



SERVICE MANUAL

K4
MODEL TYPE: YS1045

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

**WORLD HEADQUARTERS
CANADA**

Yorkville Sound
550 Granite Court
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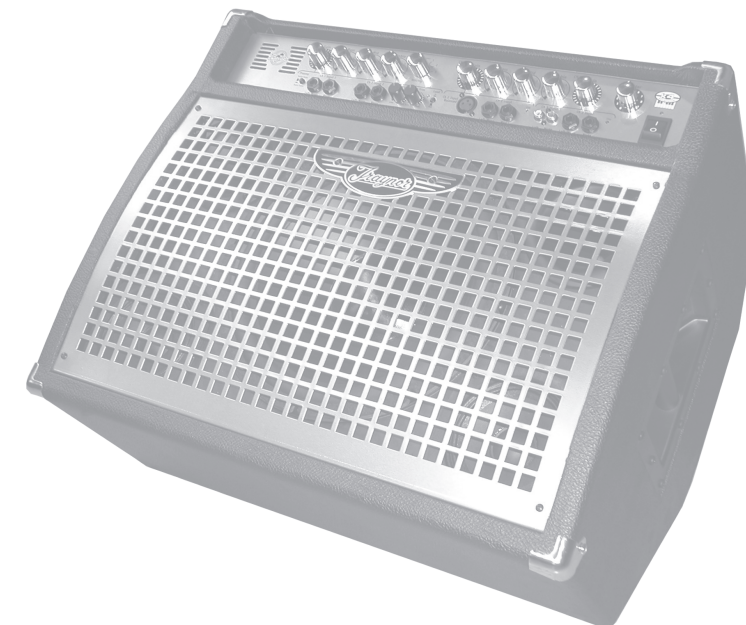
U.S.A.

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Quality and Innovation Since 1963
Printed in Canada



IMPORTANT SAFETY INSTRUCTIONS



INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

INSTRUCTIONS RELATIVES AU RISQUE DE FEU, CHOC ÉLECTRIQUE, OU BLESSURES AUX PERSONNES

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.

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

Read Instructions

The Owner's Manual should be read and understood before operation of your unit. Please, save these instructions for future reference.

Packaging

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

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.

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.

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.

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

Power Cord

The AC supply cord should be routed so that it is unlikely that it will be damaged. If the AC supply cord is damaged DO NOT OPERATE THE UNIT.

Service

The unit should be serviced only by qualified service personnel.

Veillez Lire le Manuel

Il contient des informations qui devraient être comprises avant l'opération de votre appareil. Conservez S.V.P. ces instructions pour consultations ultérieures.

Emballage

Conservez la boîte au cas où l'appareil devait être retourner pour réparation.

Attention:

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

Alimentation

L'appareil ne doit être branché qu'à une source d'alimentation correspondant au voltage spécifié dans le manuel ou tel qu'indiqué sur l'appareil. Cet appareil est équipé d'une prise d'alimentation polarisée. Ne pas utiliser cet appareil avec un cordon de raccordement à moins qu'il soit possible d'insérer complètement les trois lames. Des précautions doivent être prises afin d'éviter que le système de mise à la terre de l'appareil ne soit désengagé.

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.

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

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

Assurez que l'appareil est fourni de la propre ventilation.

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 être effectués par un opérateur formé ou en utilisant des cordons déjà préparés.

Cordon d'Alimentation

Évitez d'endommager le cordon d'alimentation. N'UTILISEZ PAS L'APPAREIL si le cordon d'alimentation est endommagé.

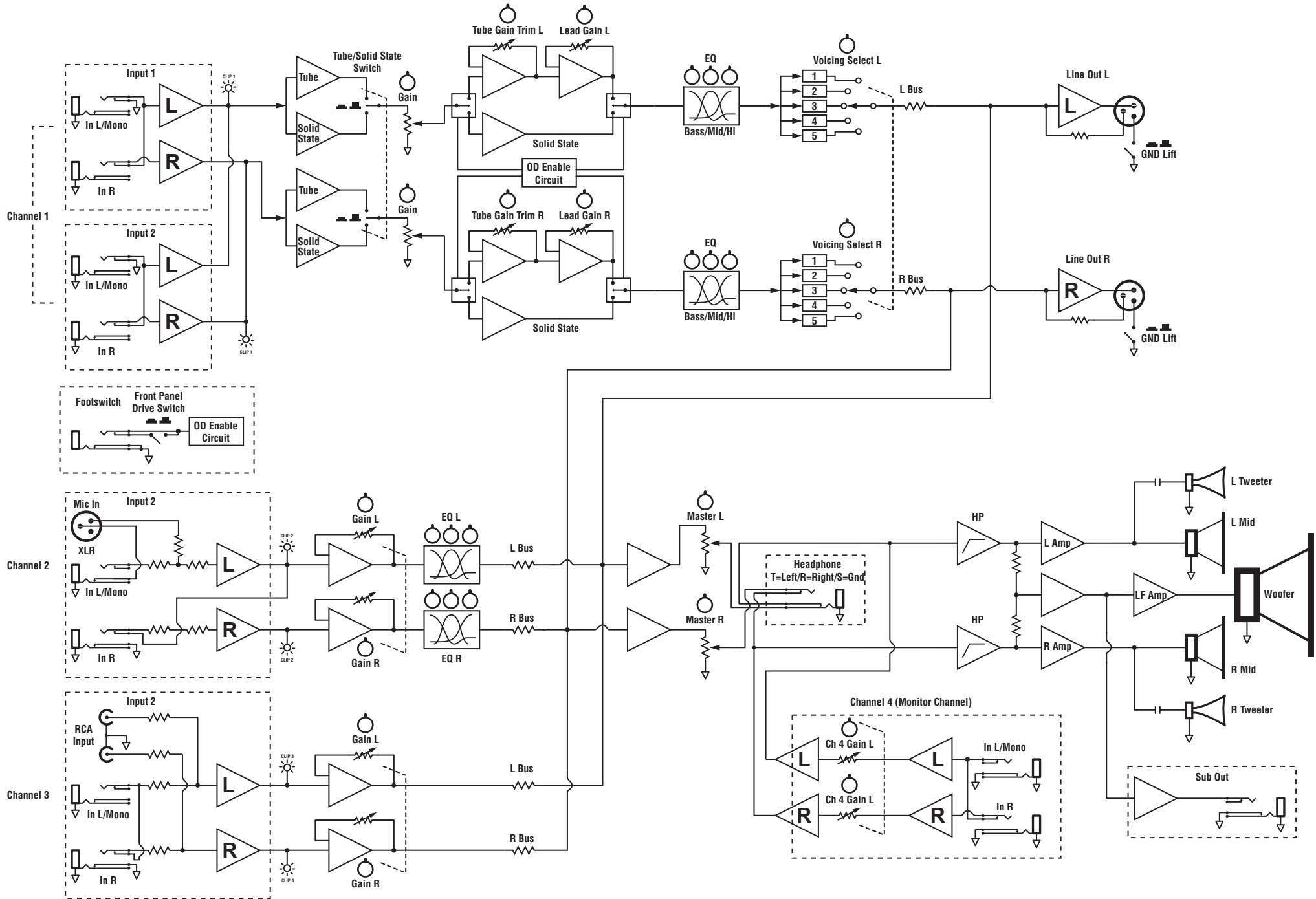
Service

Consultez un technicien qualifié pour l'entretien de votre appareil.

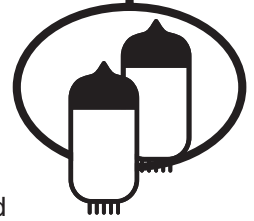
Block Diagram for Keymaster K4

MODEL TYPE: YS1045

DESIGNED & MANUFACTURED BY YORKVILLE SOUND



SERVICE BULLETIN

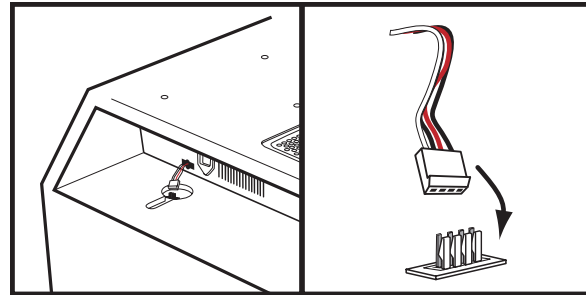


K4 Pre-amp Tube Replacement

The Two 12AX7A/7025A tubes are inside the chassis.

To remove the chassis from the cabinet follow these instructions.

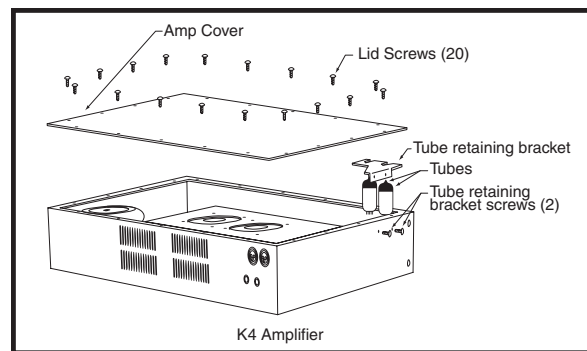
1. Unplug all connections. Make sure the K4 is unplugged from the AC main line and remove all instrument and other cable connections.
2. Remove K4 Chassis from cabinet. Before removing K4 chassis from speaker cabinet, make sure to unplug the speaker connectors.
 - a) Remove the five top bolts and loosen the vent screws holding the k4 chassis to the cabinet; this will enable you to push the chassis forward approximately 2 inches until the speaker wire connections at the rear left will be visible.
 - b) Disconnect the connector while noting the orientation of the locking fingers for when you re-connect them after the tubes have been changed. Continue pushing the chassis forward until it is out of the cabinet.



Speaker Connection

If the chassis snags on the cabinet vinyl, reverse the process and push it out the back of the cabinet. You may find it worthwhile to insert thin strips of plastic as shims between the chassis and cabinet down the sides to reduce the chance of snagging.

5. Once the chassis is removed, using a small Phillips screwdriver, remove the 20 screws that are used to mount the amplifier lid. You will find the tubes near the front of the chassis on the left side (looking from the front). They are held in place with a retaining bracket which needs to be unscrewed and removed before you pull the 12AX7/7025s out of their sockets. Remove the tube-retainer bracket screws, and pull the bracket upward. Proceed to replace the two 12AX7A/7025A tubes.



Lid and Tube Retaining Bracket

6. Reinstall the tube bracket and chassis lid screws.
7. Slide the chassis carefully back into the cabinet remembering to clear the speaker wires; don't forget to reconnect the speaker wires before sliding the unit into its final position.
8. Reinstall the large retaining bolts and tighten-down the vent plate screws.

REAL Gear.
REAL People.



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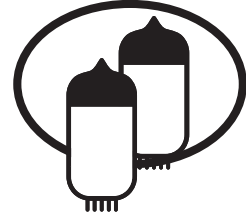
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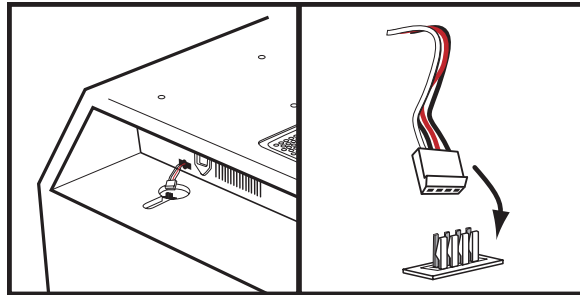
Remplacement des Lampes Pour le Préamplificateur K4

Les deux lampes 12AX7A/7025A sont à l'intérieur du châssis.
Pour retirer le châssis de l'enceinte suivez les instructions ci-dessous.



1. Débranchez toutes les connexions. Assurez-vous que le K4 est débranché du circuit CA et débranchez tous les autres câbles incluant les instruments.
2. Assurez-vous aussi de débrancher le connecteur du haut-parleur, et retirer ensuite le châssis de l'enceinte.

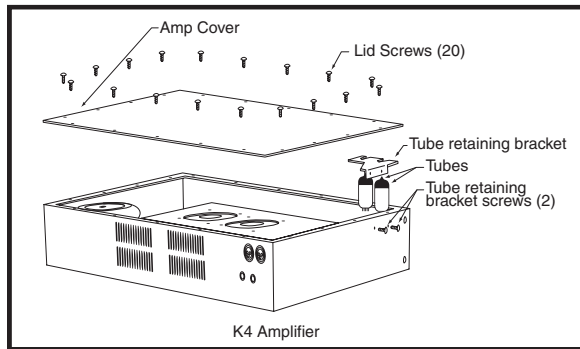
- a) Enlevez les cinq boulons du dessus et desserrer les vis de la plaque d'évent qui tiennent le châssis à l'enceinte; cela vous permettra de pousser le châssis vers l'avant d'environ 2 pouces jusqu'à ce que les connexions du câble de raccordement pour haut-parleur à l'arrière gauche soient visibles.
- b) Débranchez le connecteur en prenant note de l'orientation du joint de verrouillage pour raccorder correctement le connecteur une fois les lampes changées. Continuez ensuite de pousser le châssis vers l'avant jusqu'à ce qu'il soit sortie de l'enceinte.



Speaker Connection

Si en le sortant par l'avant, le châssis se trouve coincé sur le vinyle de l'enceinte, renversez le processus et poussez-le vers l'arrière de l'enceinte. Vous trouverez peut-être préférable d'insérer de minces bandes de plastique comme cale entre le châssis et le cabinet pour réduire les chances d'accrochage.

5. Une fois le châssis enlevé, à l'aide d'un petit tournevis de type Phillips, enlevez les 20 vis utilisées pour fixer le couvercle au châssis. Les lampes sont situées près du devant du châssis sur le côté gauche (vue du devant). Elles tiennent en place à l'aide d'une fixation qui doit être dévissée et enlevée avant que vous puissiez tirer les 12AX7/7025 de leur douille. Enlevez les vis des fixations et tirez les fixations vers le haut. Procédez au remplacement des deux lampes 12AX7A/7025A.



Lid and Tube Retaining Bracket

6. Réinstallez les fixations et le couvercle du châssis à l'aide des vis fournies.

7. Glissez avec prudence le châssis dans l'enceinte en gardant les fils de haut-parleur accessibles; n'oubliez pas de reconnecter les fils de haut-parleur avant de glisser l'appareil jusqu'à sa position finale.

8. Réinstallez les gros boulons et resserrez les vis de la plaque d'évent.

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SERVICE BULLETIN



January 29, 2009

The K4 is a powerful 300-Watt compact and light-weight combo amplifier for keyboards. The product houses 5 drivers in it's speaker section and a chassis that has 3 amplifiers, a set of tubes, 2 fans (with heat sinks) and 6 circuit boards. All of these components potentially rattle and/or buzz at various frequencies. Yorkville uses a specific method to help prevent the sound energy from being transferred from to the speaker compartment to the chassis.

Yorkville has taken great care by using dampening foam inside to help reduce a great deal of rattling. Special foam and rubber washers are also used for mounting the chassis to the cabinet. The top 5 chassis mounting bolts are not fully tightened, this helps prevent the transference of the sound energy to the chassis from the speakers.

Over tightening the top 5 bolts may result in rattle and buzz!

If chassis is removed and replaced, we recommend using a Phillips head screw driver and tighten each bolt so that ***the top of the head is just above the surface of the cabinet.*** To test if the mounting is done correctly, apply a little force to the front and then the back of the chassis if it moves too much, retighten the bolts and redo the test again.

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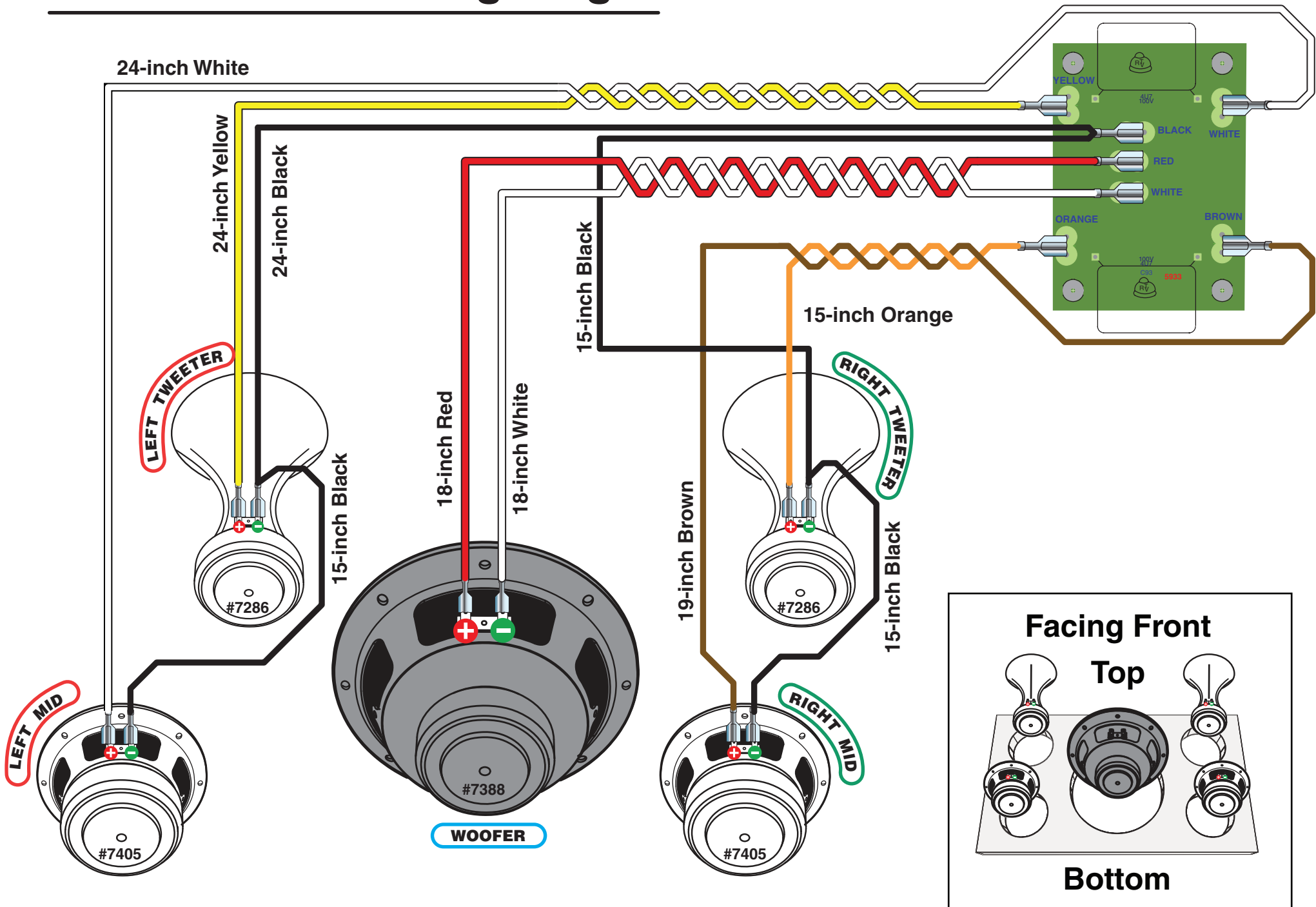
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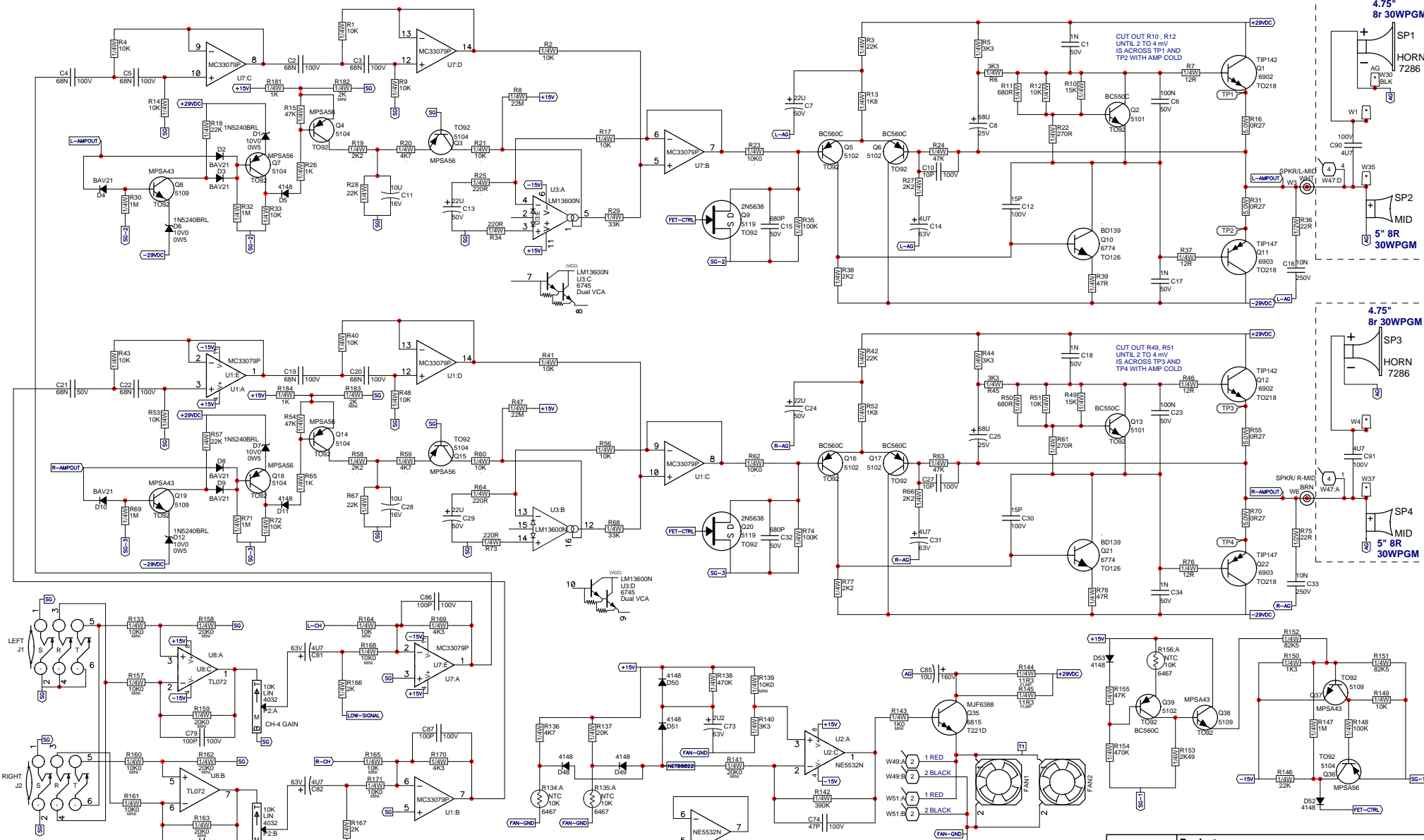
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K4 FINISHING Wiring Diagram





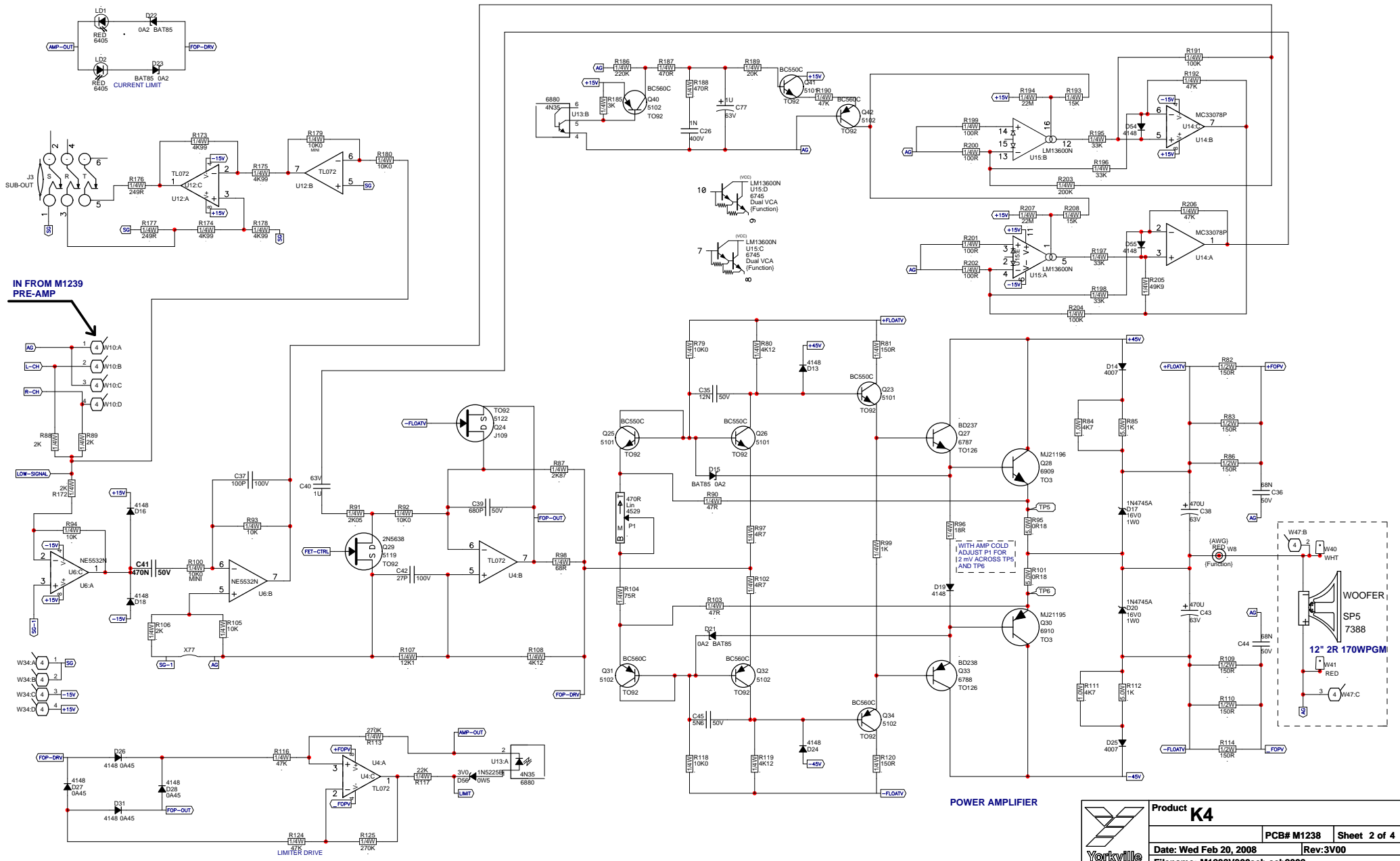
MARCHK1
MARCHK2

GN=GROUND
AG=AMP GROUND
SG=SIGNAL GROUND



Product K4	
PCB# M1238	Sheet 1 of 4
Date: Wed Feb 20, 2008	Rev:3V00
Filename: M1238V300sch.sch2002	

WARNING: 120 VDC IS BETWEEN C55 TO GROUND. THIS PRESENT A SIGNIFICANT SHOCK HAZARD. PLEASE, USE EXTREME CAUTION WHEN SERVICING!

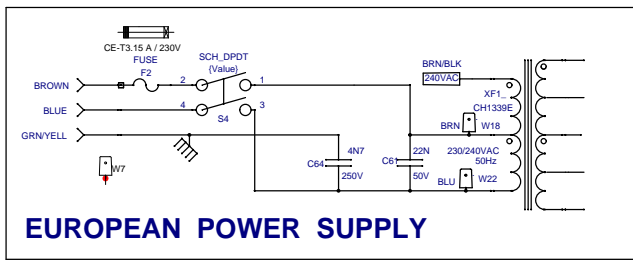
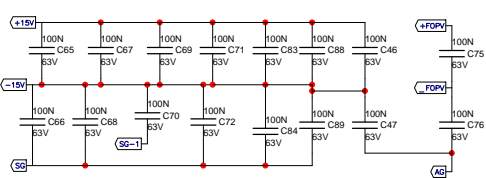
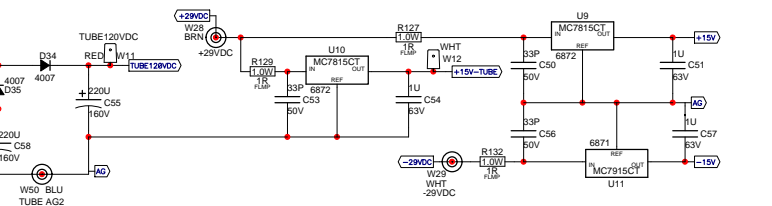
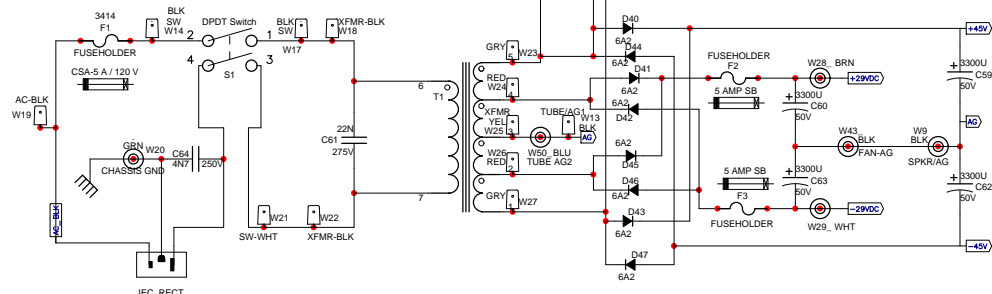


IN FROM M1239
PRE-AMP

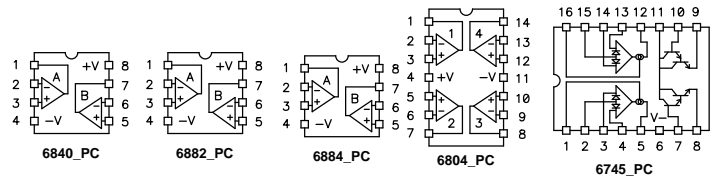
POWER AMPLIFIER



Product K4		
PCB# M1238	Sheet 2 of 4	
Date: Wed Feb 20, 2008	Rev: 3V00	
Filename: M1238V300sch.sch2002		



- BD139
- BD237
- BD238
- MJE340
- MJE350
- MJE271
- MJE270
- BD140
- 2N5401
- 2N5551
- MPSA06
- MPSA13
- MPSA43
- MPSA56
- MPSA63
- J109
- 2N5638
- BC550C
- BC560C



M1238 DATABASE HISTORY			
MODEL(S):-	K4		
#	DATE	VER#	DESCRIPTION OF CHANGE
1	08-FEB-2007	1.00	FIRST PROTO
2	08-MAR-2007	2.00	REPLACE OPTOCOUPLER PC#7281, CHANGE W3, W6, W8 & W9 TO NORMAL EYELET
3	.	.	PC#7291, REPLACE FAN EYELETS WITH MOLEX.
4	13-FEB-2008	3.00	PC#7277, VALUE CHANGE PRIME CE F1 TO T3.15A #2475.
5	.	.	PC#7437, REDUCE HUM, ISOLATE AC SECTION.
6	.	.	NODE N122 DELETED.
7	.	.	FORCE UPDATED
8	.	.	FORCE UPDATED
9	.	.	PC#7592, NEW #6787 & #6788 NEED NO THERMO PAD
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

POT LIST			
MODEL(S):-	K4		
REF	FUNCTION	PART#	KNOB (NEW)
P2	CH-4 GAIN	4032	9922 N
R	F	K	N
R	F	K	N
R	F	K	N
R	F	K	N
R	F	K	N
R	F	K	N
R	F	K	N
R	F	K	N
R	F	K	N
R	F	K	N
R	F	K	N

Yorkville Product **K4**

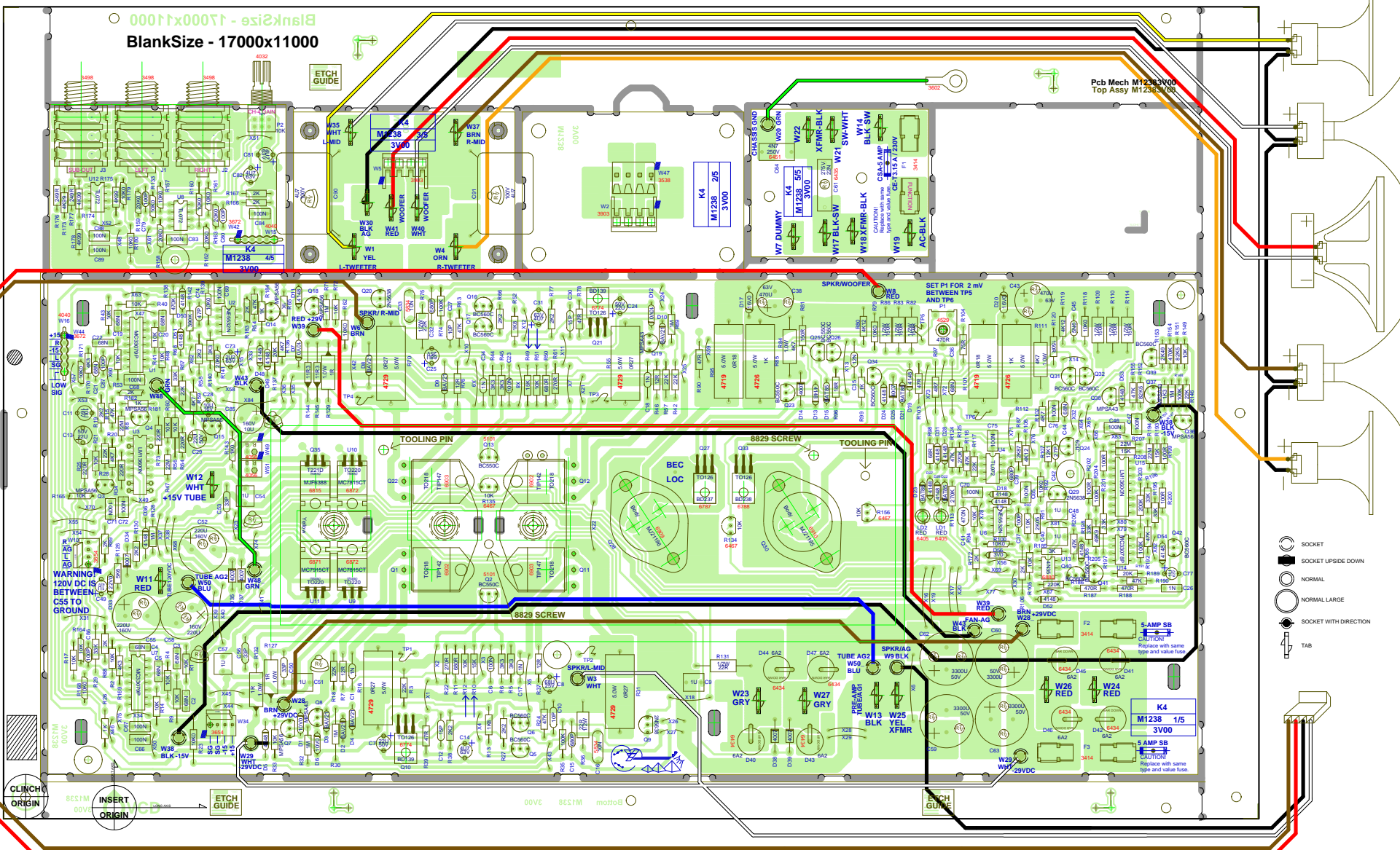
Date: Wed Feb 20, 2008 Rev: 3V00

PCB# M1238 Sheet 3 of 4

Filename: M1238V300sch.sch2002

BlankSize - 17000x11000

Pcb Mech M12383V00
Top Assy M12383V00

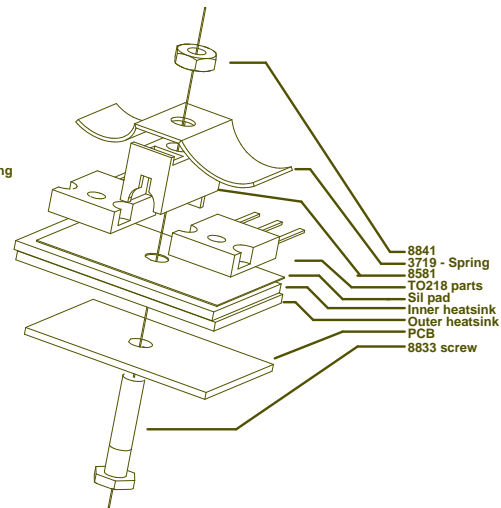
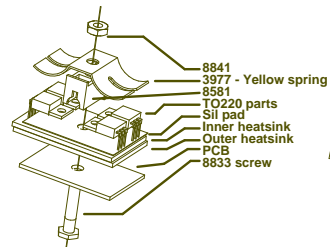


- SOCKET
- ◼ SOCKET UPSIDE DOWN
- SOCKET
- NORMAL LARGE
- SOCKET WITH DIRECTION
- ⊥ TAB

↓ SEE LAYOUT DOCUMENTATION ↓

PRODUCTION NOTES K4 M1238

- 1--ADD THERMAL JOINT COMPOUND (GOOP) BETWEEN Q25 AND Q26;
Q31 AND Q32 . COVER WITH VINYL CAP (8609) AND RTV.
- 2--ADD RTV TO ALL CAP'S.
- 3--Q2 , Q13 , R134 , R135 , R156 ARE HAND INSERTED.
- 4--C90 AND C91 RTV AND BEND FLAT
- 5--CHECK THE PICTURE FOR MOUNTING THE TO-220 AND TO-218.
- 6--Q23 & Q33 (#6787 & #6788) DON'T NEED ANY THERMO PAD OR SILICON
JUST PUT SOME THERMO CONDUCTIVE COMPOUND (WHITE GREASE)



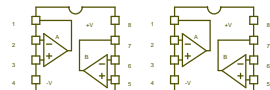
↑↑ SEE LAYOUT DIAGRAM ↑↑

M1238 DATABASE HISTORY			
MODEL(S):-		K4	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	08-FEB-2007	1.00	FIRST PROTO
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3	.	.	PC#7281,CHANGE W3,W6,W8 & W9 TO NORMAL EYELET
4	13-FEB-2008	3.00	PC#7291,REPLACE FAN EYELETS WITH MOLEX.
5	.	.	PC#7277,VALUE CHANGE PRIME CE F1 TO T3.15A #2475.
6	.	.	PC#7437,REDUCE HUM,ISOLATE AC SECTION.
7	.	.	NODE N122 DELETED.
8	.	.	FORCE UPDATED
9	.	.	PC#7592, NEW #6787 & #6788 NEED NO THERMO PAD
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

POT LIST				
MODEL(S):-		K4		
REF	FUNCTION	PART#	NOB	
P2	CH-4 GAIN	4032	9922	

M1238 DRILL HISTORY			
MODEL(S):-		K4	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	13-FEB-2008	3.00	UPDATED PER PC#7291, 7277, 7437.
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

PIN CONFIGURATION



BD139
BD237
BD238
MJE340
MJE350
MJE271
MJE270
BD140



2N5401
2N5551
MPSA06
MPSA13
MPSA43
MPSA56
MPSA63



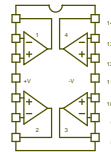
J109
2N5638



BC550C
BC560C

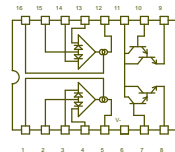


MC33078P

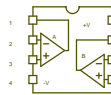


MC33079P

TLO72

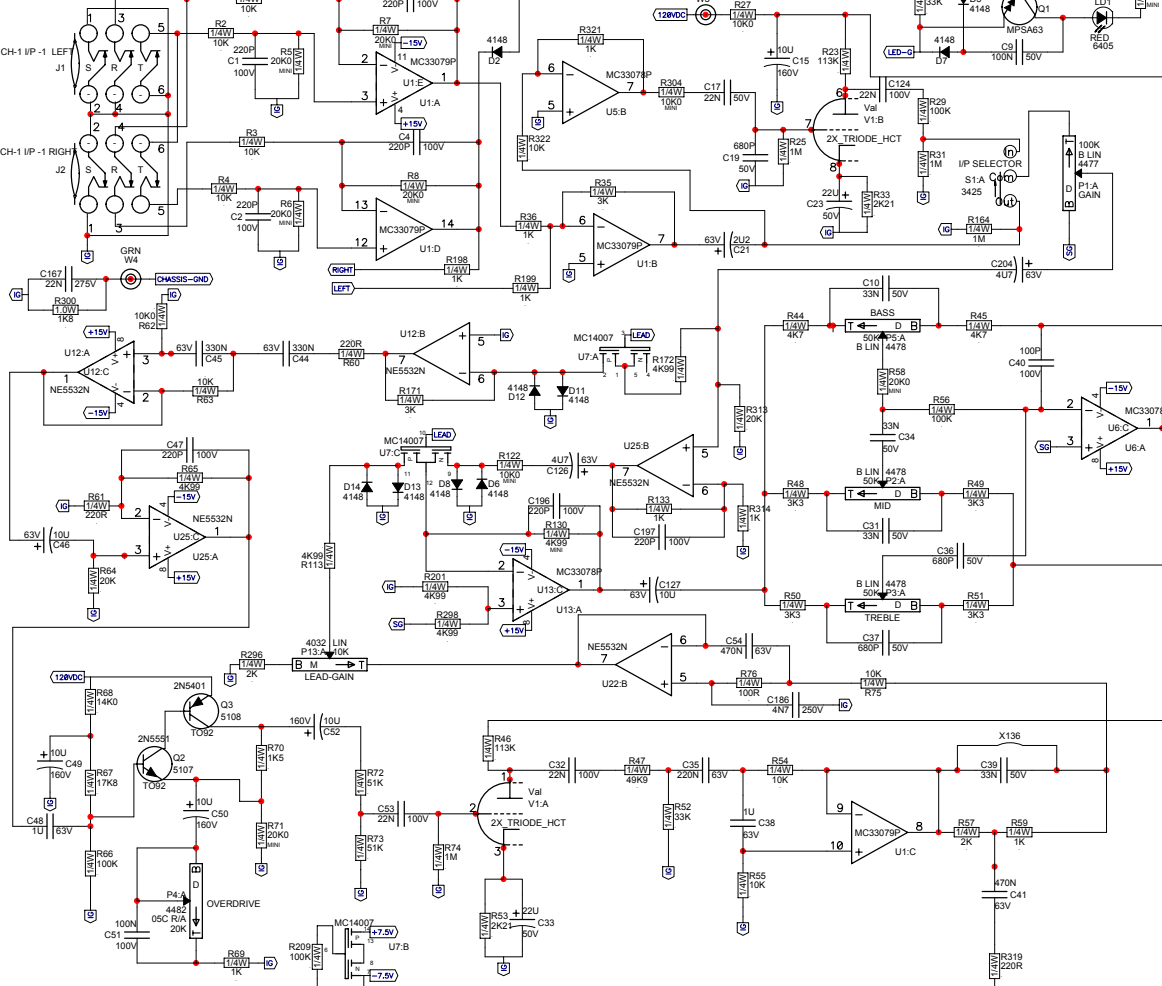


LM13600N

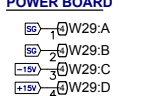


NE5532N

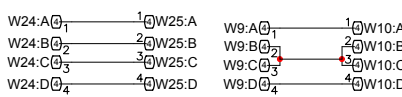
CHANNEL-1 INPUT -1



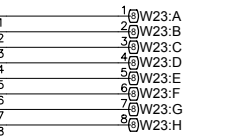
IN FROM POWER BOARD



RIBBON CABLE



RIBBON CABLE

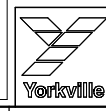
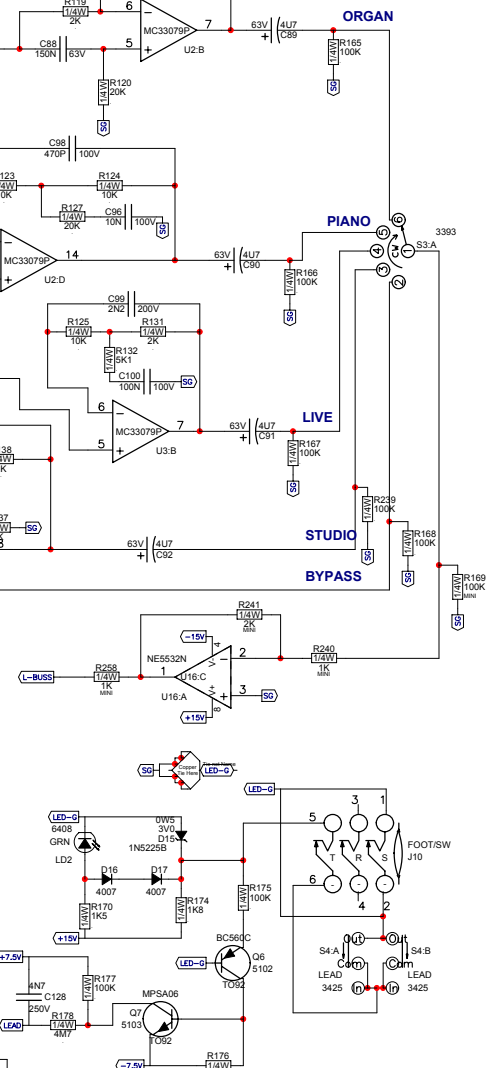


POT LIST

REF	FUNCTION	PART#	KNOB	{NEW}
S3	SPOS-25 SWITCH	3393	8400	N
P1	CH-1 GAIN	4477	8399	N
P2,P3,P5	BASS,MID,TREBLE	4478	8399	N
P7,P8,P9				N
P10,P11	CH-2 & CH-3 GAIN	4479	8399	N
P12	MASTER	4480	8399	N
P4	OVERDRIVE	4482	9922	N
P13	LEAD-GAIN	4032	9922	N
F	F	P	K	N
R	F	P	K	N
R	F	P	K	N
R	F	P	K	N

M1239.PCB_DATABASE_HISTORY

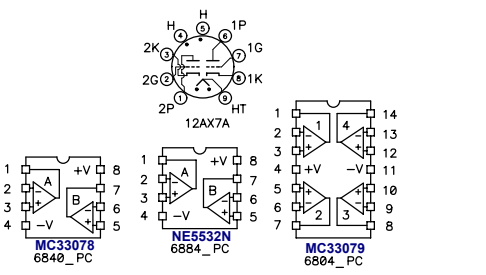
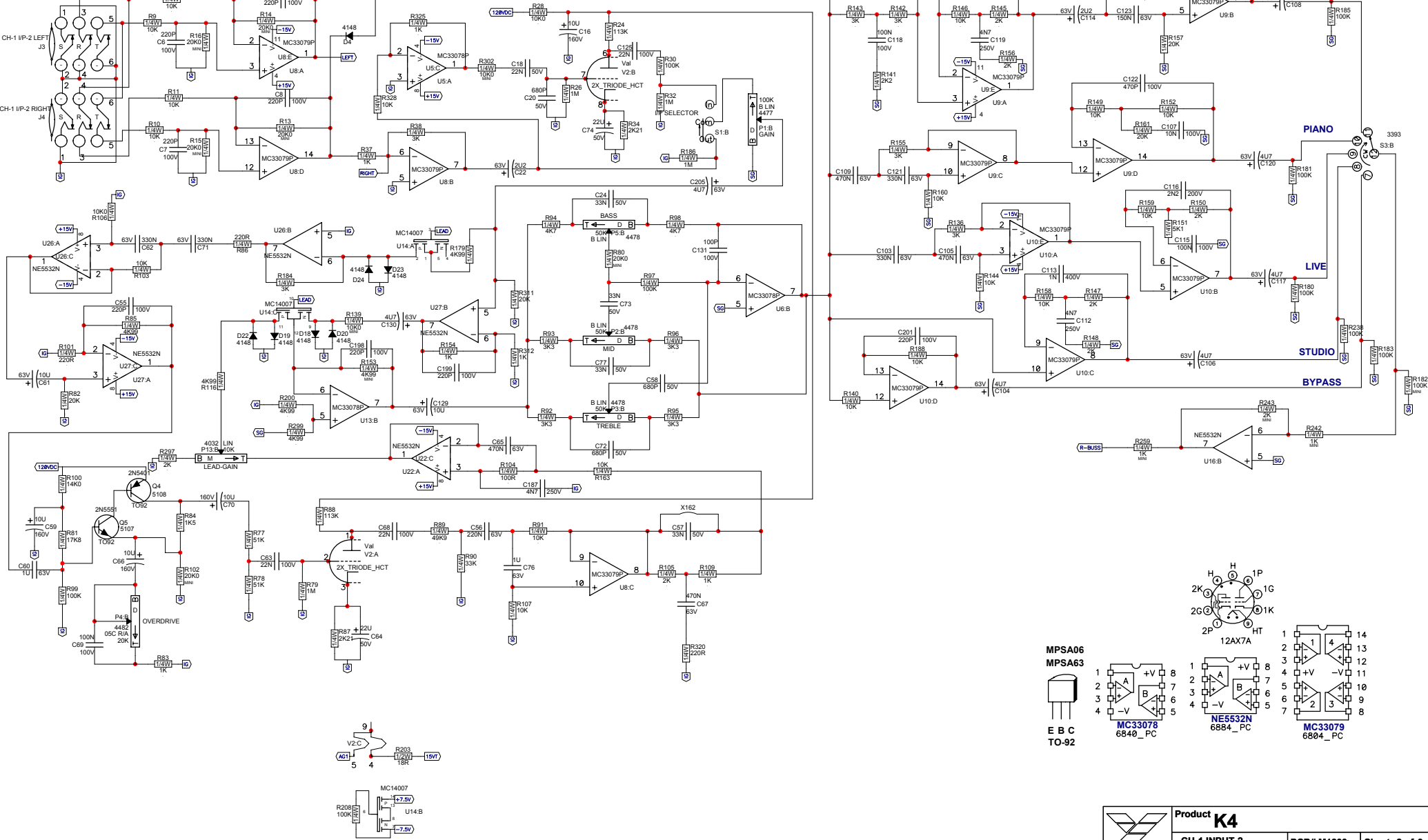
#	DATE	VER#	DESCRIPTION OF CHANGE
1	MAY-10-2005	1V00	FIRST LAUNCH
2	FEB-07-2008	V101	PC#7464, REPLACE R248 & R249 FROM 1K TO 2K #4808
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N



Product K4

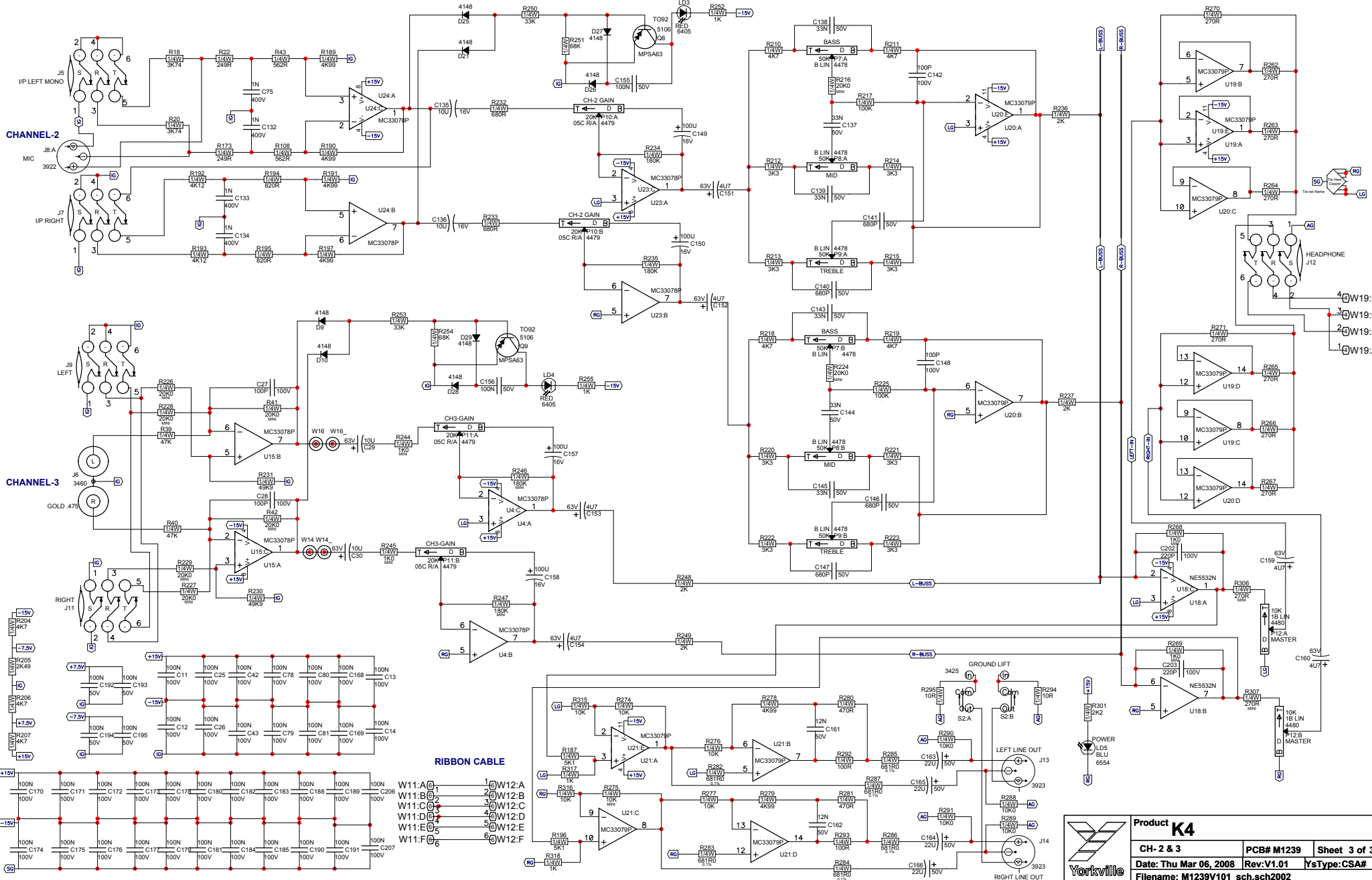
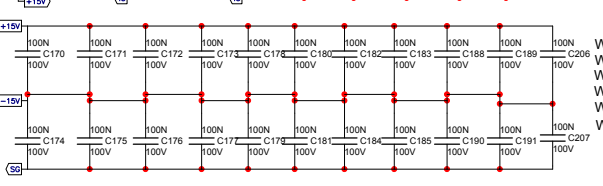
CH-1 INPUT-1	PCB# M1239	Sheet 1 of 3
Date: Thu Mar 06, 2008	Rev:V1.01	YsType:CSA#
Filename: M1239V101 sch.sch2002		

CHANNEL-1 INPUT-2

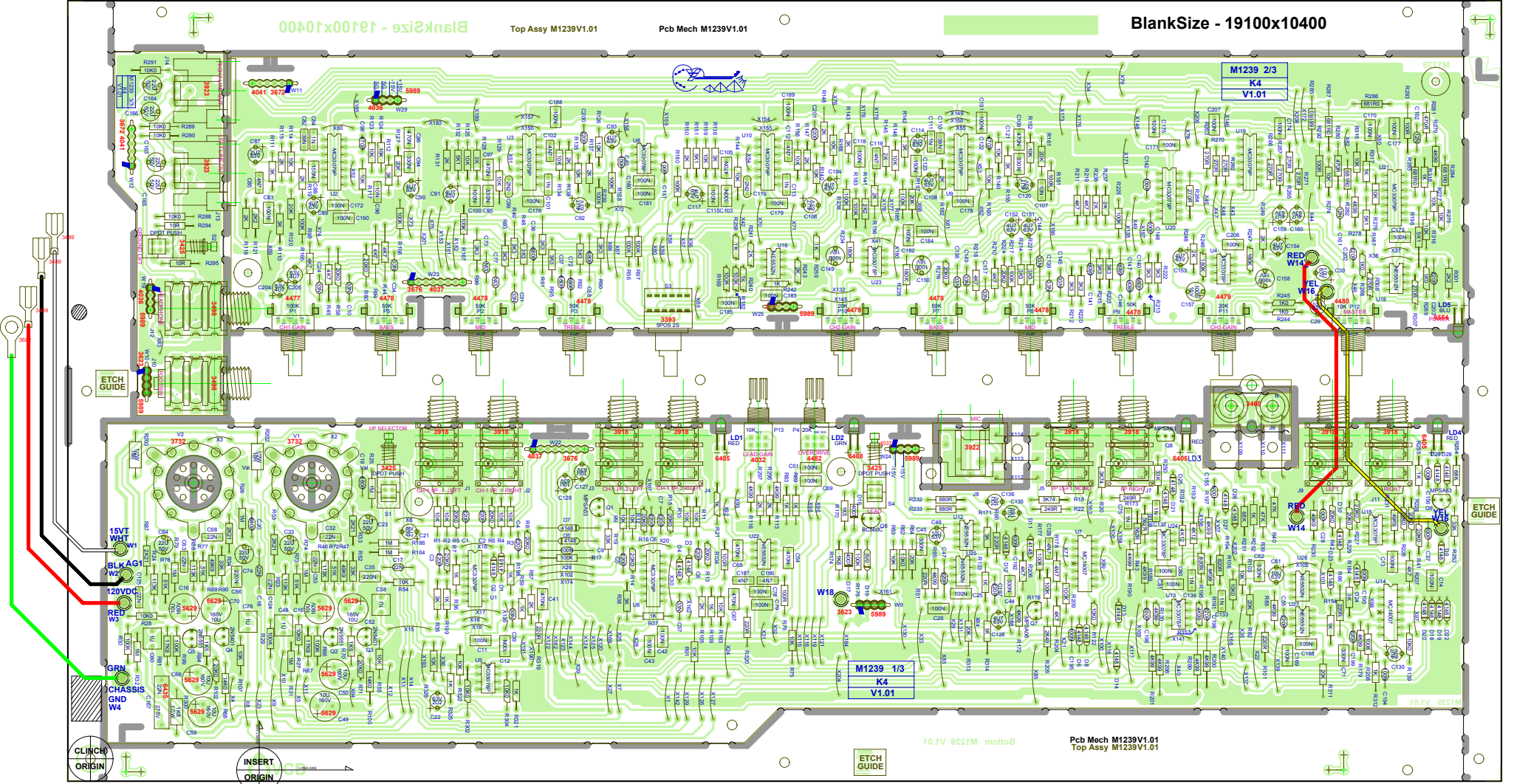


CHANNEL-2

CHANNEL-3



Product K4		
CH- 2 & 3	PCB# M1239	Sheet 3 of 3
Date: Thu Mar 06, 2008	Rev: V1.01	YsType: CSA#
Filename: M1239V101 sch.sch2002		



Layers for wires

SEE LAYOUT DOCUMENTATION

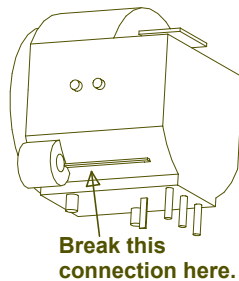
↑↑ SEE LAYOUT DIAGRAM ↑↑

PRODUCTION NOTES K4 M1239

1- CUT METAL PIN OF J8 , J13 AND J14 XLR

2- RTV ALL CAPACITORS

3- C167, B.A. WILL PUT A 220N #5600 INSTEAD OF 22N



↑↑ SEE LAYOUT DIAGRAM ↑↑

M1239.PCB_DATABASE_HISTORY			
MODEL(S):- K4			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	MAY-10-2005	1V00	FIRST LAUNCH
2	FEB-07-2008	1V01	PC#7464, REPLACE R248 & R249 FROM 1K TO 2K #4808
3	.	.	PC#7217, REPLACE C167 22N #6435 WITH 220N #5600
4	D	V	N
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

POT LIST				
MODEL(S):- K4				
REF	FUNCTION	PART#	KNOB	{NEW}
S3	5POS-2S SWITCH	3393	8400	N
P1	CH-1 GAIN	4477	8399	N
P2,P3,P5, P7,P8,P9.	BASS,MID,TREBLE	4478	8399	N
P10,P11	CH-2 &CH-3 GAIN	4479	8399	N
P12	MASTER	4480	8399	N
P4	OVERDRIVE	4482	9922	N
P13	LEAD-GAIN	4032	9922	N
R	F	P	K	N
R	F	P	K	N
R	F	P	K	N
R	F	P	K	N

M1239 DRILL HISTORY			
MODEL(S):- K4			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	D	V	N
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

M1239 PENDING CHANGES		
MODEL(S):- K4		
#	PC#	PENDING CHANGE
1	PC	X
2	PC	X
3	PC	X
4	PC	X
5	PC	X
6	PC	X

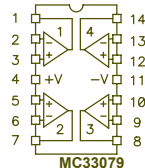
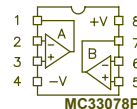
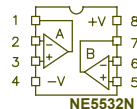
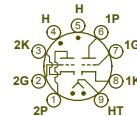
*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY

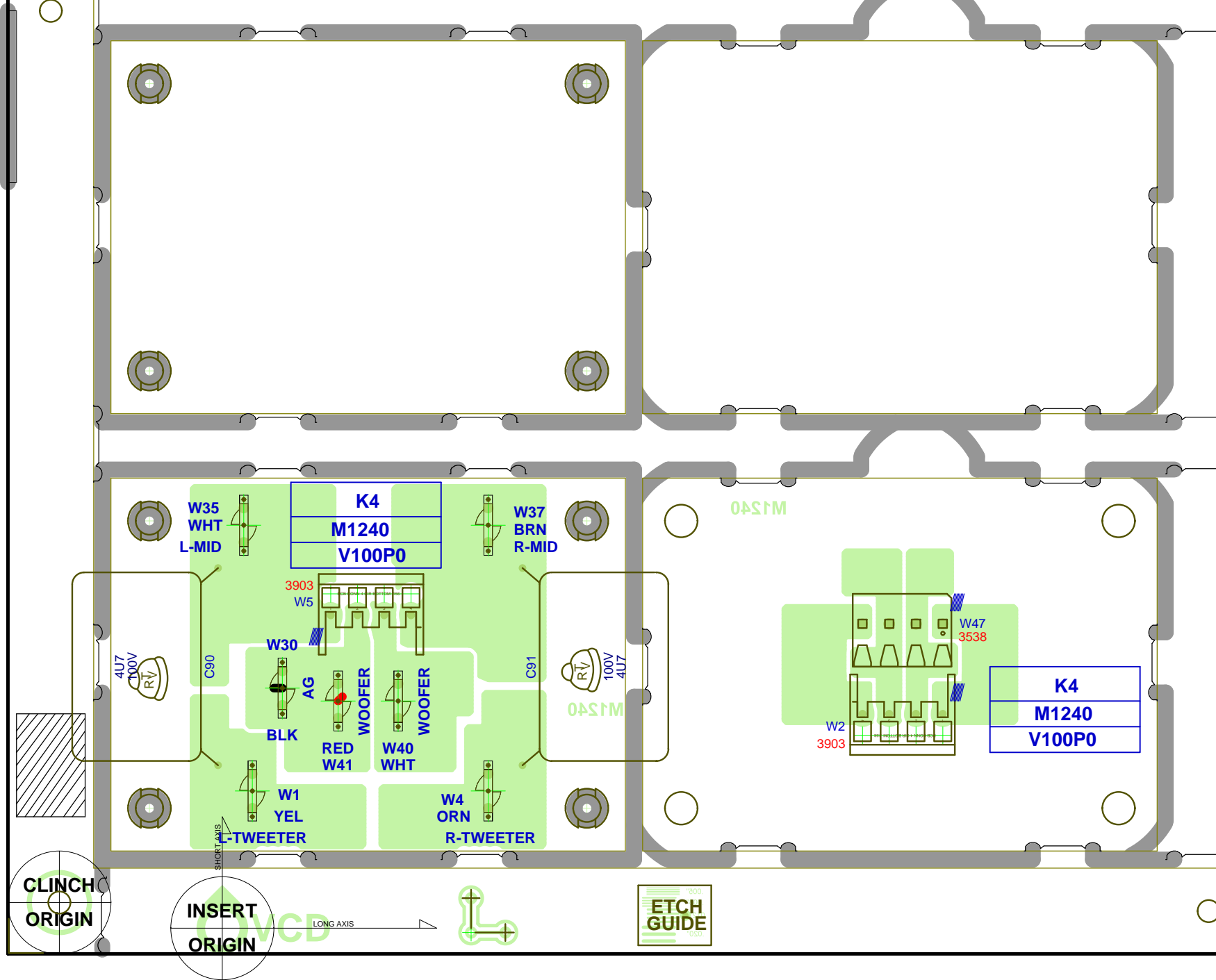
PIN CONFIGURATION

MPSA06
MPSA63



E B C
TO-92





SEE LAYOUT DOCUMENTATION





SEE LAYOUT DIAGRAM

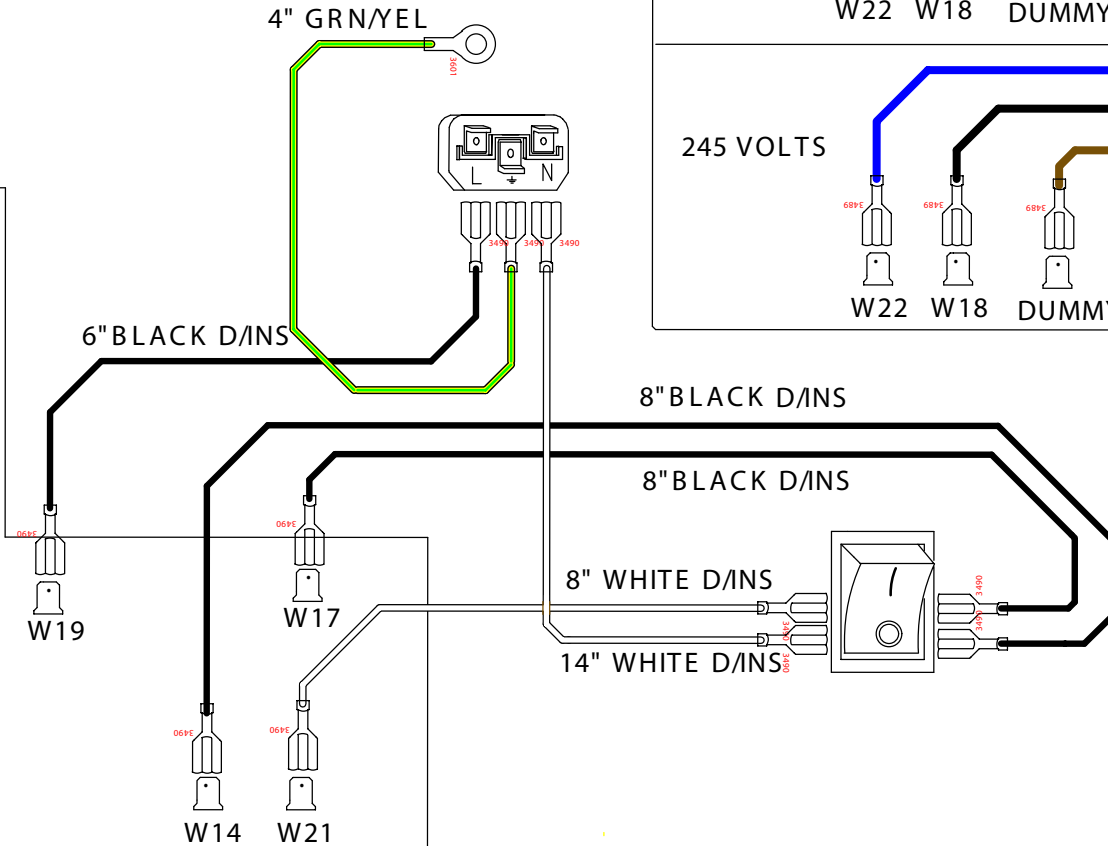


K4			
MODEL(S):-		M1240-P0	
#	DATE	VER#	DESCRIPTION OF CHANGE
1	APRIL-14-2008	V1.00	MULTIPLE X-OVER BOARDS FOR SERVICE
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

CH1339E

K4 KEYBOARD AMP

M1238
PCB



CE TRANSFORMER

