



# ***SERVICE MANUAL***

## ***xs400***

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

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Printed in Canada



## IMPORTANT SAFETY INSTRUCTIONS



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

#### **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.**

### 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**

#### **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**

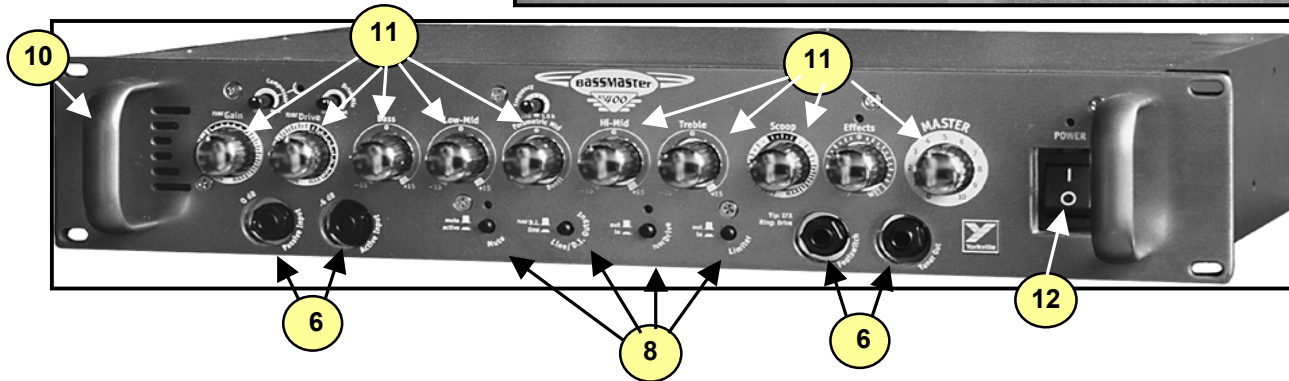
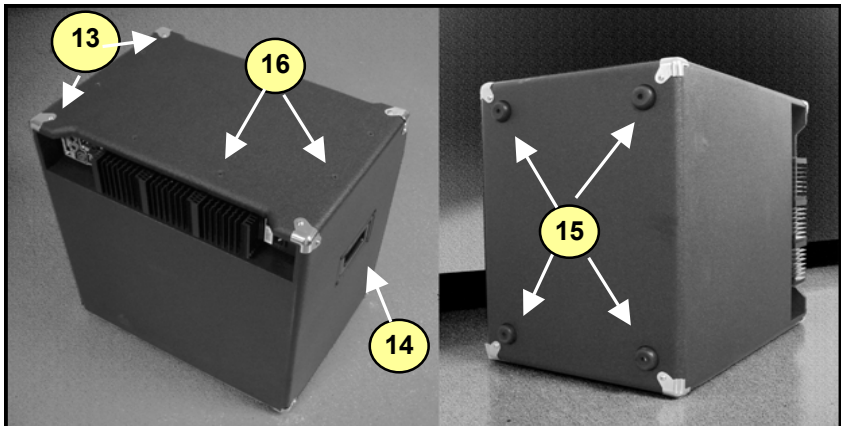
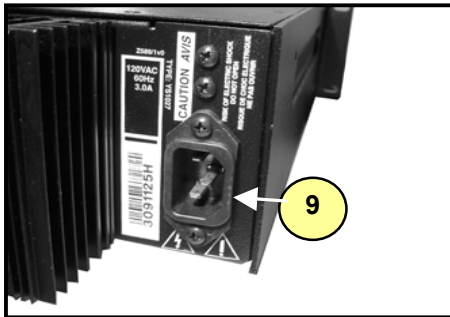
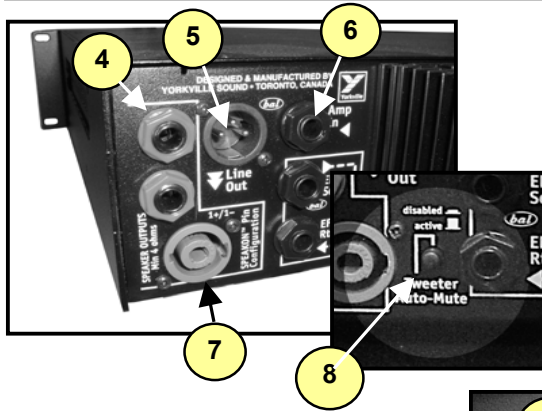
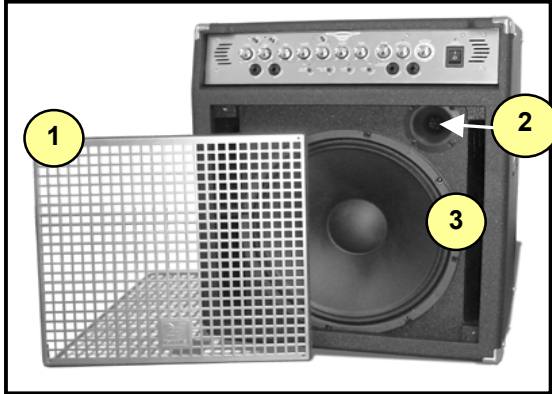
Consultez un technicien qualifié pour l'entretien de votre appareil.





# xs400/h

## Bassmaster Series



#	Part#	Description
Labeled Components		
1	z571*(***)	XS400 COMBO GRILL
2	7418***	8R 30W TWEETER PIEZO KSN10
3	7336***	15" 8R 225WPGM SPEAKER
4	3449	REAN JACK NUT RED
5	3923	XLR MALE PCB MT HORZ MTHOLE-V SNAP
6	3450	ALL GOLD PC MNT JK SKT
7	6956	SPKON 4C PCB MT HORZ
8	8636***	BUTTON KNOB FLAT BLACK
9	3645	AC SOCKET RECEPTACLE WITH 0.250 TAB
10	Z594**	XS400H HANDLE
11	8399	BASSMASTER KNOB, NICKEL/CHROME
12	3587	DPDT ROKR SW QUIK 250*AC/PWR ON-OFF
13	8504***	CORNER, 2 LEGS NOTCED LIP NICKE
14	8542***	HANDLE, RECESSED, PULL, BLACK PLAS
15	8520	RUBBER BUMPER WITH WASHER -MEDI
16	8847***	1/4-20 X 1 1/4 FLAT PH MS JS500 BOLTS
17	2427	5.0 AMP SLO-BLO .25X1.25 FUSE
18	8829	6-32 X 3/8 FLAT PH TAPTITE BO#4 LID SCREWS
19	12AX7A	12AX7A - PREMIUM QUALITY

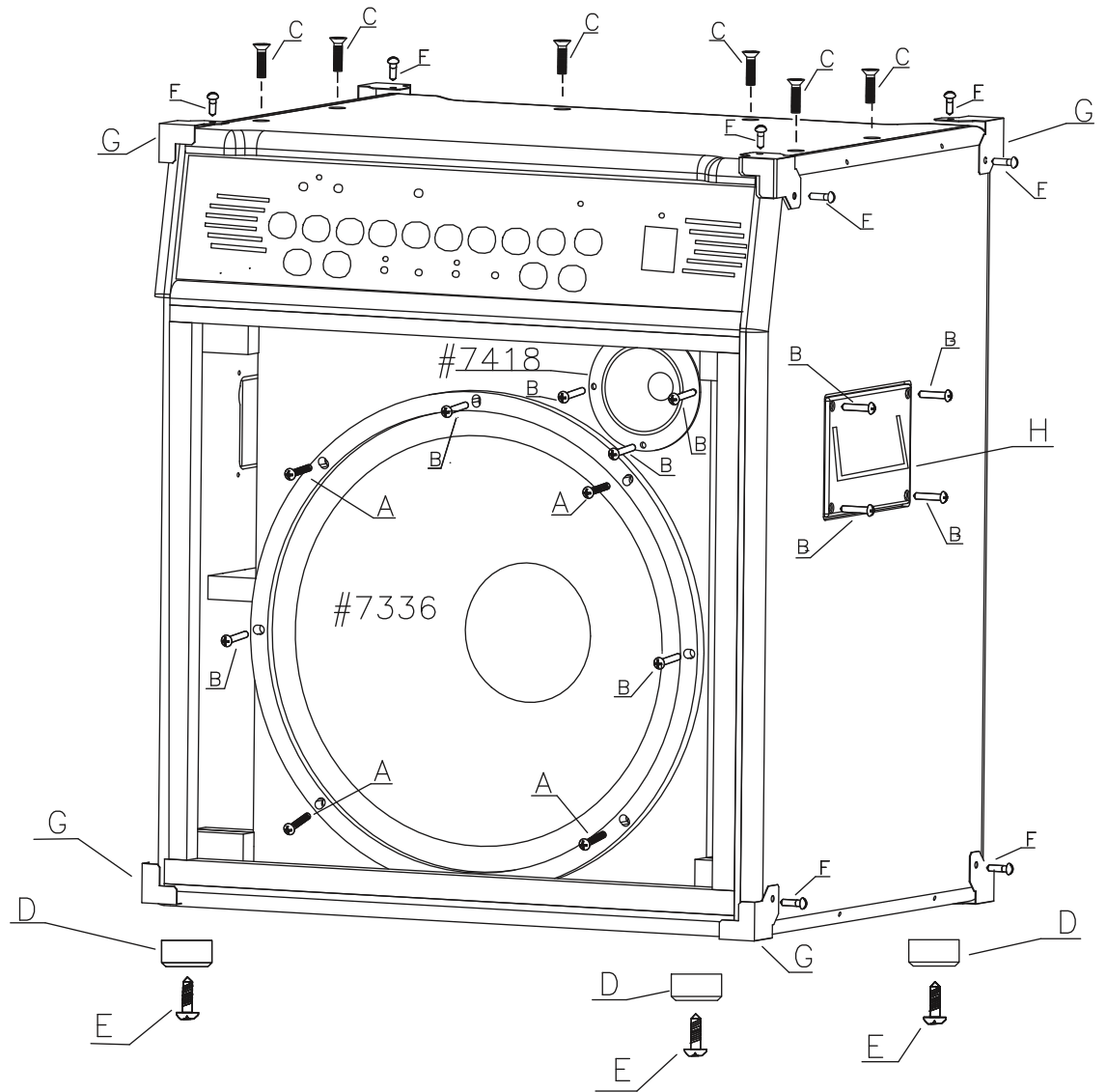
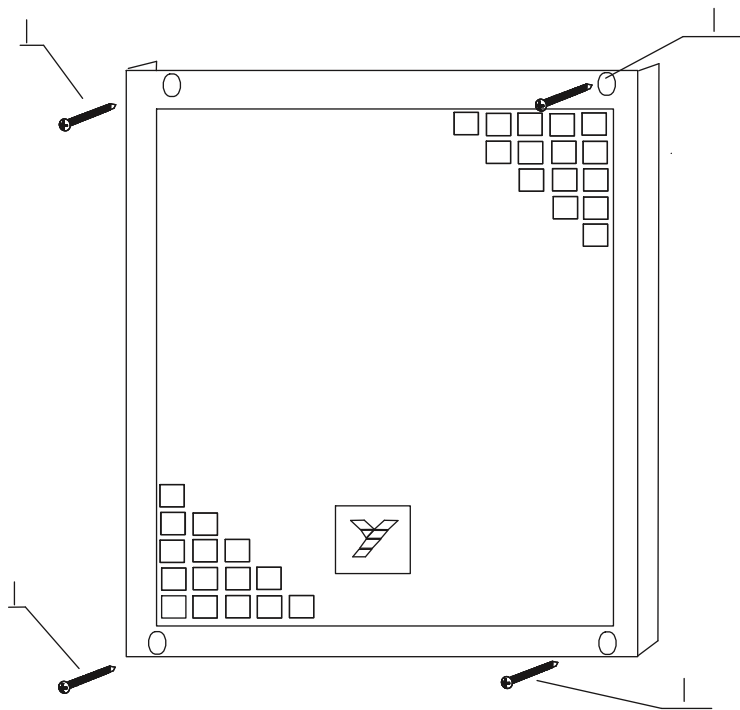
\* Replacement grilles are 'Special-Order' and are ONLY available while the product is in production

\*\* XS400H (Head) ONLY!

\*\*\* XS400 (Combo) ONLY!

17, 18 & 19 not shown

**Real Gear.  
Real People.**

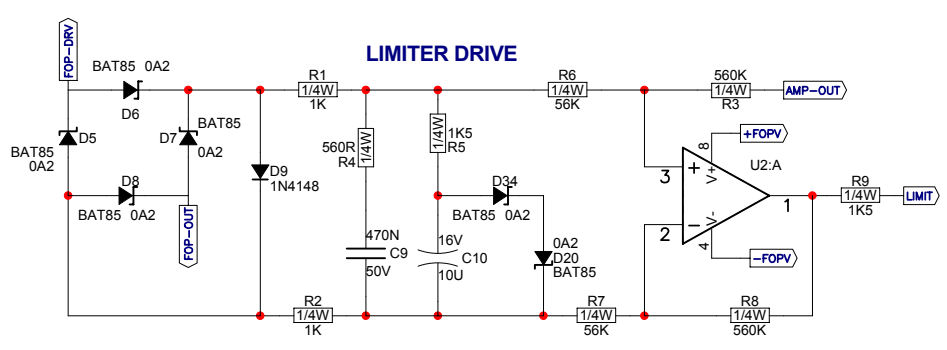


WOOFER	SCREW A---8786 [ 4 ]
HANDLES WOOFER TWEETER	SCREW B---8756 [ 16 ]
TOP CABINET	SCREW C---8847 [ 6 ]
RUBBER BUMPER	D---8520 [ 4 ]
RUBBER BUMPER	SCREW E---8781 [ 4 ]
CORNER	SCREW F---8750 [ 16 ]
CORNER	G---8504 [ 8 ]
HANDLE	H---8542 [ 2 ]
GRILL	SCREW I---8876 [ 4 ]

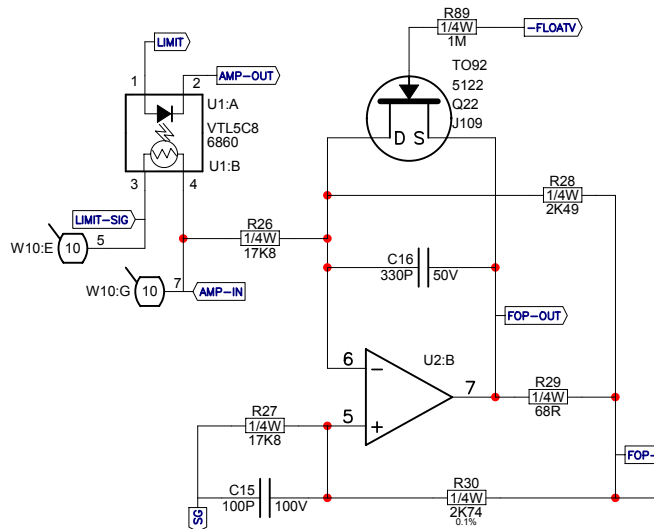
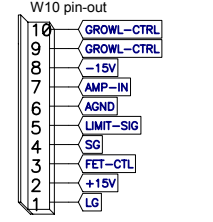


**WARNING: 180VDC IS BETWEEN POWER SUPPLIES. THIS PRESENTS A SIGNIFICANT SHOCK HAZARD. PLEASE, USE EXTREME CAUTION WHEN SERVICING!**

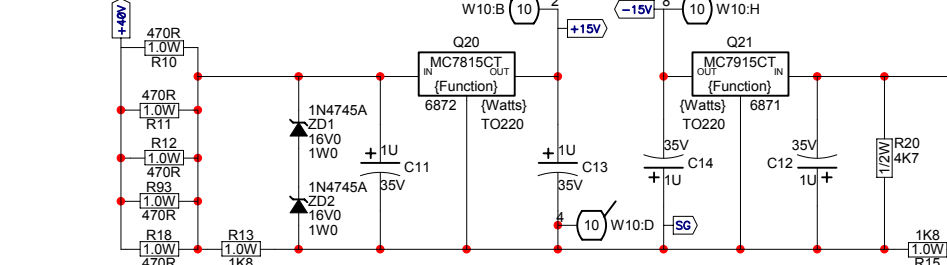
**LIMITER DRIVE**



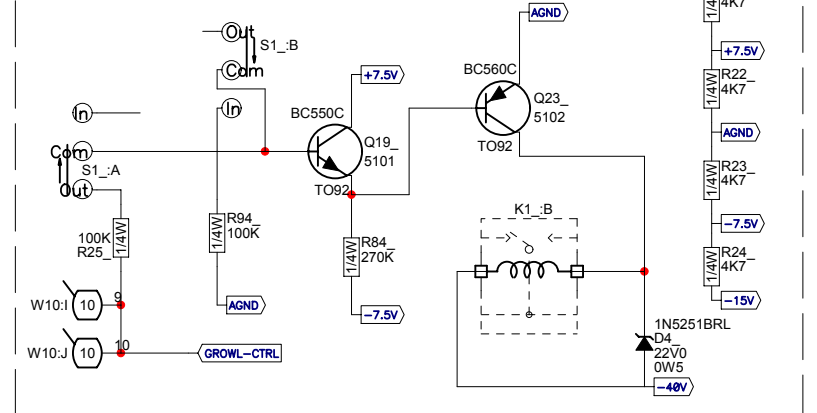
**IN FROM M665 PRE-AMP BOARD**



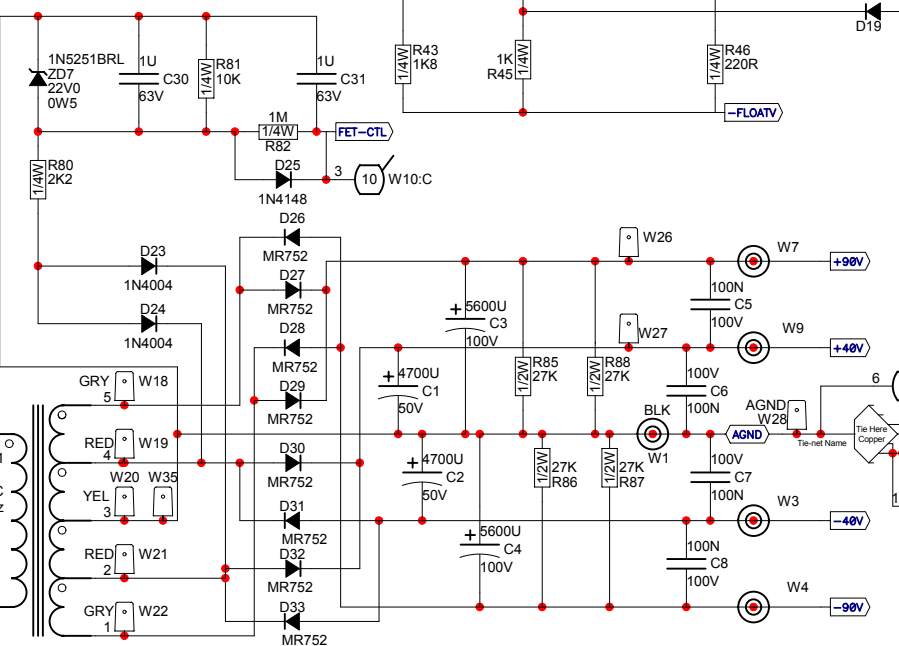
**LOW VOLTAGE POWER SUPPLY**



**Not used in XS400H**

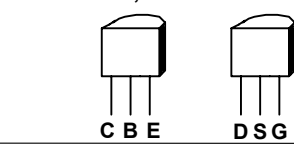


**QUIET TURN ON / OFF**

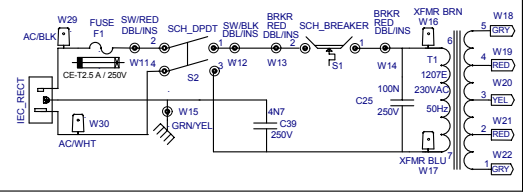


**ADJUST PT1 FOR 1.5 TO 2.5mV BETWEEN TP1 AND TP2 WITH AMP COLD.**

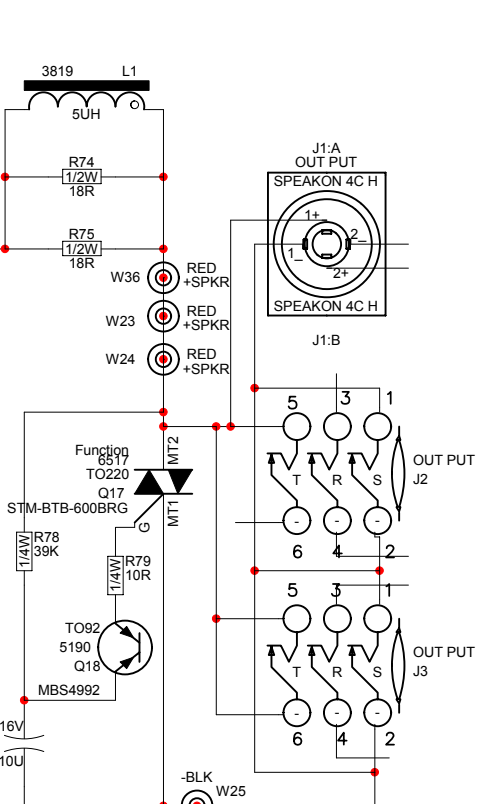
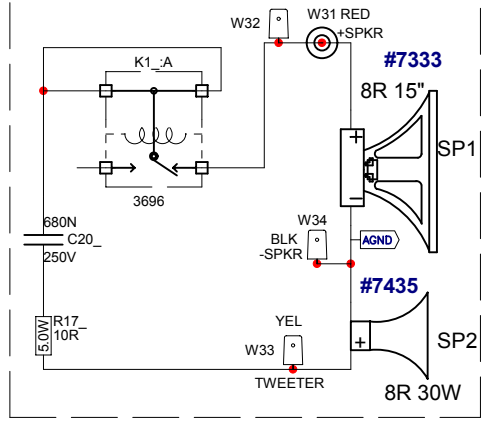
**NOTES:**  
ALL UNMARKED DIODES 1N4148.  
SG AND LG CONNECTED TO AGND AT POWER SUPPLY.



**EUROPEAN POWER SUPPLY**



**Not used in XS400H**



X1001.PCB_DATABASE_HISTORY			
MODEL(S):-	XS400 / XS400H	VER#	DESCRIPTION OF CHANGE
1	JULY-2003	1.00	FIRST PRODUCTION
2	AUG-2003	2.00	R18-1K & R19-1K REPLACED WITH 470R
3	.	.	R93-470R ADDED IN PARALLEL TO R18
4	.	.	R95-470R ADDED IN PARALLEL TO R19
5	4-FEB-2004	2.00	Removed ring terminal (3601) from wire at W15
6	SEP-1-2004	3.00	PC#6659: Connected SG CuPour X12 to SG trace X5
7	MAR-14-2005	4.00	PC#6750:GT:UPDATED #5242 FOR NEW LEAD SPACING
8	APR-26-2006	4.01	PC#7004:GT:Q17 #6444->#6517
9	JUN-15-2006	4.02	PC#7131:GT:OUTPUT DEVICES #6900->#6909, #6927->#6910
10	.	.	FORCE UPDATED K1 #3696
11	.	.	TWEETER #7418 TO #7435
12	D	V	N
13	D	V	N



# BlankSize - 15800x9050 XS400 M664 V4.02

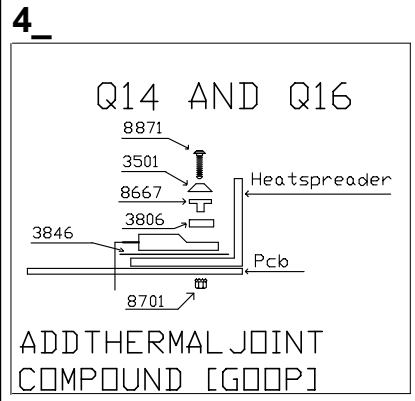
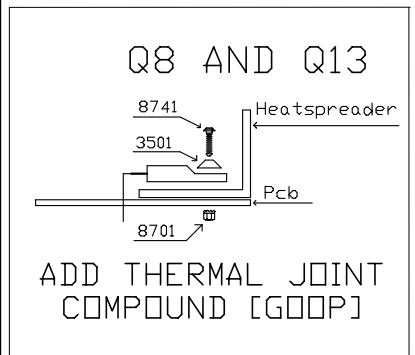
ETCH GUIDE

## PRODUCTION NOTES

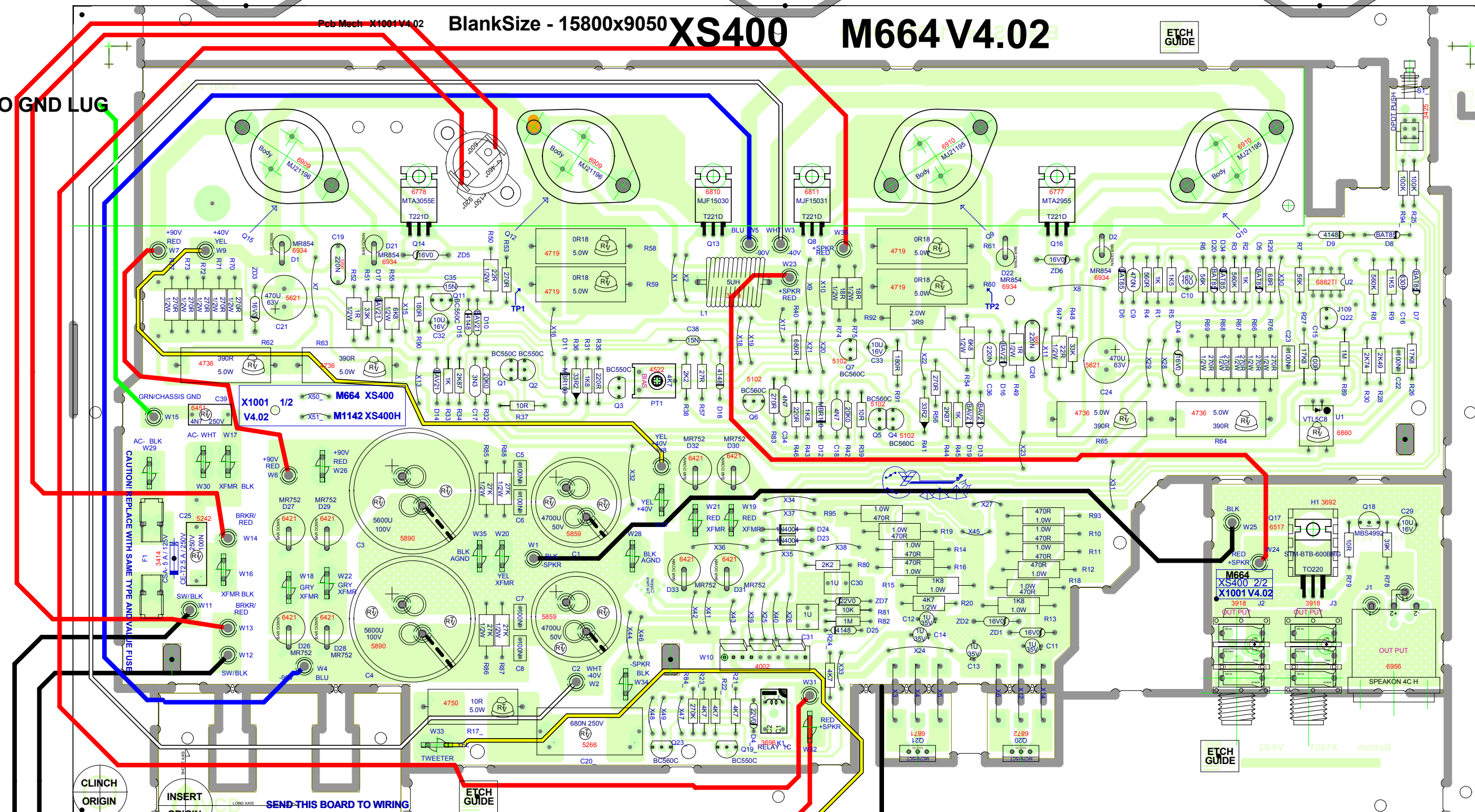
- Note: This pcb blank is X1001. After stuffing, it becomes either M664 for the XS400 or M1142 for the XS400H.
- ADD THERMAL JOINT COMPOUND (GOOP) BETWEEN Q1 AND Q2 ; Q4 AND Q5. COVER WITH VINYL CAP (8609) AND RTV.

FOR CE USE  
DOUBLE INSULATION

RED	9"	W13
RED	9"	W14
BLK	25.5"	W12
RED	25.5"	W11

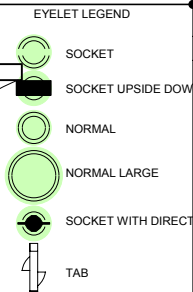
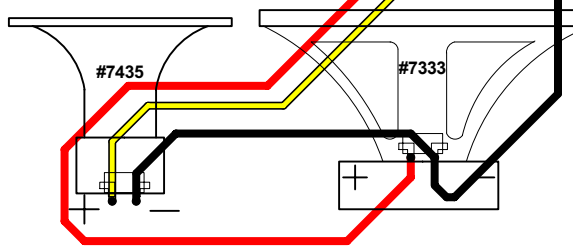


TO GND LUG



X1001.PCB\_DATABASE\_HISTORY

MODEL(S):-	XS400	DATE	VER#	DESCRIPTION OF CHANGE
1	JULY-2003	1.00	1.00	FIRST PRODUCTION
2	AUG-2003	2.00	2.00	R18-1K & R19-1K REPLACED WITH 470R
3				R93-470R ADDED IN PARALLEL TO R18
4				R95-470R ADDED IN PARALLEL TO R19
5	4-FEB-2004	2.00	2.00	Removed ring terminal (3601) from wire at W15
6	SEP-1-2004	3.00	3.00	PC#659: Connected SG CuPour X12 to SG trace X5
7	MAR-14-2005	4.00	4.00	PC#6750:GT:UPDATED #5242 FOR NEW LEAD SPACING
8	APR-26-2006	4.01	4.01	PC#7004:GT:Q17 #6444->#6517
9	JUN-15-2006	4.02	4.02	PC#7131:GT:OUTPUT DEVICES #6900->#6909, #6927->#6910
10				FORCE UPDATED K1 #3696
11				TWEETER #7418 TO #7435
12	D	V	V	
13	D	V	N	



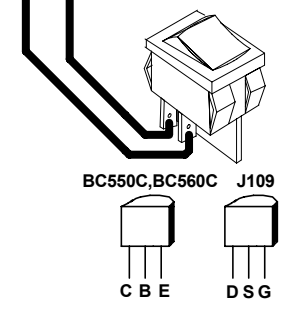
X1001 PENDING CHANGES

MODEL(S):-	XS400	PC#	PENDING CHANGE
1		X	
2		X	
3		X	
4		X	
5		X	
6		X	
7		X	
8		X	
9		X	
10		X	
11		X	
12		X	
13		X	

\*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY

X1001 DRILL HISTORY

MODEL(S):-	XS400	DATE	VER#	DESCRIPTION OF CHANGE
1		MAR-14-2005	V03	PC#6750:GT:UPDATED #5242 FOR NEW LEAD SPACING
2		D	V	N
3		D	V	N
4		D	V	N
5		D	V	N
6		D	V	N





# BlankSize - 15800x9050 XS400H M1142V4.02

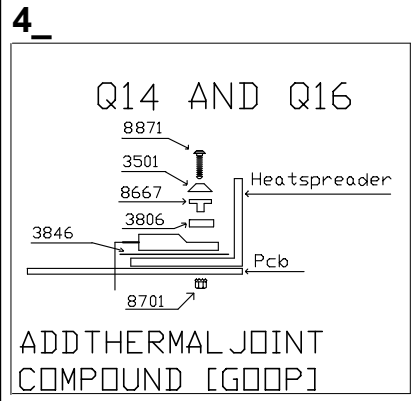
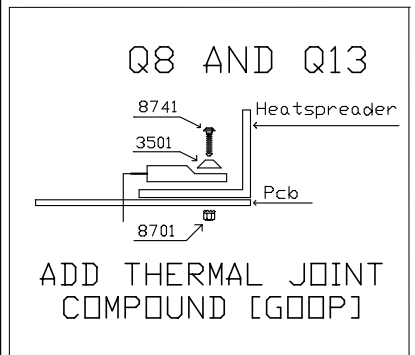
ETCH GUIDE

## PRODUCTION NOTES

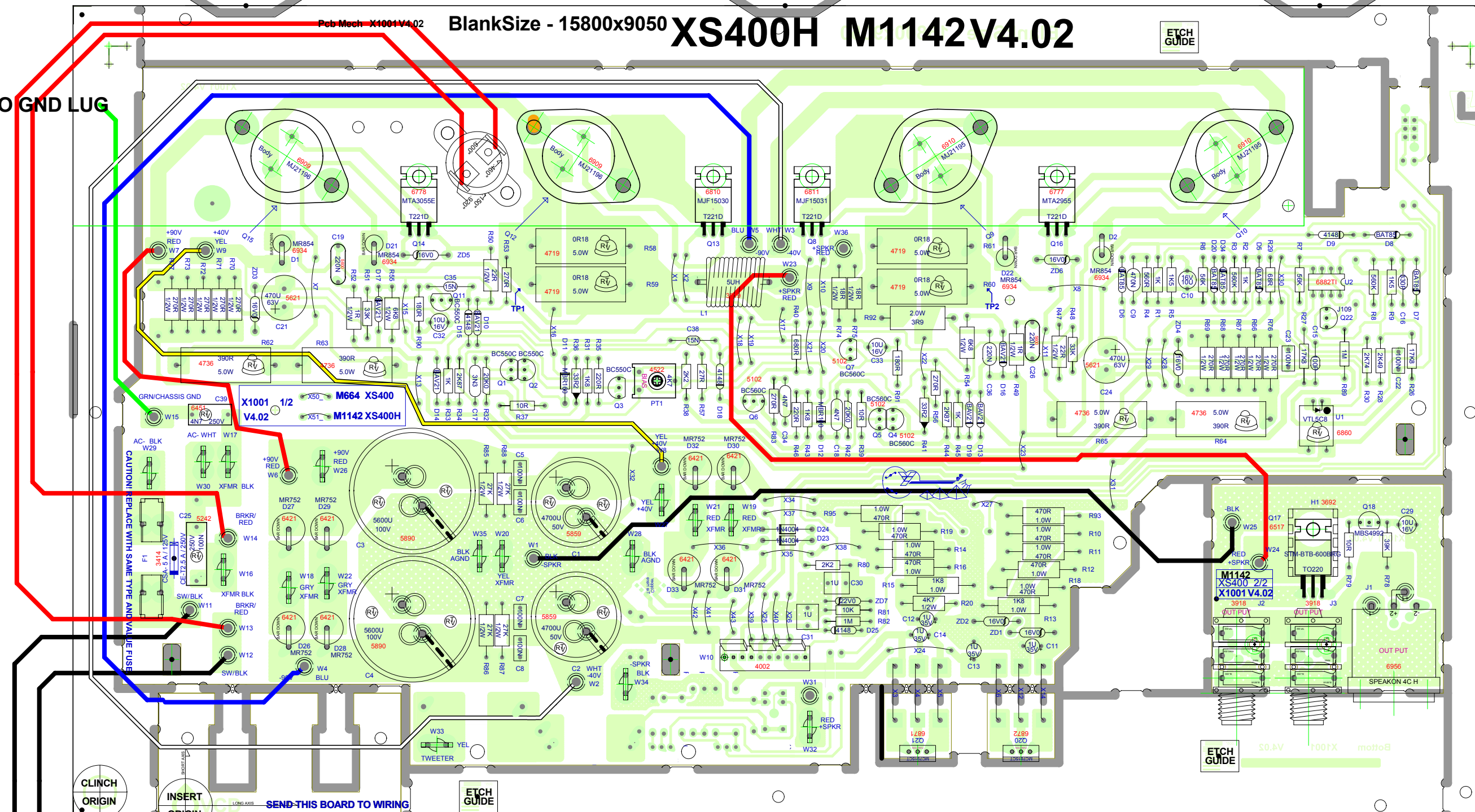
- Note: This pcb blank is X1001. After stuffing, it becomes either M664 for the XS400 or M1142 for the XS400H.
- ADD THERMAL JOINT COMPOUND (GOOP) BETWEEN Q1 AND Q2 ; Q4 AND Q5. COVER WITH VINYL CAP (8609) AND RTV.

FOR CE USE  
DOUBLE INSULATION

RED	9"	W13
RED	9"	W14
BLK	25.5"	W12
RED	25.5"	W11

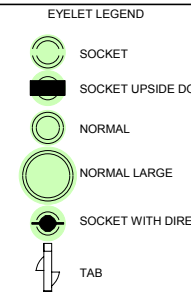


TO GND LUG



X1001.PCB\_DATABASE\_HISTORY

MODEL(S):-	XS400H		
#	DATE	VER#	DESCRIPTION OF CHANGE
1	JULY-2003	1.00	FIRST PRODUCTION
2	AUG-2003	2.00	R18-1K & R19-1K REPLACED WITH 470R
			R93-470R ADDED IN PARALLEL TO R18
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6	SEP-1-2004	3.00	PC#6659: Connected SG CuPour X12 to SG trace X5
7	MAR-14-2005	4.00	PC#6750: GT-UPDATED #5242 FOR NEW LEAD SPACING
8	APR-26-2006	4.01	PC#7004:GT:Q17 #6444->#6517
9	JUN-15-2006	4.02	PC#7131:GT:OUTPUT DEVICES #6900->6909, #6927->6910
10			FORCE UPDATED K1 #3696
11	D	V	N
12	D	V	N
13	D	V	N



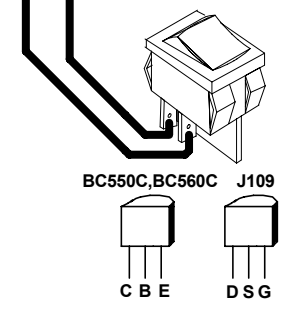
X1001 PENDING CHANGES

MODEL(S):-	XS400		
#	PC#	PENDING CHANGE	
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

X1001 DRILL HISTORY

MODEL(S):-	XS400		
#	DATE	VER#	DESCRIPTION OF CHANGE
1	MAR-14-2005	V03	PC#6750:GT:UPDATED #5242 FOR NEW LEAD SPACING
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

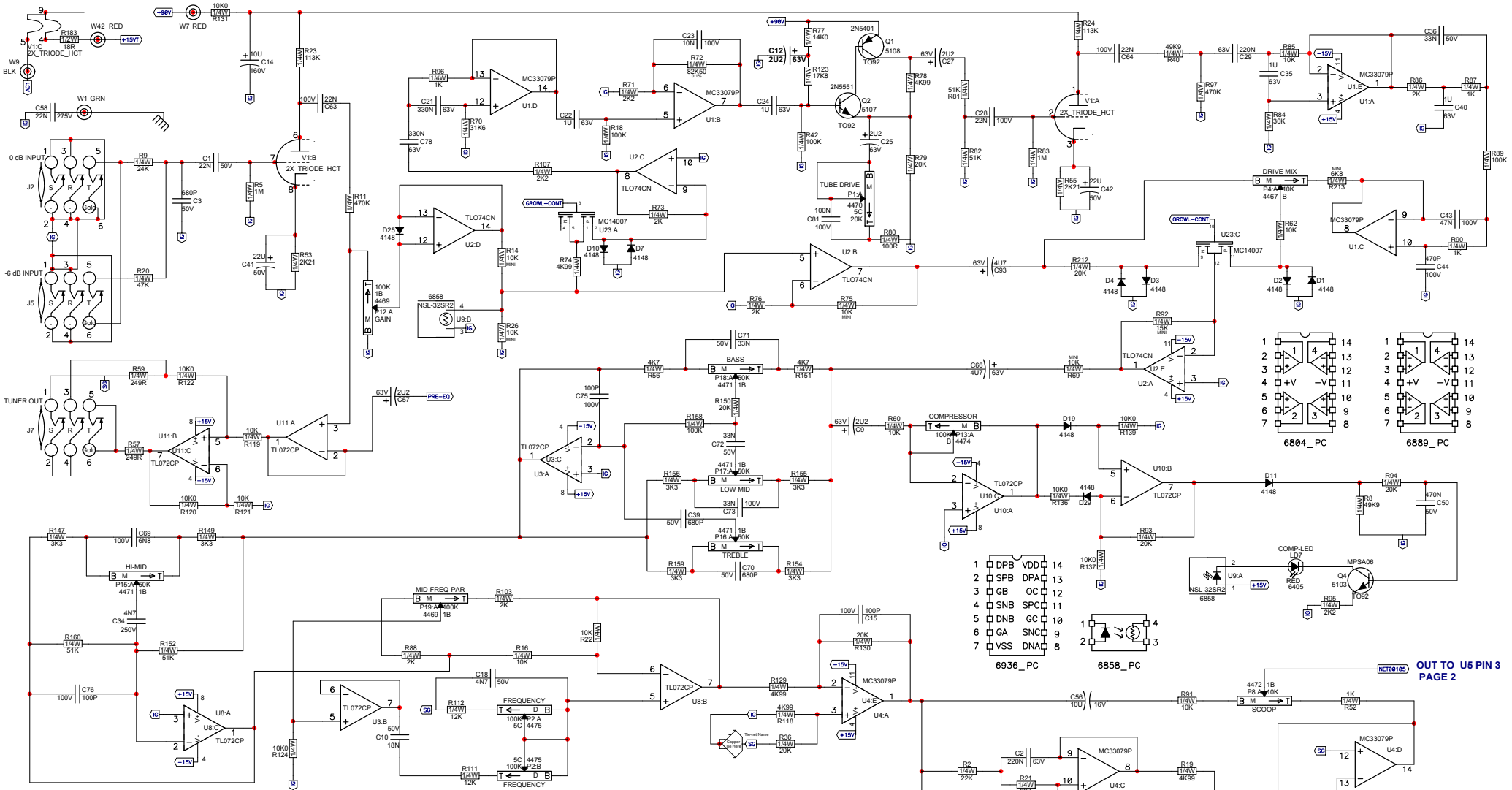


SEND THIS BOARD TO WIRING

ETCH GUIDE

ETCH GUIDE

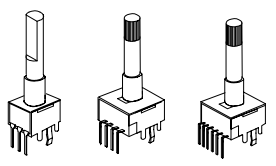




OUT TO U5 PIN 3  
PAGE 2

M __.PCB_DATABASE_HISTORY			
MODEL(S):-	XS 400	VER #	DESCRIPTION OF CHANGE
1	JULY-2003	1.00	FIRST PRODUCTION
2	AUG-2003	2.00	VALUE CHANGES
3	.	.	R36-20K, R48-10K, R77-14K0, R94-20K, R95-2K2, R194-680R
4	.	.	R102-6K8, R108-5K6, R116-10K, R118-4K99, R146-2K.
5	.	.	ADDED COMPONENTS
6	.	.	R123-17K8, R213-3K3, C12-2U2.
7	.	.	D8 DELETED
8	.	.	J11 PIN2 AND PIN3 REVERSED.
9	15-OCT-2003	2.1	PC#6635 VALUE CHANGES: U1-MC33079P, R213-6.8K, R20-47K, R72-82K50
10	27-OCT-2003	2V2	PC#6636 VAL. CHANGE: R107(20K->2K2), R70(47K->31K6)
11	D	N	
12	V	N	

POTLIST						
MODEL(S):-	XS 400	REF	FUNCTION	PART#	KNOB	JULY-2003
		P4	DRIVE MIX	4467	8399	N
		P12 / P19	GAIN, MID-FREQ	4469	8399	N
		P1	TUBE DRIVE	4470	8399	N
		P15	H-MID	4471	8399	N
		P16	TREBLE	4471	8399	N
		P17	LOW-MID	4471	8399	N
		P18	BASS	4471	8399	N
		P3	MASTER	4472	8399	N
		P7	EFFECTS	4472	8399	N
		P8	SCOOP	4472	8399	N
		P13	COMPRESSOR	4474	8399	N
		P2	FREQUENCY	4475	8399	N



"STYLE\_P35" "STYLE\_P36" "STYLE\_P37"

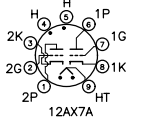


**Product XS 400**

Sheet1 PCB# M665 Sheet 1 of 3

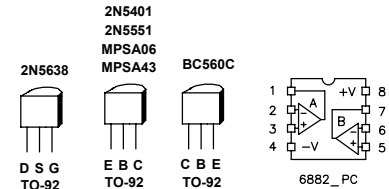
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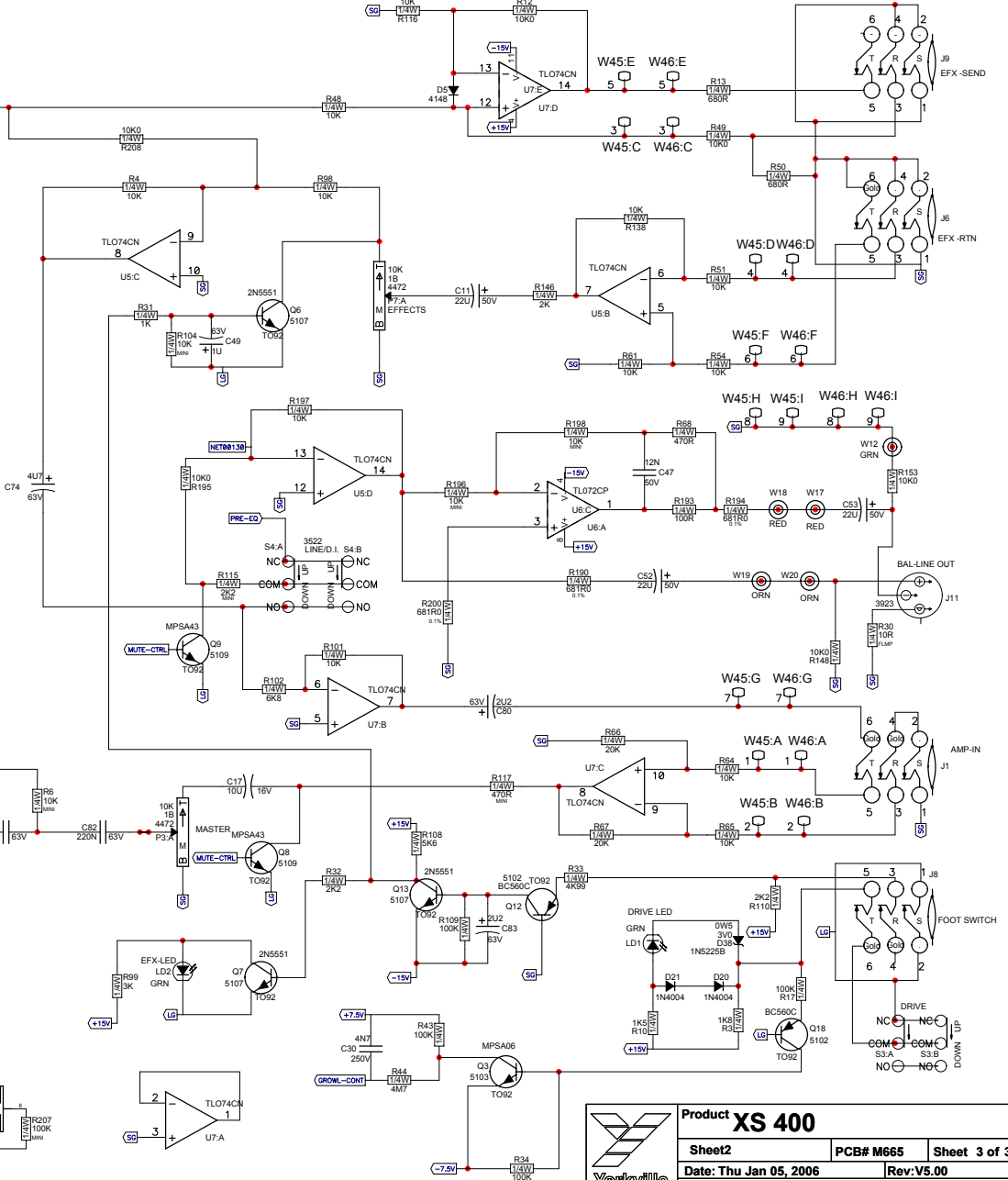
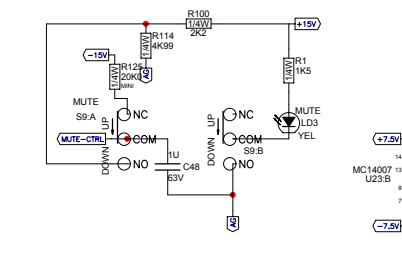
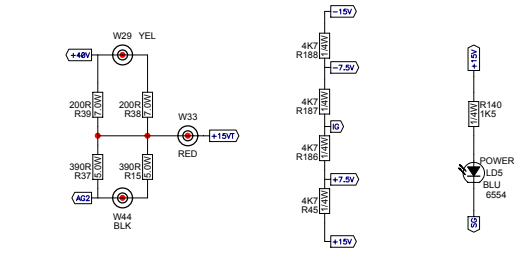
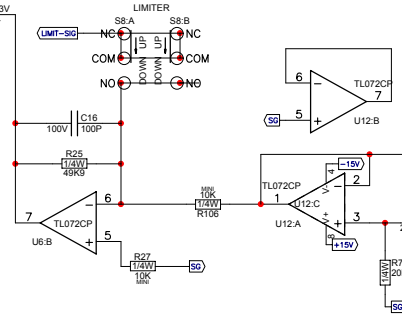
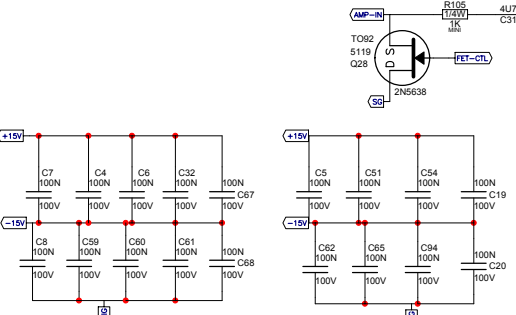
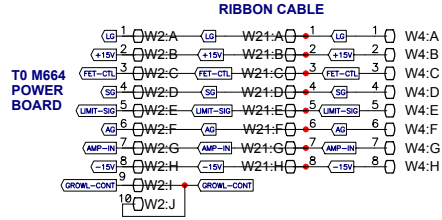
12AX7A

M665_PCB_DATABASE_HISTORY			
MODEL(S):-		XS 400	
#	DATE	VER.#	DESCRIPTION OF CHANGE
1	SEP-30-2004	V3.00	VALUE CHANGES
2	D	V	R190-681R0, R194-681R0, R200-681R0.
3	D	V	R125 -20K0 ADDED BETWEEN SW-9A & -15V
4	D	V	C52 PIN 2 CONNECTED TO R190 PIN 2
5	D	V	Q8 PIN 2 CONNECTED BETWEEN C17&R117
6	D	V	DELETED PARTS
7	D	V	D46, R28, R199, R201, NODES N208,N304.
8	D	V	PC 6706 ROUTE CORRECTED.
9	MAY-17-2005	V4.00	PC#6906-GT: RECREATE ARTWORK, ADDED 1/5 ETC...
10	AUG-03-2005	V5.00	PC#6937-GT: UPDATED Q10 TUBE SOCKET
11			PC#6848-GT: SPECIAL INSTRUCTIONS FOR #5257 CAPS
12	OCT-24-2005	V5.00	AH, PC#6937, FORCE UPDATE TUBE SOCKET
13	D	N	

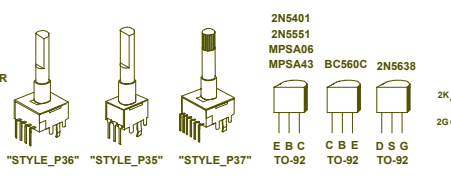


IN FROM P8: A SCOOP PIN 2  
PAGE 1

TO M664  
POWER  
BOARD

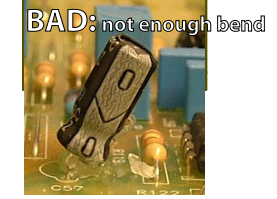


M665		
MODEL(S):-	XS 400	
#	DATE	VER# DESCRIPTION OF CHANGE
1	1 JULY-2003	1.00 FIRST PRODUCTION
2	12 AUG-2003	2.00 VALUE CHANGES
3		R38-20K, R48-10K, R77-14K0, R94-20K, R95-2K2, R194-680R
4		R102-6R3, R108-5K5, R115-10K, R116-4K93, R145-2K
5		ADDED COMPONENTS
6		R123-17K8, R213-3K3, C12-2U2,
7		J11 PING AND PINS REVERSED
8		D8 DELETED
9	15-OCT-2003	2.1 PC#6635 VALUE CHANGES: U1-MC33079P, R213-6.8K,
10		R203-47K, R72-3K50
11	27-OCT-2003	2V2 PC#6636 VAL. CHANGE: R107(20K->2K), R70(47K->31K)
12	8 JAN-2004	2V2 Removed ground lug from green wire going to W1
13		N

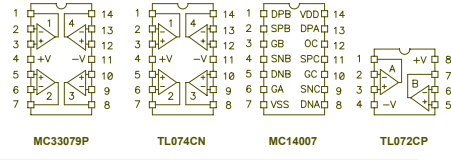


# PRODUCTION NOTES

- 1- BEND #5257 CAPS C9, C12, C25, C27, C57, C80, C83 BEFORE WAVE SOLDERING (SEE PICTURE). BEND IN DIRECTION OF ARROW.
- 2- R15, R37 5WATTS AND R38, R39 7WATTS RESISTORS LEAD LOOP MUST NOT BE ABOVE TOP RESISTOR
- 3- CUT METAL PIN ON XLR

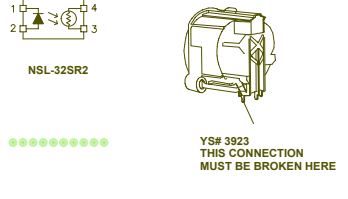


M665_PCB_DATABASE_HISTORY		
MODEL(S):-	XS 400	
#	DATE	VER# DESCRIPTION OF CHANGE
1	1 SEP-30-2004	V3.00 VALUE CHANGES
2		R190-681R0, R194-681R0, R200-581R0,
3		R125-20K0 ADDED BETWEEN SW9A & 15V
4		C52 PIN 2 CONNECTED TO R190 PIN 2
5		Q8 PIN 2 CONNECTED BETWEEN C17&R117
6		DELETED PARTS
7		C46, R28, R199, R201, NODES N208,N304,
8		PC 6706 ROUTE CORRECTED,
9	1 MAY-17-2005	V4.00 PC#6905 GT:RECREATE ARTWORK, ADDED 1/6 ETC...
10	10 AUG-03-2005	V5.00 PC#6937:GT:UPDATED Q10 TUBE SOCKET
11		PC#6945:GT:SPECIAL INSTRUCTIONS FOR #5257 CAPS
12	02-OCT-24-2005	V5.00 AH, PC#6937, FORCE UPDATE TUBE SOCKET
13		V

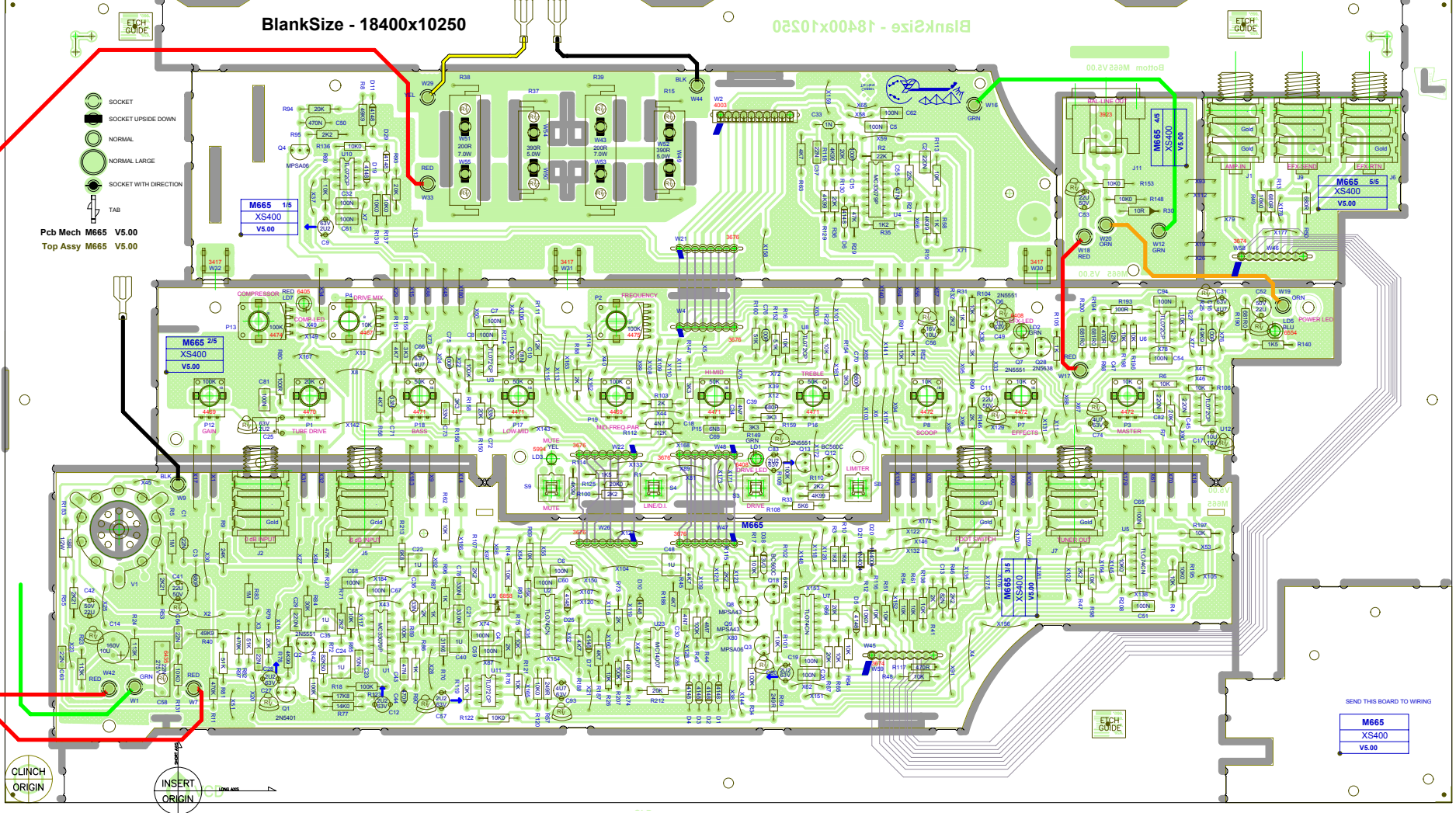


M665 DRILL HISTORY		
MODEL(S):-	XS400	
#	DATE	VER# DESCRIPTION OF CHANGE
1	07-SEP-2004	V05 PC#6706 ROUTE CORRECTED
2	03-AUG-2005	V06 PC#6937 TUBE SOCKET ROUTE UPDATE
3		N
4		N
5		N
6		N
7		N
8		N
9		N
10		N
11		N
12		N
13		N

M665 PENDING CHANGES		
MODEL(S):-	XS400	
#	PC#	PENDING CHANGE
1	69921	INCREASE # OF BREAKAWAY JUMPERS OR USE RIBBONS
2	XXXXX	
3	XXXXX	
4	XXXXX	
5	XXXXX	
6	XXXXX	
7	XXXXX	



POTLIST				
MODEL(S):-	XS 400			
REF	FUNCTION	PART#	KNOB	JULY-2003
P2	DRIVE MIX	4467	8399	N
P12 / P19	GAIN, MID-FREQ	4469	8399	N
P1	TUBE DRIVE	4470	8399	N
P15	HI-MID	4471	8399	N
P16	TREBLE	4471	8399	N
P17	LOW-MID	4471	8399	N
P18	BASS	4471	8399	N
P3	MASTER	4472	8399	N
P7	EFFECTS	4472	8399	N
P8	SCOOP	4472	8399	N
P13	COMPRESSOR	4474	8399	N
P2	FREQUENCY	4475	8399	N



SEND THIS BOARD TO WIRING

M665  
XS400  
V5.00



# Block Diagram for XS400/TH

DESIGNED AND MANUFACTURED BY YORKVILLE SOUND

