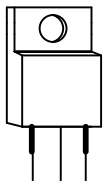
### M1369 PCB\_DATABASE\_HISTORY

MODEL(S):- CROW BAR

#	DATE	VER#	DESCRIPTION OF CHANGE
1	28-NOV-2007	1.00	FIRST DESIGN
2	02-JUN-2008	2.00	UPDATE TABS
3	19-JAN-2009	3.00	CHANGE THE BECLOC HOLE TO NON PLATED
4	06-MAY-2011	V04	Reduce size of the panel. - GG
5	28-JUN-2012	V05	PC8448: Updated tab pattern - ML
6	13-OCT-2015	V06	PC8861: Replace TABs with connector GG
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

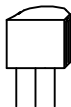
STM-BTB-600BRG

LEADS REFERENCE



MT1 G MT2  
TO-220

MBS4992



MT1 G MT2  
TO-92

W6  
4167

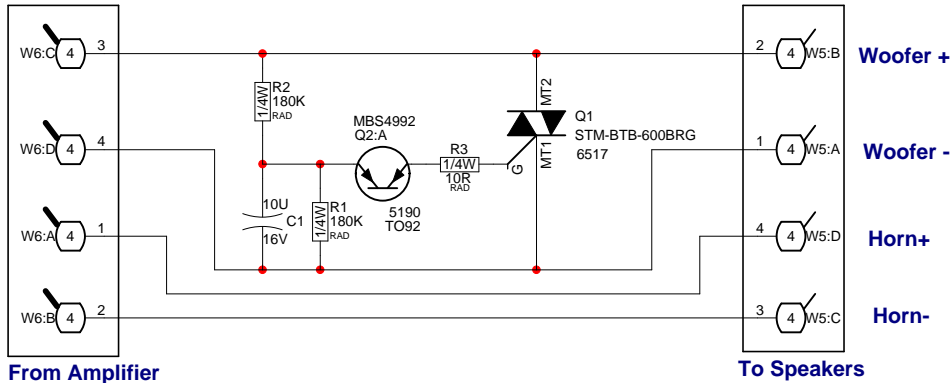
W5  
3538

Woofer +

Woofer -

Horn+

Horn-



Woofer +

Woofer -

Horn+

Horn-

From Amplifier

To Speakers



Product **CROWBAR**

MAIN

PCB# M1369

Sheet 1 of 1

Date: Mon Nov 02, 2015

Rev: V06

YsType: YsType

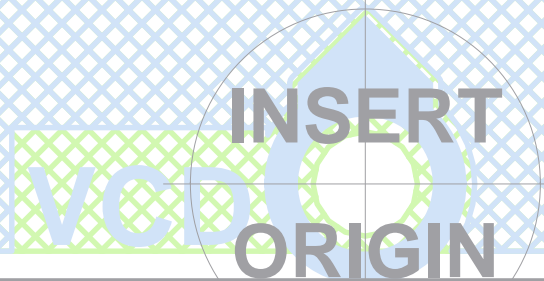
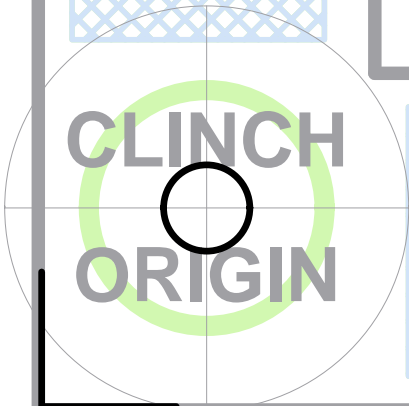
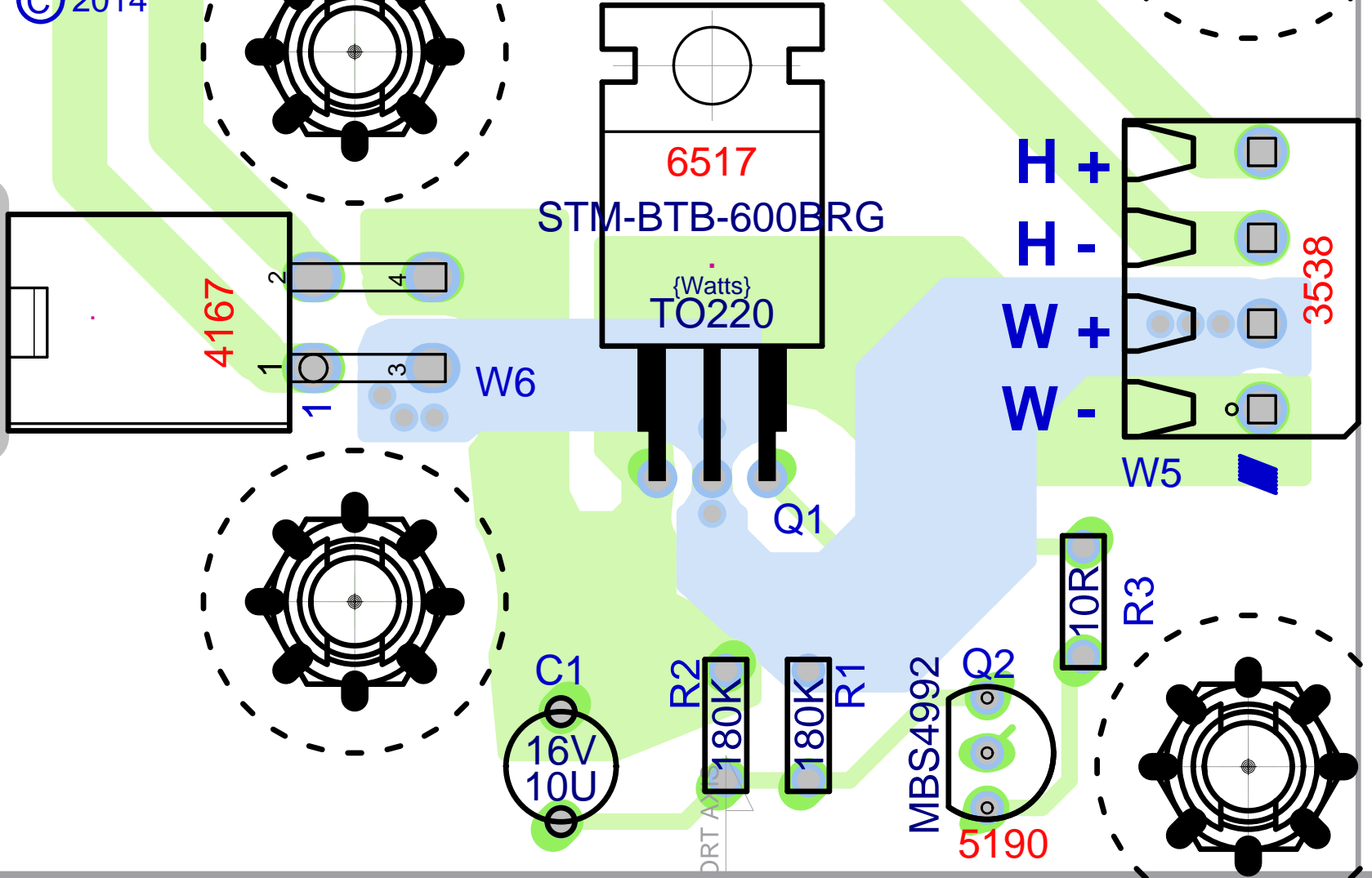
Filename: M1369V06sch.sch2006



BlankSize - 13500x9000



M1369 V06  
CROWBAR



LONG AXIS

M1369 V06

StepAndRepeat - X5@2500Y4@2000



SEE LAYOUT DIAGRAM



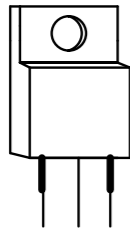
# M1369 V06 PRODUCTION NOTES

1. USE #8799, #6 1/4 PAN SCREW FOR TRIAC Q1

M1369 PCB_DATABASE_HISTORY			
MODEL(S):-		CROW BAR	
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8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

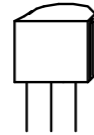
## LEAD/PIN REFERENCE

STM-BTB-600BRG



MT1 G MT2  
TO-220

MBS4992



MT1 G MT2  
TO-92



**YS#9916 Gray Knob (qty: 1)**



**YS#9917 Green Knob (qty: 2)**



**YS#89915 Red Knob (qty: 2)**