



# SERVICE MANUAL

Series 1 and 2

## M810 / M1610

MODEL TYPE: YS1032 (M1610)  
MODEL TYPE: YS1033 (M810)

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

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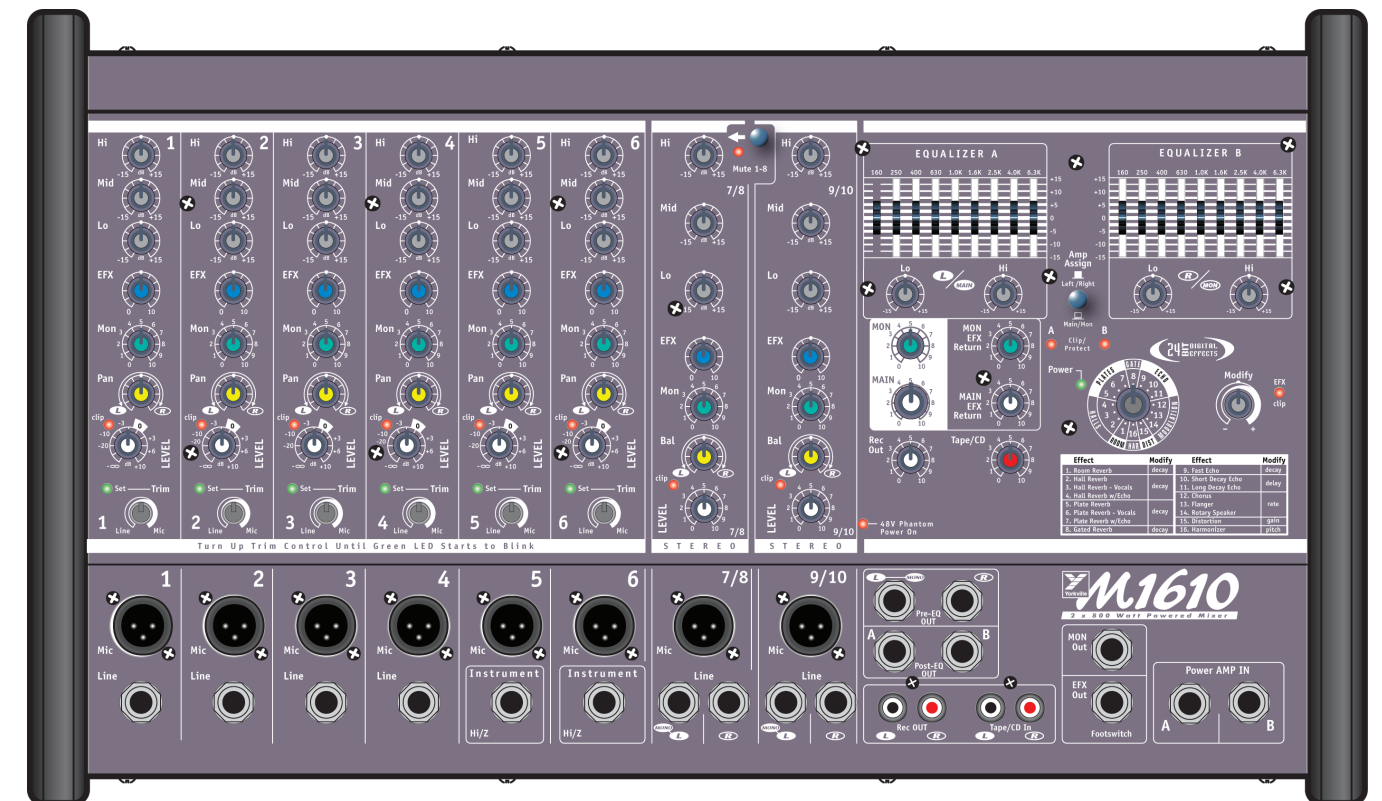
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## IMPORTANT SAFETY INSTRUCTIONS



### 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.

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.

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

##### **Cordon d'Alimentation**

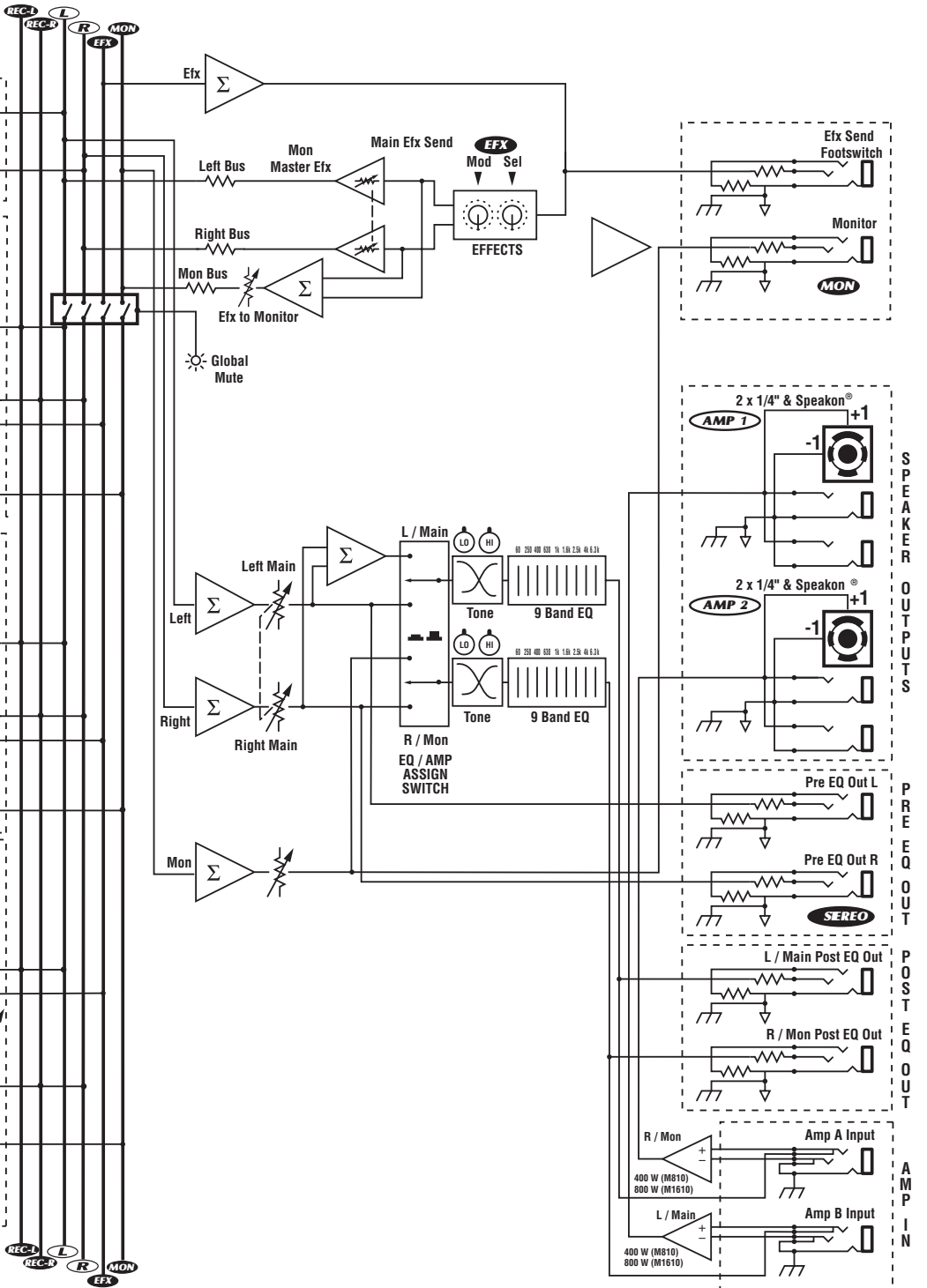
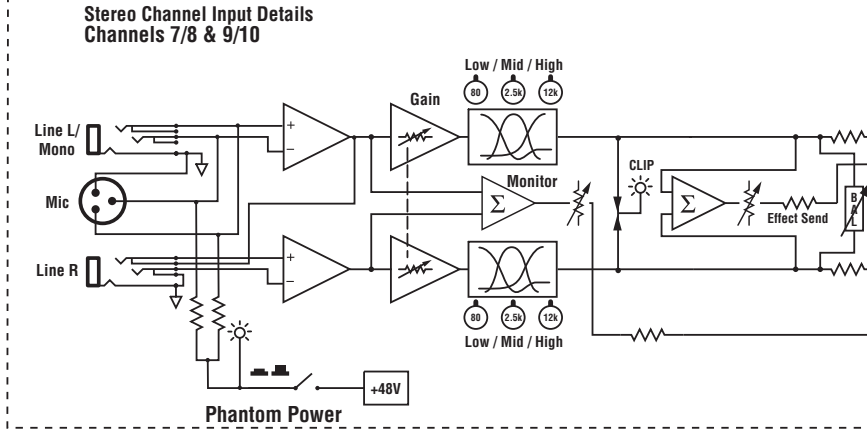
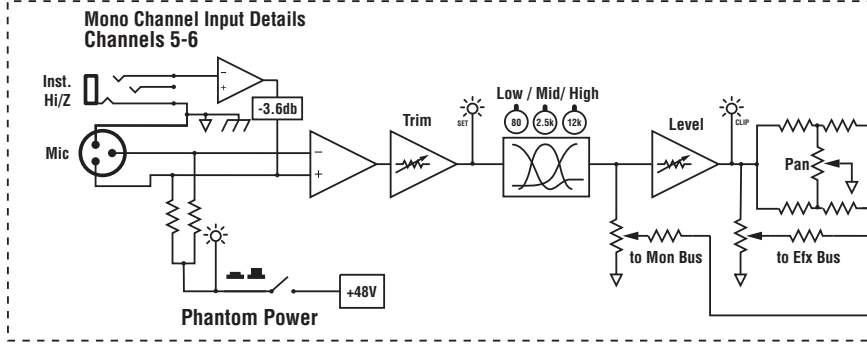
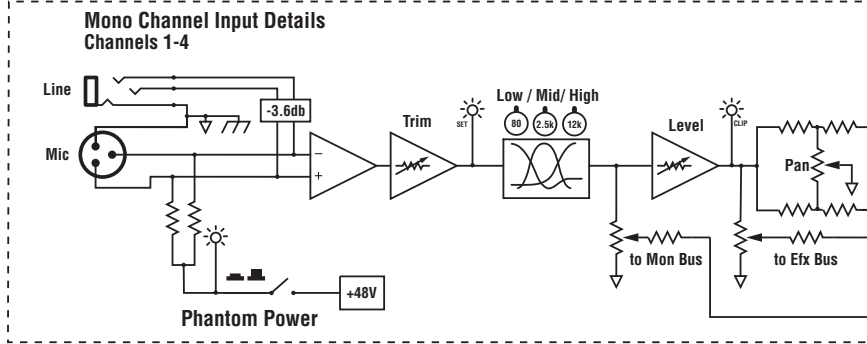
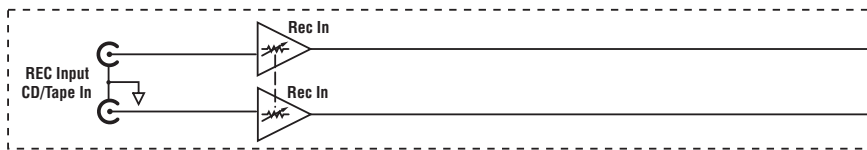
Évitez d'endommager le cordon d'alimentation. N'UTILISEZ PAS L'APPAREIL si le cordon d'alimentation est endommagé.

##### **Service**

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

# Block Diagram for M810 / M1610

DESIGNED & MANUFACTURED BY YORKVILLE SOUND



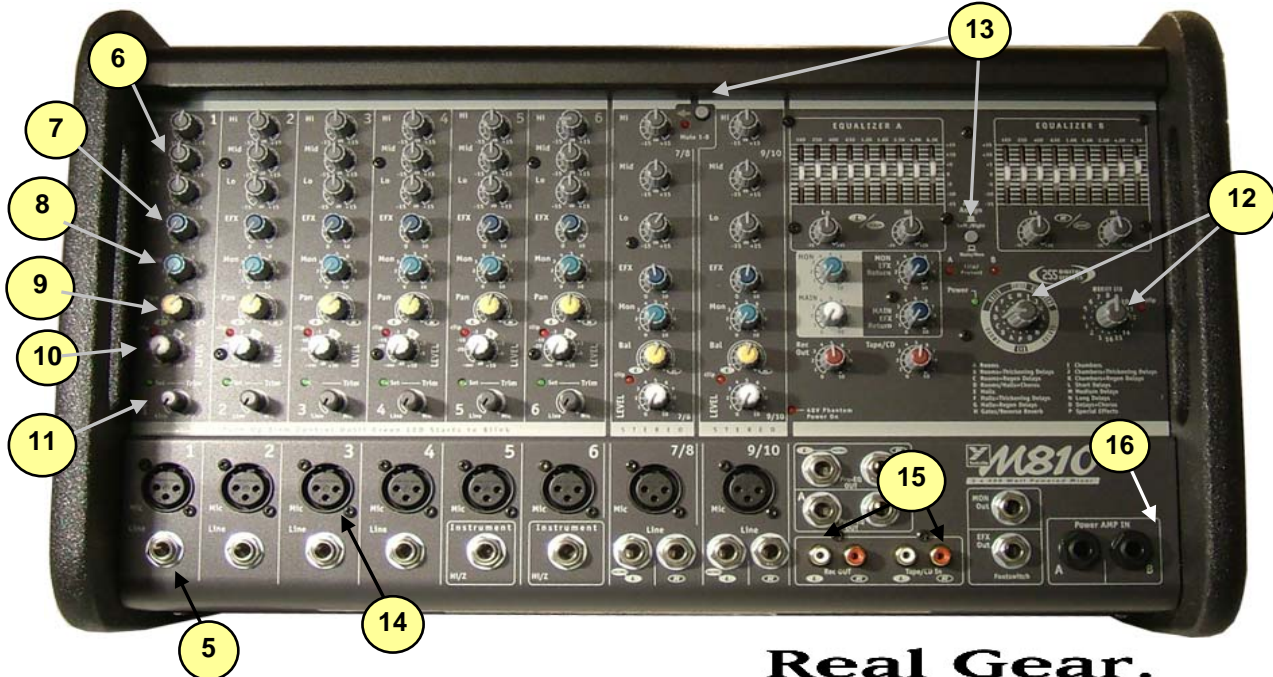
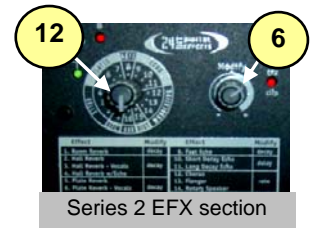
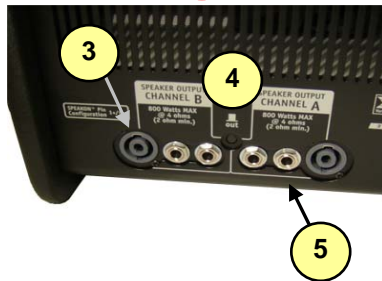
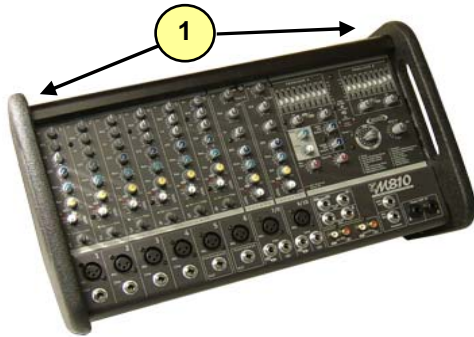






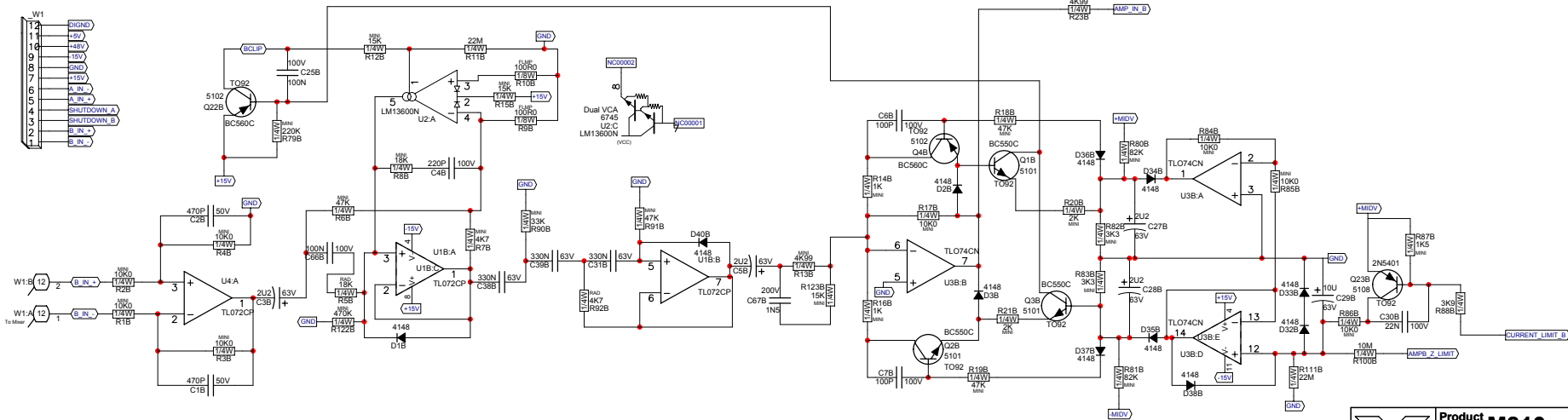
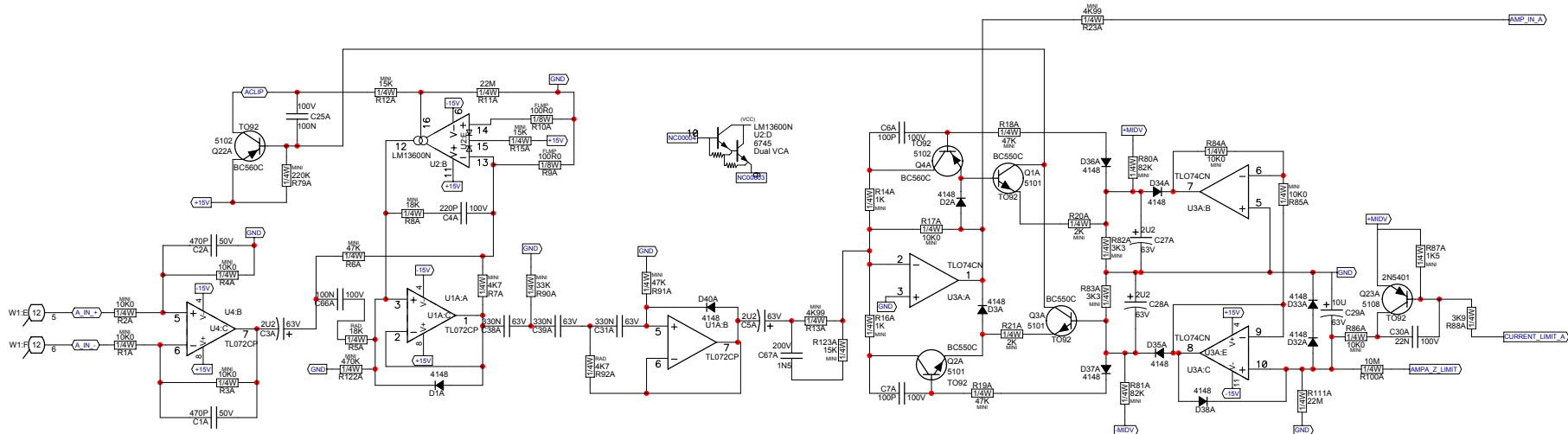
# m810/m1610 Powered Wedge Mixer

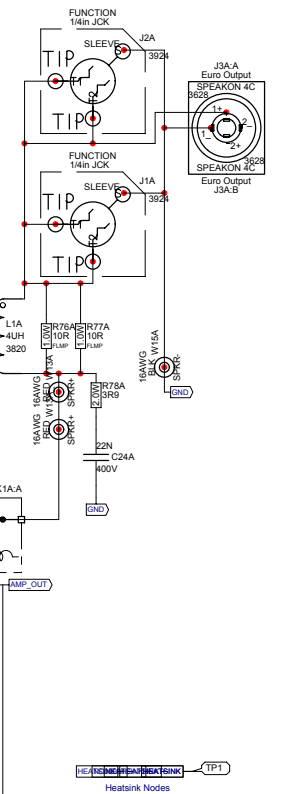
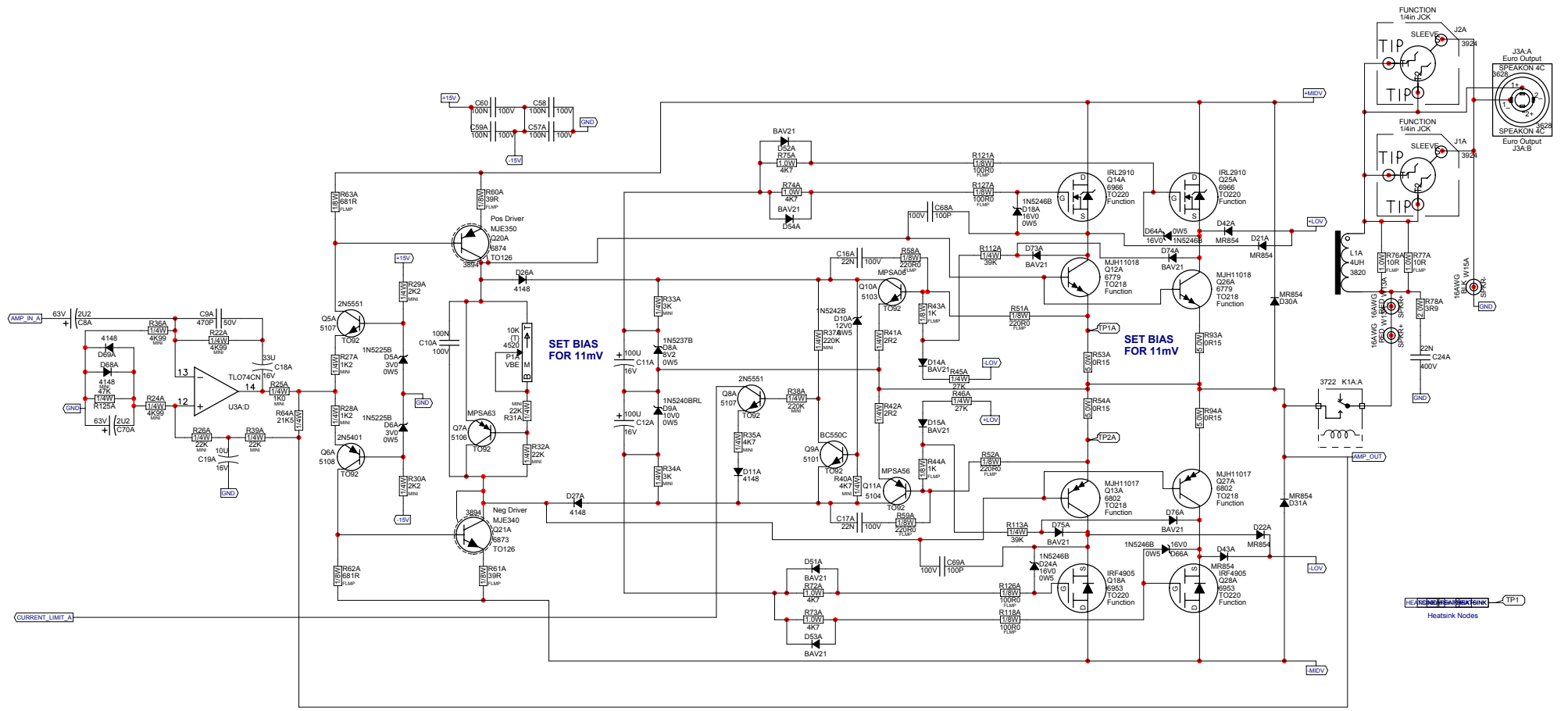
#	Part#	Description
Labeled Components		
1	M810WS/M1610WS	PAIR OF SIDE GABLES BLACK FOR M810/M1610
2	8893	10-32 X 1 FLAT PHILIPS TT JS500 BLK BOLTS
3	3628	SPKON 4C PCB MT VERT 250TAB GRY
4	8637/3522	PUSHBUTTON 1/4" BLK / DPDT MINI PC VERT
5	3924	1/4" JCK PCB MT VERT 2XTIP HICU
6	9916	GRY SOFT GRAY RIB KNOB 0-DEG
7	9918	BLU SOFT GRAY RIB KNOB 0-DEG
8	9917	GRN SOFT GRAY RIB KNOB 0-DEG
9	9919	YEL SOFT GRAY RIB KNOB 0-DEG
10	9920	WHT SOFT GRAY RIB KNOB 0-DEG
11	9921	GREY KNB W/O COVERING 0-DEG
12	8397	GREY STYLE 2 KNOB
13	8632	ROUND PUSH BUTTON 1/4" GREY
14	4010	XLR FEML PCB MT VERT 24MM AA-SE
15	3466	RCA DUAL PCB MT VERT GOLD 24MM
16	3450 & 3450NUT	1/4" ALL GOLD PC MNT JK SKT
17	2408/2456	8.0a CIR BREAKER (CE = 4.0A CIR BREAKER)
18	3587	DPDT ROKR SW QUIK 250°AC/PWR ON
19	3663	SNAP IEC PWR SOC W/250TAB
20	3426	8' 3/16 SJT AC LINE CORD REMOV-B-USA
21	3474	6' 3X.075MM AC LINE CORD EURO-REMOV



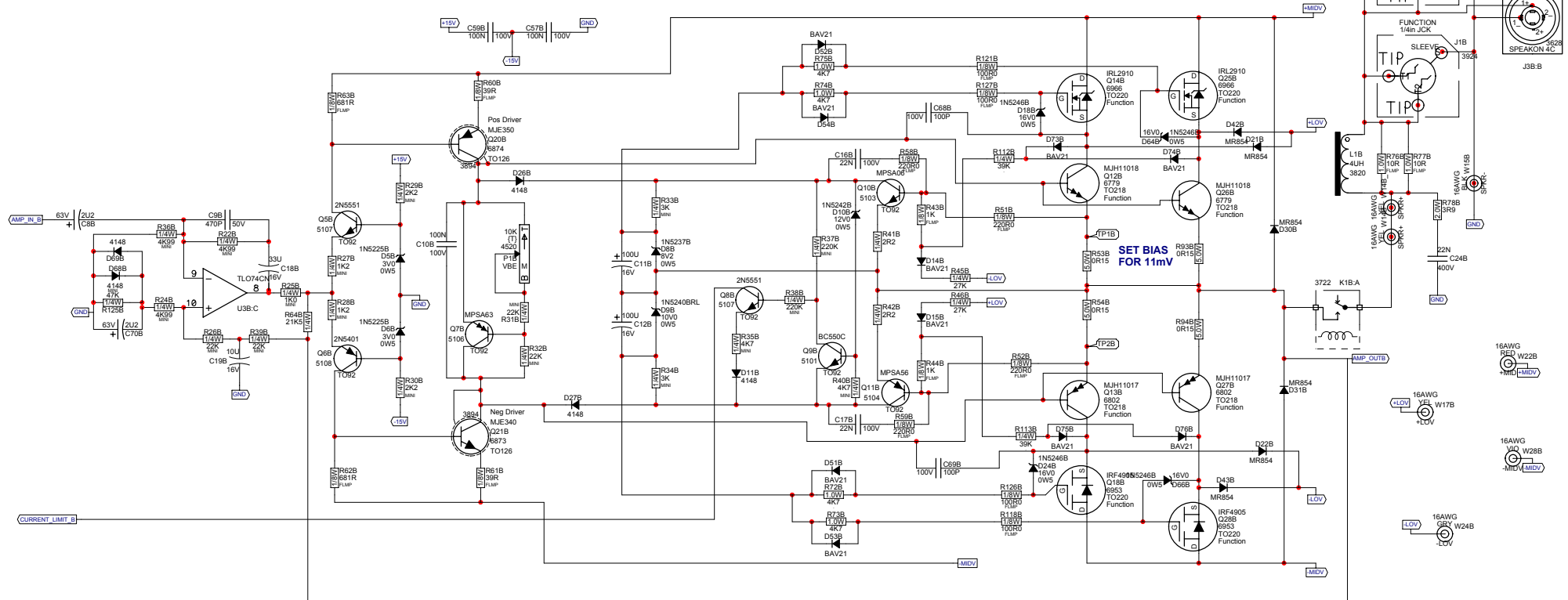
\* gables only available when product is in production

**Real Gear.  
Real People.**





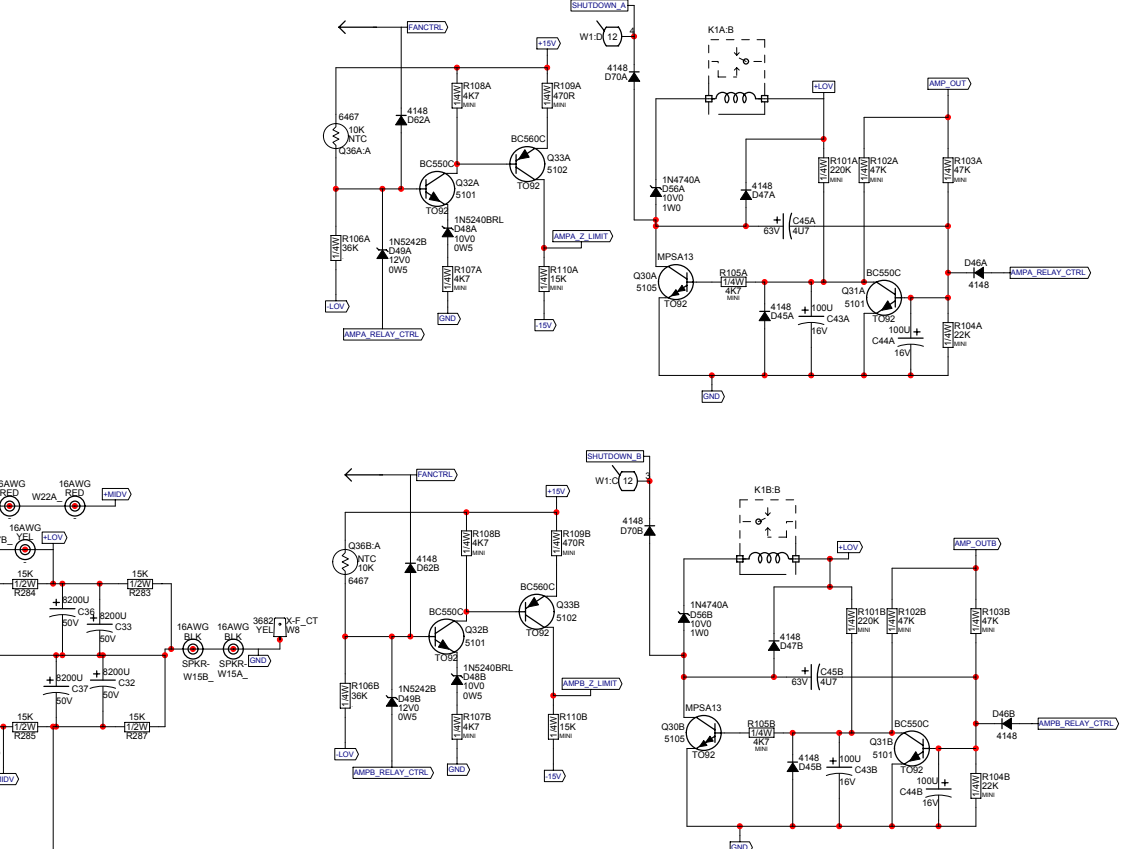
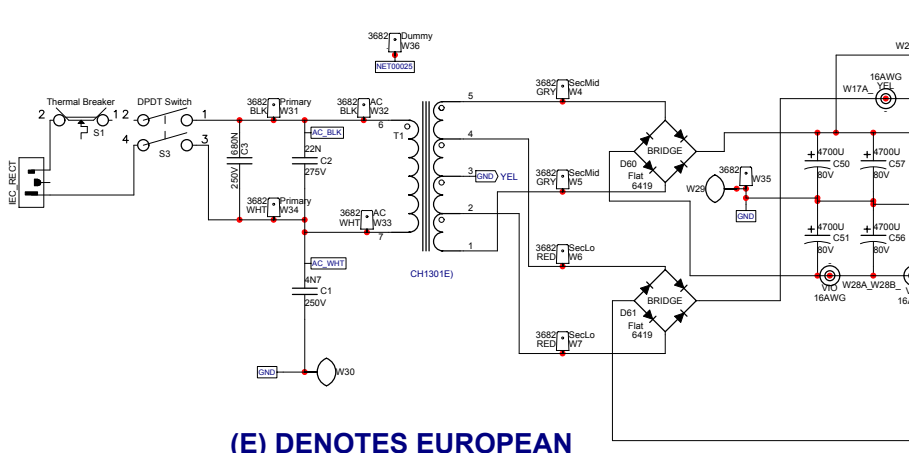
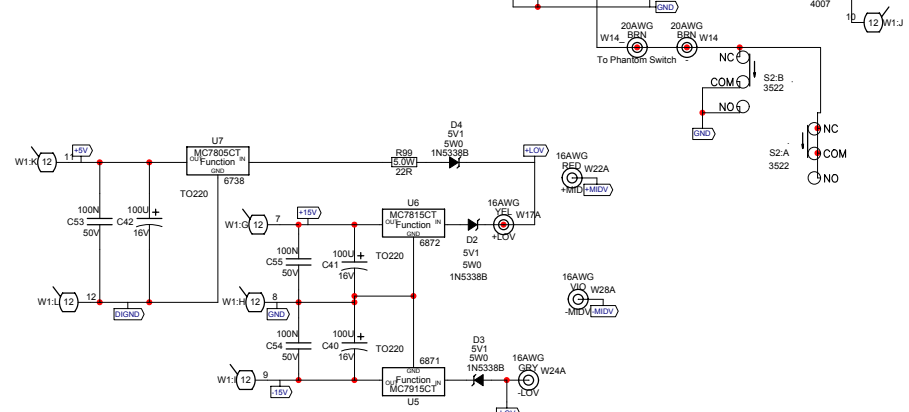
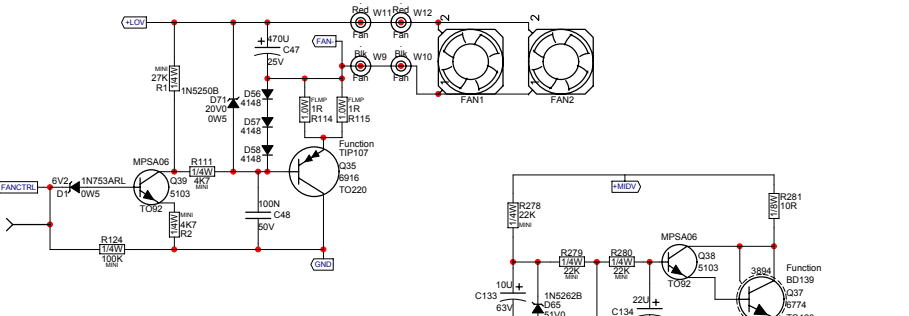




SET BIAS FOR 11mV



M1194.PCB_DATABASE_HISTORY			#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S):- M810			24			35V AND C36&C37#58964700/80V->#5898 8200U/50V
			25			UPDATED BIAS NOTE TO READ 11mV R45A/B&R46A/B
			26			#4890 30K->#4833 27K, R112A/B&R113A/B #4868 36K->
			27			#4853 39K, C25A/B #5224 47N/100V->#5212 100N/63V,
			28			R79A/B #6127 470K->#6128 220K, SWAPPED W8 AND W35
			29	19-JUN-2006	7.00	LAH, PC#6983, WIDEN TRACE BETWEEN C32 AND C37
			30			PC#7091, ENLARGE HOLE SIZE FOR #3522
			31			
			32			
			33			
			34			
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			50			



(E) DENOTES EUROPEAN



Product <b>M810</b>		
Power Supply	PCB# M1194	Sheet 4 of 5
Date: Wed Jun 28, 2006	Rev: 7V00	YsType: (Company)
Filename: M1194-7V00sch.2002		

Set P1 for 11mV between TP1 and TP2

Set P1 for 11mV between TP1 and TP2

Place 7 of #8841 10-32 keps nuts before the heatsink.

ETCH GUIDE

ETCH GUIDE

CLINCH ORIGIN

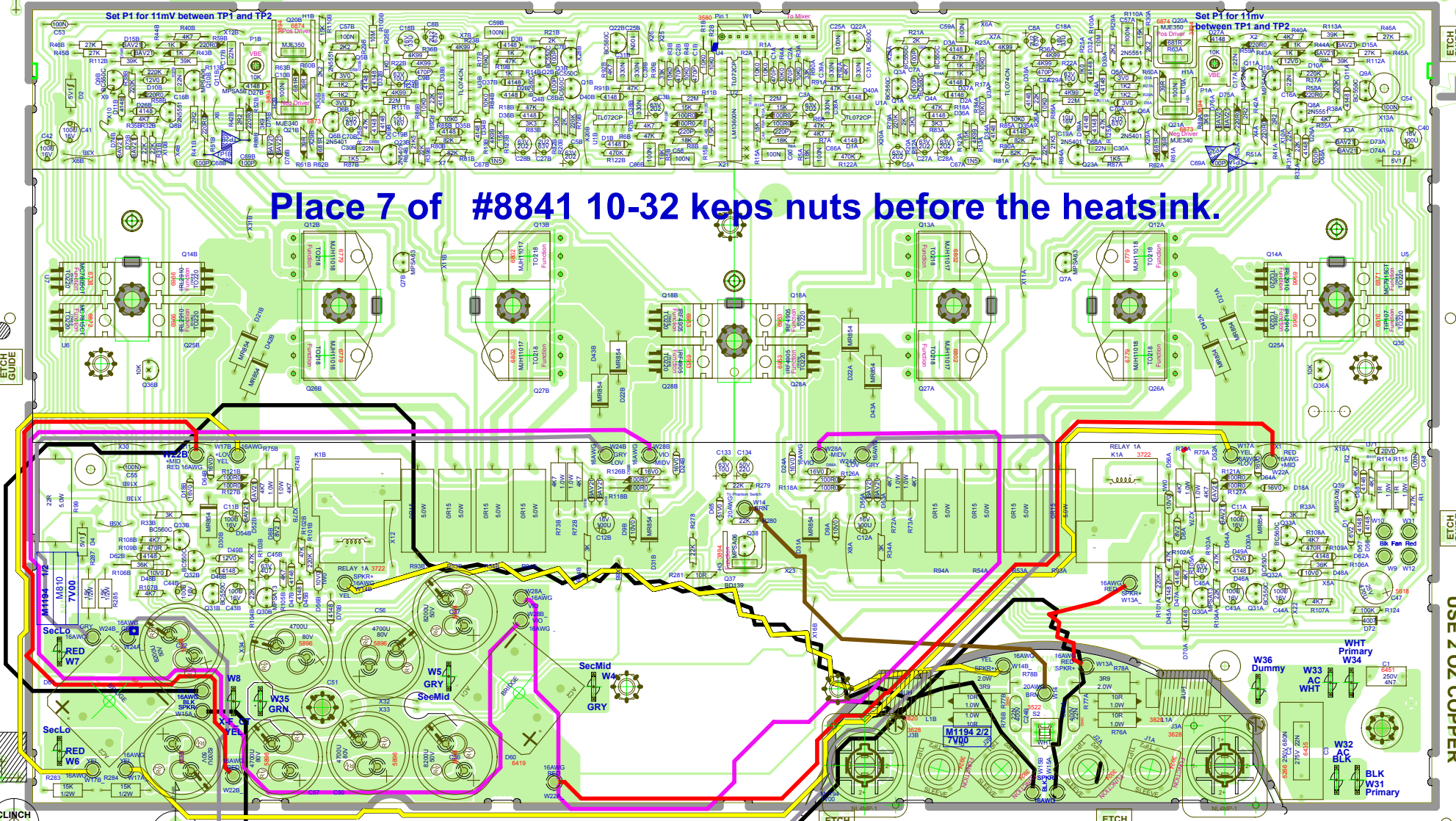
INSERT ORIGIN

ETCH GUIDE

ETCH GUIDE

ETCH GUIDE

USE 2 OZ COPPER





SEE LAYOUT DIAGRAM



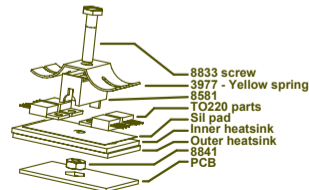
M1194.PCB_DATABASE_HISTORY				#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S):- M810				24	.	.	35V AND C36&C37#58964700/80V->#5898 8200U/50V
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				27	.	.	#4853 39K, C25A/B #5224 47N/100V->#5212 100N/63V,
				28	.	.	R79A/B #6127 470K->#6126 220K, SWAPPED W8 AND W35
				29	19-JUN-2006	7.00	AH, PC#6983, WIDEN TRACE BETWEEN C32 AND C37
				30	.	.	PC#7091, ENLARGE HOLE SIZE FOR #3522
#	DATE	VER#	DESCRIPTION OF CHANGE				
1	10 Jan, 2004	1.00	Rationalize wire refdes				
2	24 Feb, 2004	1.00	Add speakon jacks to output section				
3	10 Mar, 2004	1.00	Enlarge cutouts for 8841 nuts				
4	1-APR-2004	1.10	PC#6674 Change R31A,B 15k-->22k (4979-->6118)				
5	15-APR-2004	1.20	PC#6678 Chg. R5A,B 6k8->18k; R82A,B 5k6->3k3				
6			R83A,B 56k->3k3; R80A,B, R81A,B 133k->100k				
7	21-APR-2004	1.20	PC#6681 Modified route to let grn wire pass near power				
8	6-MAY-2004	2.00	PC#6685 R80&R81(A,B) 100K->82K, ADDED D71, D72				
9	JUN/17/2004	2.10	PC# 6707 Q12 (A+B) Q26 (A+B) TIP142 -> MJH11018				
10			Q13 (A+B), Q27 (A+B) TIP147 -> MJH11017				
11	13 Sept, 2004	2.11	TC:PC#6763:Moved HS alignment hole to match HS				
12	JAN-05-2005	4.00	PC#6808 R72,R73,R74,R75 FROM 10K0 1W TO 4K7 1W				
13			D8 A/B 12V0 TO 8V2, D9A/B 14V0 TO 10V0, D10A/B 16V0				
14			TO 12V0. ADD R112A/B, R113A/B (36K), D73A/B, D74A/B				
15			D75A/B, D76A/B (BAV21). R45A/B, R46A/B 36K TO 30K				
16			REMOVE D16,D17,R47,R48,R49, R50 (ALL A/B)				
17			ADD JUMPERS X1 TO X12				
18			PC#6794: AC CLEARANCE FIX				
19	MAR-24-2005	5.00	FIXED MASK SPREAD TO 30MIL				
20	APR-13-2005	5.10	CHANGE IRF3205 #6954 TO IRL2910 #6966				
21			PLACE MICA UNDER MIDDLE TIER MOSFETS				
22	JUN-29-2005	6.00	PC#6920:GT:R106A/B #6122 33K->#4868 36K, D56A/B				
23			#6440 4V7/0W5->#6484 10V1W, C32&C33#5903 12000U/				
DRILL & ROUTE HISTORY				M1194 PENDING CHANGES			
MODEL(S):- M810				MODEL(S):- M810			
#	DATE	VER#	DESCRIPTION OF CHANGE	#	PC#		PENDING CHANGE
1	10-MAR-2004	V02	Enlarged routing for hex nuts	1	PC	X	
2	5-MAY-2004	V03	Added notch to routing to pass GRN wire from front	2	PC	X	
3	6-MAY-2004	V04	To match v2.00 changes	3	PC	X	
4	JAN-05-2005	V05	PC#6763 MOVE TOP LEFT HEATSINK LINE-UP HOLE	4	PC	X	
5	20 Apr,2005	5.11	Corrected 'BlankSize' field for clinch program	5	PC	X	
6			Corrected pad orientations on 4520, 5840 and 3722	6	PC	X	
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				

\*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY

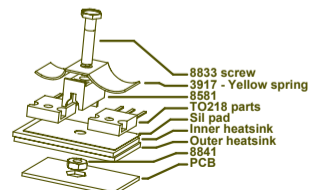
# PRODUCTION NOTES

1. Use three 8832 screws to align and attach the heatsinks to the board.
2. When assembling heatsinks to Q20(A&B),Q21(A&B),Q37, ensure heatsinks are straight and sit flat against board. Add a very small amount of RTV between heatsink and board if necessary. This prevent heatsink from shorting other components.
3. Add grease under middle tier mosfets.

### 4XTO220-MTG



### 2XTO218-MTG





# STEREO DIGITAL EFFECTS

YORKVILLE SOUND • DIGITAL EFFECTS BY A.R.T.

## A ROOMS

- 1 0.5s Bright Small Room
- 2 0.5s Warm Small Room
- 3 0.5s Dark Small Room
- 4 0.8s Bright Small Room
- 5 0.8s Warm Small Room
- 6 1.0s Bright Small Room
- 7 1.0s Warm Small Room
- 8 1.2s Bright Medium Room
- 9 1.2s Warm Medium Room
- 10 1.5s Bright Medium Room
- 11 1.5s Warm Medium Room
- 12 1.5s Dark Medium Room
- 13 2.0s Bright Large Room
- 14 2.0s Warm Large Room
- 15 2.5s Bright Large Room
- 16 2.5s Warm Large Room

## B ROOMS & THICKENING DELAYS

- 1 0.5s Bright Small Room + 50ms doubling delay
- 2 0.5s Warm Small Room + 40ms doubling delay
- 3 0.5s Dark Small Room + 40ms doubling delay
- 4 0.8s Bright Small Room + 60ms doubling delay
- 5 0.8s Warm Small Room + 50ms doubling delay
- 6 1.0s Bright Small Room + 70ms slap delay
- 7 1.0s Warm Small Room + 50ms doubling delay
- 8 1.2s Bright Medium Room + 50ms doubling delay
- 9 1.2s Warm Medium Room + 50ms doubling delay
- 10 1.5s Bright Medium Room + 80ms slap delay
- 11 1.5s Warm Medium Room + 60ms doubling delay
- 12 1.5s Dark Medium Room + 70ms slap delay
- 13 2.0s Bright Large Room + 80ms slap delay
- 14 2.0s Warm Large Room + 60ms doubling delay
- 15 2.5s Bright Large Room + 100ms slap delay
- 16 2.5s Warm Large Room + 80ms slap delay

## C ROOMS & REGENERATION DELAYS

- 1 0.5s Bright Small Room + 200ms regen delay
- 2 0.5s Warm Small Room + 175ms regen delay
- 3 0.5s Dark Small Room + 150ms regen delay
- 4 0.8s Bright Small Room + 200ms regen delay
- 5 0.8s Warm Small Room + 150ms regen delay
- 6 1.0s Bright Small Room + 175ms regen delay
- 7 1.0s Warm Small Room + 125ms regen delay
- 8 1.2s Bright Medium Room + 150ms regen delay
- 9 1.2s Warm Medium Room + 200ms regen delay
- 10 1.5s Bright Medium Room + 200ms regen delay
- 11 1.5s Warm Medium Room + 175ms regen delay
- 12 1.5s Dark Medium Room + 150ms regen delay
- 13 2.0s Bright Large Room + 200ms regen delay
- 14 2.0s Warm Large Room + 125ms regen delay
- 15 2.5s Bright Large Room + 150ms regen delay
- 16 2.5s Warm Large Room + 200ms regen delay

## D ROOMS / HALLS & CHORUS

- 1 0.5s Bright Room + slow chorus
- 2 0.8s Warm Room + medium chorus
- 3 1.0s Bright Room + slow chorus
- 4 1.2s Warm Room + medium chorus
- 5 1.5s Bright Room + slow chorus
- 6 1.8s Warm Room + slow chorus
- 7 2.5s Bright Room + medium chorus
- 8 3.0s Warm Room + slow chorus
- 9 2.0s Bright Hall + slow chorus
- 10 2.5s Warm Hall + medium chorus
- 11 2.5s Bright Hall + slow chorus
- 12 3.0s Warm Hall + slow chorus
- 13 3.5s Warm Hall + slow chorus
- 14 3.5s Bright Hall + medium chorus
- 15 5.0s Warm Hall + slow chorus
- 16 8.0s Warm Hall + slow chorus

## E HALLS

- 1 1.5s Dark Medium Hall
- 2 1.5s Warm Medium Hall
- 3 1.5s Bright Medium Hall
- 4 2.0s Dark Medium Hall
- 5 2.0s Warm Medium Hall
- 6 2.0s Bright Medium Hall
- 7 2.5s Dark Medium Hall
- 8 2.5s Warm Medium Hall
- 9 2.5s Bright Medium Hall
- 10 3.5s Dark Medium Hall
- 11 3.5s Warm Medium Hall
- 12 3.5s Bright Medium Hall
- 13 5.0s Dark Large Hall
- 14 5.0s Warm Large Hall
- 15 8.0s Dark Huge Hall
- 16 8.0s Warm Huge Hall

## F HALLS & THICKENING DELAYS

- 1 1.5s Dark Medium Hall + 50ms doubling delay
- 2 1.5s Warm Medium Hall + 70ms slap delay
- 3 1.5s Bright Medium Hall + 90ms slap delay
- 4 2.0s Dark Medium Hall + 90ms slap delay
- 5 2.0s Warm Medium Hall + 70ms slap delay
- 6 2.0s Bright Medium Hall + 50ms doubling delay
- 7 2.5s Dark Medium Hall + 70ms slap delay
- 8 2.5s Warm Medium Hall + 80ms slap delay
- 9 2.5s Bright Medium Hall + 100ms slap delay
- 10 3.5s Dark Medium Hall + 80ms slap delay
- 11 3.5s Warm Medium Hall + 90ms slap delay
- 12 3.5s Bright Medium Hall + 100ms slap delay
- 13 5.0s Dark Large Hall + 80ms slap delay
- 14 5.0s Bright Large Hall + 100ms slap delay
- 15 8.0s Dark Huge Hall + 100ms slap delay
- 16 8.0s Warm Huge Hall + 100ms slap delay

## G HALLS & REGENERATION DELAYS

- 1 1.5s Dark Medium Hall + 150ms regen delay
- 2 1.5s Warm Medium Hall + 175ms regen delay
- 3 1.5s Bright Medium Hall + 200ms regen delay
- 4 2.0s Dark Medium Hall + 200ms regen delay
- 5 2.0s Warm Medium Hall + 150ms regen delay
- 6 2.0s Bright Medium Hall + 175ms regen delay
- 7 2.5s Dark Medium Hall + 200ms regen delay
- 8 2.5s Warm Medium Hall + 150ms regen delay
- 9 2.5s Bright Medium Hall + 175ms regen delay
- 10 3.5s Dark Medium Hall + 125ms regen delay
- 11 3.5s Warm Medium Hall + 150ms regen delay
- 12 3.5s Bright Medium Hall + 200ms regen delay
- 13 5.0s Dark Large Hall + 175ms regen delay
- 14 5.0s Bright Large Hall + 200ms regen delay
- 15 8.0s Dark Huge Hall + 150ms regen delay
- 16 8.0s Bright Large Hall + 200ms regen delay

## H GATED / REVERSE REVERB

- 1 0.8s decay 100ms Gate
- 2 0.8s decay 200ms Gate
- 3 1.2s decay 100ms Gate
- 4 1.2s decay 200ms Gate
- 5 1.8s decay 150ms Gate
- 6 1.8s decay 200ms Gate
- 7 2.0s decay 300ms Gate
- 8 2.0s decay 300ms Gate
- 9 2.5s decay 250ms Gate
- 10 2.5s decay 400ms Gate
- 11 0.5s decay 100ms Reverse
- 12 0.5s decay 200ms Reverse
- 13 1.0s decay 100ms Reverse
- 14 1.0s decay 200ms Reverse
- 15 2.5s decay 250ms Reverse
- 16 4.0s decay 300ms Reverse

## I CHAMBERS / PLATES

- 1 0.8s Warm Chamber
- 2 0.8s Bright Chamber
- 3 1.2s Warm Chamber
- 4 1.2s Bright Chamber
- 5 1.5s Warm Chamber
- 6 1.5s Bright Chamber
- 7 2.5s Warm Chamber
- 8 2.5s Bright Chamber
- 9 3.5s Warm Chamber
- 10 3.5s Bright Chamber
- 11 0.3s Bright Plate
- 12 0.5s Bright Plate
- 13 0.8s Bright Plate
- 14 1.2s Bright Plate
- 15 1.5s Bright Plate
- 16 2.0s Bright Plate

## J CHAMBERS / PLATES + THICKENING DELAYS

- 1 0.8s Warm Chamber + 50ms doubling delay
- 2 0.8s Bright Chamber + 50ms doubling delay
- 3 1.2s Warm Chamber + 60ms doubling delay
- 4 1.2s Bright Chamber + 70ms slap delay
- 5 1.5s Warm Chamber + 70ms slap delay
- 6 1.5s Bright Chamber + 80ms slap delay
- 7 2.5s Warm Chamber + 80ms slap delay
- 8 2.5s Bright Chamber + 100ms slap delay
- 9 3.5s Warm Chamber + 90ms slap delay
- 10 3.5s Bright Chamber + 100ms slap delay
- 11 0.3s Bright Plate + 40ms doubling delay
- 12 0.5s Bright Plate + 50ms doubling delay
- 13 0.8s Bright Plate + 50ms doubling delay
- 14 1.2s Bright Plate + 80ms slap delay
- 15 1.5s Bright Plate + 80ms slap delay
- 16 2.0s Bright Plate + 100ms slap delay

## K CHAMBERS / PLATES + REGEN DELAYS

- 1 0.8s Warm Chamber + 150ms regen delay
- 2 0.8s Bright Chamber + 125ms regen delay
- 3 1.2s Warm Chamber + 175ms regen delay
- 4 1.2s Bright Chamber + 200ms regen delay
- 5 1.5s Warm Chamber + 150ms regen delay
- 6 1.5s Bright Chamber + 200ms regen delay
- 7 2.5s Warm Chamber + 175ms regen delay
- 8 2.5s Bright Chamber + 125ms regen delay
- 9 3.5s Warm Chamber + 200ms regen delay
- 10 3.5s Bright Chamber + 150ms regen delay
- 11 0.3s Bright Plate + 125ms regen delay
- 12 0.5s Bright Plate + 150ms regen delay
- 13 0.8s Bright Plate + 200ms regen delay
- 14 1.2s Bright Plate + 175ms regen delay
- 15 1.5s Bright Plate + 150ms regen delay
- 16 2.0s Bright Plate + 200ms regen delay

## L SHORT DELAYS

- 1 30ms slap delay
- 2 35ms slap delay
- 3 40ms slap delay
- 4 50ms slap delay
- 5 60ms slap delay
- 6 70ms slap delay
- 7 80ms slap delay
- 8 90ms slap delay
- 9 100ms slap delay
- 10 100ms regen delay
- 11 125ms low regen delay
- 12 125ms medium regen delay
- 13 150ms low regen delay
- 14 150ms medium regen delay
- 15 175ms low regen delay
- 16 175ms medium regen delay

## M MEDIUM DELAYS

- 1 200ms low regen delay
- 2 200ms medium regen delay
- 3 225ms low regen delay
- 4 225ms medium regen delay
- 5 250ms low regen delay
- 6 250ms medium regen delay
- 7 275ms low regen delay
- 8 275ms medium regen delay
- 9 300ms low regen delay
- 10 300ms medium regen delay
- 11 325ms low regen delay
- 12 325ms medium regen delay
- 13 350ms low regen delay
- 14 350ms medium regen delay
- 15 375ms low regen delay
- 16 375ms medium regen delay

## N LONG DELAYS

- 1 390ms low regen delay
- 2 390ms medium regen delay
- 3 400ms low regen delay
- 4 400ms medium regen delay
- 5 410ms low regen delay
- 6 410ms medium regen delay
- 7 420ms low regen delay
- 8 420ms medium regen delay
- 9 430ms low regen delay
- 10 430ms medium regen delay
- 11 450ms low regen delay
- 12 450ms medium regen delay
- 13 475ms low regen delay
- 14 475ms medium regen delay
- 15 500ms low regen delay
- 16 500ms medium regen delay

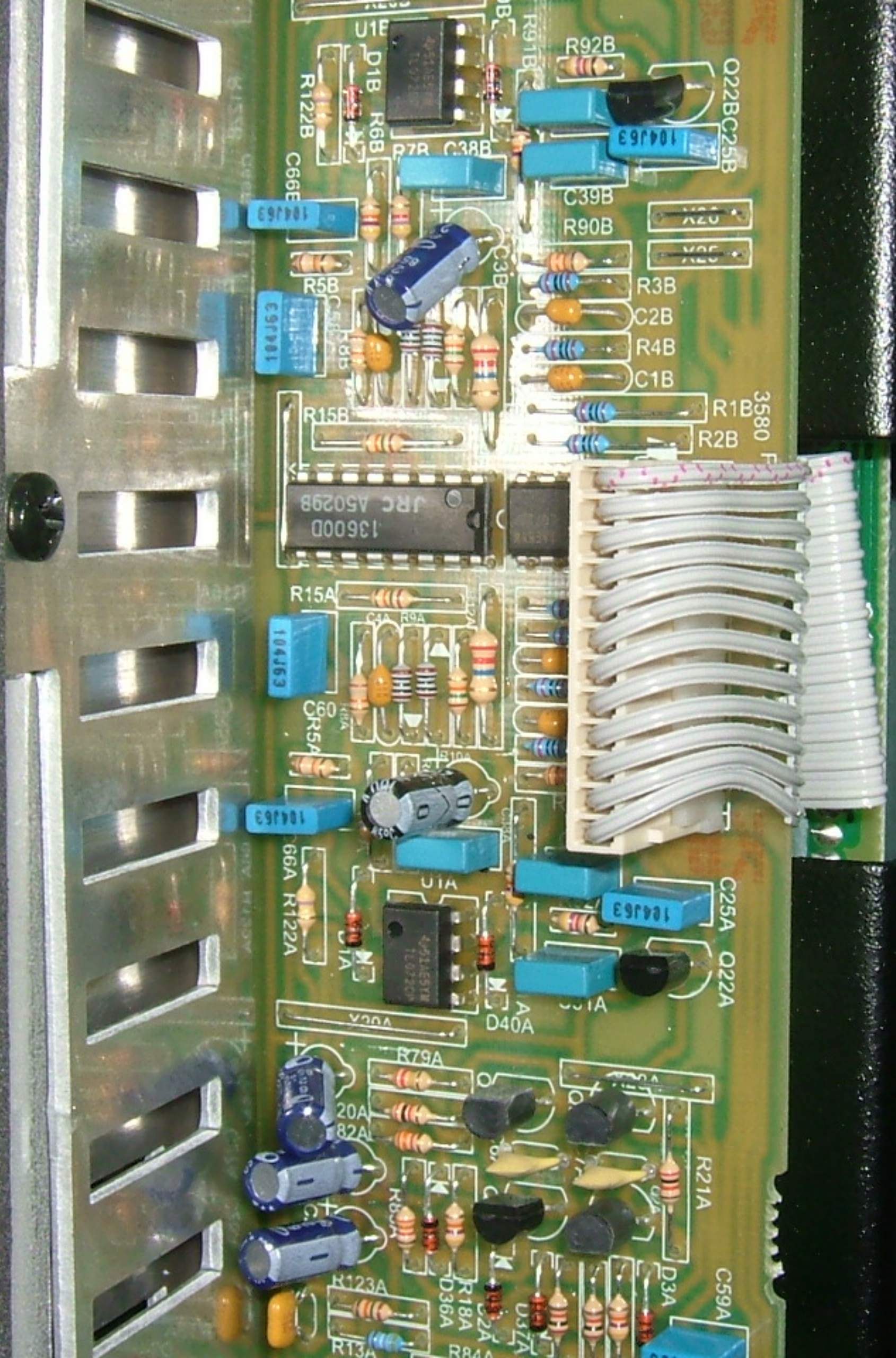
## O DELAYS & CHORUS

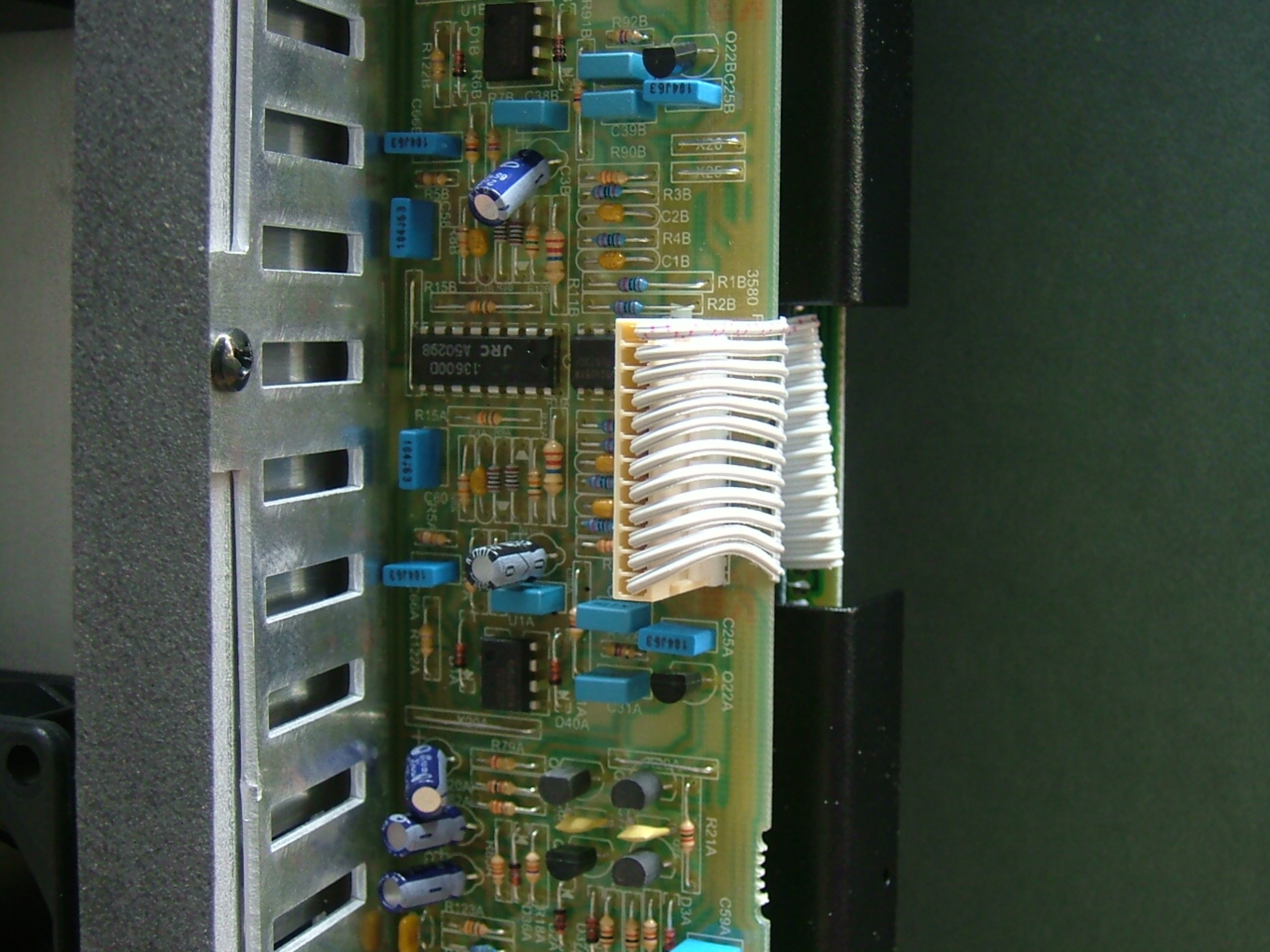
- 1 50ms doubling delay + slow chorus
- 2 80ms slap delay + medium chorus
- 3 100ms slap delay + medium chorus
- 4 150ms regen delay + slow chorus
- 5 175ms regen delay + medium chorus
- 6 200ms regen delay + slow chorus
- 7 225ms regen delay + medium chorus
- 8 250ms regen delay + slow chorus
- 9 275ms regen delay + medium chorus
- 10 300ms regen delay + slow chorus
- 11 325ms regen delay + medium chorus
- 12 350ms regen delay + slow chorus
- 13 370ms regen delay + medium chorus
- 14 380ms regen delay + slow chorus
- 15 390ms regen delay + medium chorus
- 16 400ms regen delay + slow chorus

## P SPECIAL EFFECTS

- 1 Pitch Shift octave down
- 2 Pitch Shift octave up
- 3 Pitch Shift major 3rd up
- 4 Pitch Shift major 5th down
- 5 Dual Pitch Shift major 3rd and 5th up
- 6 Dual Pitch Shift octave up and octave down
- 7 Detune Flanger
- 8 Slow Flanger w/ medium regen
- 9 Slow Flanger w/ high regen
- 10 Medium Flanger w/ medium regen
- 11 Medium Flanger w/ high regen
- 12 250ms high regen delay
- 13 500ms medium regen delay
- 14 500ms high regen delay
- 15 Slow Flanger + Pitch Shift octave down
- 16 Slow Flanger + Pitch Shift octave up

255 PRESET 16 Bit DIGITAL EFFECTS PROCESSOR





O22BG25B

3580

JRC A50298  
136000

C25A O22A

R21A

C59A

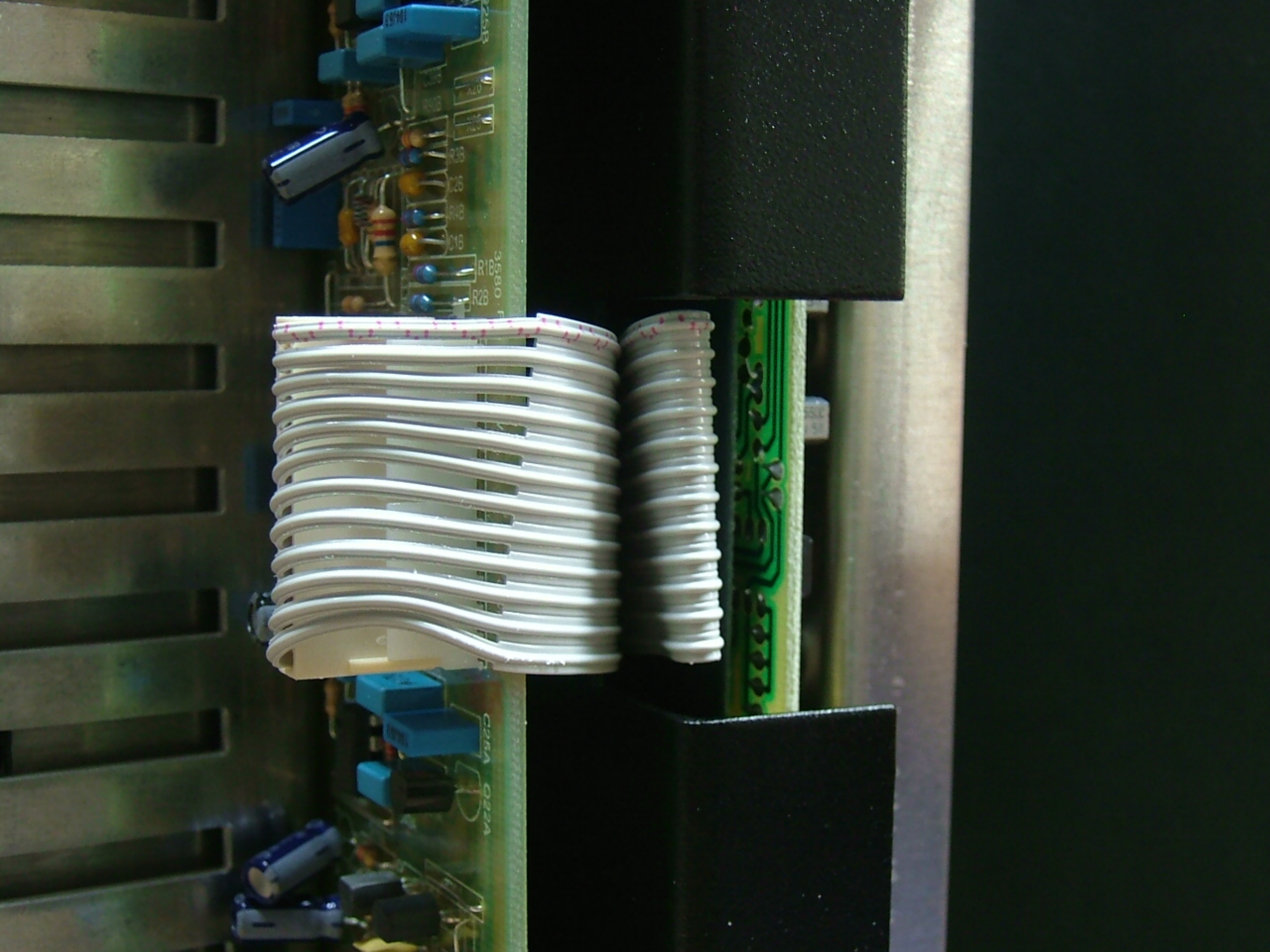
104J6

104J6

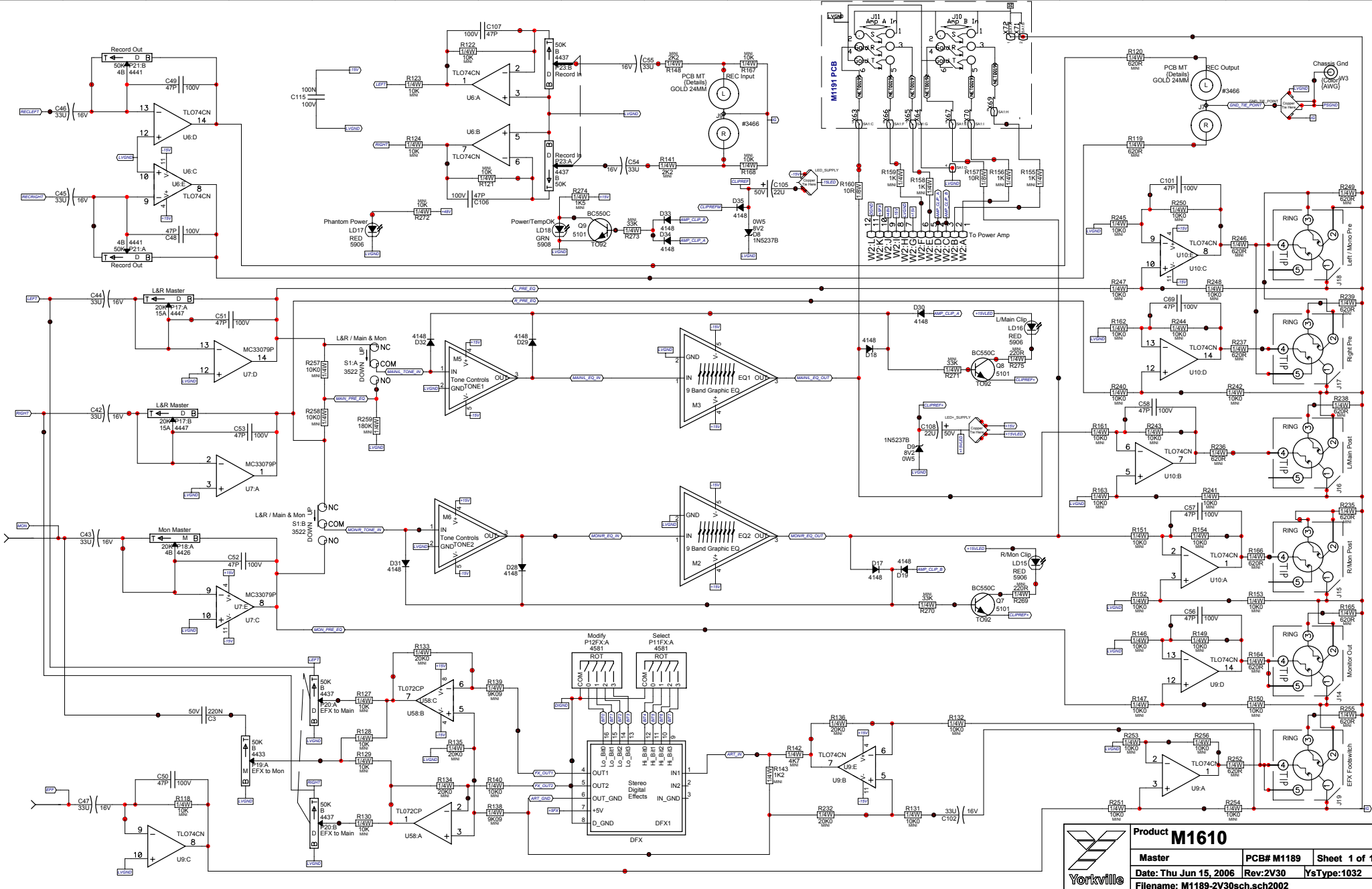
104J6

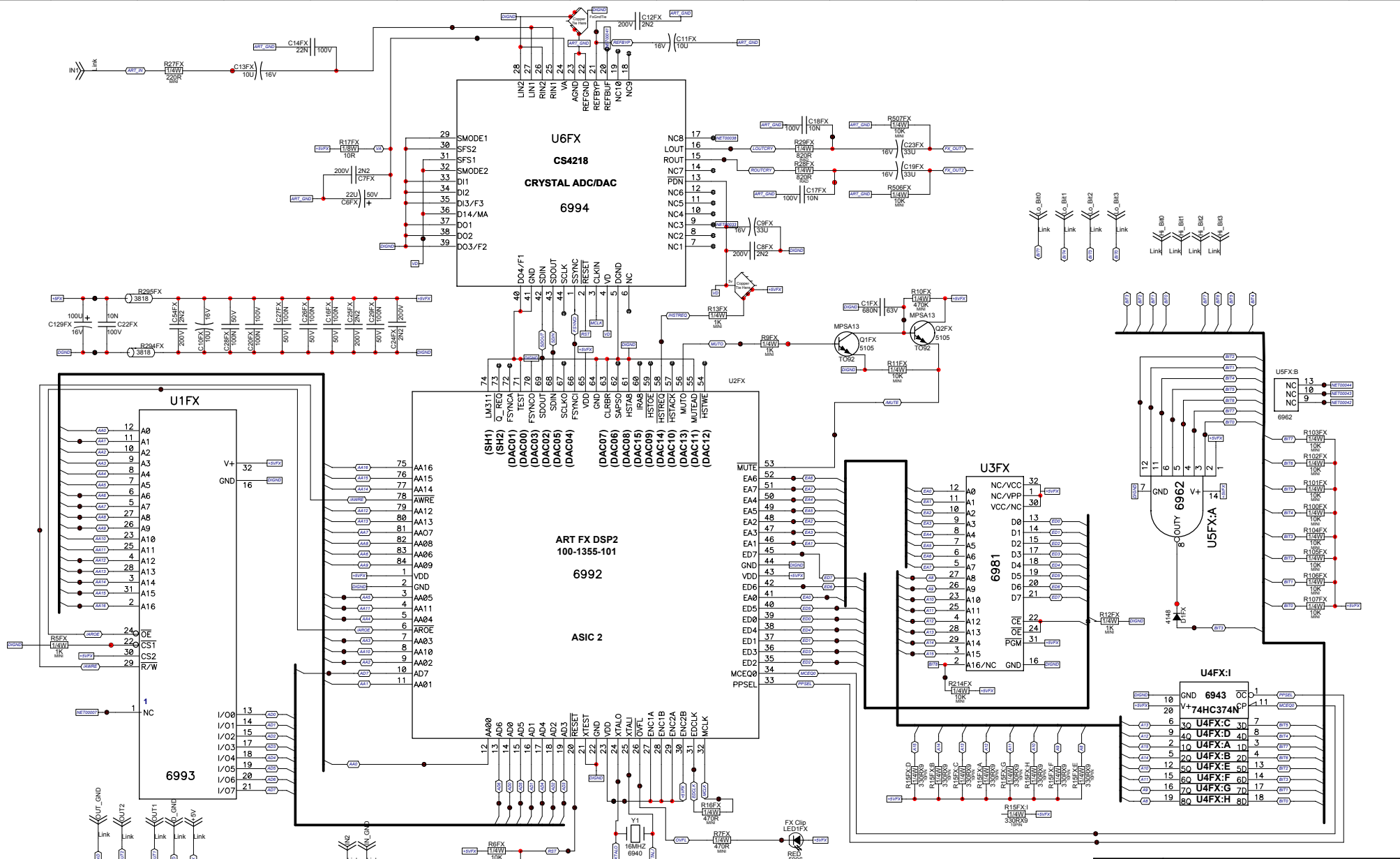
104J6



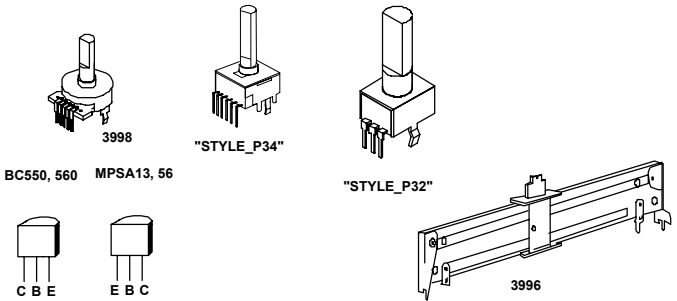
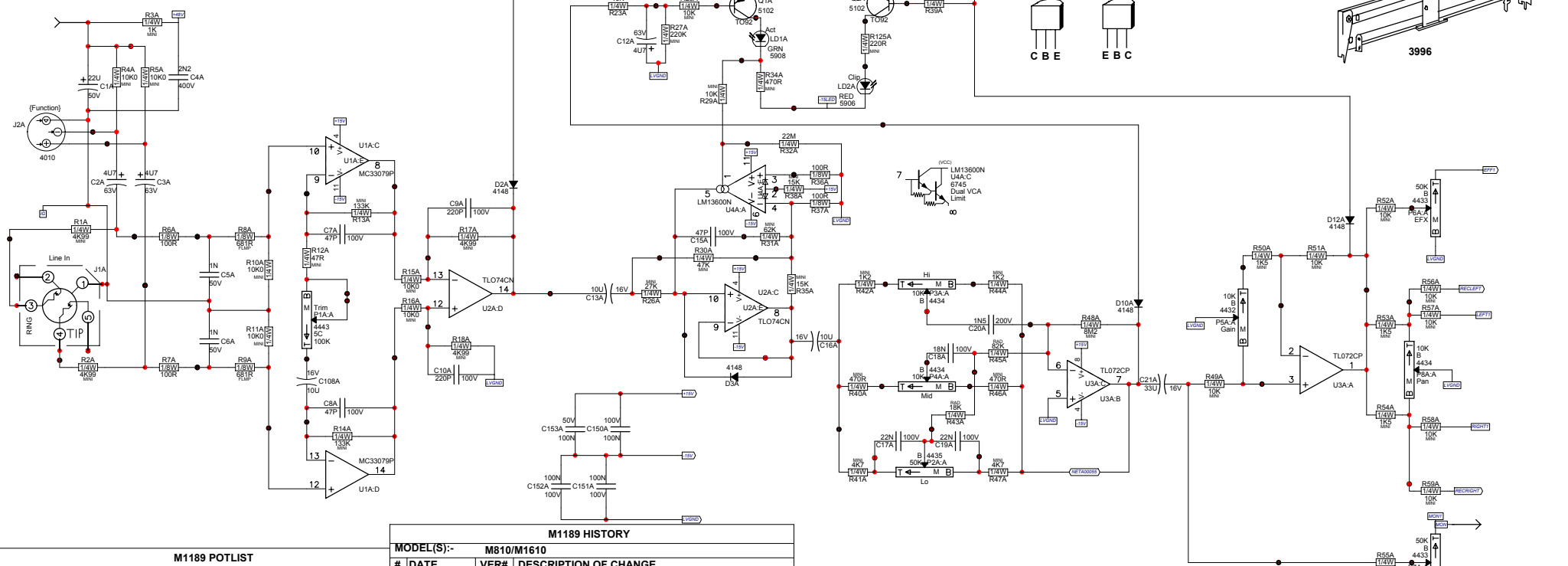








**Only Channel 1 is shown,  
Channels 1 - 4 employ the  
same circuit.**



M1189 POTLIST			
M1610			
MODEL(S):-	FUNCTION	PART#	NOB (NEW)
P25-34 L&R	Graphic EQ	3988	N/A
P1A,1B,1C,1D,1E,1F	Trim	4443	9915 P32
P9G,9H	Mon Send	4443	9917 P32
P6A,5B,5C,5D,5E,5F	Level	4432	9920 P32
P15G,15H,6A,6B,6C,6D,6E,6F	FX Send	4433	9918 P32
P7A,7B,7C,7D,7E,7F	Mon Send	4433	9917 P32
P3A-F,4A-F	HL, Mid	4434	9916 P32
P16G,16H, 8A-F	Bal, Pan	4434	9919 P32
P2A,2B,2C,2D,2E,2F	Lo	4435	9916 P32
P35,36,37,38	Master Treble, Bass	4435	9916 P32
P17,20	Master, FX2 Main	4437	9920 P34
P21,23	Rec Out	4437	9920 P34
P13G,13H,14G,14H	Stereo HI, Mid	4438	9916 P34
P12G,12H	Stereo Lo	4439	9916 P34
P11FX,12FX	FX Select, Modify	4581	8398 P23
P23	Tape/CD	4437	9915 P34
P18,19	Monitor, FX2 Mon	4433	9917 P34
R	P	K	P32
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

M1189 HISTORY			
MODEL(S):-	M810/M1610	#	DATE
		1	31 Dec 2003
		2	2 Feb 2004
		3	17 Feb 2004
		4	D
		5	D
		6	24 Feb 2004
		7	7-APR-2004
		8	D
		9	15-APR-2004
		10	D
		11	D
		12	6-MAY-2004
		13	Aug 4, 2004
		1	AUG-16-2004
		2	D
		3	NOV-23-2004
		4	JAN-05-2005
		5	21 Apr 2005
		6	4 Aug 2005
		7	D
		8	D
		9	14 JUN 2006
		10	.
		11	.
		12	.
		13	D
		14	D

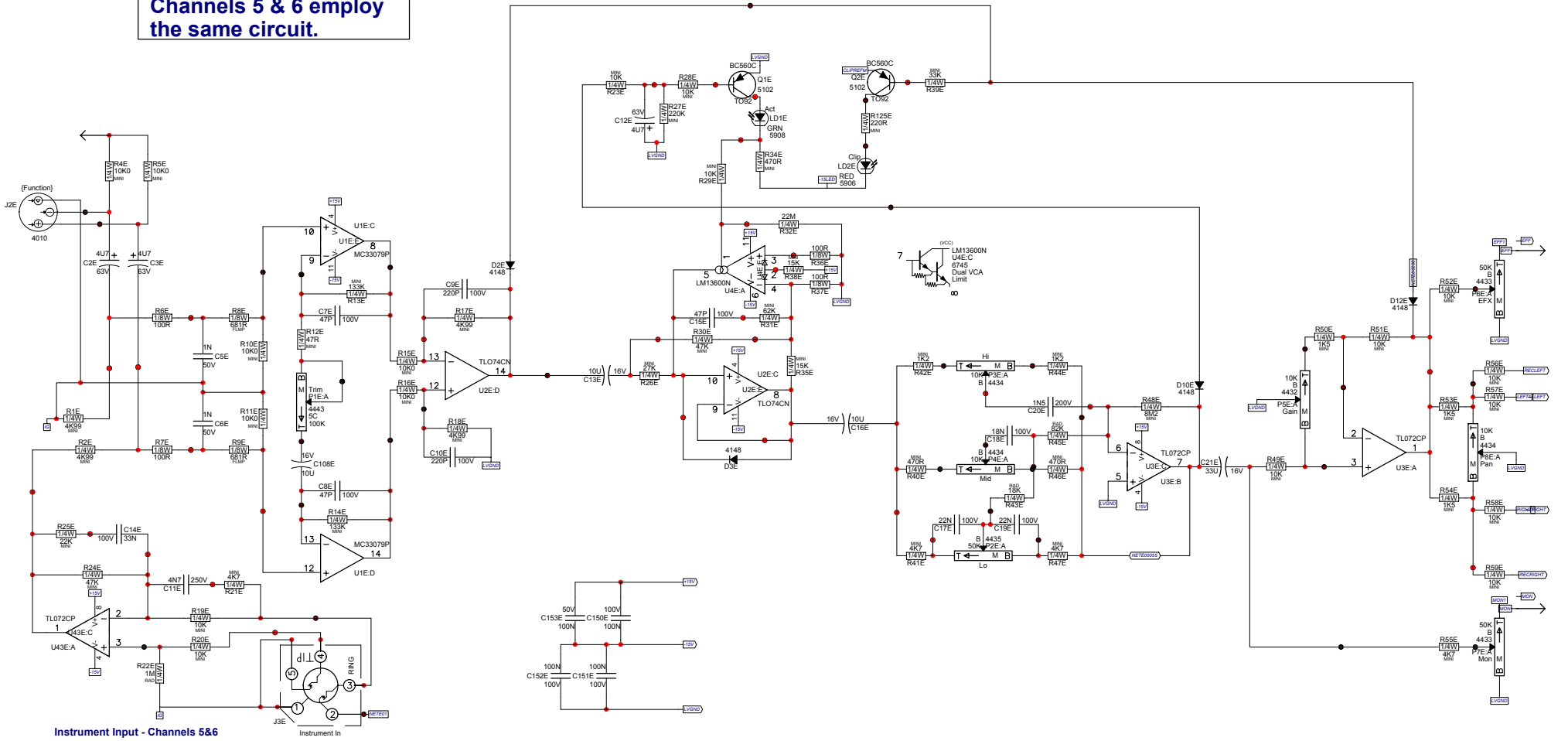
M1189 DRILL HISTORY			
MODEL(S):-	M810/M1610	#	DATE
		1	24-FEB-2004
		2	21-APR-2005
		3	4-AUG-2005
		4	D
		5	D
		6	D

M1189 PENDING CHANGES			
MODEL(S):-	M1610	#	PC#
		1	PC#6718
		2	PC#6771
		3	PC#6792
		4	PC#6816
		5	PC#7091
		6	PC#6989



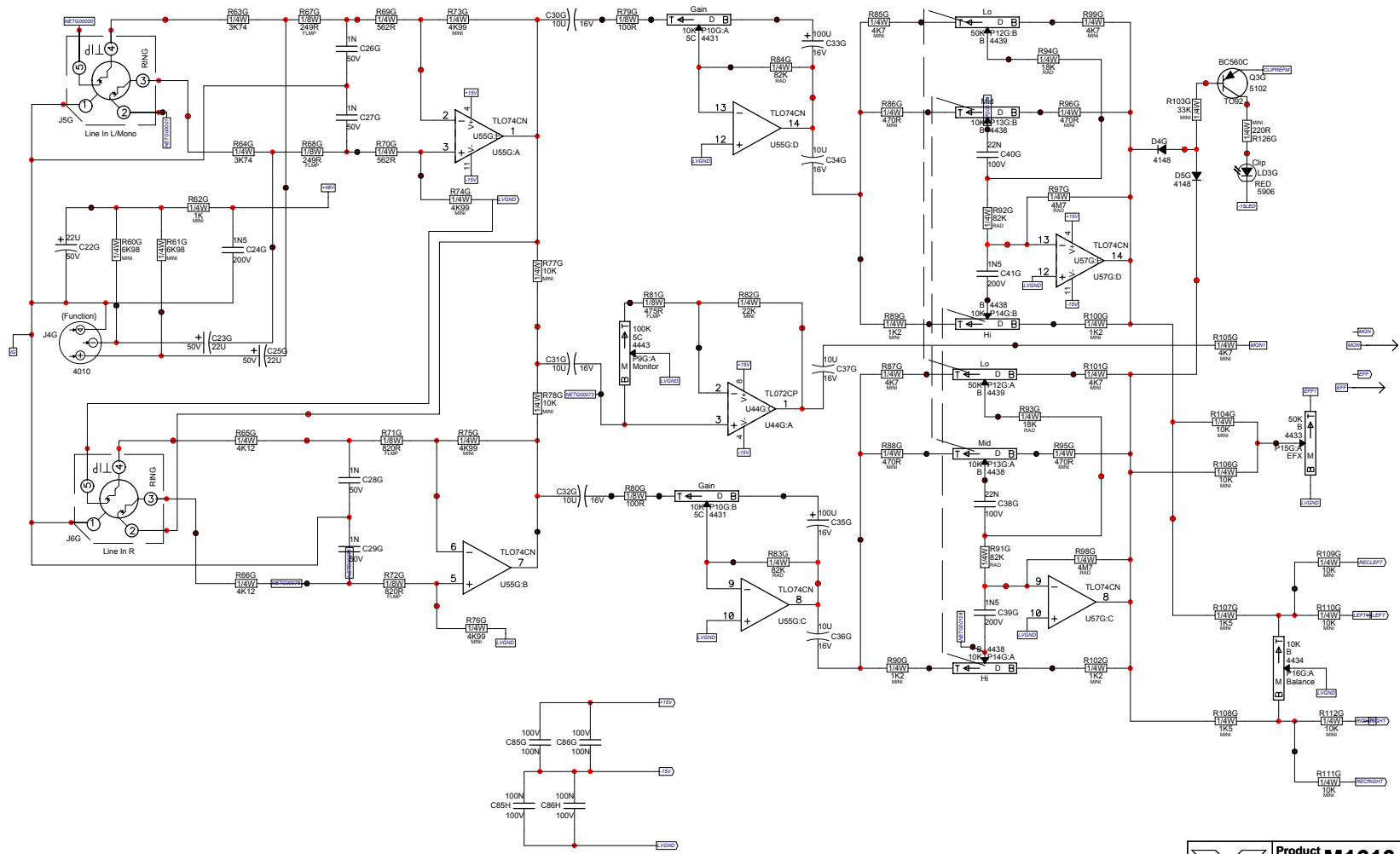
<b>Product M1610</b>		
Mono Ch1	PCB# M1189	Sheet 3 of 16
Date: Thu Jun 15, 2006	Rev:2V30	YsType:1032
Filename: M1189-2V30sch.sch2002		

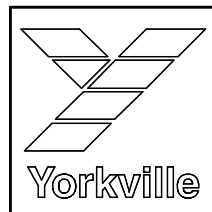
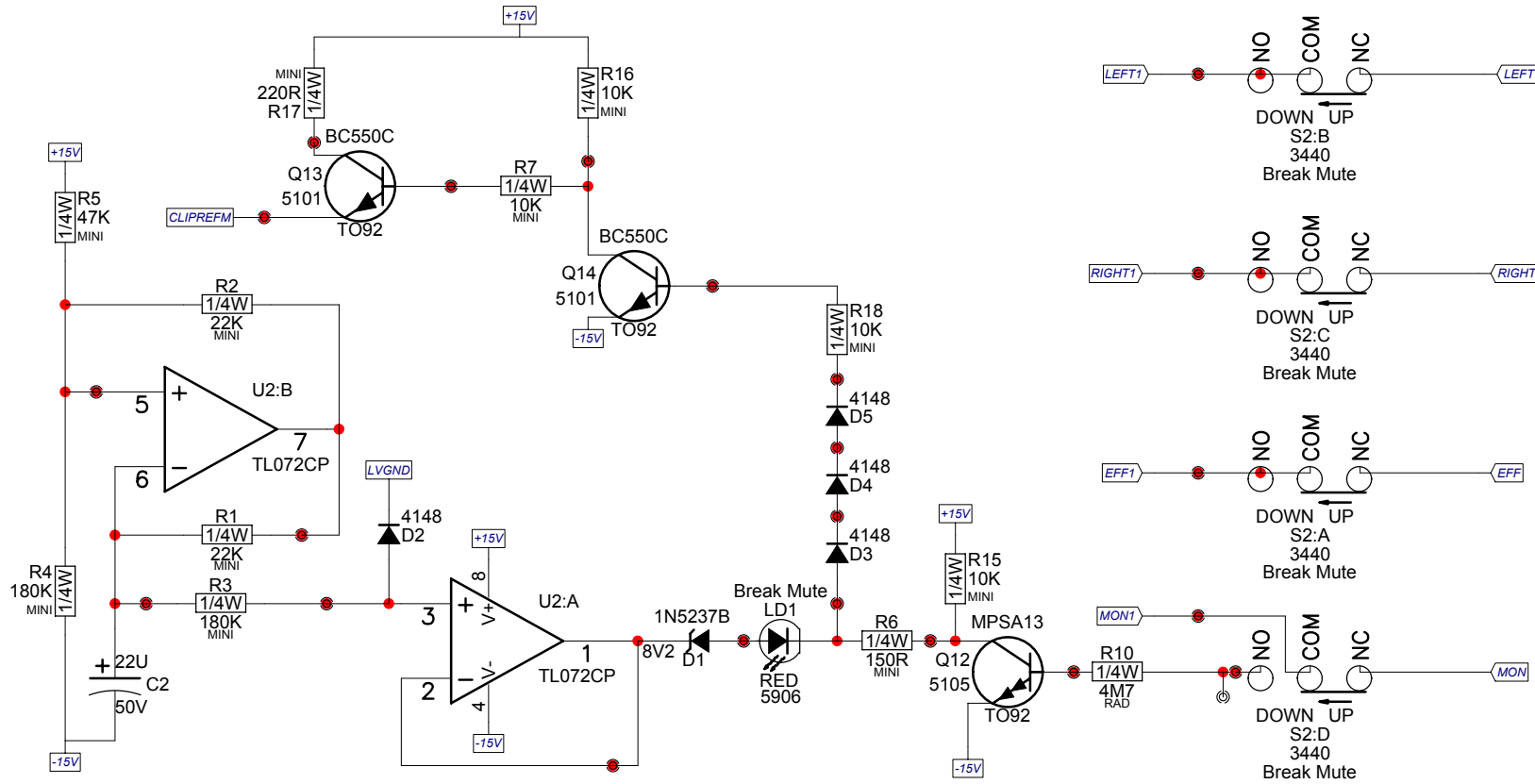
Only Channel 5 is shown.  
Channels 5 & 6 employ  
the same circuit.



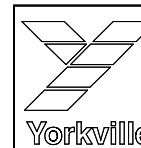
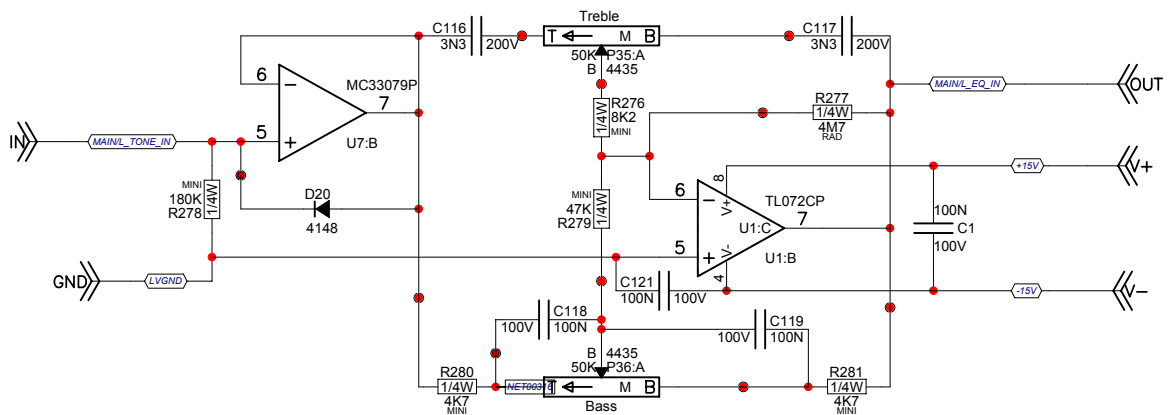
Instrument Input - Channels 5&6

Only channels 7&8 are shown.  
Channels 9&10 employ  
the same circuit.

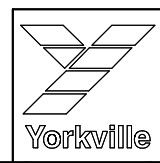
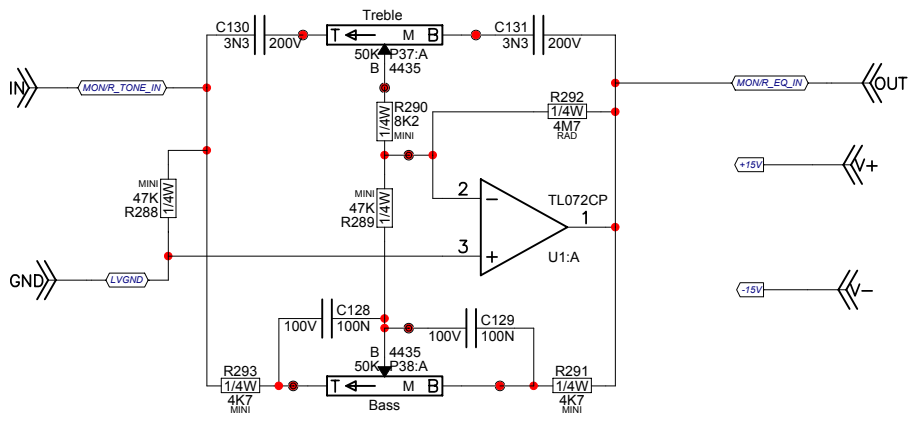




Product <b>M1610</b>		
BreakMute	PCB# M1189	Sheet 11 of 16
Date: Thu Jun 15, 2006	Rev: 2V30	YsType: 1032
Filename: M1189-2V30sch.sch2002		

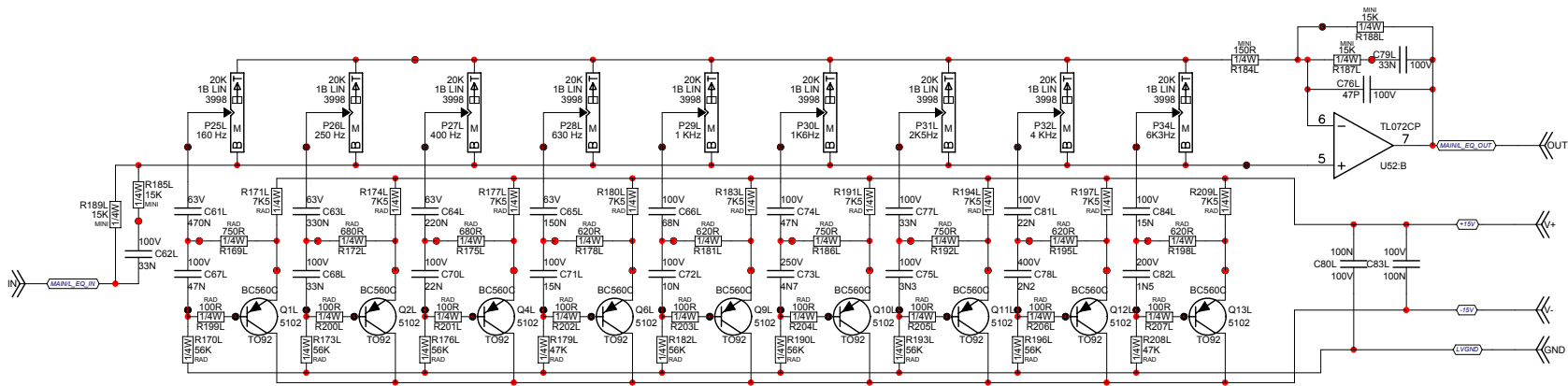


Product <b>M1610</b>		
TONE1	PCB# M1189	Sheet 13 of 16
Date: Thu Jun 15, 2006	Rev: 2V30	YsType: 1032
Filename: M1189-2V30sch.sch2002		

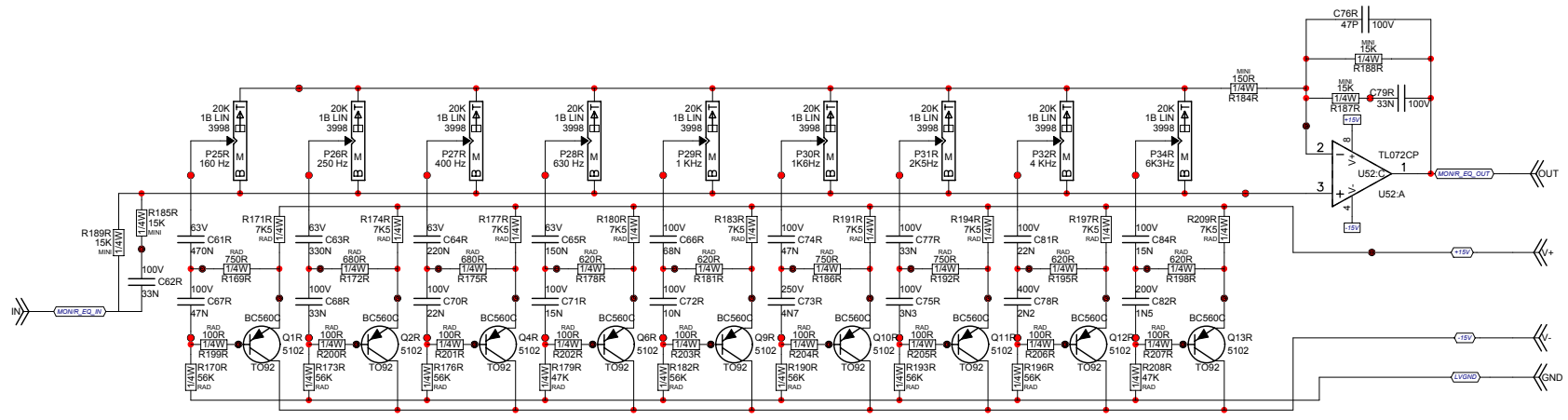


Product <b>M1610</b>		
TONE2	PCB# M1189	Sheet 14 of 16
Date: Thu Jun 15, 2006	Rev: 2V30	YsType: 1032
Filename: M1189-2V30sch.sch2002		





Product <b>M1610</b>		
EQ1	PCB# M1189	Sheet 15 of 16
Date: Thu Jun 15, 2006	Rev: 2V30	YsType: 1032
Filename: M1189-2V30sch.sch2002		



Product <b>M1610</b>		
EQ2	PCB# M1189	Sheet 16 of 16
Date: Thu Jun 15, 2006	Rev: 2V30	YsType: 1032
Filename: M1189-2V30sch.sch2002		

M1189
M1610
2V30

0EV5 8B11M

SP01 - 09V1T 2V  
YS Type -1032

Blank Size - 17900 x 10750  
05V0T x 006V1 - 0512 XnsB12



ETCH GUIDE

ETCH GUIDE

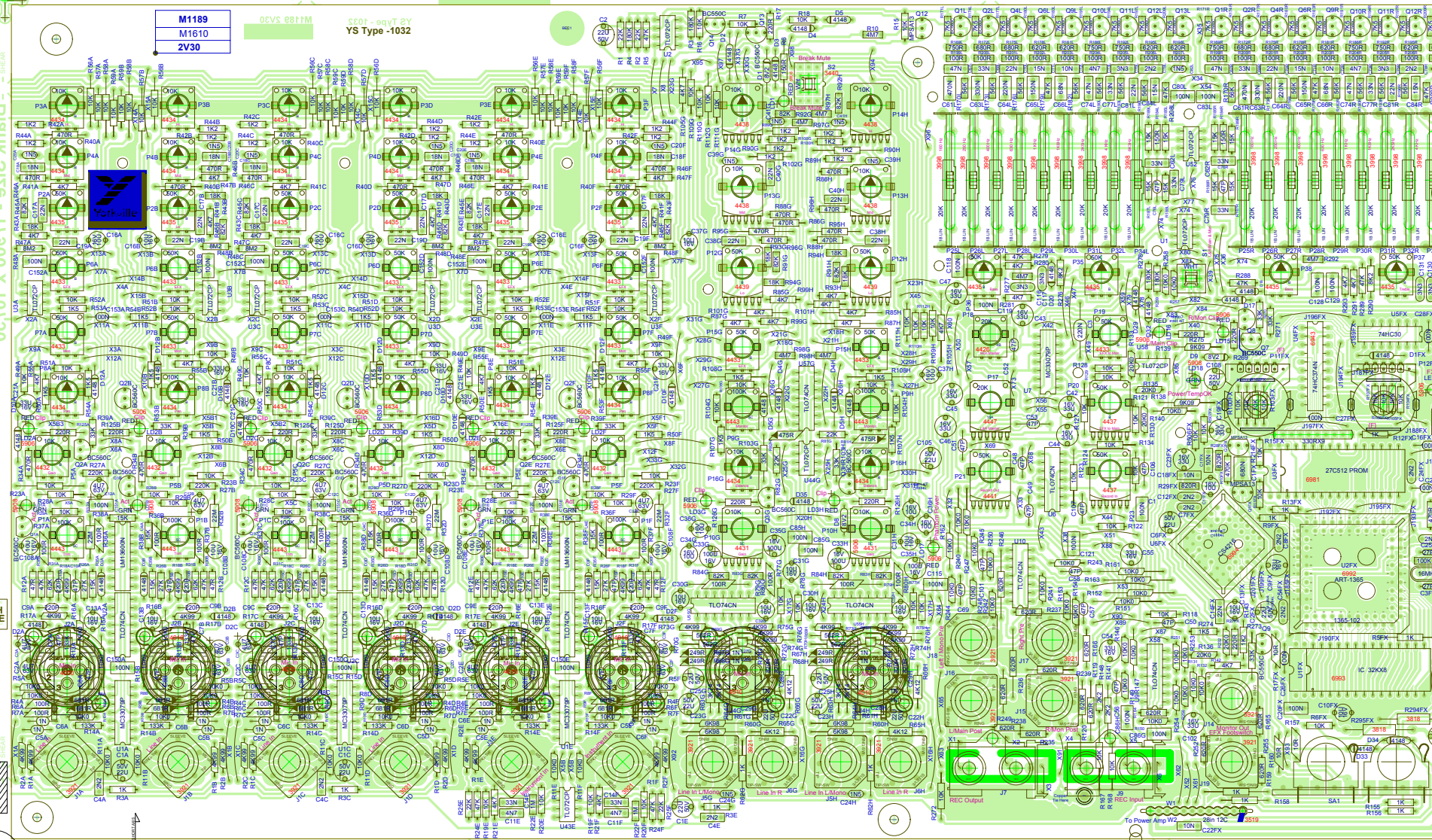
CLINCH ORIGIN

INSERT ORIGIN

ETCH GUIDE

ETCH GUIDE

SEE LAYOUT DOCUMENTATION



To Power Amp WZ  
86N 12C  
5519  
100N C22FX



SEE LAYOUT DIAGRAM



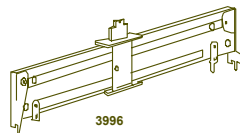
### PRODUCTION NOTES

1. Stuff 1 M1191 pcb here.
2. U3FX & U1FX - Mount 28 pin IC sockets to the RIGHT side of the 32 holes.

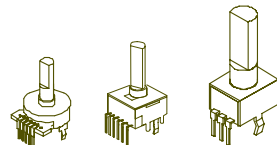
M1189 HISTORY				M1189 POTLIST					
MODEL(S):- M1610				MODEL(S):- M1610					
#	DATE	VER#	DESCRIPTION OF CHANGE	REF	FUNCTION	PART#	NOB	(NEW)	
1	31 Dec, 2003	v1.00p3	Moved D3 anode to cathode of LD1	P25-34 L&R	Graphic EQ	3998	N/A	N	
2	2 Feb, 2004	1.00	Change break mute flash rate	P1A,1B,1C,1D,1E,1F	Trim	4443	9915	N	
3	17 Feb, 2004	1.01	Move C7a-f, R13a-f to make room for AA series xlr.	P9G,9H	Mon Send	4443	9917	N	
4	.	.	Change hole sizes for AA series xlr.	P5A,5B,5C,5D,5E,5F	Level	4432	9920	N	
5	.	.	Changed U1FX SRAM to 32kX8	P15G,15H,6A,6B,6C,6D,6E,6F	FX Send	4433	9918	N	
6	24 Feb, 2004	1.02	Changed 3925 XLRs to 4010 AA series	P7A,7B,7C,7D,7E,7F	Mon Send	4433	9917	N	
7	7-APR-2004	2.00	PC#6675 Moved C150(A,C,E) to avoid hitting ICs	P3A-F,4A-F	Hi, Mid	4434	9916	N	
8	.	.	Removed routing from board - slots done on drill now	P16G,16H, 8A-F	Bal, Pan	4434	9919	N	
9	15-APR-2004	2.00	PC#6677 Chg X41 to C3(220n 50V), set gerber so TIE4 gets output properly	P2A,2B,2C,2D,2E,2F	Lo	4435	9916	N	
10	.	.	PC#6679 Chg. C21(A,B,C,D,E,F) from 470nF to 33uF	P35,36,37,38	Master Treble, Bass	4435	9916	N	
11	6-MAY-2004	2.00	PC#6686 MOVED C23FX AWAY FROM SPACER	P17,20	Master, Rec Out	4441	9920	N	
12	Aug 4, 2004	2.00	Fixed silk screen on U6FX and U2FX	P21	FX2 Main	4437	9920	N	
13	AUG-16-2004	2.10	PC#6718 CHANGE R140 TO 10K0 (6116), R138&R139 TO 9K09 (6112)	P13G,13H,14G,14H	Stereo Hi, Mid	4438	9916	N	
1	D	V	PC#6771:#3571->#3507 SKT FOR #6993 SRAM (GT)	P12G,12H	Stereo Lo	4439	9916	N	
2	NOV-23-2004	.	GT:PC#6792:P17 FROM 50KB #4441 TO 20KA #4447	P11FX,12FX	FX Select, Modify	4581	8398	N	
3	JAN-05-2005	.	Updated 3921 jacks for clinch.	P23	Tape/CD	4437	9915	N	
4	21 Apr, 2005	2.11	AH, PC#6816, ADD A HOLE FOR FEEDING GREEN GROUND WIRE.	P18	Monitor	4441	9917	N	
5	4 Aug 2005	2.20	AH, PC#7091, UPDTAE #5322 CHANGE DRILL SIZE TO #0	P19	FX2 Mon	4433	9917	N	
6	14 JUN 2006	2.30	PC#6989, STRENGTHEN RCA JACK SECTION BREAKAWAY #4581 UPDATED, PROPER DRILLING ORDER	R	F	P	K	N	
7	.	.		R	F	P	K	N	
8	.	.		R	F	P	K	N	
9	.	.		R	F	P	K	N	
10	D	V	N	R	F	P	K	N	
11	D	V	N	R	F	P	K	N	
12	D	V	N	R	F	P	K	N	
13	D	V	N	R	F	P	K	N	

M1189 DRILL HISTORY				M1189 PENDING CHANGES	
MODEL(S):- M810/M1610				MODEL(S):- M1610	
#	DATE	VER#	DESCRIPTION OF CHANGE	#	PC#
1	24-FEB-2004	V01	N	1	PC
2	21-APR-2005	V02	N	2	PC
3	4-AUG-2005	V03	N	3	PC
4	D	V	N	4	PC
5	D	V	N	5	PC
6	D	V	N	6	PC

\*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY



3996



"STYLE\_P23"

"STYLE\_P34"

"STYLE\_P32"

MPSA13, 56

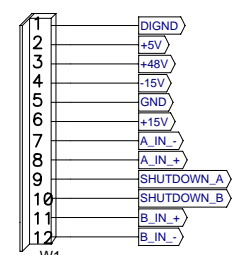
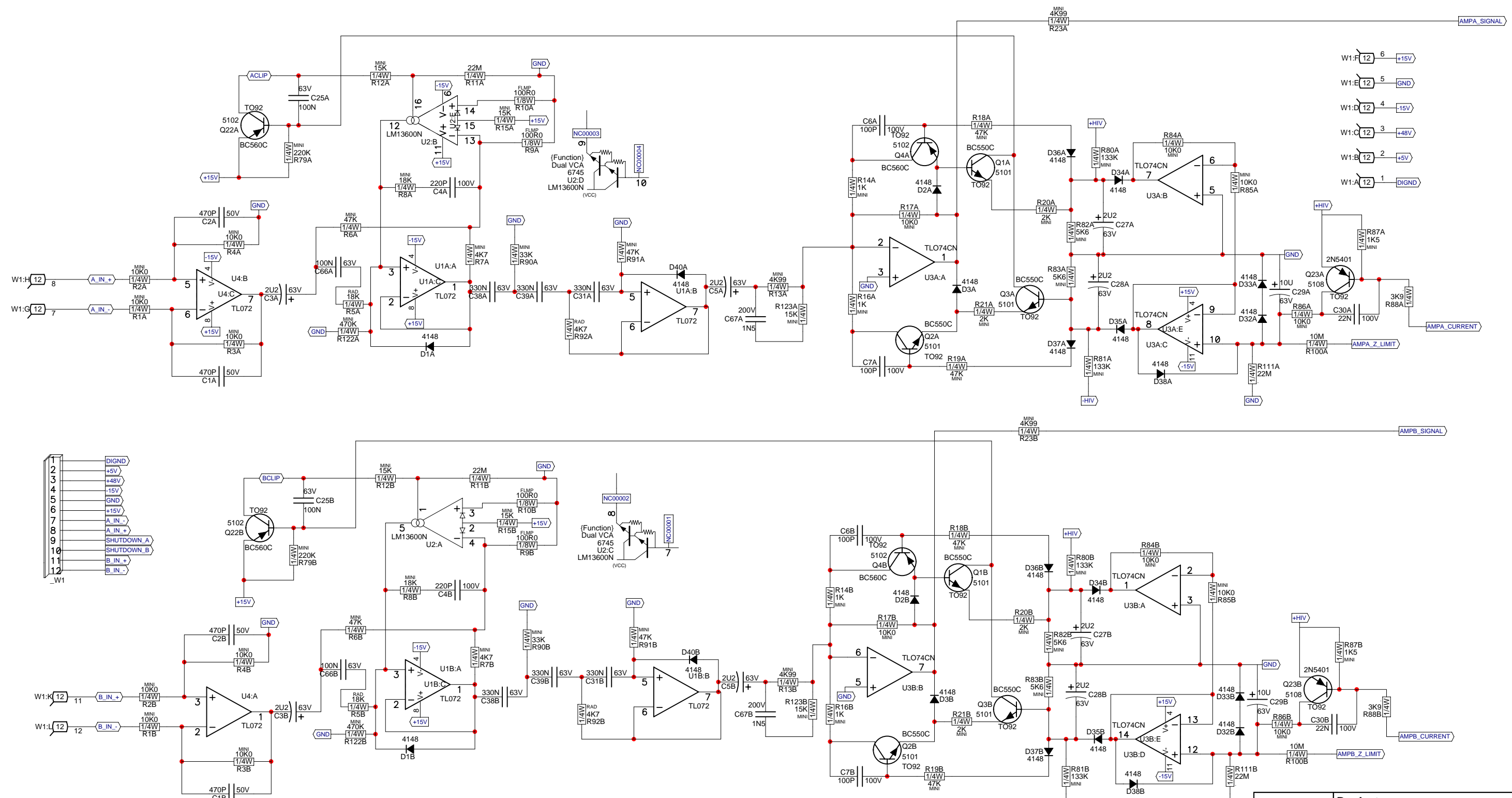
BC550, 560



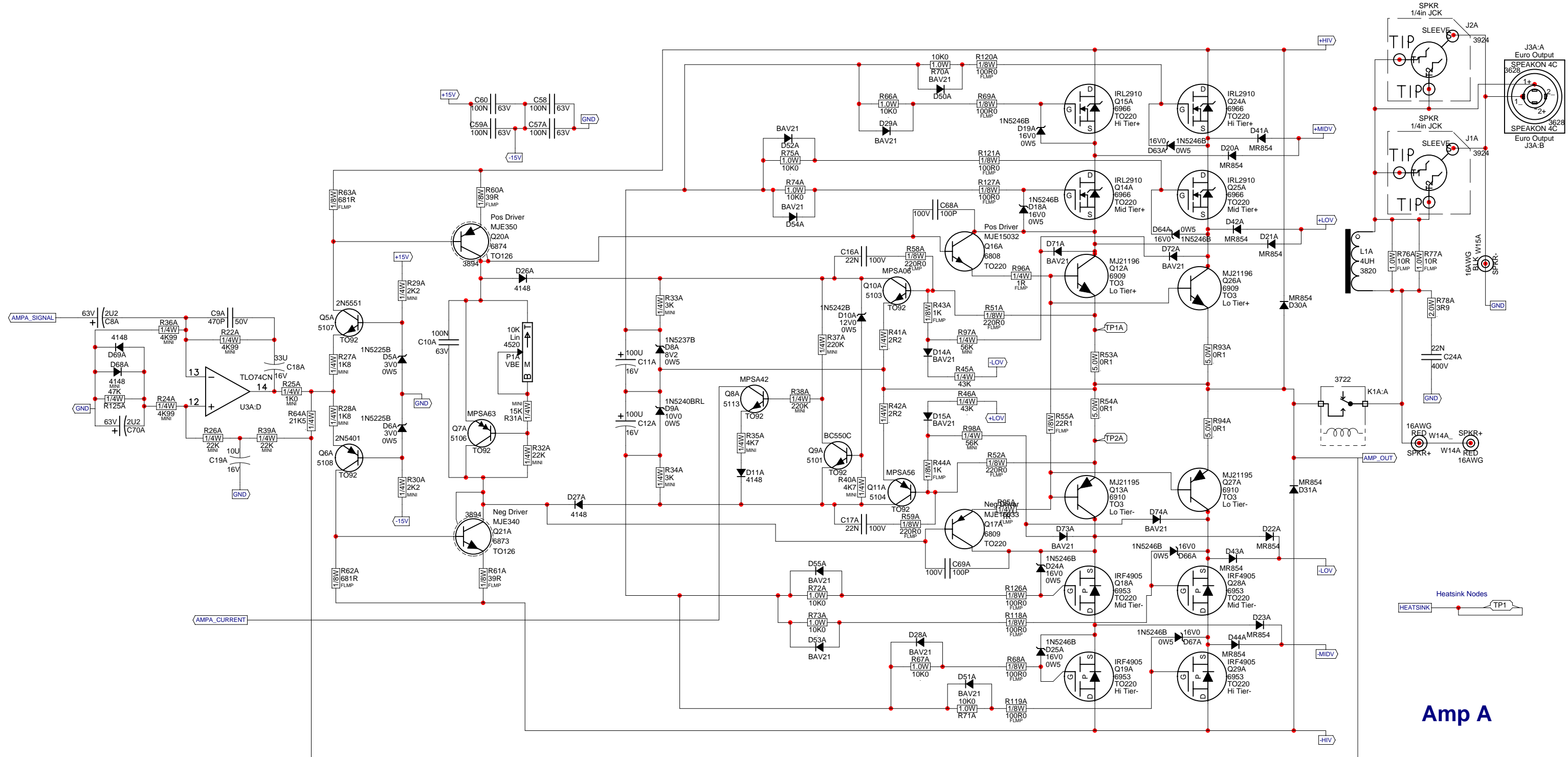
E B C



C B E

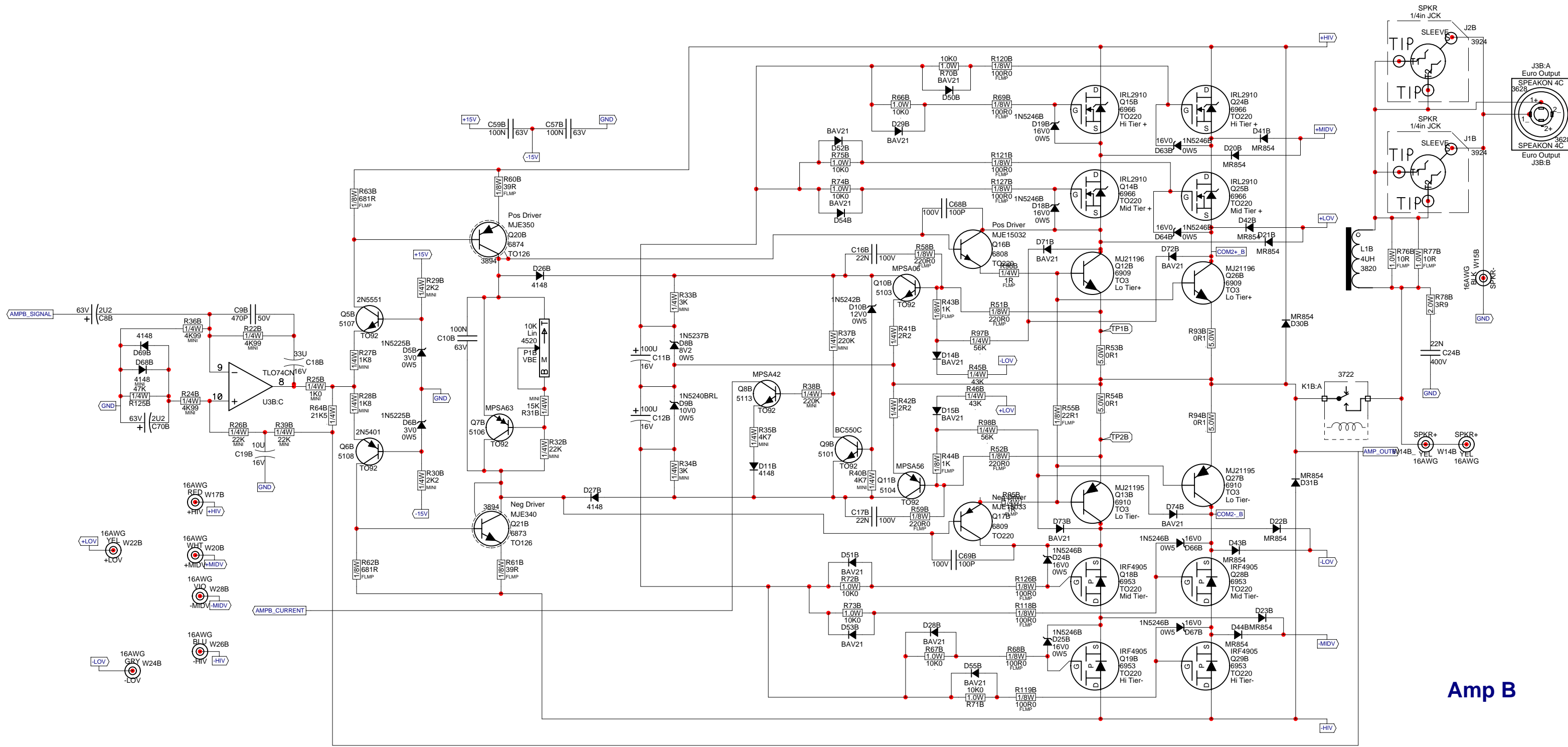


	<b>Product M1610</b>		
	Ampln	PCB# M1190	Sheet 1 of 4
	Date: Thu Feb 04, 2010	Rev:V11.0	YsType:..
	Filename: M1190V1100sch.sch2002		

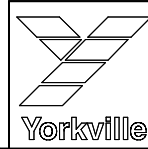


**Amp A**

	<b>Product M1610</b>		
	<b>Channel A</b>	<b>PCB# M1190</b>	<b>Sheet 2 of 4</b>
	<b>Date: Thu Feb 04, 2010</b>	<b>Rev:V11.0</b>	<b>YsType:..</b>
	<b>Filename: M1190V1100sch.sch2002</b>		

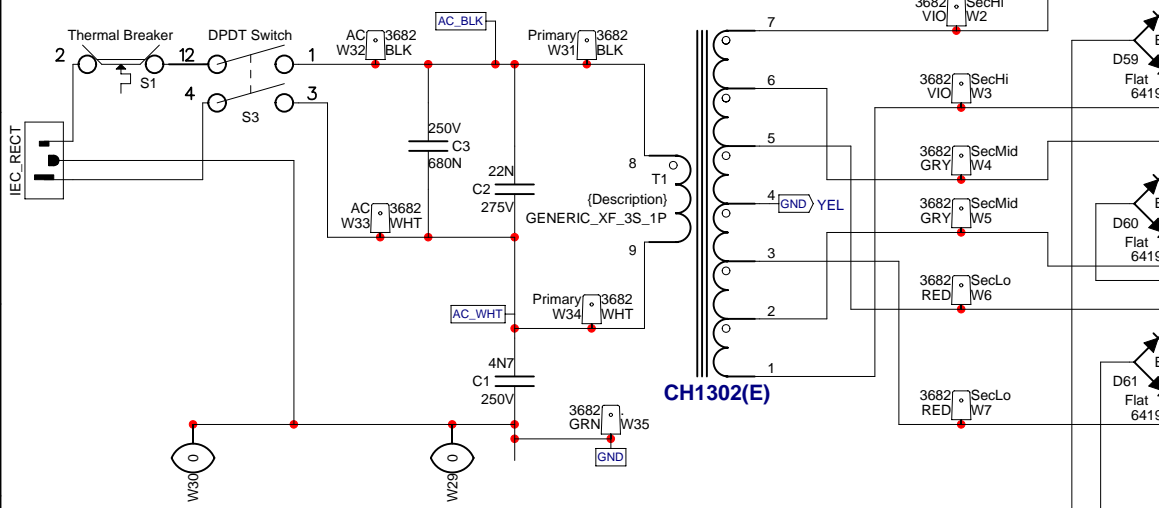
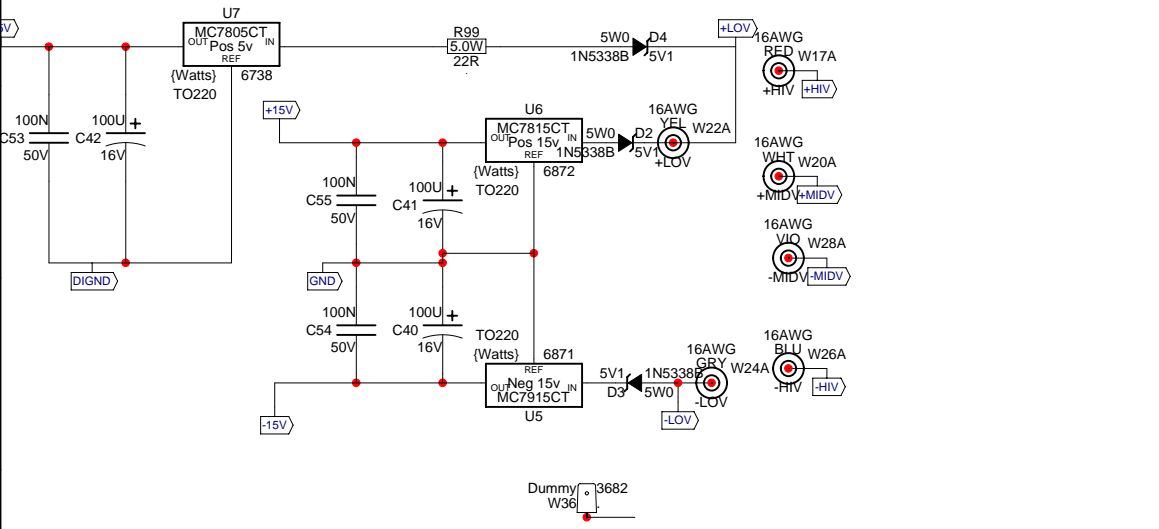
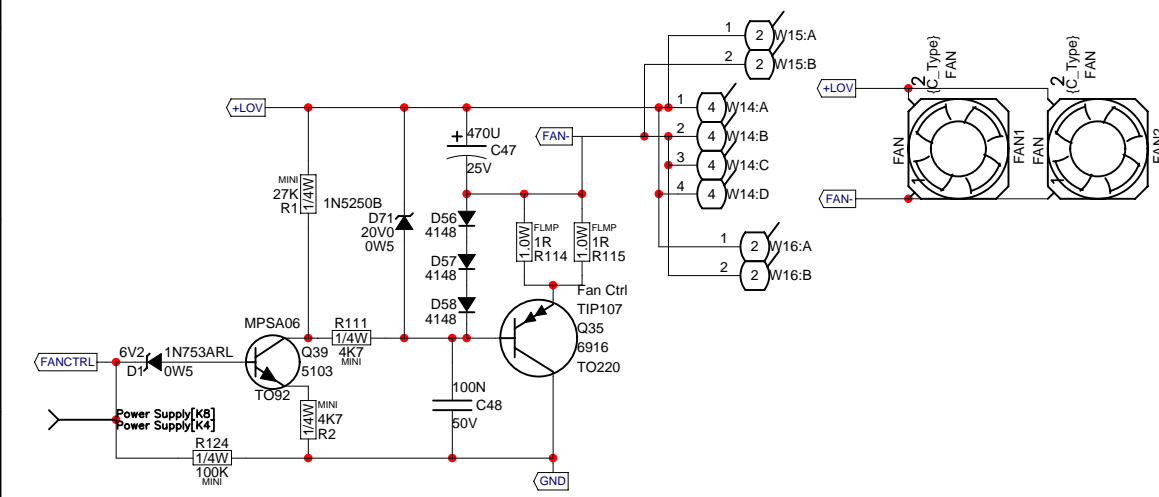


Amp B

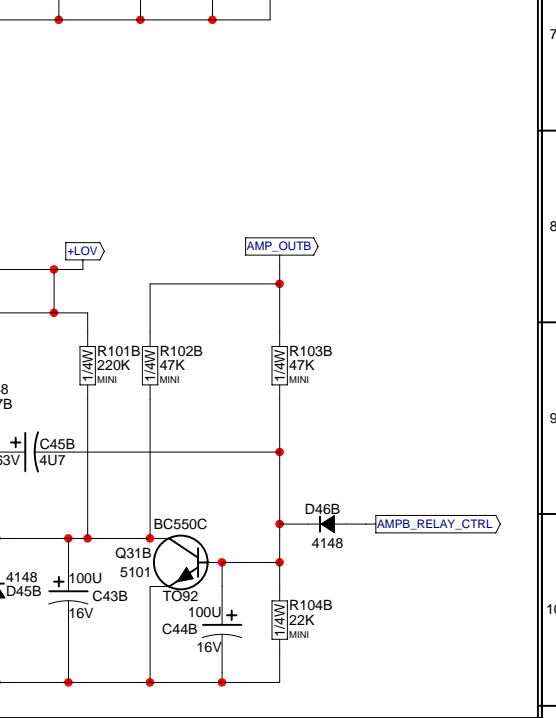
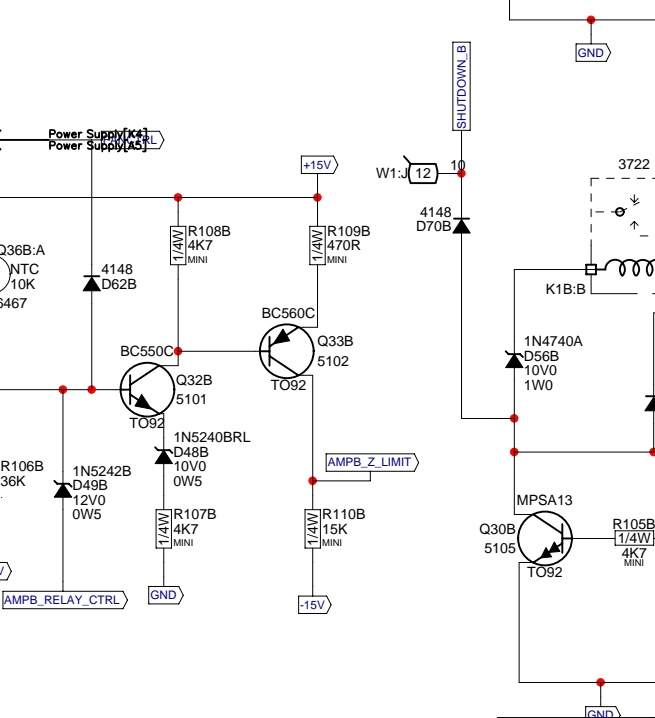
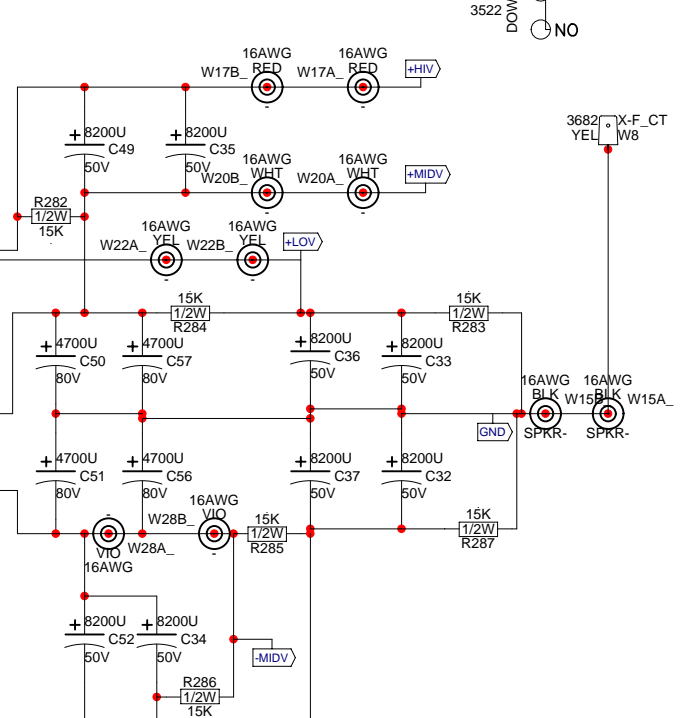
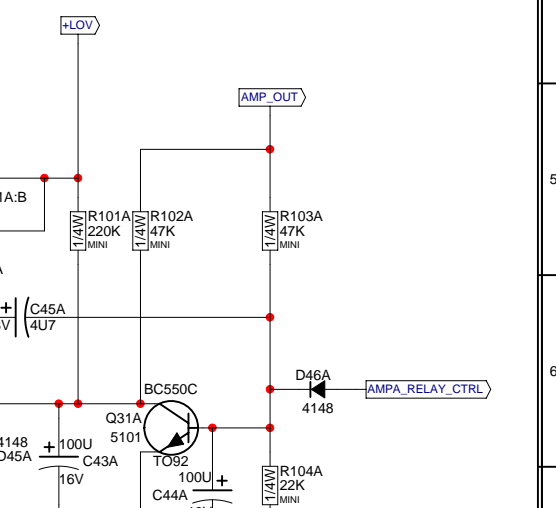
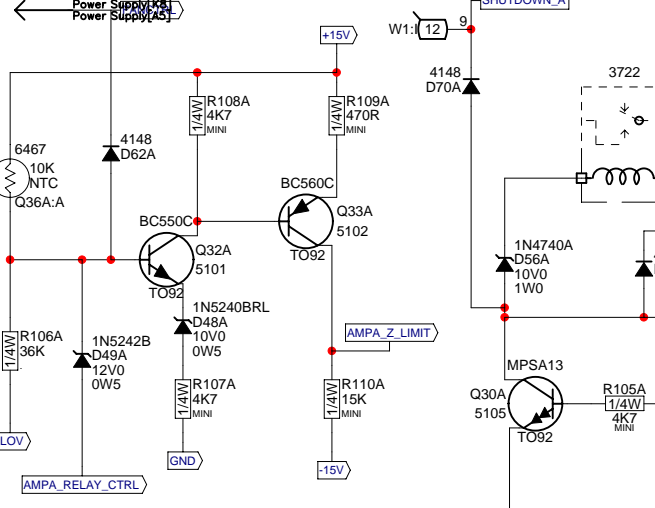
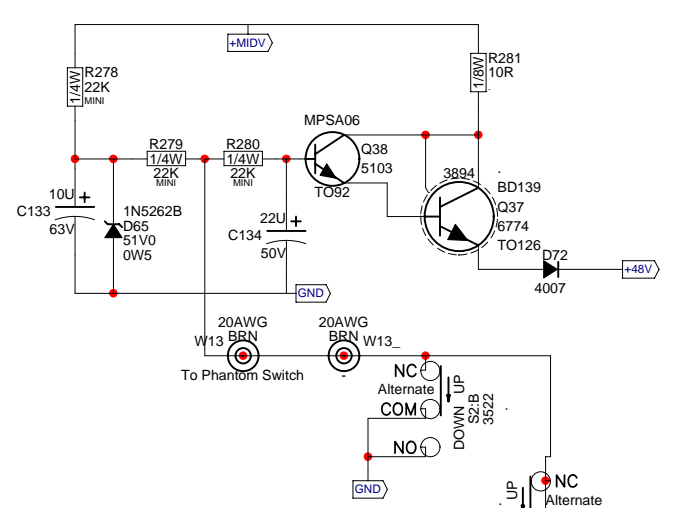

**Product M1610**  

Channel B	PCB# M1190	Sheet 3 of 4
Date: Thu Feb 04, 2010	Rev:V11.0	YsType:..
Filename: M1190V1100sch.sch2002		

M1190.PCB_DATABASE_HISTORY				#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S):- M1610				24			R79A&B #6127 470K->#6127 220K
				25			ADDED D4 #5124 5V1/5W, R97&R98 #2006 1R/1W->#5124
				26			Corrected the position of some test nodes.
				27			Fixed BlankSize field
				28	Jun-15-2006	7.00	AH, PC#7021, SPACE BETWEEN R96 AND R53
				29			PC#6983, WIDEN TRACE BETWEEN C32 AND C37
				30			PC#7091, ENLARGE HOLE SIZE FOR #3522
				31	2008/04/07	v8.00	Swap c37 with c51; c51 with c36. Moved x11b & x31b to middle of HS slots. Solder updates, part updates.
				32			Changed Q8a&b from 5107 to 5113 - MPSA42
				33	2008/04/25	v8.00	PC#7590 - PS hum fix. Moved K1B away from X15B.
				34	2008/05/29	9.00	PCs 7875, 7876 - Ribbon cable change - XTR screws flipped
				35	2009/11/09	10.00	PC7942, PC7980: Update #4xTO220-MTG
				36	03-FEB-2010		PC7983: Change D2,D3,D4 #5124 span to .525
				37	04-FEB-2010	11.00	
				38		V	
				39		V	
				40		V	
				41		V	
				42		V	
				43		V	
				44		V	
				45		V	
				46		V	
				47		V	
				48		V	
				49		V	
				50		V	



(E) DENOTES EUROPEAN



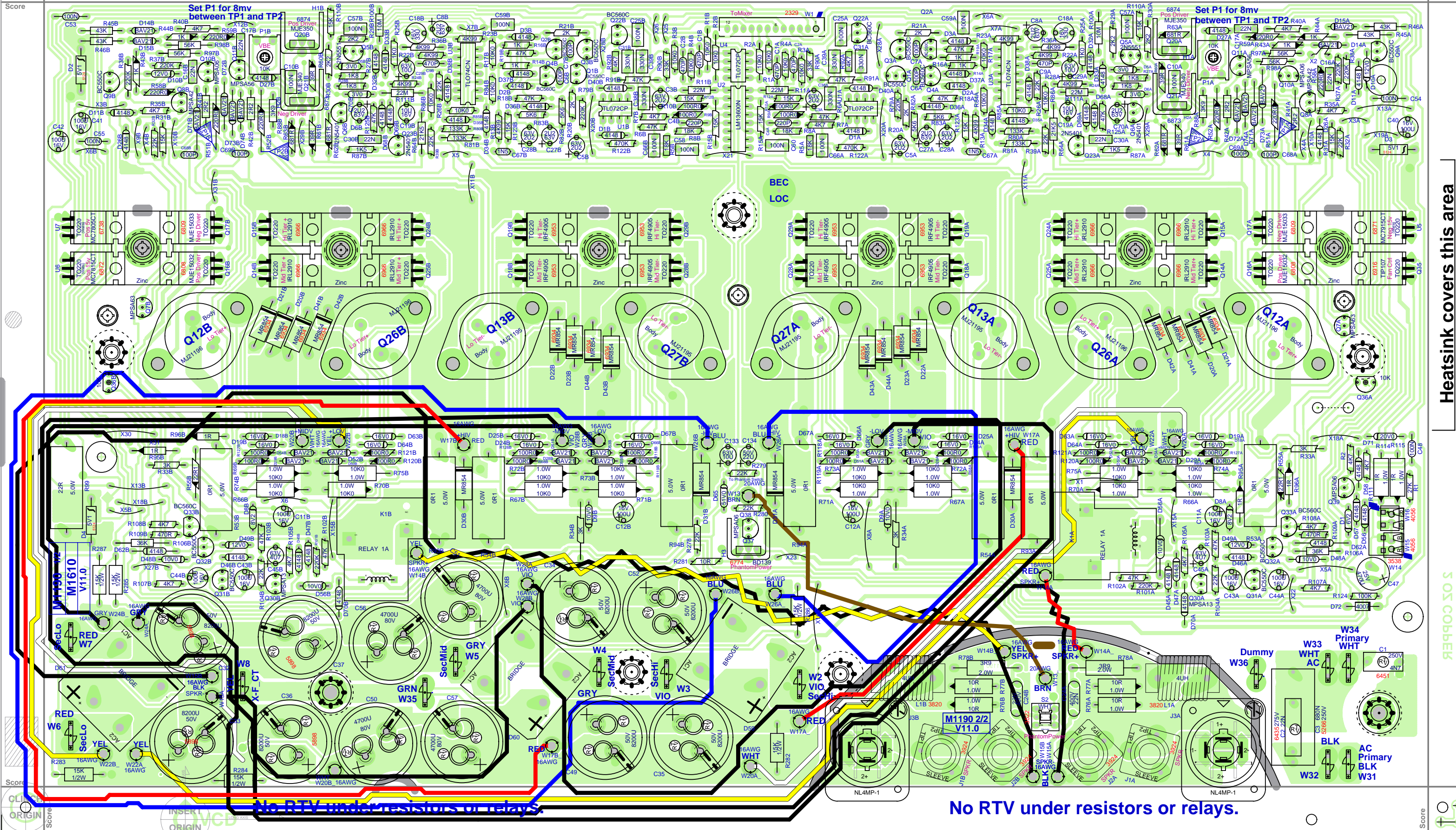
Product **M1610**

Power Supply PCB# M1190 Sheet 4 of 4

Date: Thu Feb 04, 2010 Rev:V11.0 YsType:..

Filename: M1190V1100sch.sch2002





Heatsink covers this area

S05 COPPER

No RTV under resistors or relays.

No RTV under resistors or relays.

SEE LAYOUT DOCUMENTATION

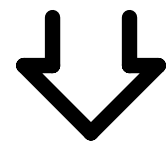
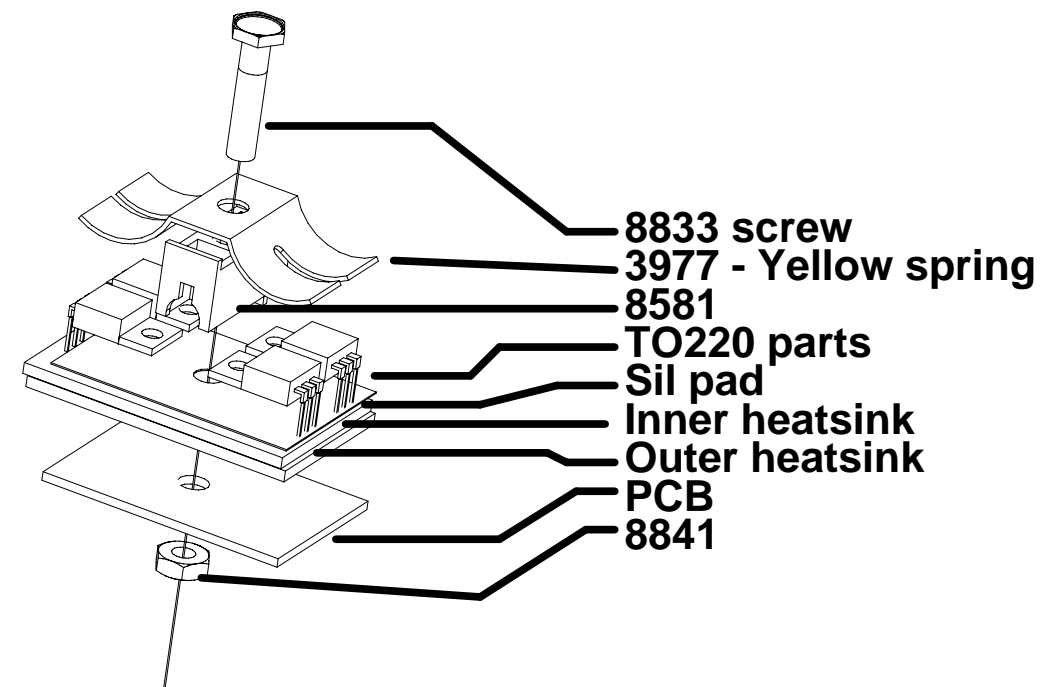
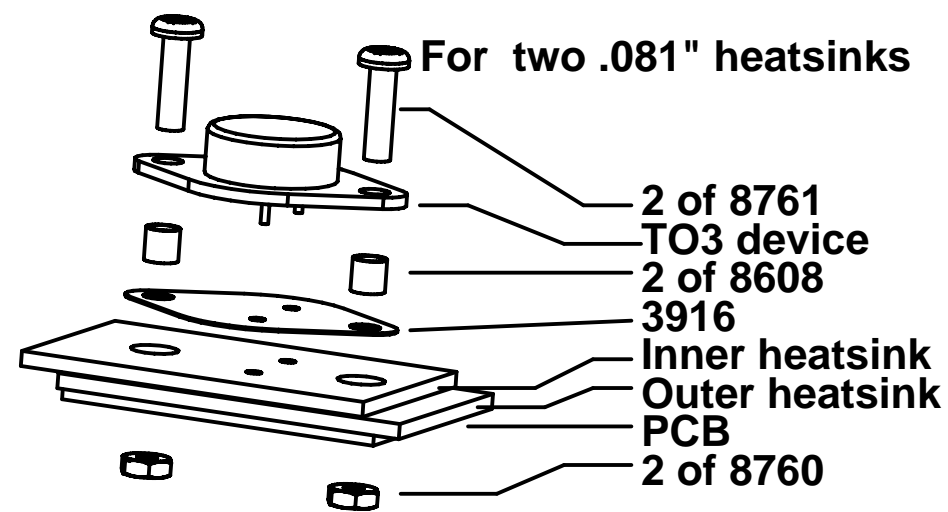


SEE LAYOUT DIAGRAM

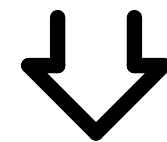


# M1190 PRODUCTION NOTES

1. Use three 8832 screws to align and attach the heatsinks to the board
2. When assembling heatsinks to Q20(A&B), Q21(A&B), Q37, ensure heatsinks are straight and sit flat against board. Add a very small amount of RTV between heatsink and board if necessary. This prevent heatsink from shorting other components.



SEE LAYOUT HISTORY



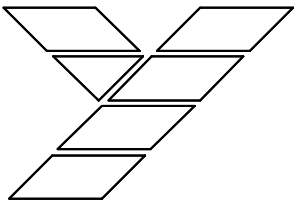
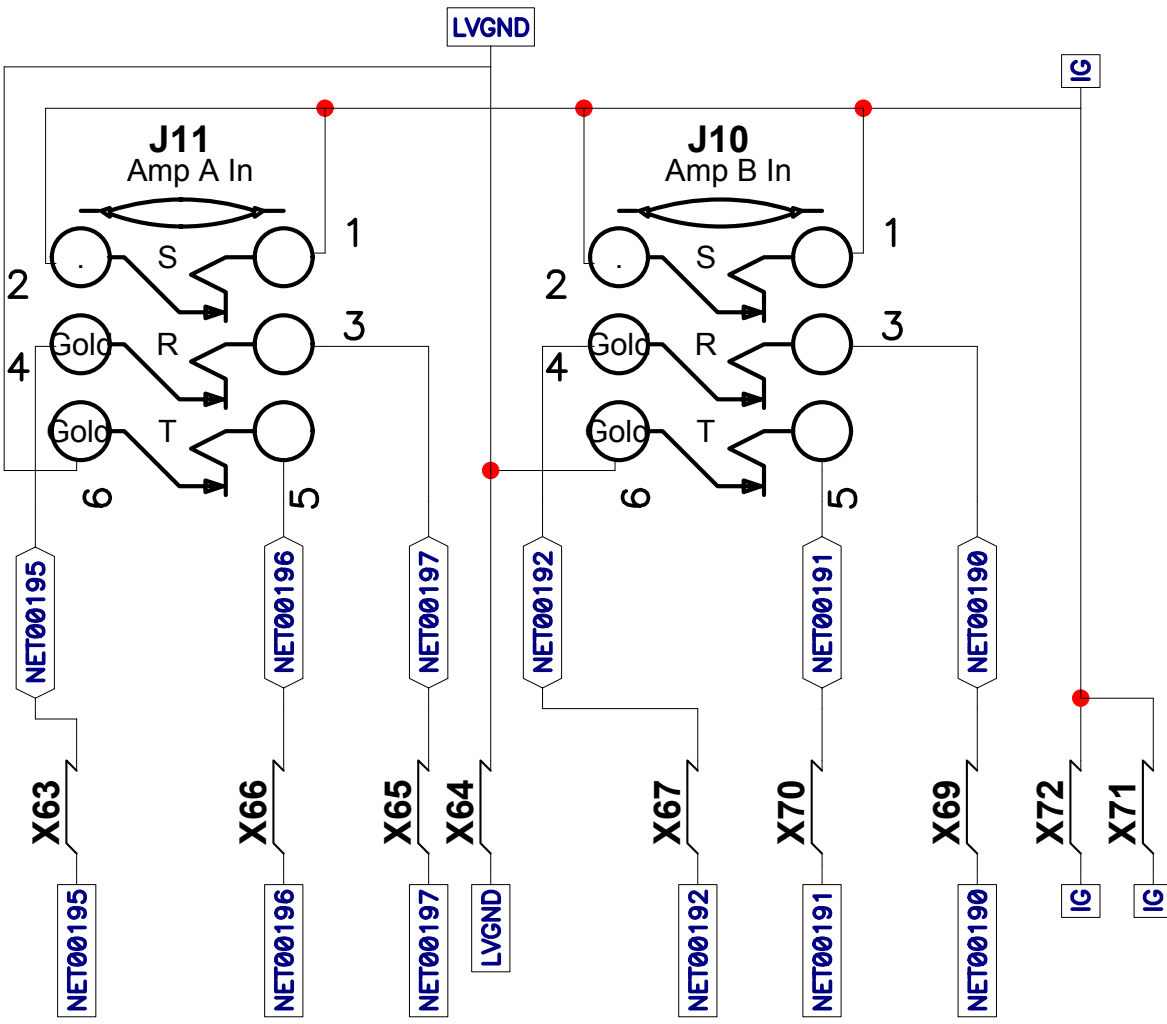


# SEE PPRODUCTION NOTES



M1190.PCB_DATABASE_HISTORY				#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S):- M1610				24	.	.	R79A&B #6127 470K->#6127 220K
				25	.	.	ADDED D4 #5124 5V1/5W, R97&R98 #2006 1R/1W->#5124
				26	.	.	Corrected the position of some test nodes.
				27	.	.	Fixed BlankSize field
#	DATE	VER#	DESCRIPTION OF CHANGE	28	Jun-15-2006	7.00	AH, PC#7021, SPACE BETWEEN R96 AND R53
1	7 Jan, 2004	1.00	Rationalize wire refdes	29	.	.	PC#6983, WIDEN TRACE BETWEEN C32 AND C37
2	24 Feb, 2004	1.00	Add speakon jacks to output section	30	.	.	PC#7091, ENLARGE HOLE SIZE FOR #3522
3	10 Mar, 2004	1.00	Enlarge cutouts for 8841 nuts	31	2008/04/25	8.00	Swap c37 with c51; c57 with c36. Moved x11b & x31b to
4	21-APR-2004	1.00	PC#6681 Modify route to let grn wire pass board near pwr cap	32	.	.	middle of HS slots. Solder updates, part updates.
5	6-MAY-2004	2.00	PC#6684 R83(A,B)->5K6,R5(A,B)6K8->18K, D16&D17(A,B) 4148->BAT85,R47&R48(A,B)22R1->100R0	33	.	.	Changed Q8a&b from 5107 to 5113 - MPSA42
6			ADDED D71, D72	34	2008/05/29	9.00	PC#7590 - PS hum fix. Moved K1B away from X15B.
7				35	2009/11/09	10.00	PCs 7875, 7876 - Ribbon cable change - XTR screws flipp
8	DEC-14-2004	3.00	GT:PC#6787: Fixed AC clearance, and W2&W3 tab label	36	03-FEB-2010	.	PC7942,PC7980: Update #4xTO220-MTG GG
9	FEB-07-2005	4.00	PC#6809 Remove D17,D16,D12,D13, R47,R48,R49,R50,C14	37	04-FEB-2010	11.00	PC7983: Change D2,D3,D4 #5124 span to .525 GG
10	D	V	C15 (All A/B) R45,R46 A/B 36K->43K, D10 16V->12V	38	D	V	N
11	D	V	D9 A/B 14V->10V0, D8 A/B 12V->8V2. ADD R95 A/B	39	D	V	N
12	D	V	ADD R96 A/B, R97 A/B, R98 A/B, D71 A/B, D72 A/B	40	D	V	N
13	D	V	D73 A/B, D74 A/B, X1 ,X2 ,X3 ,X4 X5 AND X6	41	D	V	N
14	MAR-30-2005	5.00	RECREATED MASK LAYER TO FIX TESTPADS	42	D	V	N
15	MAR-13-2005	5.10	CHANGE IRF3205 #6954 TO IRL2910 #6966	43	D	V	N
16	.	.	PLACE MICA UNDER MIDDLE TIER MOSFETS	44	D	V	N
17	21 Apr, 2005	5.11	Force update parts to fix pad orientation	45	D	V	N
18	JUN-08-2005	6.00	PC#6919:GT:MOVED R95B AVOID HEATSINK COLLISION	46	D	V	N
19	.	.	XFORMER -> CH1302/E, ADDED 2x#4599,SWAPPED W8 &	47	D	V	N
20	.	.	W35,R106A&B #6122 33K->#4868 36K, D56A&B #6440	48	D	V	N
21	.	.	4V7/0.5W->#6484 10V/1W, C32&C33 #5903 12000UF/35V ->	49	D	V	N
22	.	.	#5898 8200UF/50V, C36&C37 #5896 4700UF/80V->#5898	50	D	V	N
23	.	.	C25A&B #5224 47N/100V->#5212 100N/63V				

M1190 Drill History				M1190 PENDING CHANGES		
MODEL(S):- M1610				MODEL(S):- M1610		
#	DATE	VER#	DESCRIPTION OF CHANGE	#	PC#	PENDING CHANGE
1	5-MAY-2004	V03	Added notch to pass GRN wire from front	1	PC	X
2	6-MAY-2004	V04	To match V2.00 changes	2	PC	X
3	NOV-05-2004	V05	HG:PC#6730:REMOVED EXTRA ROUTING BITS	3	PC	X
4	AUG-26-2005	V07	GT:CHANGES FOR 6V00 RELEASE. SEE HISTORY BOX	4	PC	X
5	2008/04/25	V08	Solder updates.	5	PC	X
6	2008/05/29	V09	PC#7590	6	PC	X



Yorkville

Product **M1610**

Amp in Jacks	PCB# M1191	Sheet 1 of 2
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Date: Tue Feb 10, 2004	Rev: V1.00
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Filename: m1191 sch .sch2002

StepAndRepeat - X9@1750:Y4@2000  
BlankSize = 16.750 x 9.000

SHEAR OFF THIS SIDE SECOND

ETCH GUIDE

BlankSize = 16.750 x 9.000

SHEAR

SHEAR

SHEAR

SHEAR

FEED THIS SIDE INTO SHEARER FIRST

SHEAR OFF THIS SIDE FIRST

CLINCH ORIGIN

ETCH GUIDE

INSERT ORIGIN

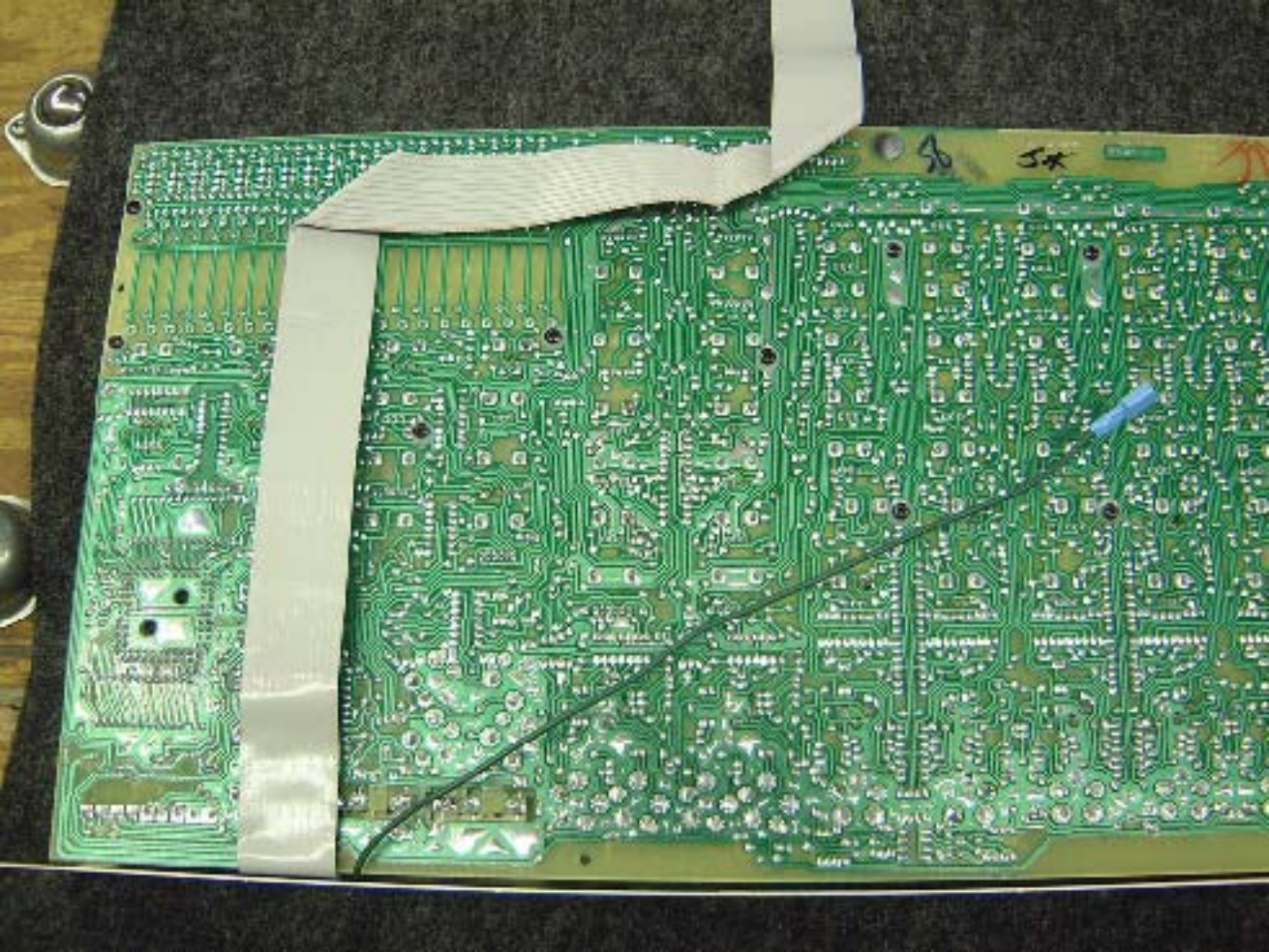
LONG AXIS

Top Assy M1191v1.00

## PRODUCTION NOTES

1. Shear off sides containing VCD origin and VCD finger tabs (top and bottom sides) before shearing the board into rows.
2. Feed board into shearer in the direction shown.
3. DO NOT remove the strip of board attached to each set of jumpers. It will keep the jumpers straight until they arrive in wiring.







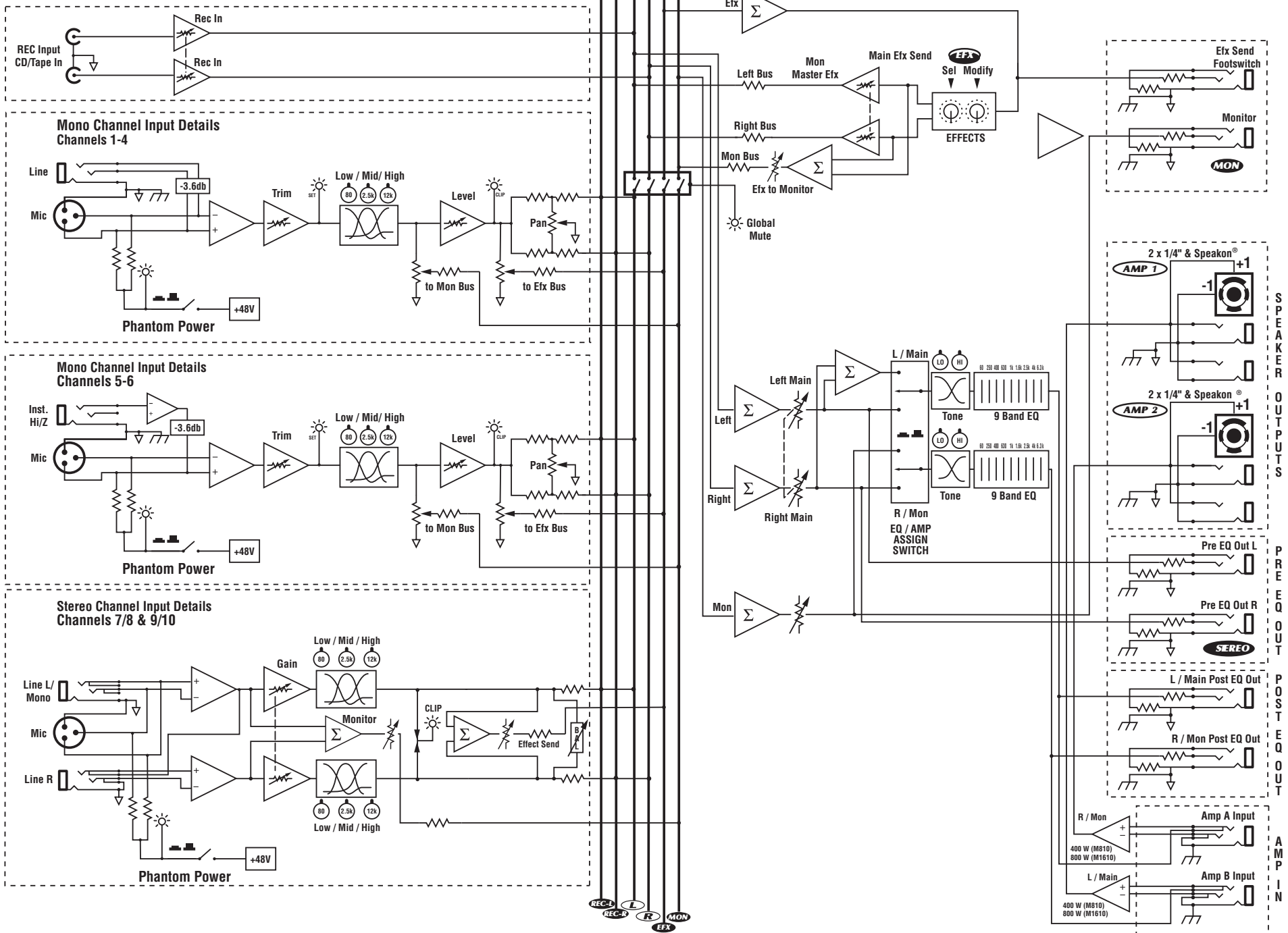


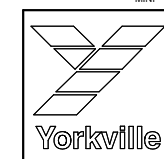
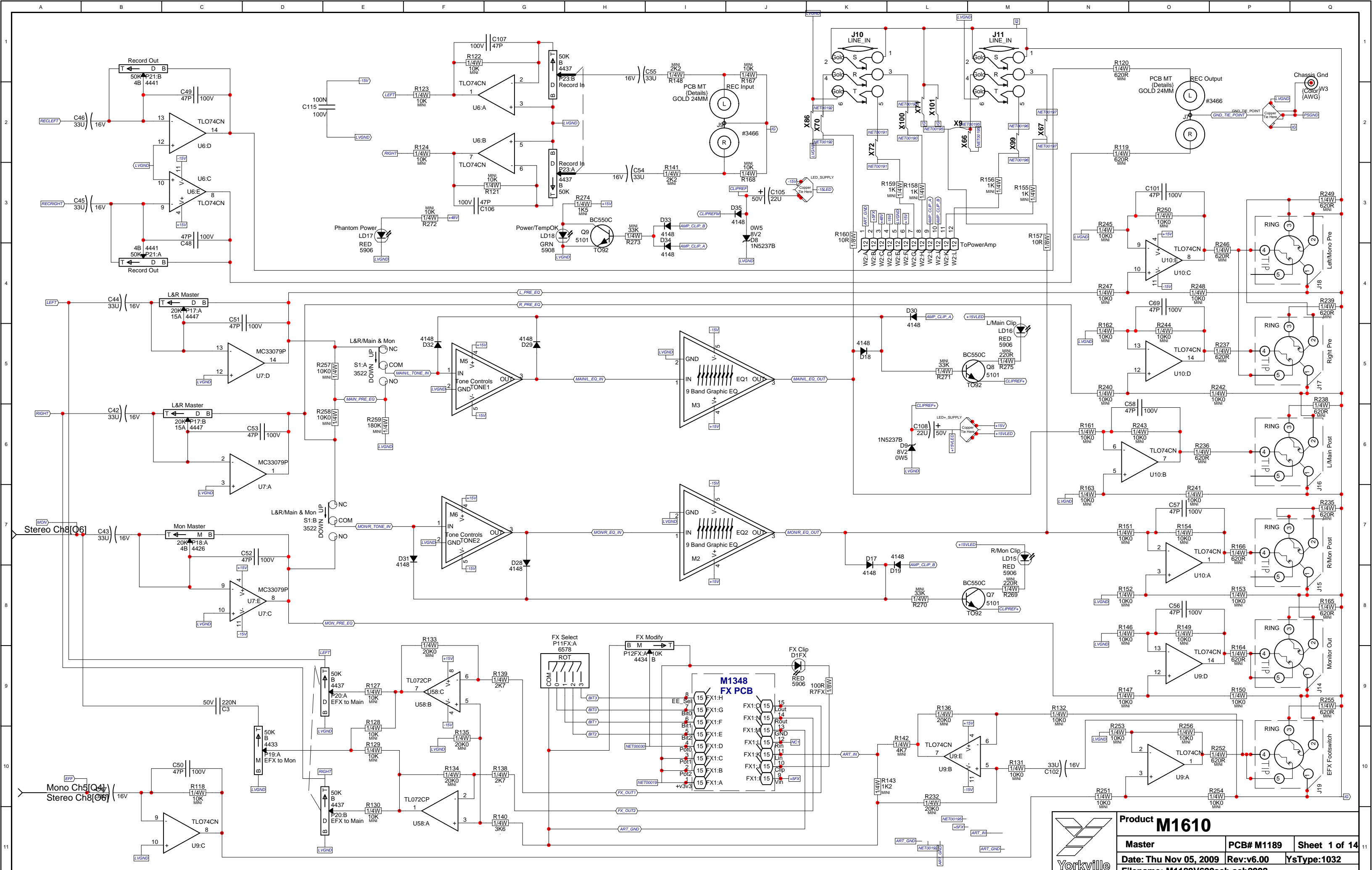
M1610-2 Parts List 3/19/2010

YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.
5906	RED 3MM LED 1V9 20MA 4SPCER T&R	13	5879	100U 16V 20%CAP T&R 8X7MM 2EL	15	4980	1/4W 470R 5%MINI T&R RES	28	8893	10-32 X 1 FLAT PHILIPS TT JS500 BLK	10
5908	GRN 3MM LED 1V9 20MA 4SPCER T&R	7	5896	4700U 80V 20%CAP BLK 25X50MM ELS	4	2028	1/8W 475R 1%FLAME PROOF T&R RES	2	8733	5/16-18X2-1/2 GRD 5 HEX BOLT JS500	1
6419	BRIDGE 35A 400V WIRE LEAD G13504	3	5898	8200U 50V 20%CAP 25X50MM ELS	8	4799	1/4W 562R 1% T&R RES	4	7613	100N 25V 10%CAP 0805 SMT X7R	5
6425	BAV21 200V 0A25 DIODE T&R	28	6578	ROT BIN 18MM 4BIT ENCODER P33	1	4922	1/4W 820R 5% 2U T&R RES	8	7621	0.1W 1K0 1% 0805 SMT RES	4
6438	1N4007 1000V 1A0 DIODE T&R	1	4431	10K 50K R/A 12MM STEREO P34	2	5019	1/4W 820R 5%MINI T&R RES	14	7624	0.1W 100K 1% 0805 SMT RES	1
6825	1N4148 75V 0A45 DIODE T&R	89	4432	10K B LIN 9MM P32	6	4923	1/4W 680R 5% 2U T&R RES	4	7625	0.1W 10K0 1% 0805 SMT RES	5
6934	MR854 400V 3A0 DIODE FASREC	20	4434	10K B LIN 9MM DETENT P32	21	2030	1/8W 681R 1%FLAME PROOF T&R RES	16	7634	0.1W 20K5 1% 0805 SMT RES	2
5124	1N5338B 5V1 5V0 ZENER 5% T&R	3	4438	10K B LIN 12MM STEREO DETENTP34	4	4924	1/4W 750R 5% 2U T&R RES	6	7693	1N 50V 5%CAP 0805 SMT NPO	2
6436	1N753ARL 6V2 0W5 ZENER 5% T&R	1	4426	20K 4B LIN 9MM P32	1	2031	1/8W 820R 5%FLAME PROOF T&R RES	4	7766	15P 50V 5%CAP 0603 SMT NPO	1
6437	1N5237B 8V2 0W5 ZENER 5% T&R	5	4447	20K 15A AUD 12MM STEREO P34	1	2033	1/8W 1K 2%FLAME PROOF T&R RES	4	7781	W063 49R 1% 1206 SMT RES	1
6439	1N5225B 3V0 0W5 ZENER 5% T&R	4	4433	50K B LIN 9MM P32	15	4981	1/4W 1K 5%MINI T&R RES	13	7786	CD4052B IC DUAL 4CHANNEL MUX SMT	1
6450	1N5242B 12V0 0W5 ZENER 5% T&R	4	4435	50K B LIN 9MM DETENT P32	10	6110	1/4W 1K0 1%MINI MF T&R RES	2	7818	LM1117 REGULATOR 3V3 SOT-223	1
6461	1N5240BRL 10V0 0W5 ZENER 5% T&R	4	4437	50K B LIN 12MM STEREO P34	2	4585	1/4W 1K2 5%MINI T&R RES	21	7853	W250 100R 5% 1206 SMT RES	1
6465	1N5250B 20V0 0W5 ZENER 5% T&R	1	4439	50K B LIN 12MM STEREO DETENTP34	2	4988	1/4W 1K5 5%MINI T&R RES	25	7882	W063 0R 1% 1206 SMT RES	1
6475	1N5262B 51V0 0W5 ZENER 5% T&R	1	4441	50K 4B LIN 12MM STEREO P34	1	6105	1/4W 1K8 5%MINI T&R RES	4	7912	FV-1 SPIN SEMI REVERB CHIP IC	1
6484	1N4740A 10V0 1W0 ZENER 5% T&R	2	4443	100K 5C R/A 9MM P32	8	6113	1/4W 2K 5%MINI T&R RES	4	7913	32KHZ CRYSTAL SMT 4-PIN FSRFL	1
6738	MC7805CT TO220 P 5V0 REG 36V	1	3998	20K 1B LIN 20MM DETENT S04	18	6104	1/4W 2K2 5%MINI T&R RES	6	7932	07 PIN 25SQ 100 PIN SMT SIL	1
6824	1N5246B 16V0 0W5 ZENER 5% T&R	16	4520	10K TRIM POT	2	4864	1/4W 2K7 5% T&R RES	2	7933	08 PIN 25SQ 100 PIN SMT X7R	1
6871	MC7915CT TO220 N 15V0 REG V2	1	3606	12.00 AMP CIRCUIT BREAKER	1	6124	1/4W 3K 5%MINI T&R RES	4	7966	2N7 100V 10%CAP 0805 SMT X7R	2
6872	MC7815CT TO220 P 15V0 REG V1	1	3820	1/4UH COIL 14AWG ZOBEL HORIZONTAL	2	4814	1/4W 3K6 5% T&R RES	1	934-PROG	24LC32A SER EEPROM MIX2-U3 YS DFX	1
5101	BC550C TO92 NPN TRAN T&R TB	17	8497	M1610M810 GABLE	2	5028	1/4W 3K74 1% T&R RES	4	935-PROG	24LC32A SER EEPROM MIX2-U4 YS DFX	1
5102	BC560C TO92 PNP TRAN T&R TB	38	3489	CLIP 250X032 18-22AWG DISCO/INSL	1	4850	1/4W 3K9 5% T&R RES	2	3663	SNAP IEC PWR SOC W/250TAB FOR .060	1
5103	MPSA06 TO92 NPN TRAN T&R TA	4	3490	CLIP 250X032 14-16AWG DISCO/INSL	11	4774	1/4W 4K12 1% T&R RES	4	8608	NYLON SPACER 200 OD .145 ID .110 L	16
5104	MPSA56 TO92 PNP TRAN T&R TA	2	3601	RING TERMINAL 16AWG WIRE & #8 SCREW	1	4943	1/4W 4K7 5% 2U T&R RES	2	2335	NYLON STANDOFF NUT #4 500MIL	9
5105	MPSA13 TO92 NPN DARL T&R TA	3	3450	1/4" JCK PCB MT ALL-GOLD SKT	2	4982	1/4W 4K7 5%MINI T&R RES	49	2342	NYLON STANDOFF NUT #4 530MIL BLK	6
5106	MPSA63 TO92 PNP DARL T&R TA	2	3921	1/4" JCK PCB MT VERT STER RT SWT	16	6128	1/4W 4K99 1%MINI MF T&R RES	42	8657	6-32 X 3/8" HEX SPACER ALUMINUM	7
5107	2N5551 TO92 NPN TRAN T&R TA	2	3924	1/4" JCK PCB MT VERT 2XTIP HICURNT	4	6141	1/4W 5K6 5%MINI T&R RES	4	8482	3/8 1D FLAT WASHER	21
5108	2N5401 TO92 PNP TRAN T&R TA	4	3466	RCA DUAL PCB MT VERT GOLD 24MM	2	6121	1/4W 6K98 1%MINI MF T&R RES	4	8818	3/4 OD X 3/8 ID X .080 THICK WASHER	2
5113	MPSA42 TO92 NPN TRAN T&R TA	2	3628	SPKON 4C PCB MT VERT 250TAB GRV #4	2	4926	1/4W 7K5 5% 2U T&R RES	18	8485	#6 SPLIT WASHER ZINC	2
6774	BD139 TO126 NPN TRAN TG	1	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	8	4990	1/4W 8K2 5%MINI T&R RES	2	3524	NYLON SH/WASHER ID385 OD750 T060	4
6808	MJE15032 TO220 NPN TRAN TE	2	3451	EYELET SMALL 0.089 OD PLATED	59	4983	1/4W 10K 5%MINI T&R RES	96	3577	FIBER WASHER .625OD .380D .03	4
6809	MJE15033 TO220 PNP TRAN TE	2	3856	FAN 80MM X 80MM 39CFM 12VDC 200MA	2	5031	1.0W 10K0 5% T&R RES	16	3440	4PDT MINI VERT ALN SWITCH	1
6873	MJE340 TO126 NPN TRAN TG	2	3894	AAVID 5972-B H/S W/TAB B.O.	5	6116	1/4W 10K0 1%MINI MF T&R RES	80	3522	DPDT MINI PC VERT SMT ALT	2
6874	MJE350 TO126 PNP TRAN TG	2	3501	B52200F006 COMP WASH #4 SMALL	3	4630	1/2W 15K 5% T&R RES	6	3587	DPDT ROKR SW QUIK 250C/PWR ON-OFF	1
6916	TIP107 TO220 PNP TRAN DARL TE	1	3977	QUAD XSISTOR SPRING, ZINC YELLOW	6	4979	1/4W 15K 5%MINI T&R RES	30	3682	25D MALE PCB TAB REEL	13
6953	IRF4905 TO220 PCH MFET	8	8889	RUBBER GROMMET #2183-034-BLK	1	4954	1/4W 18K 5% 2U T&R RES	12	3029	PATCH 12 22AWG 16.0 XH	1
6966	IRL2910 NCH MFET 100V TN	8	3801	5/8" BUMPER BUTTON BLACK	1	6125	1/4W 18K 5%MINI T&R RES	2	H1302	M1610 POWER TRFMR TRD	1
6909	MJ21196 TO3 NPN TRAN TH	4	3810	4" NYLON CABLE TIE	10	6123	1/4W 20K0 1%MINI MF T&R RES	5			
6910	MJ21195 TO3 PNP TRANSISTOR TH	4	2329	12 CIR XH-HEADER .0989IN	2	4777	1/4W 21K5 1% T&R RES	2			
6745	LM13600N IC XCONDUCTANCE AMP	4	4056	2 CIR XH-HEADER 0.098IN	2	6118	1/4W 22K 5%MINI T&R RES	17			
6804	MC33079P IC QUAD OP AMP	4	8397	KNOB STYLE 2 GREY	1	6129	1/4W 27K 5%MINI T&R RES	7			
6882	TL072CP IC FET DUAL OP AMP	15	8632	KNOB ROUND PUSHBUTTON 1/4" GREY	2	6122	1/4W 33K 5%MINI T&R RES	13			
6889	TL074CN IC QUAD O/A T.I. ONLY	11	8637	ROUND PUSH BUTTON 1/4" BLK 24MM	1	4868	1/4W 36K 5% T&R RES	2			
6467	10K 10% THERMISTOR TO-92 NTC	2	9915	KNOB 0-DEG RED SOFT GRAY RIB	2	4878	1/4W 43K 5% T&R RES	4			
5199	100P 100V 2%CAP T&R RAD CER.2NPO	8	9916	KNOB 0-DEG GRY SOFT GRAY RIB	29	4927	1/4W 47K 5% 2U T&R RES	4			
5408	47P 100V 10%CAP T&R BEAD NPO	33	9917	KNOB 0-DEG GRN SOFT GRAY RIB	9	6119	1/4W 47K 5%MINI T&R RES	26			
5412	220P 100V 10%CAP T&R BEAD NPO	14	9918	KNOB 0-DEG BLU SOFT GRAY RIB	10	4835	1/4W 56K 5% T&R RES	2			
5208	2N2 400V 5%CAP T&R RAD .2FLM	5	9919	KNOB 0-DEG YEL SOFT GRAY RIB	8	4928	1/4W 56K 5% 2U T&R RES	14			
5273	1N5 200V 5%CAP T&R RAD CER.2NPO	16	9920	KNOB 0-DEG WHT SOFT GRAY RIB	9	5018	1/4W 56K 5%MINI T&R RES	2			
5275	3N3 100V 5%CAP T&R RAD .2FLM	6	9921	KNOB 0-DEG GRV W/O COVERING	6	6139	1/4W 62K 5%MINI T&R RES	6			
5416	470P 50V 10%CAP T&R BEAD NPO	6	3426	8' 3/16 SJT AC LINE CORD REMOVE-CSA	1	4929	1/4W 82K 5% 2U T&R RES	14			
5422	1N 50V 10%CAP T&R BEAD NPO	20	8701	4-40 KEPS NUT ZINC	3	6120	1/4W 100K 5%MINI T&R RES	1			
5204	10N 100V 10%CAP T&R RAD .2FLM	2	8760	6-32 KEPS NUT TIN PLATED	16	4991	1/4W 133K 1%MINI T&R RES	16			
5205	15N 100V 10%CAP T&R RAD .2FLM	4	8800	6-32 KEPS NUT ZINC	13	4796	1/4W 180K 5%MINI T&R RES	4			
5207	18N 100V 5%CAP T&R RAD .2FLM	6	8841	10-32 KEPS NUT TIN PLATED	6	6126	1/4W 220K 5%MINI T&R RES	14			
5209	4N7 250V 5%CAP T&R RAD .2FLM	4	8797	5/16-18 KEPS NUT JS500	1	6127	1/4W 470K 5%MINI T&R RES	2			
5210	22N 100V 10%CAP T&R RAD .2FLM	26	3916	TO3 SIL-PAD REPLACES MICA	8	4948	1/4W 1M 5% 2U T&R RES	2			
5222	33N 100V 10%CAP T&R RAD .2FLM	10	4022	ELASTOMER PAD - 2-TO218 / 4-TO220	6	4951	1/4W 4M7 5% 2U T&R RES	7			
5224	47N 100V 10%CAP T&R RAD .2FLM	4	8581	CUSTOM PBL TRANSISTOR SPACER	6	6132	1/4W 8M2 5%MINI T&R RES	6			
5840	22N 400V 10%CAP BLK RAD POLY FLM	2	4597	22AWG STRAN TC WIR JMP	15	4809	1/4W 10M 5% T&R RES	2			
6435	22N 275V 20%CAP BLK 'X2' 15MM AC	1	4599	22AWG SOLID SC WIR T&R JMP	232	4751	1/4W 22M 5% T&R RES	10			
6451	4N7 250V 20%CAP BLK 'Y' 10MM AC	1	5299	24AWG SOLID SC WIR RAD JMP	1	3722	RELAY 1A 30AMP DC24 036MA PC-C	2			
5212	100N 63V 5%CAP T&R RAD .2FLM	37	4745	5.0W 0R1 5% BLK RES	8	9010	16GA COLD ROLLED STEEL 4'X8' SHEET	4			
5226	68N 100V 5%CAP T&R RAD .2FLM	2	2006	1.0W 1R 5%FLAME PROOF T&R RES	2	9020	18GA COLD ROLLED STEEL 4'X8' SHEET	3.2			
5229	150N 63V 10%CAP T&R RAD .2FLM	2	2007	1/4W 1R 5%FLAME PROOF T&R RES	4	9070	18GA ELECTRO GALV STEEL 4'X8' SHEET	1.6			
5231	220N 63V 10%CAP T&R RAD .2FLM	2	4911	1/4W 2R2 5% T&R RES	4	9155	.081" 48X96 UTILITY ALUM SPV 1 SIDE	2.51			
5233	330N 63V 5%CAP T&R RAD .2FLM	8	4748	2.0W 3R9 5% T&R	2	9250	.040" 48X96 50S2H32 ALUM VINYL LAMI	2.3			
5234	470N 63V 10%CAP T&R RAD .2FLM	2	2008	1.0W 10R 5%FLAME PROOF T&R RES	4	9640	.025" FISHPAPER ( FLAT 48" SHEETS )	1.1			
5314	100N 50V 10%CAP T&R BEAD X7R	7	4605	1/8W 10R 5% T&R RES	3	8842	#4 X 5/16 PAN QUAD TYPE A JS500 BLK	18			
5318	220N 50V 10%CAP T&R BEAD X7R	1	4709	5.0W 22R 5% BLK RES	1	8865	4-40 X 5/16 PAN PH MS JS500	3			
5257	2U2 63V 20%CAP T&R RAD .2EL	12	2013	1/8W 22R1 1%FLAME PROOF T&R RES	2	8729	#4 X 3/8 FLAT QUAD TYPE A JS500 BLK	4			
5258	4U7 63V 20%CAP T&R 8X7MM 2EL	20	2016	1/8W 39R 2%FLAME PROOF T&R RES	4	8902	4-40 X 3/4 PAN PHIL MS B/O & WAX	15			
7769	1U 50V 20%CAP 4.3X3.9 SMT ELC	5	6134	1/4W 47R 5%MINI T&R RES	6	8831	6-32 X 1/4 PAN PH TAPTITE ZN	2			
5260	22U 50V 20%CAP T&R RAD .2EL	1	2019	1/8W 100R0 1%FLAME PROOF T&R RES	20	8832	6-32 X 1/4 PAN PH TAPTITE JS500	24			
5282	10U 16V 20%CAP T&R 5X7MM .2NP	32	4602	1/8W 100R 5% T&R RES	29	8801	6-32 X 3/8 PAN PH TAPTITE JS500	4			
5631	22U 50V 20%CAP T&R 6X7MM .2EL	12	4921	1/4W 100R 5% 2U T&R RES	18	8829	6-32 X 3/8 FLAT PH TAPTITE BO&X HEA	3			
5945	10U 63V 20%CAP T&R RAD .2EL	3	4984	1/4W 150R 5%MINI T&R RES	3	8761	6-32 X 1/2 PAN PHIL MS ZINC CLEAR	16			
5961	33U 16V 20%CAP T&R RAD .2	17	2023	1/8W 220R0 1%FLAME PROOF T&R RES	8						

# Block Diagram for M810-2 / M1610-2

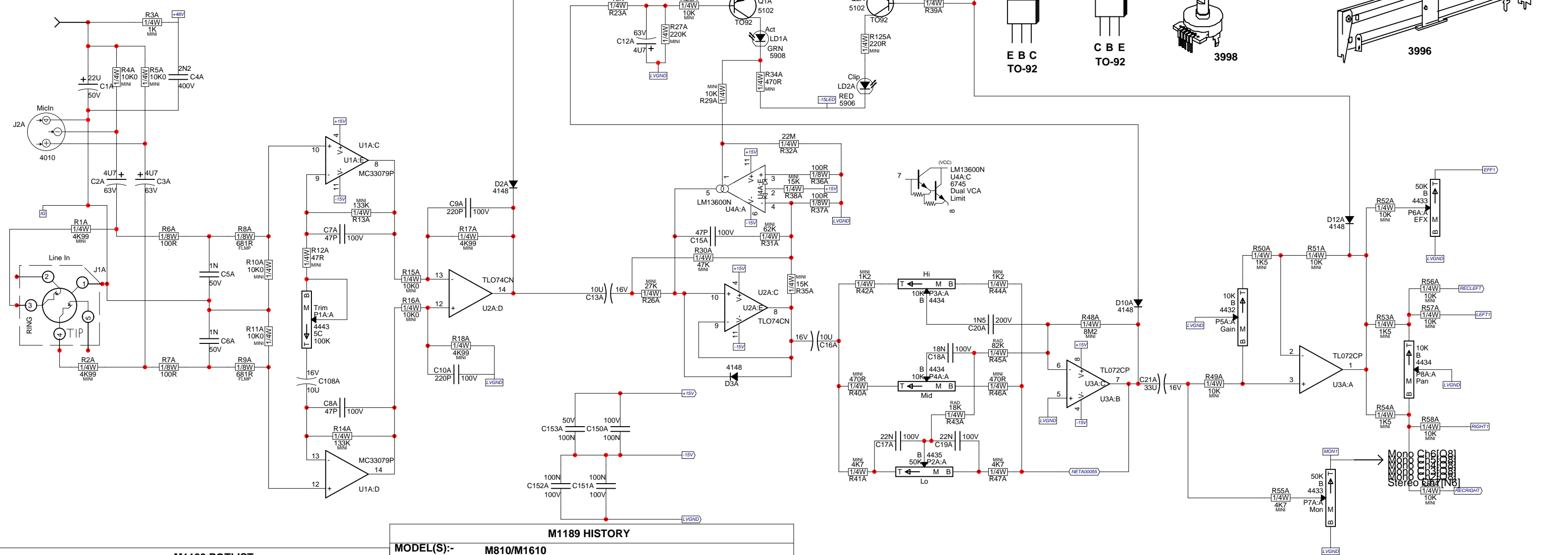
DESIGNED & MANUFACTURED BY YORKVILLE SOUND



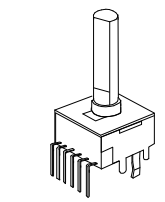
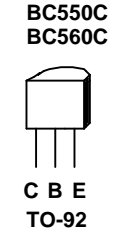
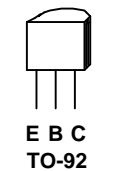


Product <b>M1610</b>		
Master	PCB# M1189	Sheet 1 of 14
Date: Thu Nov 05, 2009	Rev:v6.00	YsType:1032
Filename: M1189V600sch.sch2002		

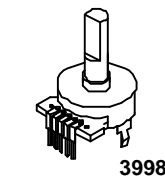
**Only Channel 1 is shown.  
Channels 1 - 4 employ the  
same circuit.**



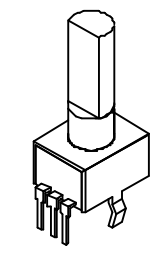
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- 2N5551
- MPSA06
- MPSA13
- MPSA43
- MPSA56
- MPSA63



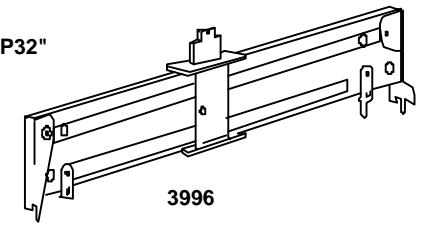
"STYLE\_P34"



3998



"STYLE\_P32"



3996

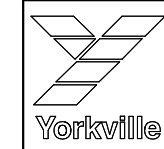
M1189 POTLIST				
MODEL(S):-	M1610	FUNCTION	PART#	NOB
P25-34 L&R	Graphic EQ	3998	N/A	S04
P1A,1B,1C,1D,1E,1F	Trim	4443	9915	P32
P9G,9H	Mon Send	4443	9917	P32
P5A,5B,5C,5D,5E,5F	Level	4432	9920	P32
P15G,15H,6A,6B,6C,6D,6E,6F	FX Send	4433	9918	P32
P7A,7B,7C,7D,7E,7F	Mon Send	4433	9917	P32
P3A-F,4A-F	Hi, Mid	4434	9916	P32
P16G,16H, 8A-F	Bal, Pan	4434	9919	P32
P2A,2B,2C,2D,2E,2F	Lo	4435	9916	P32
P35,36,37,38	Master Treble, Bass	4435	9916	P32
P21	Record Out	4437	9920	P34
P20	FX2 Main	4437	9920	P34
P13G,13H,14G,14H	Stereo Hi, Mid	4438	9916	P34
P12G,12H	Stereo Lo	4439	9916	P34
P11FX	FX Select	6587	8398	P23
P23	Record In	4437	9915	P34
P18	Monitor	4426	9917	P34
P19	FX2 Mom	4433	9917	P32
P17	L&R Master	4447	9920	N
P12FX	FX Modify	4434	9918	N

M1189 HISTORY			
MODEL(S):-	M810/M1610	VER#	DESCRIPTION OF CHANGE
1	31 Dec, 2003	v1.00p3	Moved D3 anode to cathode of LD1
2	2 Feb, 2004	1.00	Change break mute flash rate
3	17 Feb, 2004	1.01	Move C7a-f, R13a-f to make room for AA series xlr.
4	D	V	Change hole sizes for AA series xlr.
5	D	V	Changed U1FX SRAM to 32kX8
6	24 Feb, 2004	1.02	Changed 3925 XLRs to 4010 AA series
7	7-APR-2004	2.00	PC#6675 Moved C150(A,C,E) to avoid hitting ICs
8	D	V	Removed routing from board - slots done on drill now
9	15-APR-2004	2.00	PC#6677 Chg X41 to C3(220n 50V), set gerber so TIE4 gets output properly
10	D	V	PC#6679 Chg. C21(A,B,C,D,E,F) from 470nF to 33uF
11	D	V	PC#6686 MOVED C23FX AWAY FROM SPACER
12	6-MAY-2004	2.00	Fixed silk screen on U6FX and U2FX
13	Aug 4, 2004	2.00	
1	AUG-16-2004	2.10	PC#6718 CHANGE R140 TO 10K0 (6116), R138&R139 TO 9K09 (6112)
2	D	V	
3	NOV-23-2004	V	PC#6771 :#3571->#3507 SKT FOR #6993 SRAM (GT)
4	JAN-05-2005	V	GT:PC#6792:P17 FROM 50K#4441 TO 20KA #4447
5	21 Apr, 2005	2.11	Updated 3921 jacks for clinch.
6	4 Aug 2005	2.20	AH, PC#6816, ADD A HOLE FOR FEEDING GROUND WIRE
7	D	V	
8	14 JUN 2006	2.30	AH, PC#7091, UPDTAE #5322 CHANGE DRILL SIZE TO 40
9	D	V	PC#6989, STRENGTHEN RCA JACK SECTION BREAKAWAY
10	D	V	#4581 UPDATED, PROPER DRILLING ORDER
11	11-JAN-2008	3.00	PC#7325, FORCE UPDATE PARTS FOR NEW PAD TYPE
12	D	V	PC#7330, REMOVE EXTRA PADS FROM U1FX AND U3FX
13	2008/02/20	4.00	New DFX, solder updates, add amp in jacks, link for tie4

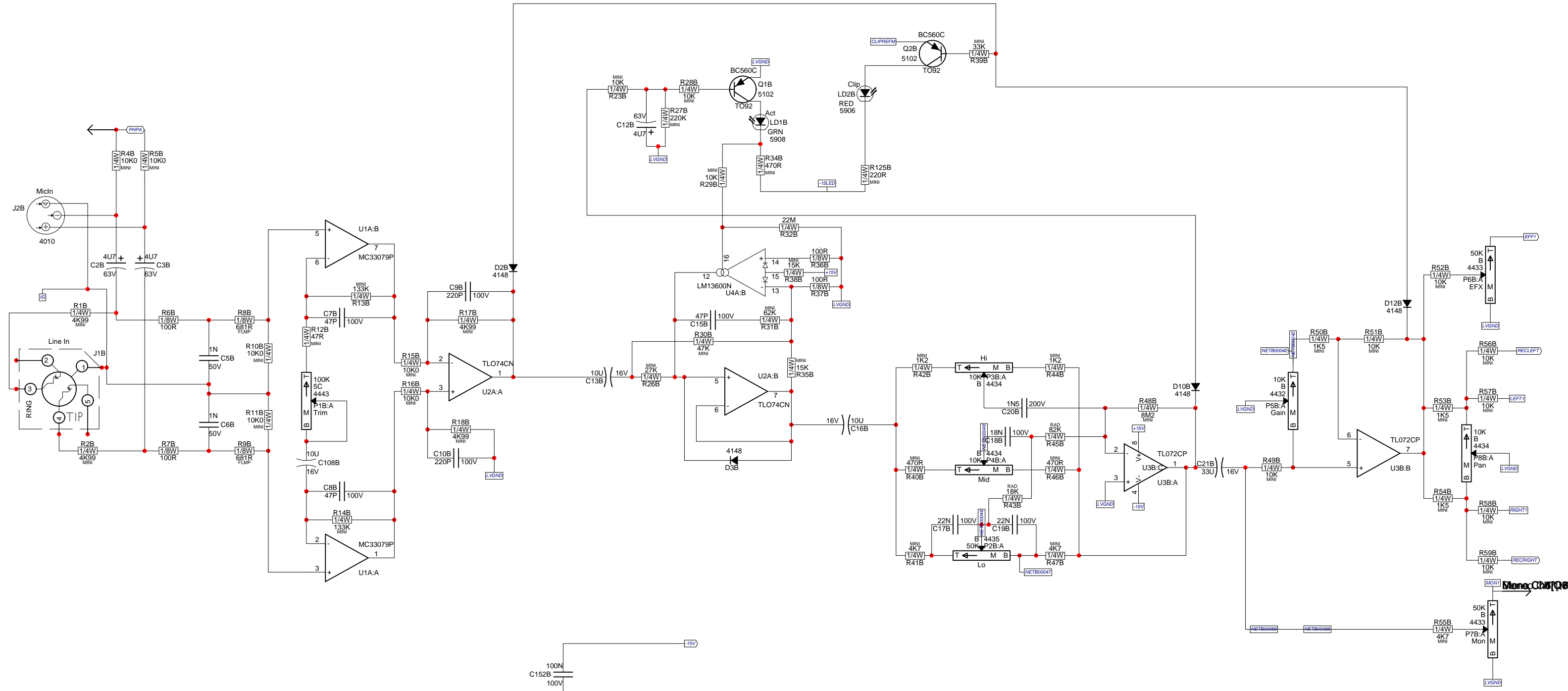
#	DATE	VER#	DESCRIPTION OF CHANGE
1	2008/03/19	5.00	Corrected Amp in jack swap.
2	2008/03/25	.	Added copper pour to encoder and pot legs. Rotated thief pads on stereo channel pots.
3	.	.	Added scoring tooling holes.
4	2008/04/18	.	Changed XLR jacks to minimum outline.
5	2008/06/19	.	PC#7868 - changed to standoff nuts. Add X102.
6	2009/09/18	6.00	PC#7876 - Ribbon cable change. Modified some pads on dual pots to prevent solder bridging. D1-->25mil
7	2009/09/24	6.00	PC#7878 - Make ampin jack breakouts smaller.
8	.	.	
9	.	.	
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

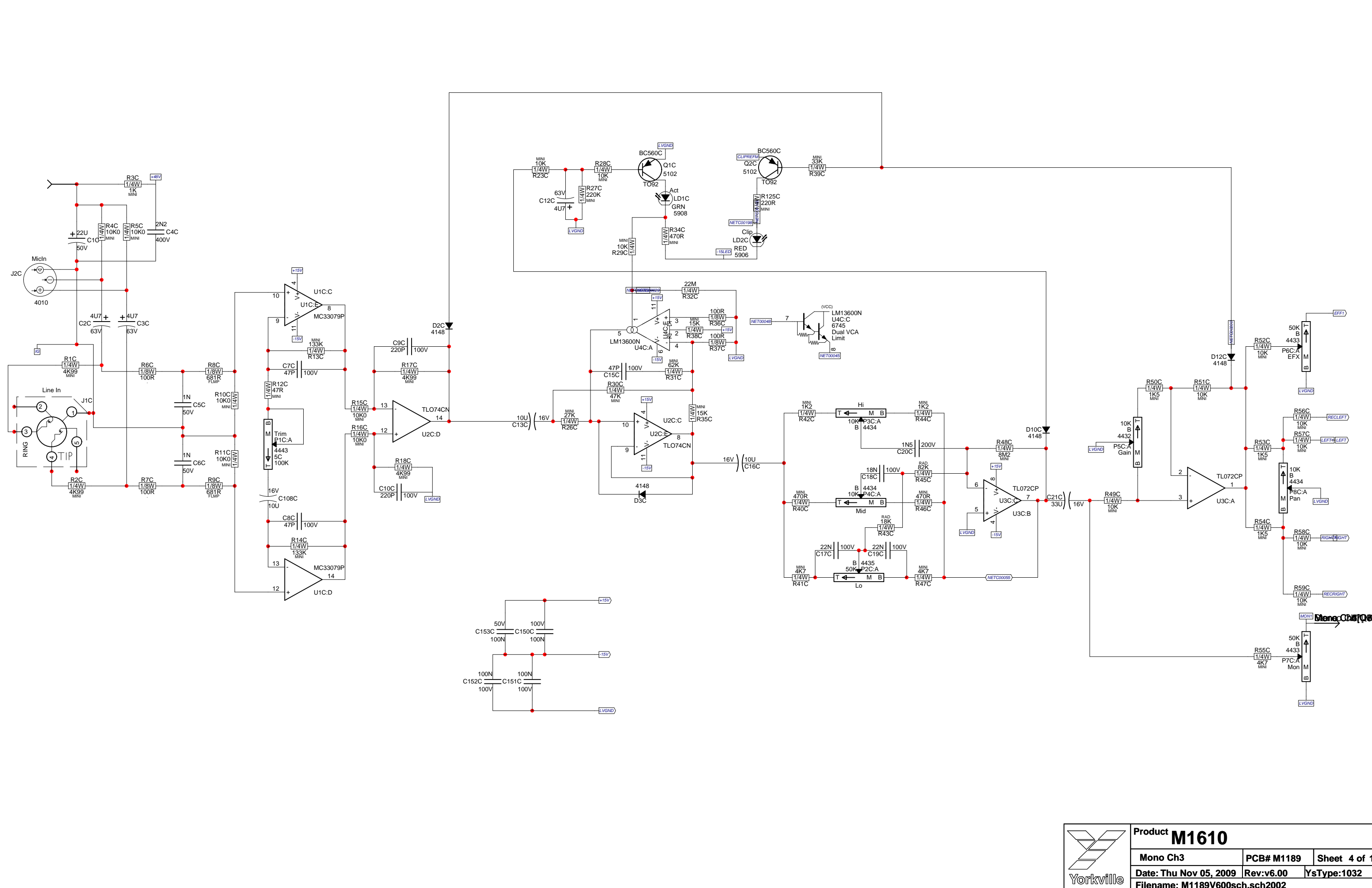
M1189 PENDING CHANGES		
MODEL(S):-	M1610	PENDING CHANGE
#	PC#	
1	PC	X
2	PC	X
3	PC	X
4	PC	X
5	PC	X
6	PC	X

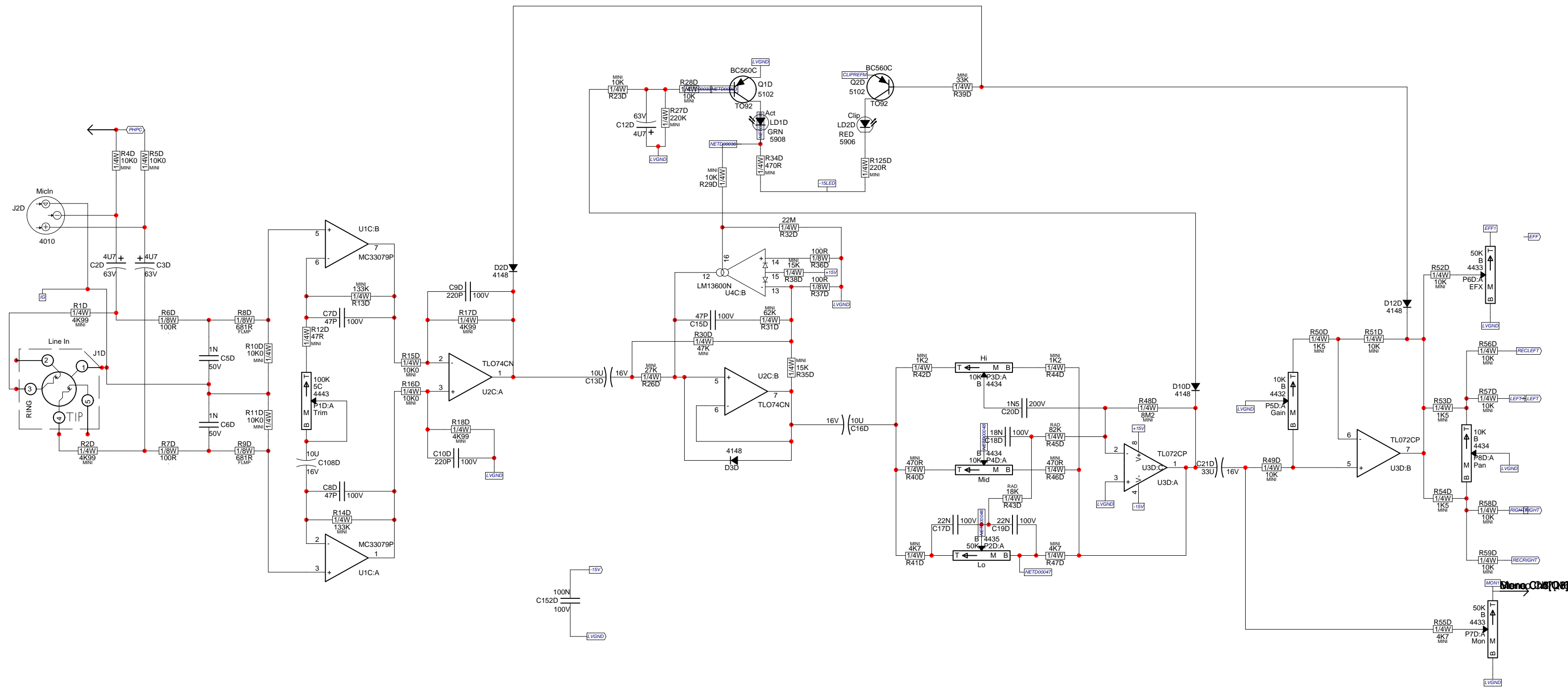
M1189 DRILL HISTORY			
MODEL(S):-	M810/M1610	VER#	DESCRIPTION OF CHANGE
#	DATE	VER#	DESCRIPTION OF CHANGE
1	24-FEB-2004	V01	N
2	21-APR-2005	V02	N
3	4-AUG-2005	V03	PC#6818, ADDING A HOLE FOR FEEDING GREEN GND
4	2008/02/20	V04	N
5	2008/04/18	V05	N
6	D	V	N



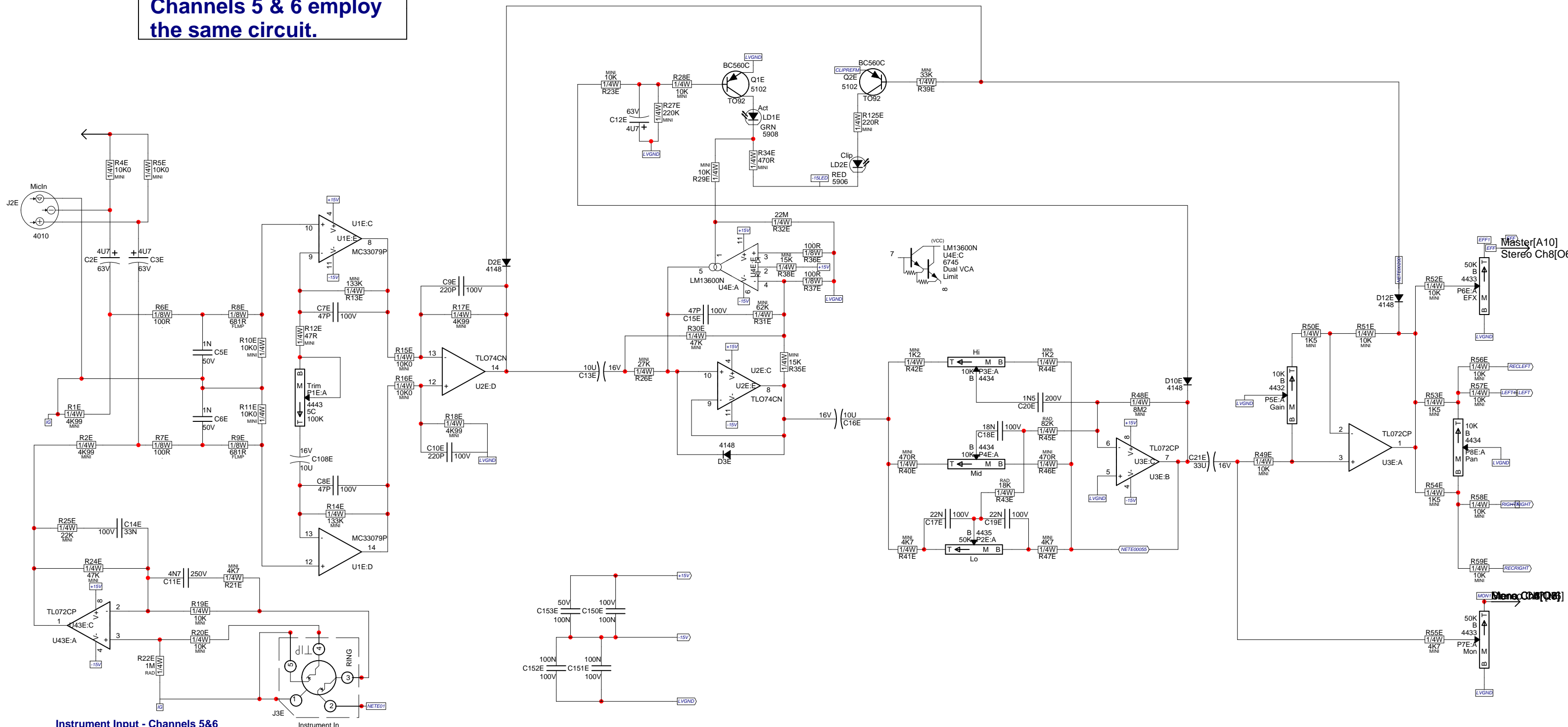
Product <b>M1610</b>		
Mono Ch1	PCB# M1189	Sheet 2 of 14
Date: Thu Nov 05, 2009	Rev:v6.00	YsType:1032
Filename: M1189V600sch.sch2002		



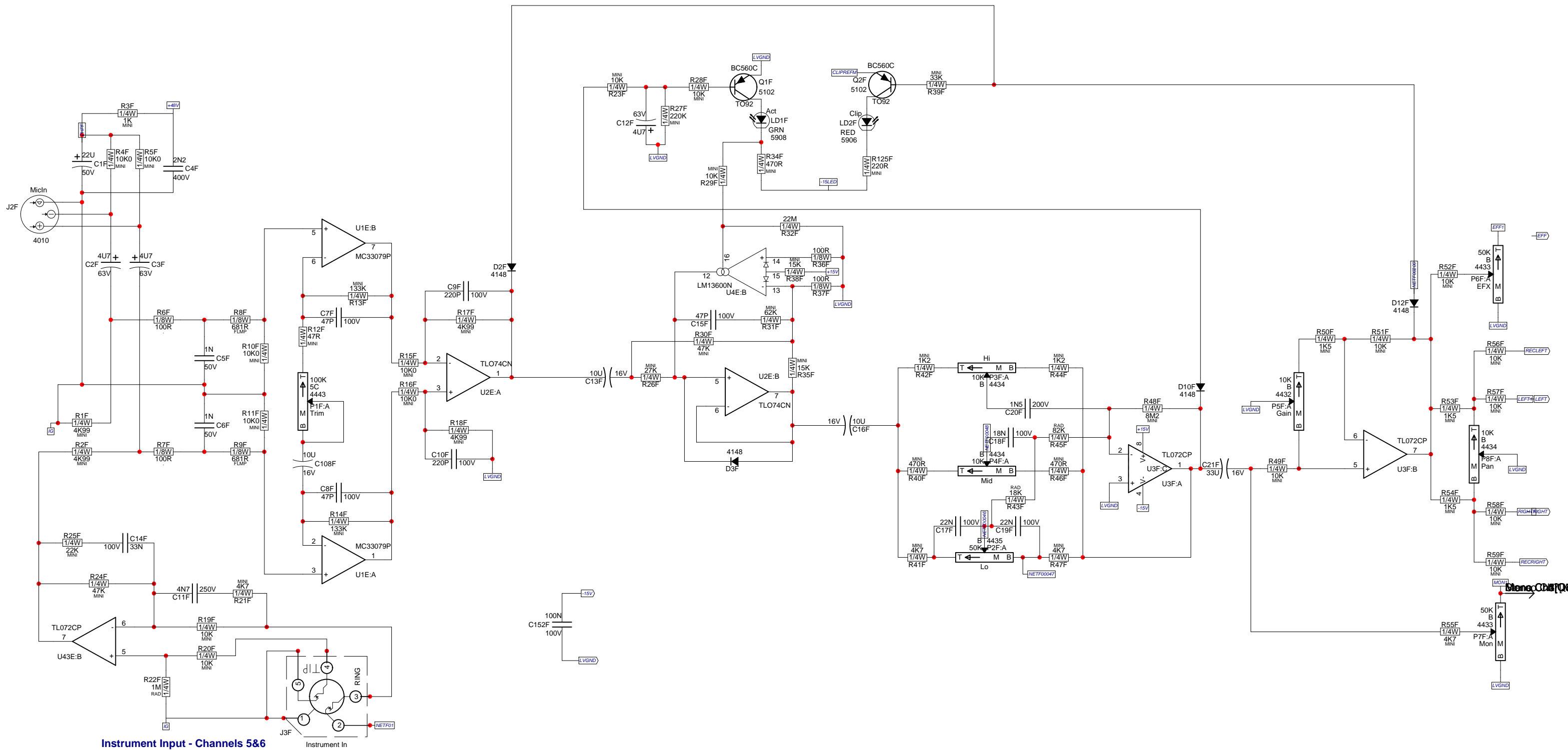




**Only Channel 5 is shown.  
Channels 5 & 6 employ  
the same circuit.**

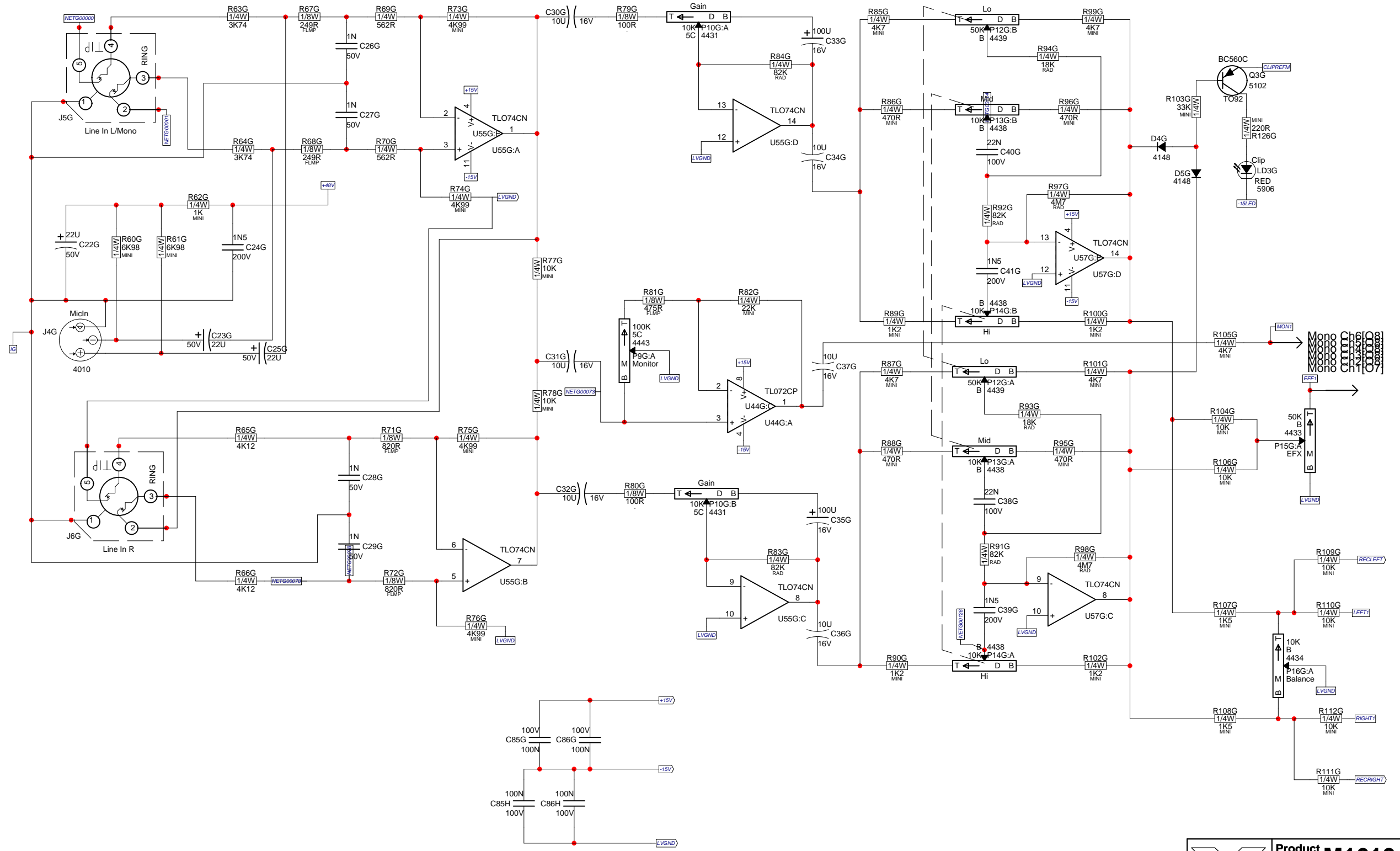




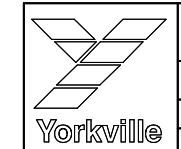
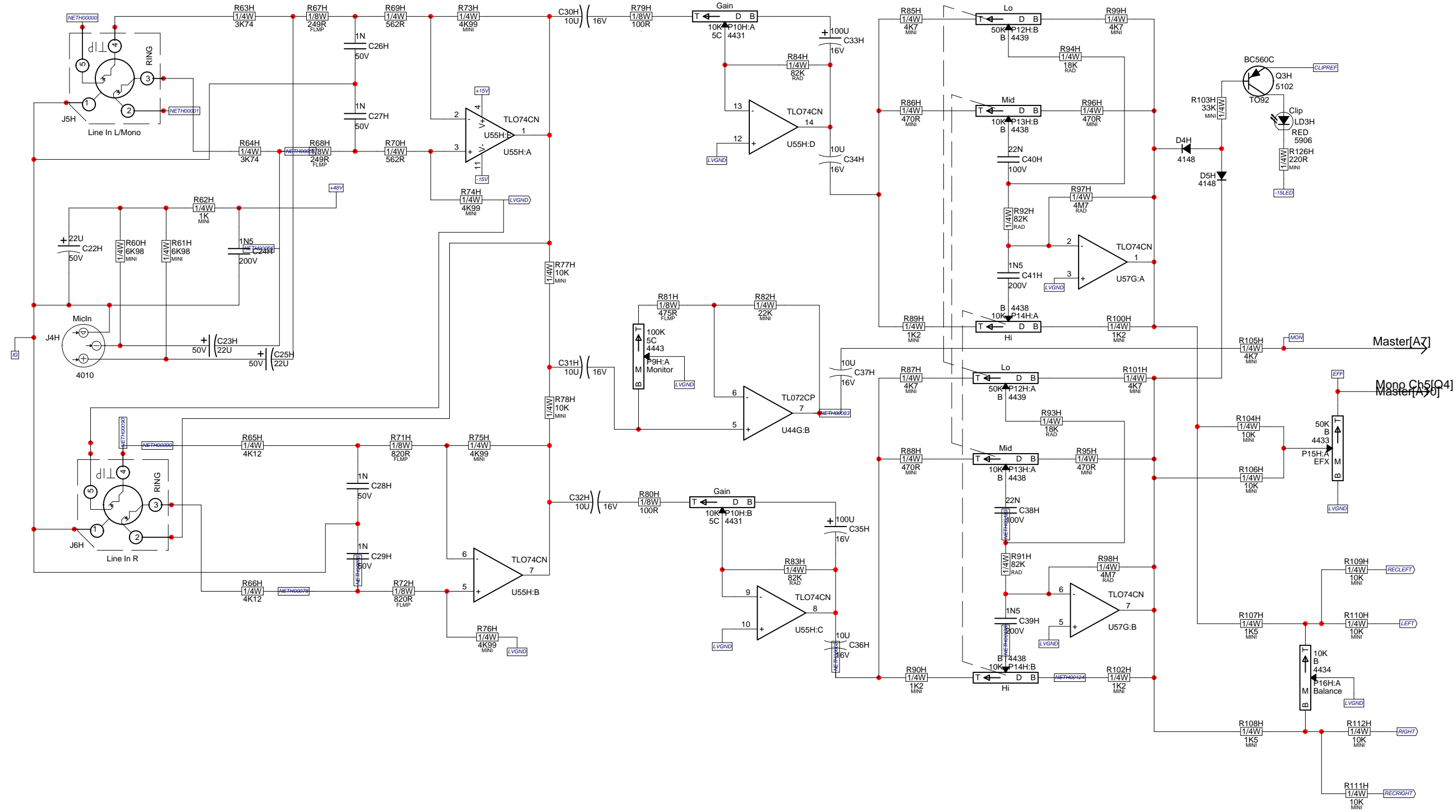


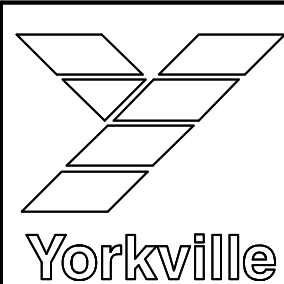
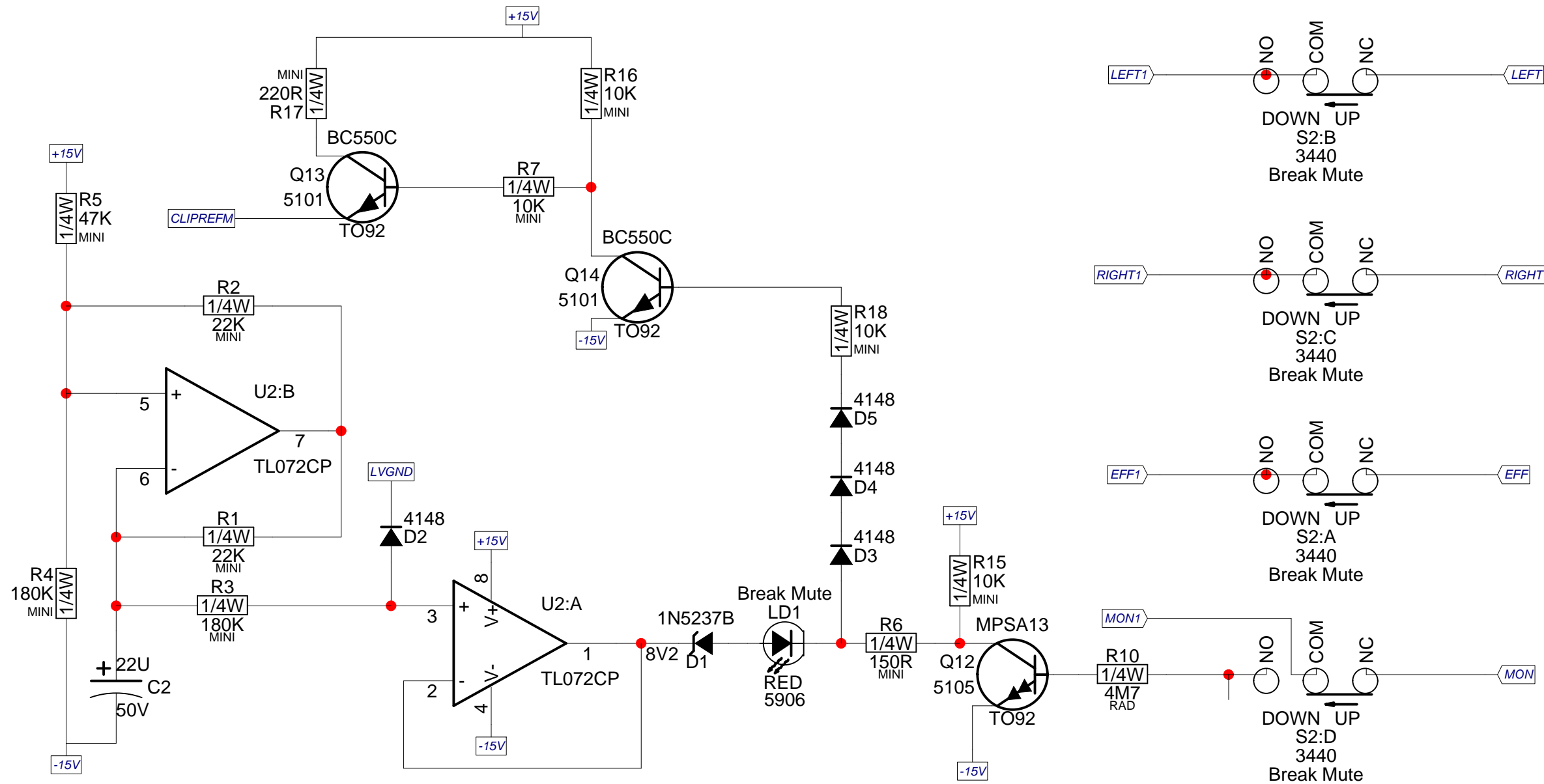
Instrument Input - Channels 5&6

**Only channels 7&8 are shown.  
Channels 9&10 employ  
the same circuit.**



Product <b>M1610</b>		
Stereo Ch7	PCB# M1189	Sheet 8 of 14
Date: Thu Nov 05, 2009	Rev:v6.00	YsType:1032
Filename: M1189V600sch.sch2002		





Product **M1610**

BreakMute

PCB# M1189

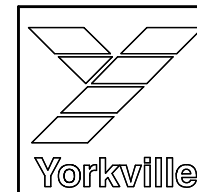
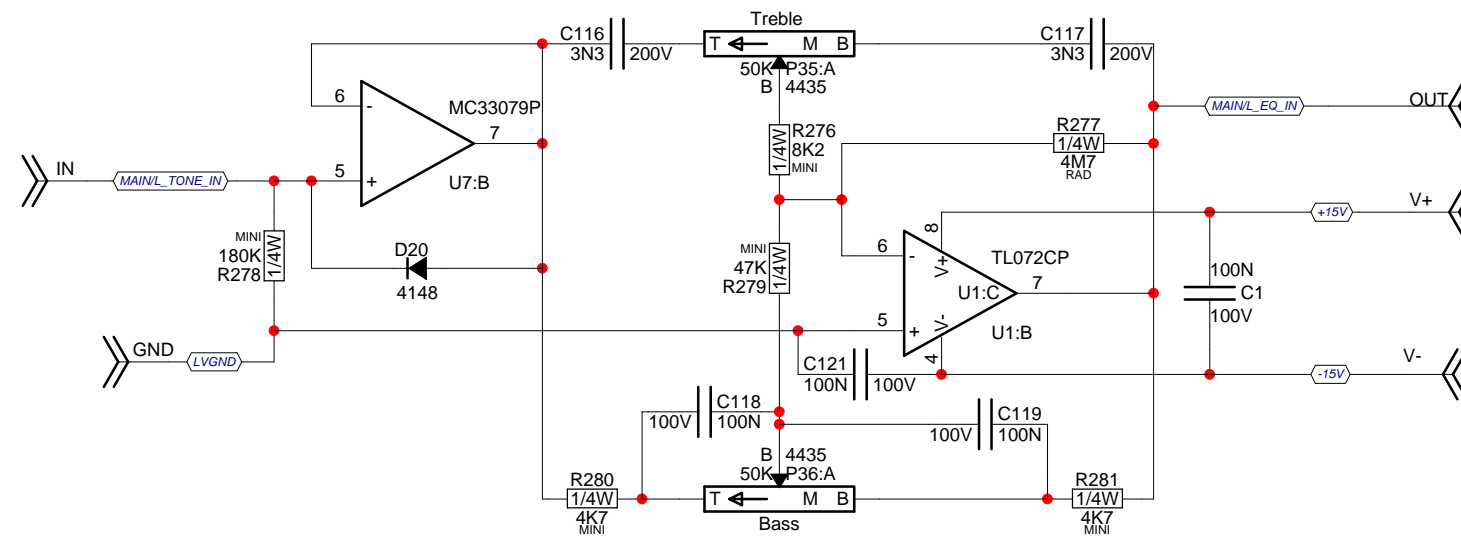
Sheet 10 of 14

Date: Thu Nov 05, 2009

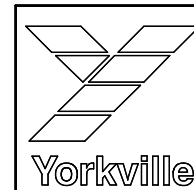
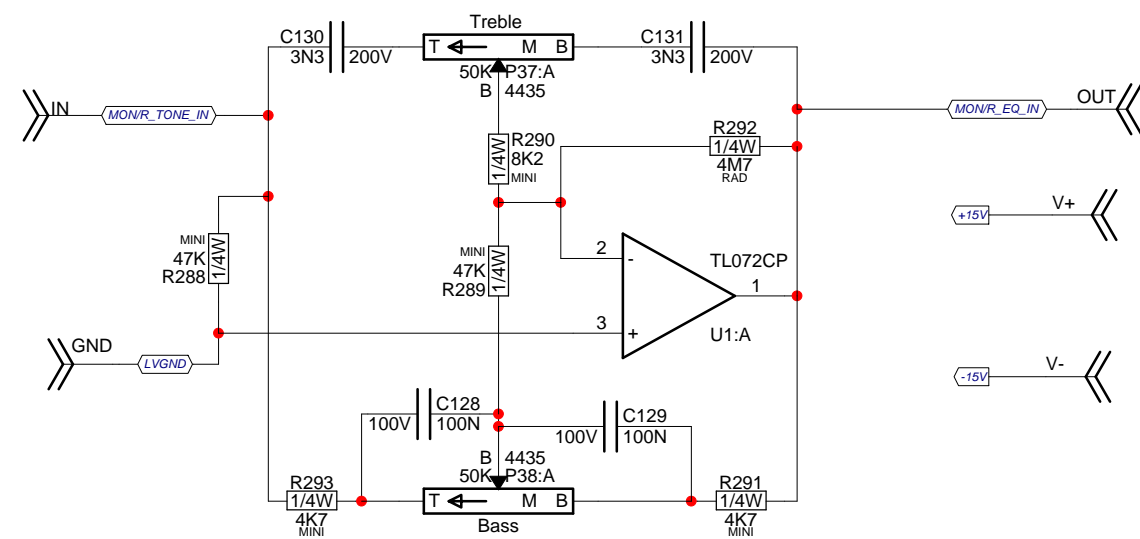
Rev:v6.00

YsType:1032

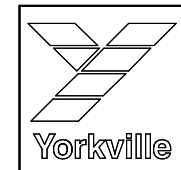
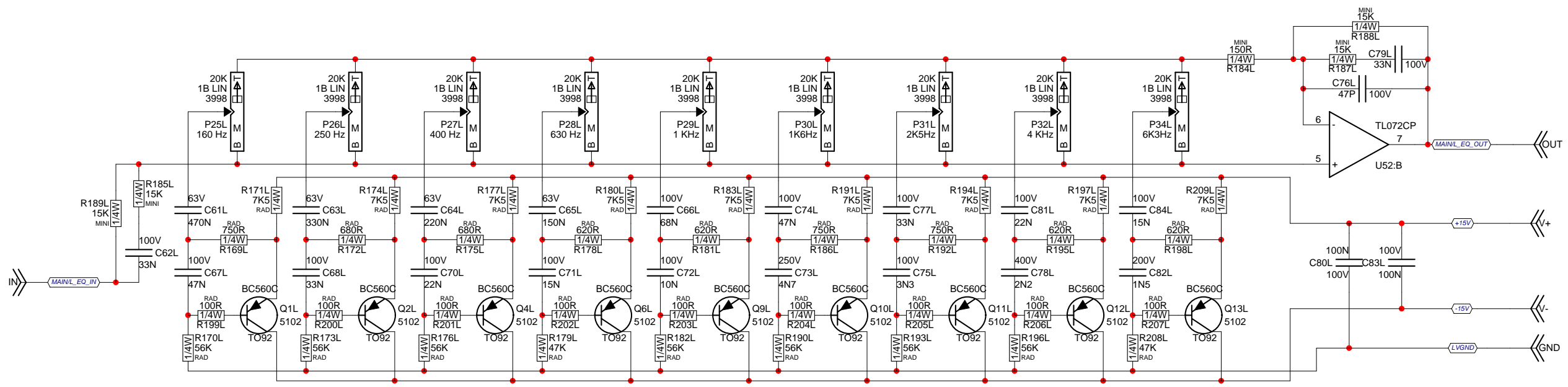
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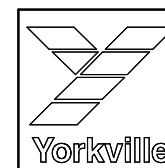
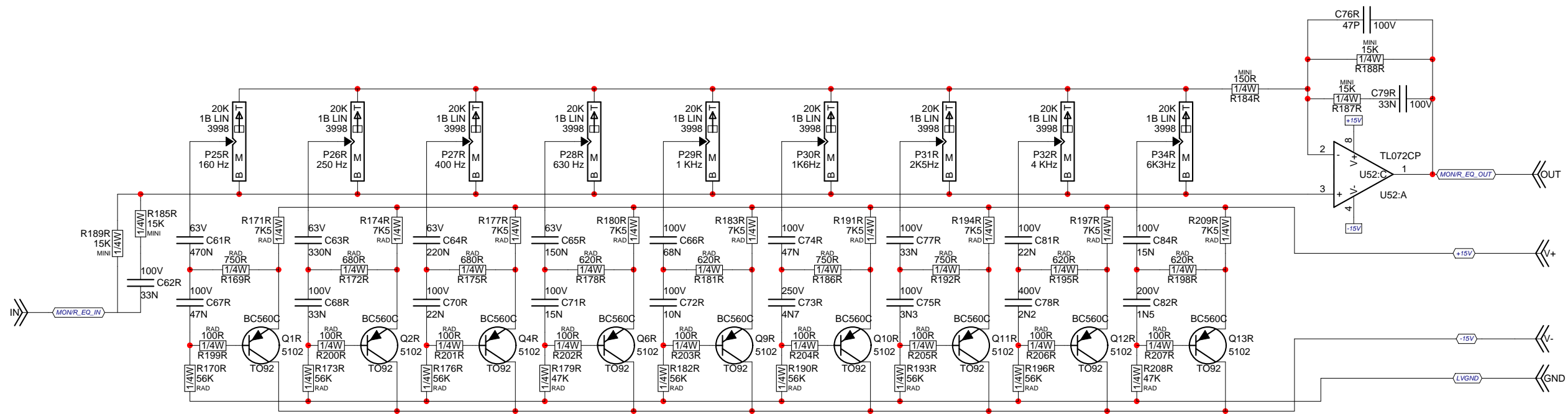
Product <b>M1610</b>		
TONE1	PCB# M1189	Sheet 11 of 14
Date: Thu Nov 05, 2009	Rev:v6.00	YsType:1032
Filename: M1189V600sch.sch2002		



Product <b>M1610</b>		
TONE2	PCB# M1189	Sheet 12 of 14
Date: Thu Nov 05, 2009	Rev:v6.00	YsType:1032
Filename: M1189V600sch.sch2002		



Product <b>M1610</b>		
EQ1	PCB# M1189	Sheet 13 of 14
Date: Thu Nov 05, 2009	Rev:v6.00	YsType:1032
Filename: M1189V600sch.sch2002		



<b>Product M1610</b>		
<b>EQ2</b>	<b>PCB# M1189</b>	<b>Sheet 14 of 14</b>
<b>Date: Thu Nov 05, 2009</b>	<b>Rev:v6.00</b>	<b>YsType:1032</b>
<b>Filename: M1189V600sch.sch2002</b>		

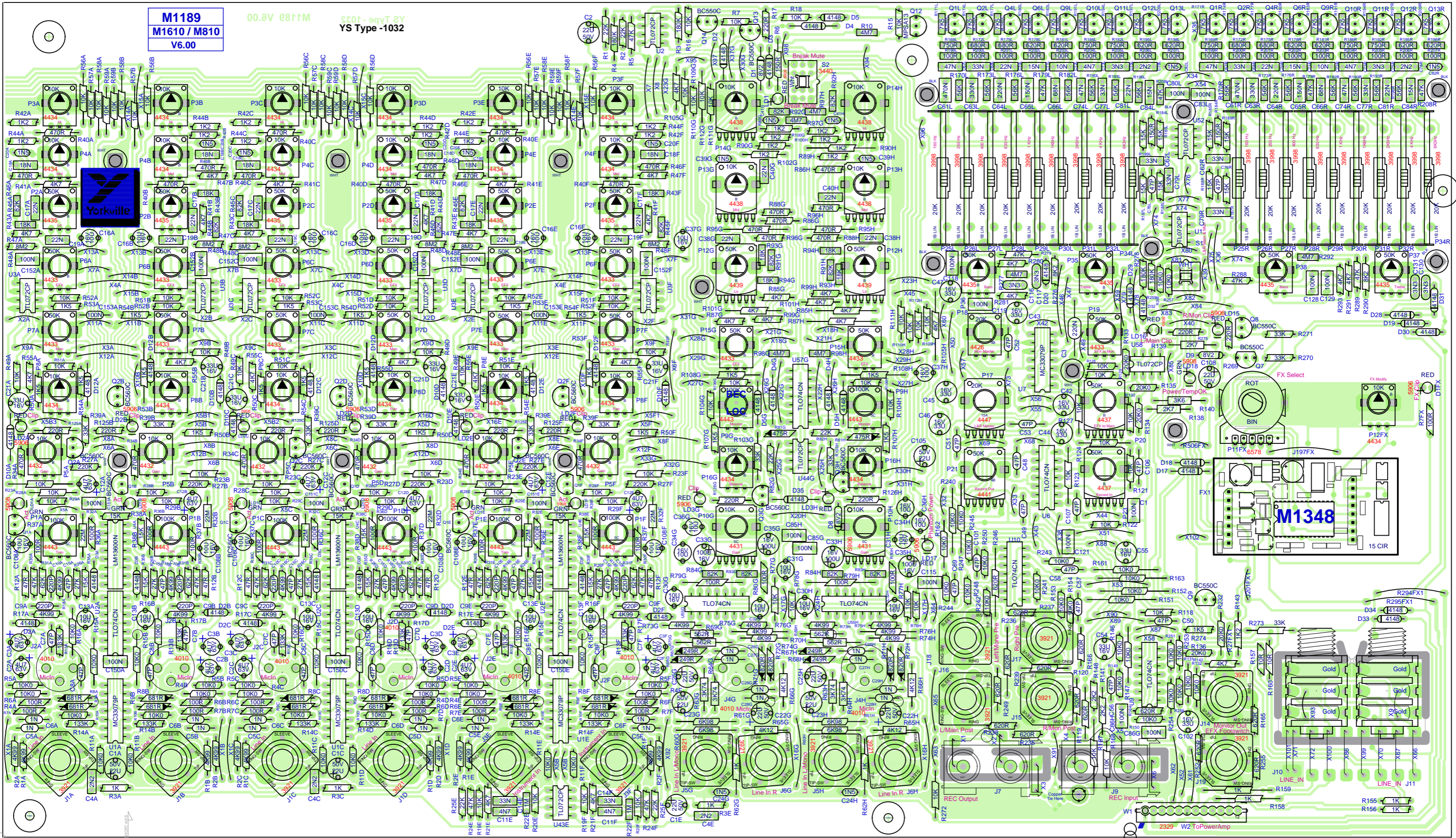


**M1189**  
**M1610 / M810**  
**V6.00**

00.0V e8tFM  
YS Type -1032

BlankSize - 17900x10750

BlankSize - 17900x10750



SEE LAYOUT DOCUMENTATION

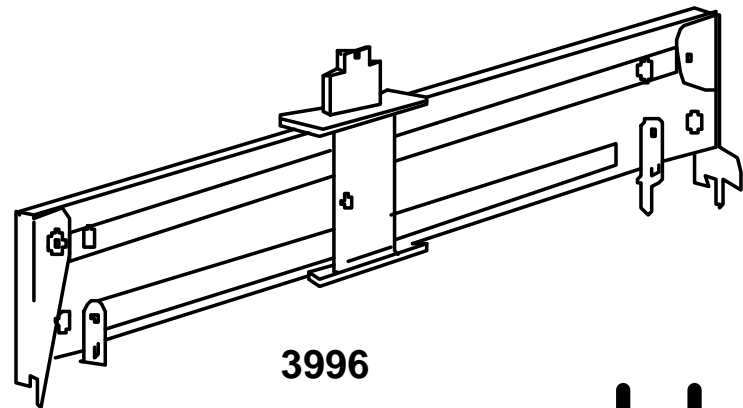


SEE LAYOUT DIAGRAM

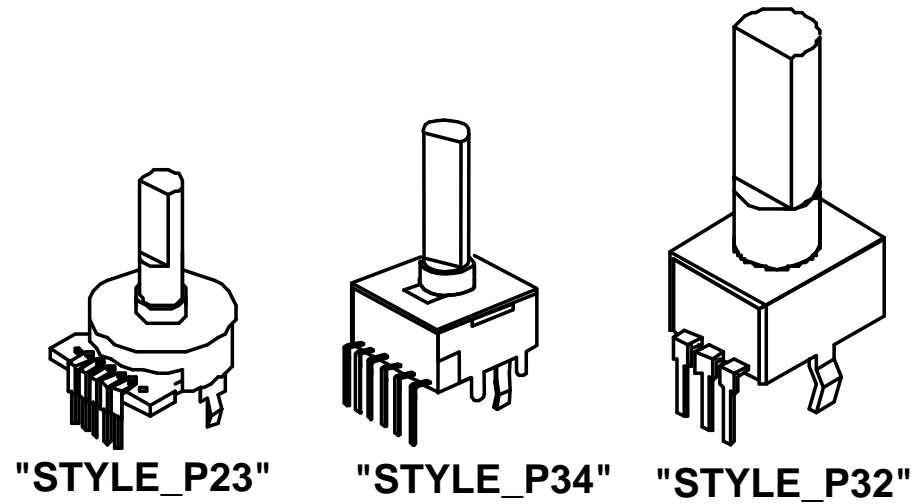


# M1189 PRODUCTION NOTES

1.



3996

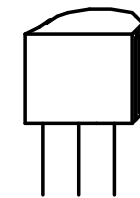


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"STYLE\_P34"

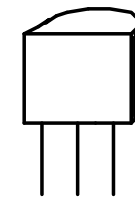
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2N5551  
MPSA06  
MPSA13  
MPSA43  
MPSA56  
MPSA63



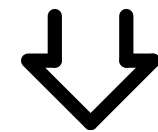
E B C  
TO-92

BC550C  
BC560C



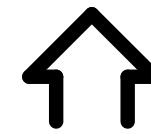
C B E  
TO-92

SEE PRODUCT HISTORY





# SEE PRODUCTION NOTES



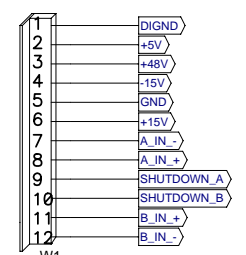
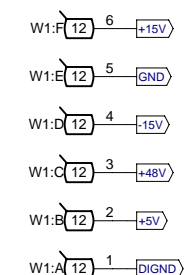
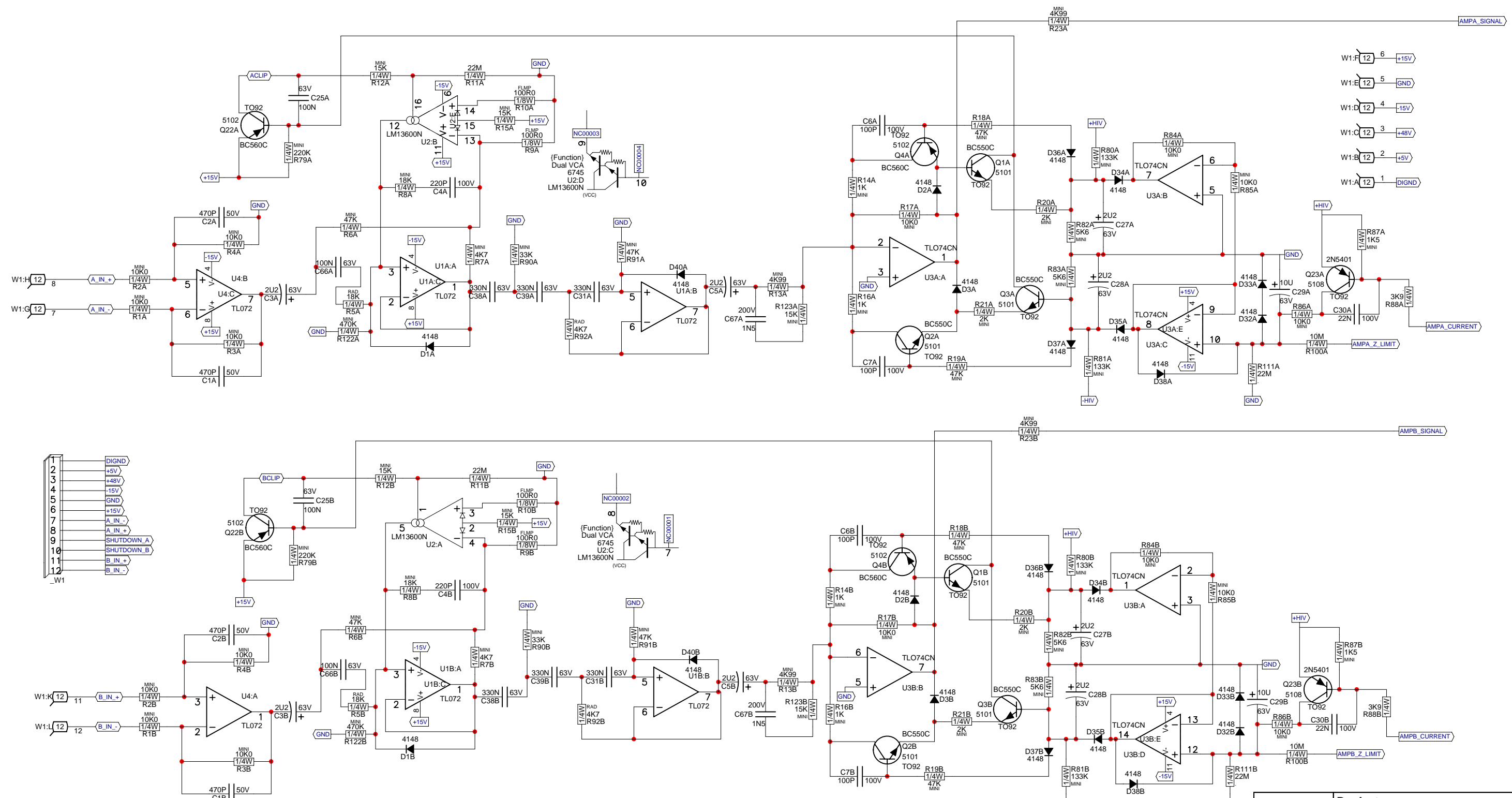
M1189 HISTORY				M1189 POTLIST				
MODEL(S):- M1610				MODEL(S):- M1610				
#	DATE	VER#	DESCRIPTION OF CHANGE	REF	FUNCTION	PART#	KNOB	{NEW}
1	31 Dec, 2003	v1.00p3	Moved D3 anode to cathode of LD1	P25-34 L&R	Graphic EQ	3998	N/A	N
2	2 Feb, 2004	1.00	Change break mute flash rate	P1A,1B,1C,1D,1E,1F	Trim	4443	9915	N
3	17 Feb, 2004	1.01	Move C7a-f, R13a-f to make room for AA series xlr.	P9G,9H	Mon Send	4443	9917	N
4	.	.	Change hole sizes for AA series xlr.	P5A,5B,5C,5D,5E,5F	Level	4432	9920	N
5	.	.	Changed U1FX SRAM to 32kX8	P15G,15H,6A,6B,6C,6D,6E,6F	FX Send	4433	9918	N
6	24 Feb, 2004	1.02	Changed 3925 XLRs to 4010 AA series	P7A,7B,7C,7D,7E,7F	Mon Send	4433	9917	N
7	7-APR-2004	2.00	PC#6675 Moved C150(A,C,E) to avoid hitting ICs	P3A-F,4A-F	Hi, Mid	4434	9916	N
8	.	.	Removed routing from board - slots done on drill now	P16G,16H, 8A-F	Bal, Pan	4434	9919	N
9	15-APR-2004	2.00	PC#6677 Chg X41 to C3(220n 50V), set gerber	P2A,2B,2C,2D,2E,2F	Lo	4435	9916	N
10	.	.	so TIE4 gets output properly	P35,36,37,38	Master Treble, Bass	4435	9916	N
11	.	.	PC#6679 Chg. C21(A,B,C,D,E,F) from 470nF to 33uF	P21	Record Out	4441	9920	N
12	6-MAY-2004	2.00	PC#6686 MOVED C23FX AWAY FROM SPACER	P20	FX2 Main	4437	9920	N
13	Aug 4, 2004	2.00	Fixed silk screen on U6FX and U2FX	P13G,13H,14G,14H	Stereo Hi, Mid	4438	9916	N
1	AUG-16-2004	2.10	PC#6718 CHANGE R140 TO 10K0 (6116),	P12G,12H	Stereo Lo	4439	9916	N
2	D	V	R138&R139 TO 9K09 (6112)	P11FX	FX Select	6587	8398	N
3	NOV-23-2004	.	PC#6771:#3571->#3507 SKT FOR #6993 SRAM (GT)	P23	Record In	4437	9915	N
4	JAN-05-2005	.	GT:PC#6792:P17 FROM 50KB #4441 TO 20KA #4447	P18	Monitor	4426	9917	N
5	21 Apr, 2005	2.11	Updated 3921 jacks for clinch.	P19	FX2 Mon	4433	9917	N
6	4 Aug 2005	2.20	AH, PC#6816, ADD A HOLE FOR FEEDING GREEN	P17	L&R Master	4447	9920	N
7	.	.	GROUND WIRE.	P12FX	FX Modify	4434	9918	N
8	14 JUN 2006	2.30	AH, PC#7091, UPDTAE #5322 CHANGE DRILL SIZE TO 40					
9	.	.	PC#6989, STRENGTHEN RCA JACK SECTION BREAKAWAY					
10	.	.	#4581 UPDATED, PROPER DRILLING ORDER					
11	11-JAN-2008	3.00	PC#7325, FORCE UPDATE PARTS FOR NEW PAD TYPE					
12	.	.	PC#7330, REMOVE EXTRA PADS FROM U1FX AND U3FX					
13	2008/02/20	4.00	New DFX, solder updates, add amp in jacks, link for tie4					
1	2008/03/19	5.00	Corrected Amp in jack swap.					
2	2008/03/25	.	Added copper pour to encoder and pot legs. Rotated tie4					
3	.	.	pads on stereo channel pots.					
4	2008/04/18	.	Added scoring tooling holes.					
5	20080619	.	Changed XLR jacks to minimum outline.					
6	2009/09/18	6.00	PC#7868 - changed to standoff nuts. Add X102.					
7	2009/09/24	6.00	PC#7876 - Ribbon cable change. Modified some pads on					
8	.	.	dual pots to prevent solder bridging. D1--> 25MIL					
9	.	.	PC#7878 - Make ampin jack breakouts smaller.					
10	D	V	N					
11	D	V	N					
12	D	V	N					
13	D	V	N					

M1189 PENDING CHANGES		
MODEL(S):- M1610		
#	PC#	PENDING CHANGE
1	PC	X
2	PC	X
3	PC	X
4	PC	X
5	PC	X
6	PC	X

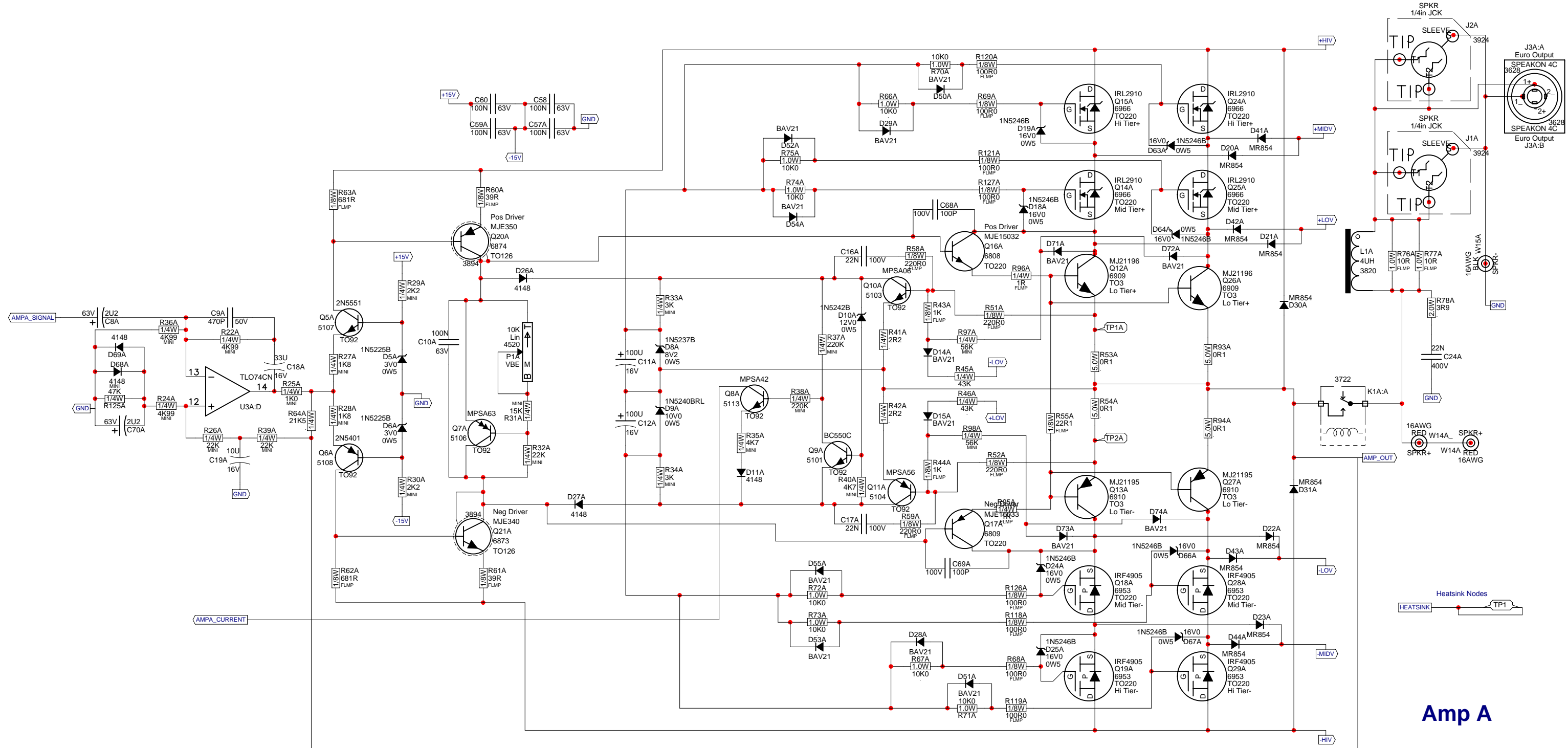
**\*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY**

M1189 DRILL HISTORY			
MODEL(S):- M810/M1610			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	24-FEB-2004	V01	N
2	21-APR-2005	V02	N
3	4-AUG-2005	V03	N
4	2008/02/20	V04	N
5	2008/04/18	V05	N
6	D	V	N



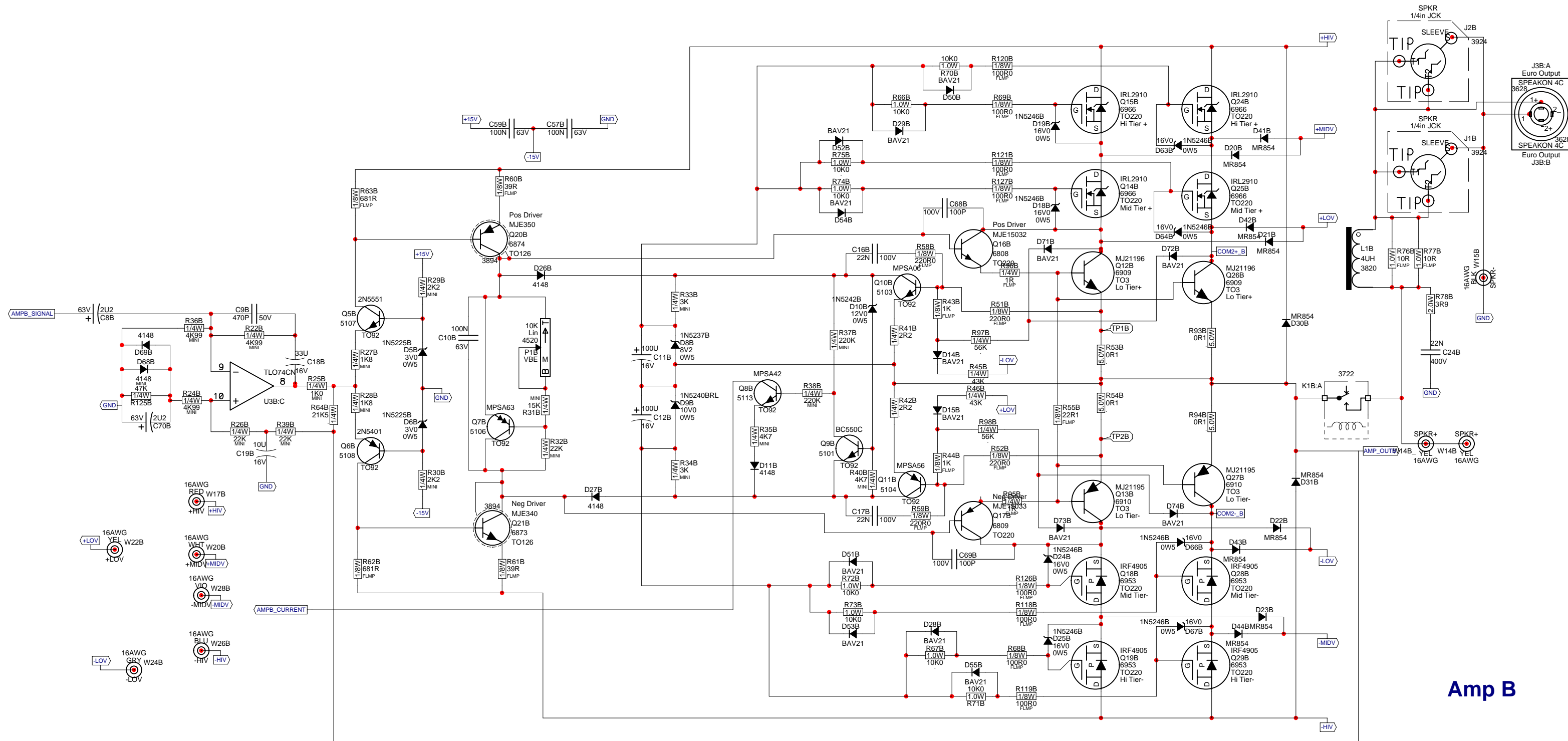
**Yorkville**

Product <b>M1610</b>		
Ampln	PCB# M1190	Sheet 1 of 4
Date: Thu Feb 04, 2010	Rev: V11.0	YsType: .
Filename: M1190V1100sch.sch2002		

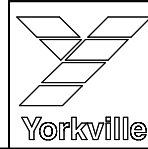


**Amp A**

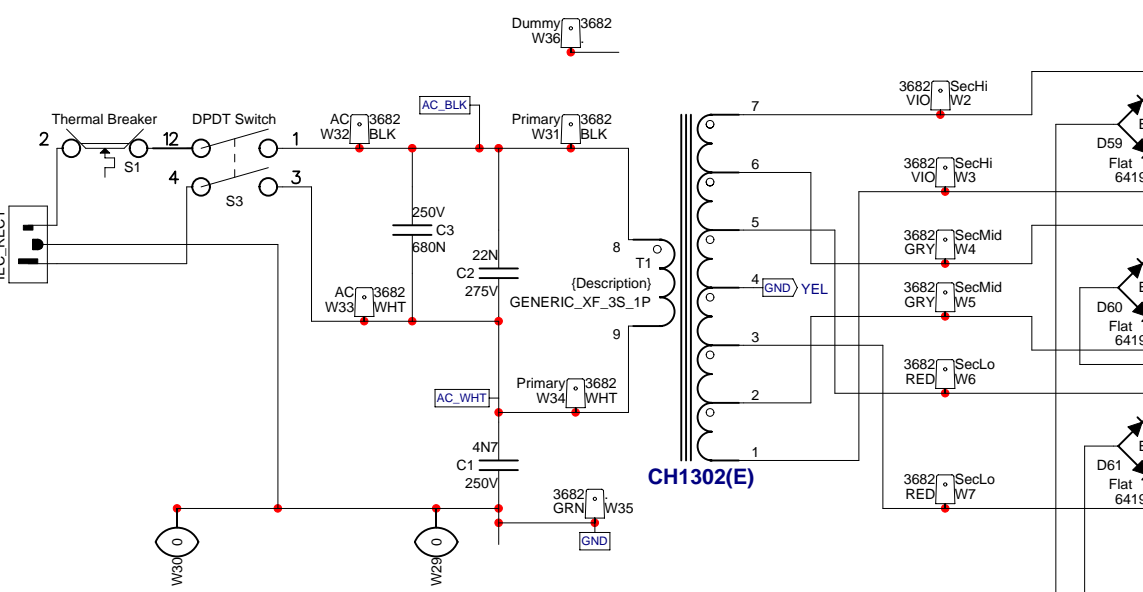
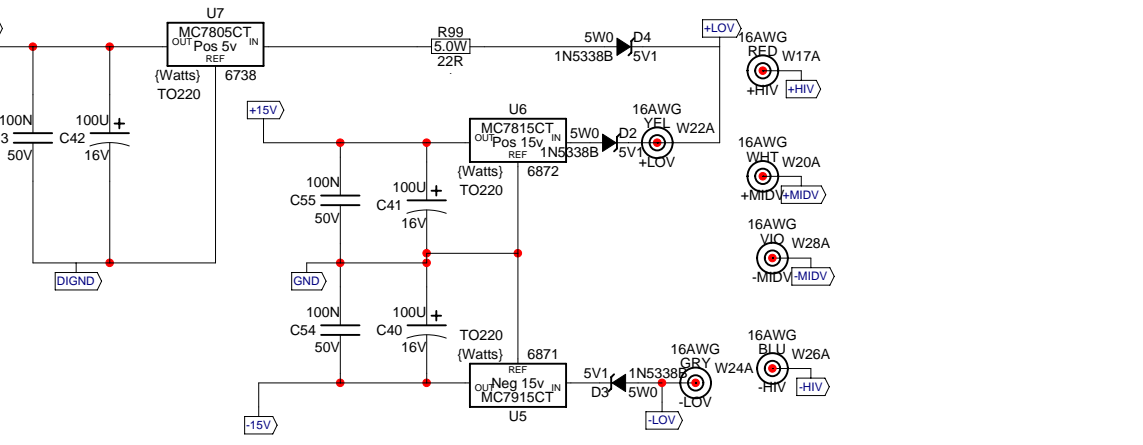
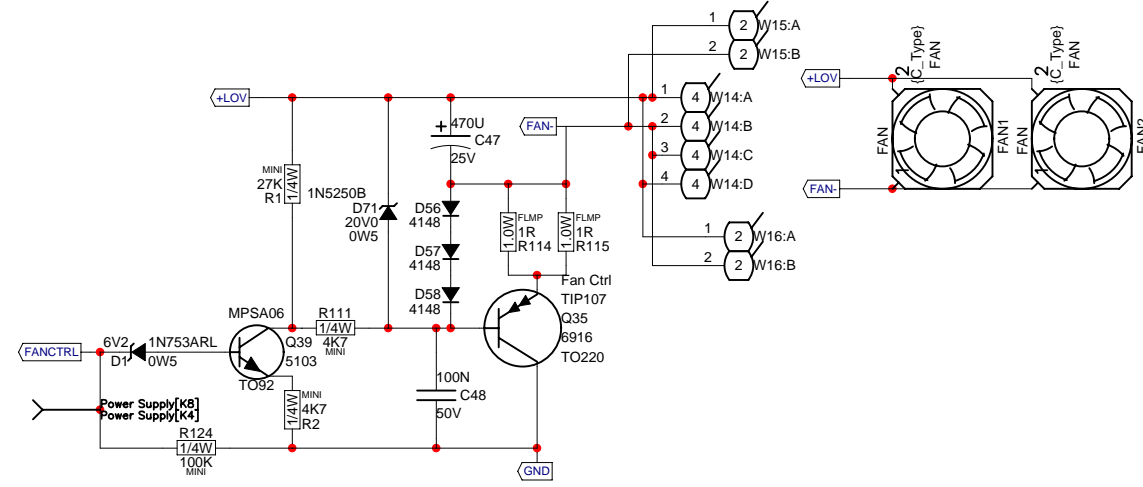
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	<b>Channel A</b>	<b>PCB# M1190</b>	<b>Sheet 2 of 4</b>
	<b>Date: Thu Feb 04, 2010</b>	<b>Rev:V11.0</b>	<b>YsType:..</b>
	<b>Filename: M1190V1100sch.sch2002</b>		



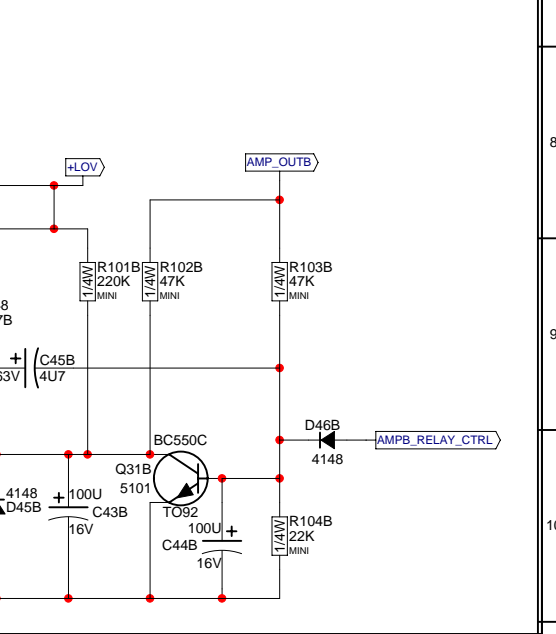
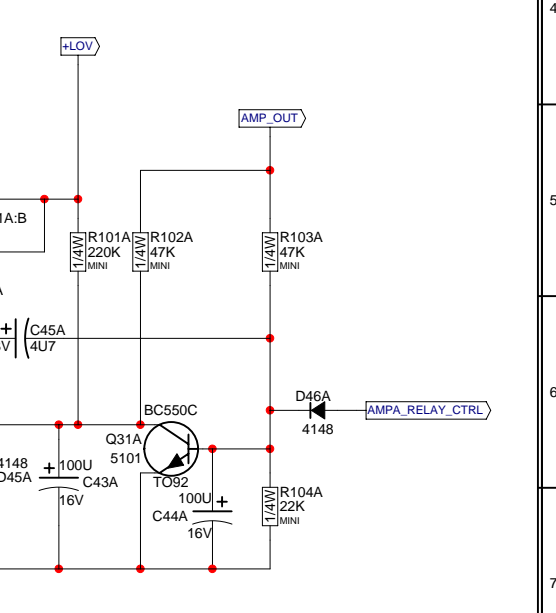
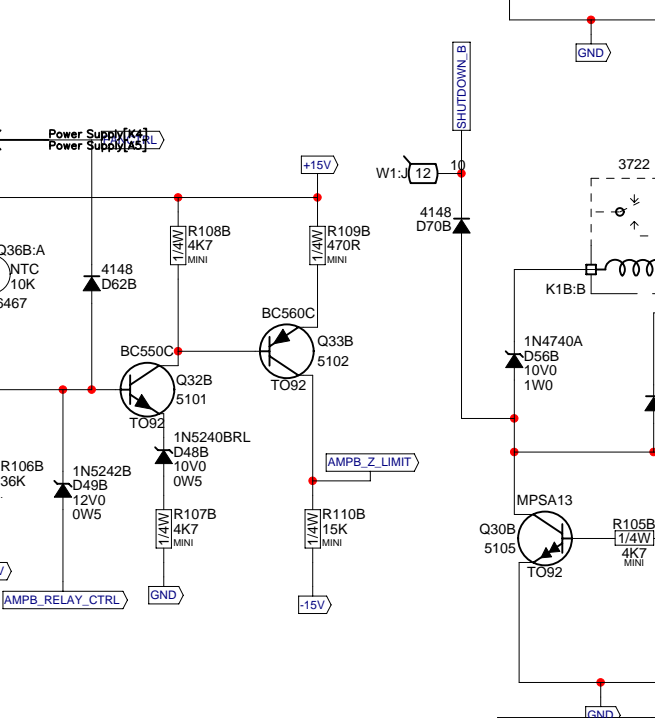
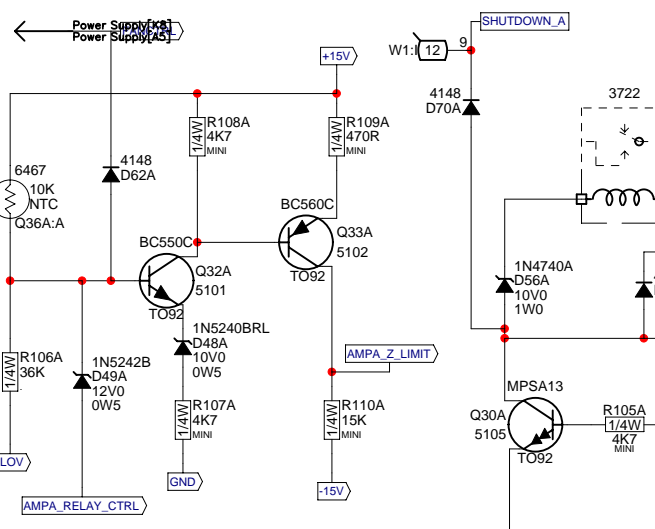
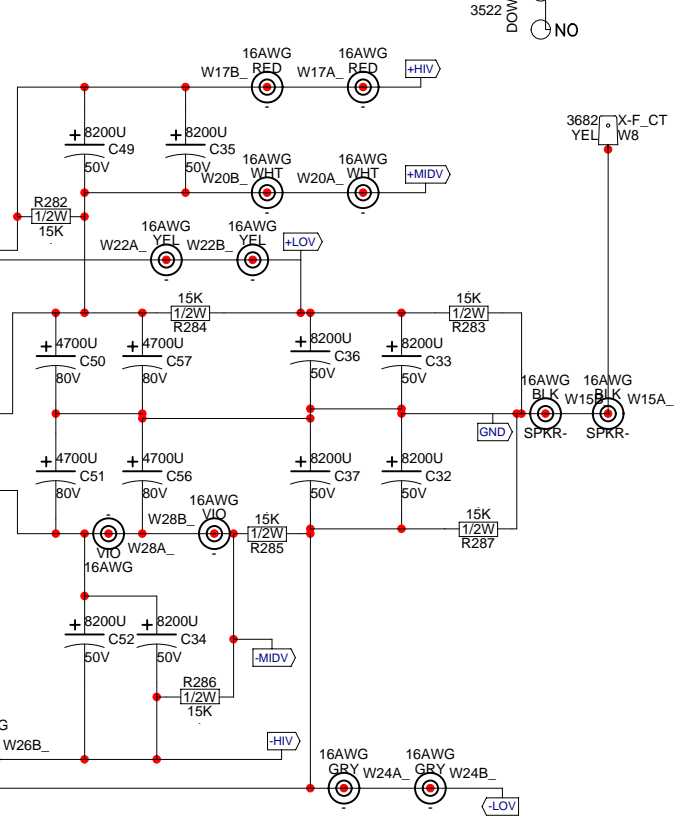
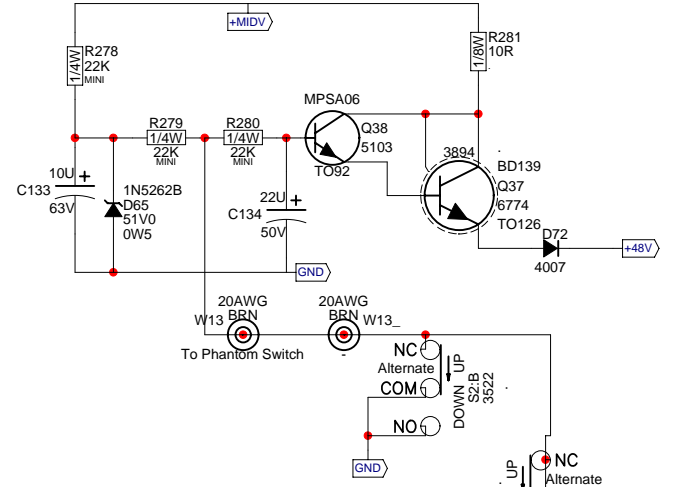
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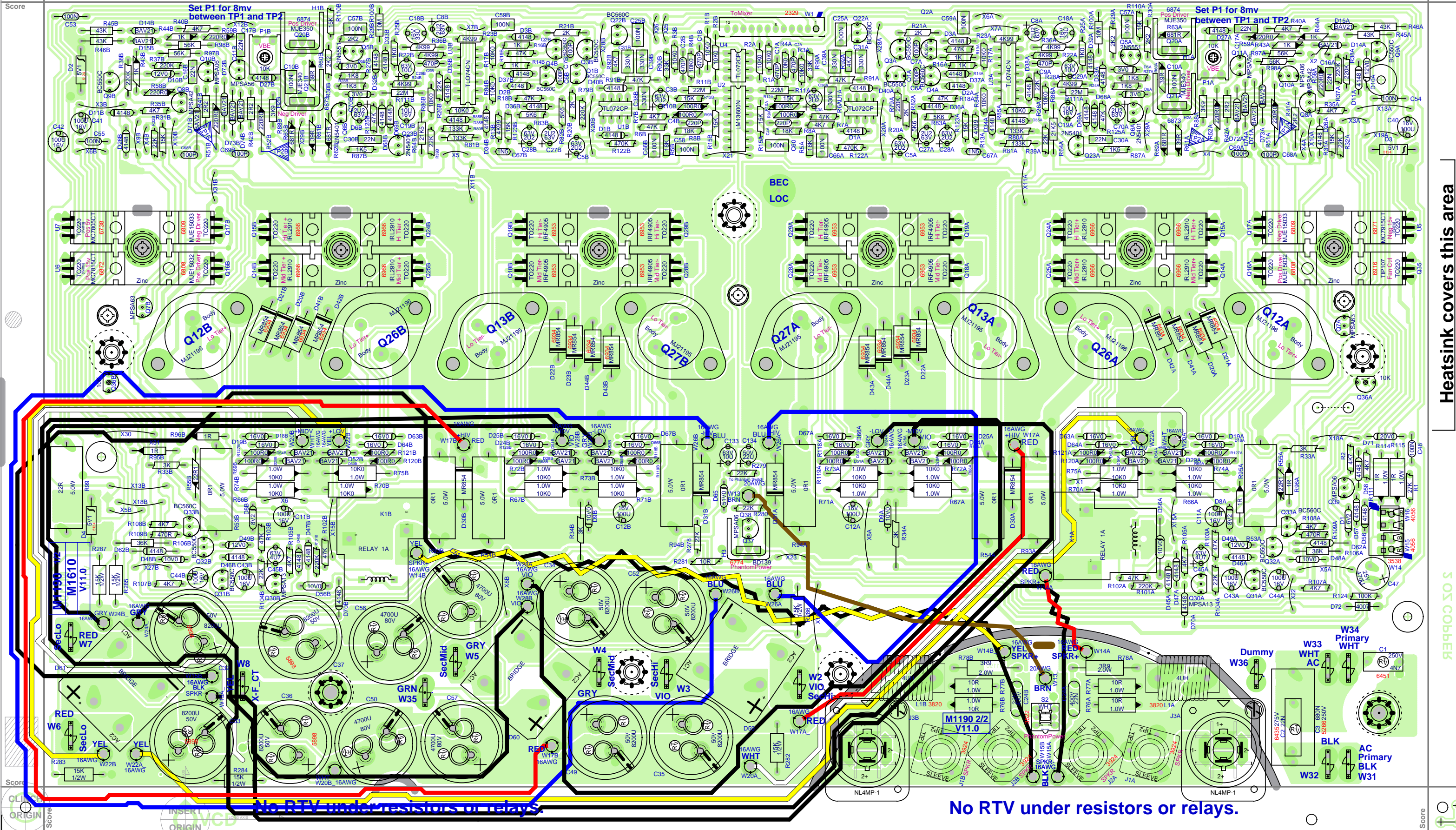
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	<b>Channel B</b>	<b>PCB# M1190</b>	<b>Sheet 3 of 4</b>
	<b>Date: Thu Feb 04, 2010</b>	<b>Rev:V11.0</b>	<b>YsType:..</b>
	<b>Filename: M1190V1100sch.sch2002</b>		

M1190.PCB_DATABASE_HISTORY			
MODEL(S):-	M1610	#	DATE
1	7 Jan, 2004	1.00	Rationalize wire refdes
2	24 Feb, 2004	1.00	Add speakon jacks to output section
3	10 Mar, 2004	1.00	Enlarge cutouts for 8841 nuts
4	21-APR-2004	1.00	PC#6681 Modify route to let grn wire pass board near p...
5	6-MAY-2004	2.00	PC#6684 R83(A,B)->5K6,R5(A,B)6K8->18K, D16&D17(A,B) 4148->BAT85,R47&R48(A,B)22R1->100R
6	D	V	ADDED D71, D72
7	D	V	GT:PC#6787: Fixed AC clearance, and W2&W3 tab label
8	DEC-14-2004	3.00	PC#6809 Remove D17,D16,D12,D13, R47,R48,R49,R50,C36
9	FEB-07-2005	4.00	C15 (All A/B) R45,R46 A/B 36K->43K, D10 16V->12V D9 A/B 14V->10V0, D8 A/B 12V->8V2, ADD R95 A/B
10	D	V	ADD R96 A/B, R97 A/B, R98 A/B, D71 A/B, D72 A/B
11	D	V	D73 A/B, D74 A/B, X1, X2, X3, X4 X5 AND X6
12	D	V	RECREATED MASK LAYER TO FIX TESTPADS
13	D	V	CHANGE IRF3205 #6954 TO IRL2910 #6966
14	MAR-30-2005	5.00	PLACE MICA UNDER MIDDLE TIER MOSFETS
15	MAR-13-2005	5.10	Force update parts to fix pad orientation
16	21 Apr, 2005	5.11	PC#6919:GT:MOVED R95B AVOID HEATSINK COLLISION XFORMER -> CH1302/E, ADDED 2x#4599,SWAPPED W48
17	JUN-08-2005	6.00	W35,R106A&B #6122 33K->#4868 36K, D56A&B #6440 47 4V7/0.5W->#6484 10V/1W, C32&C33 #5903 1200UF/35V48 #5898 8200UF/50V, C36&C37 #5896 4700UF/80V->#5898 49 C25A&B #5224 47N/100V->#5212 100N/63V
18	D	V	
19	D	V	
20	D	V	
21	D	V	
22	D	V	
23	D	V	



(E) DENOTES EUROPEAN





Heatsink covers this area

50% COPPER

No RTV under resistors or relays

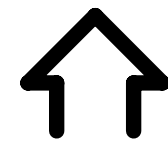
No RTV under resistors or relays

SEE LAYOUT DOCUMENTATION



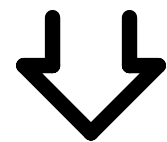
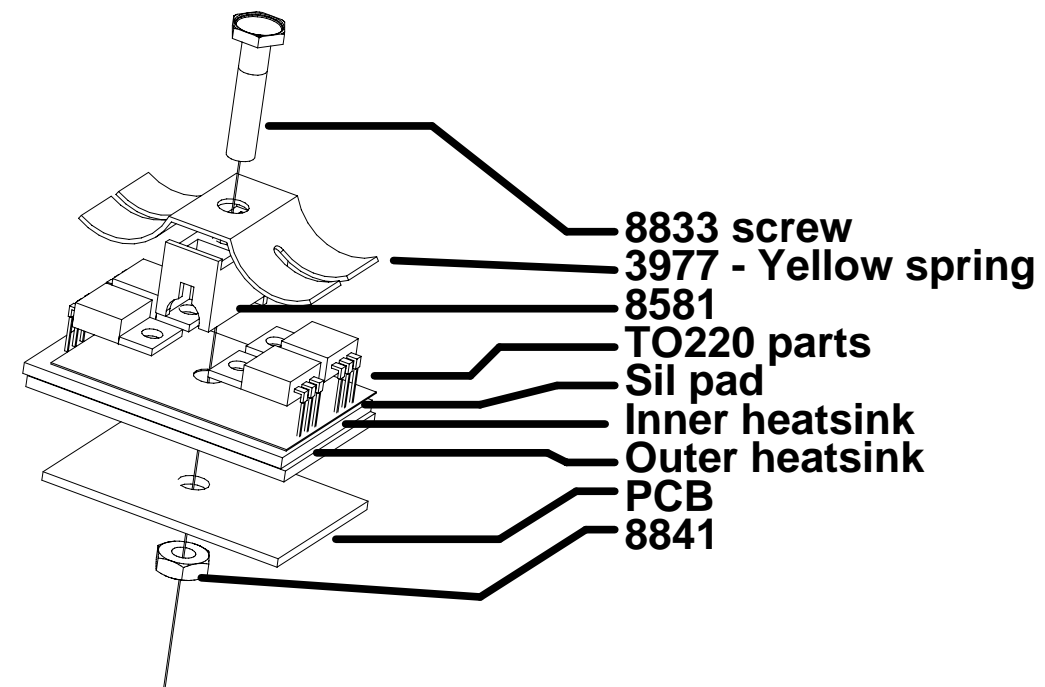
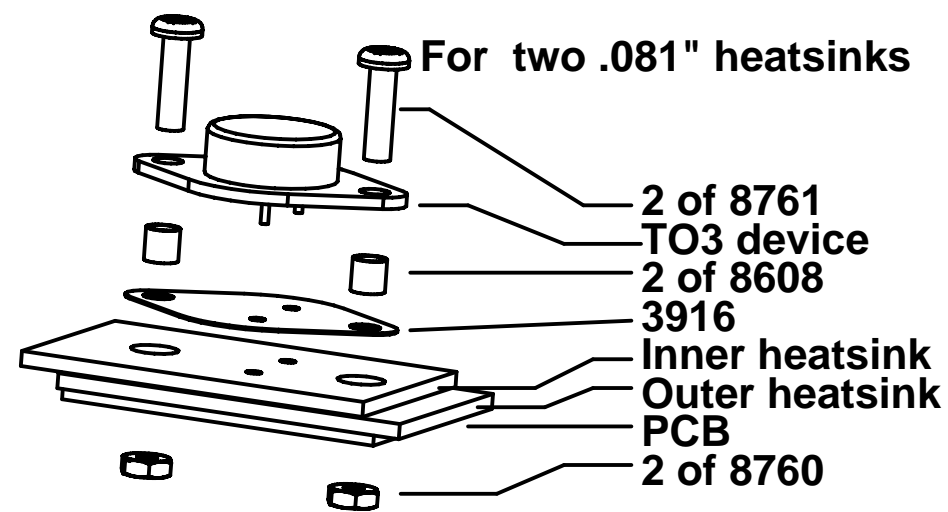


SEE LAYOUT DIAGRAM

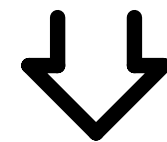


# M1190 PRODUCTION NOTES

1. Use three 8832 screws to align and attach the heatsinks to the board
2. When assembling heatsinks to Q20(A&B), Q21(A&B), Q37, ensure heatsinks are straight and sit flat against board. Add a very small amount of RTV between heatsink and board if necessary. This prevent heatsink from shorting other components.



SEE LAYOUT HISTORY



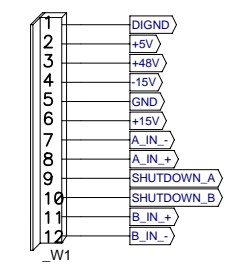
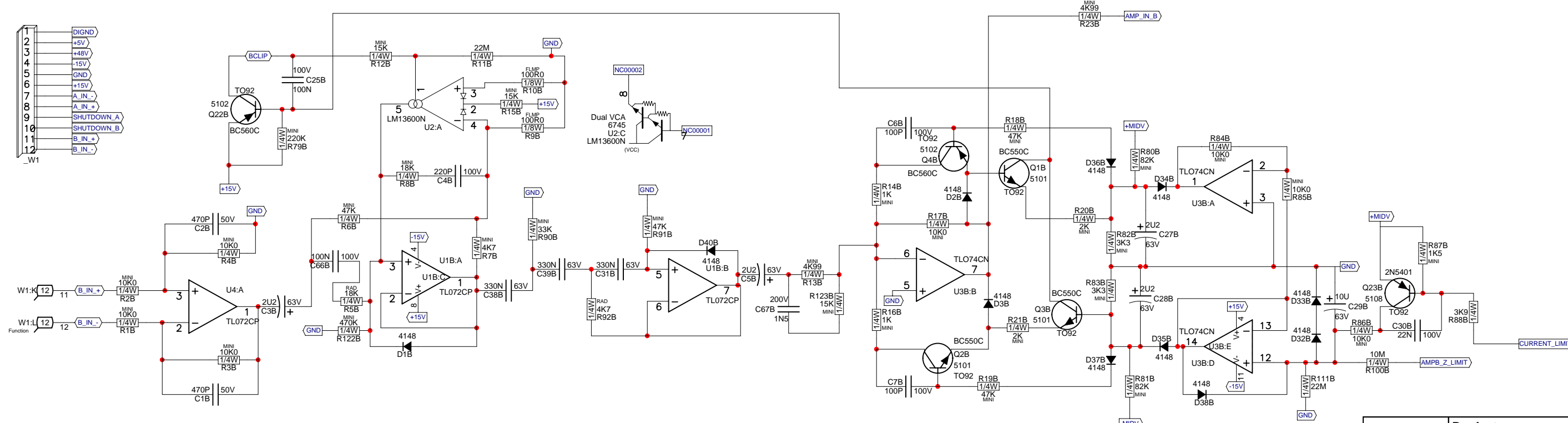
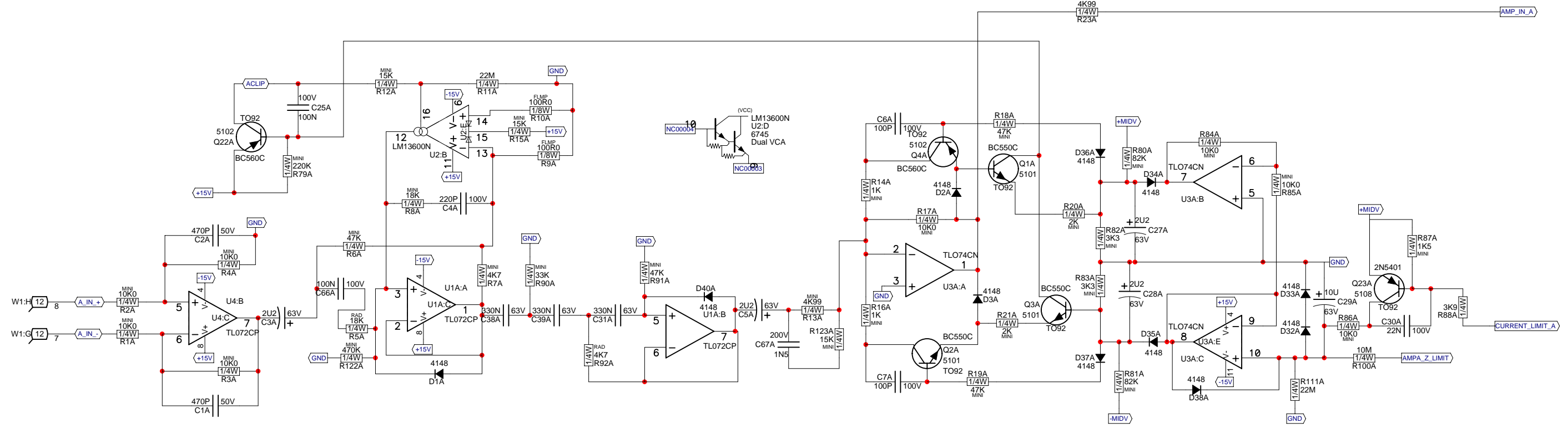


# SEE PPRODUCTION NOTES

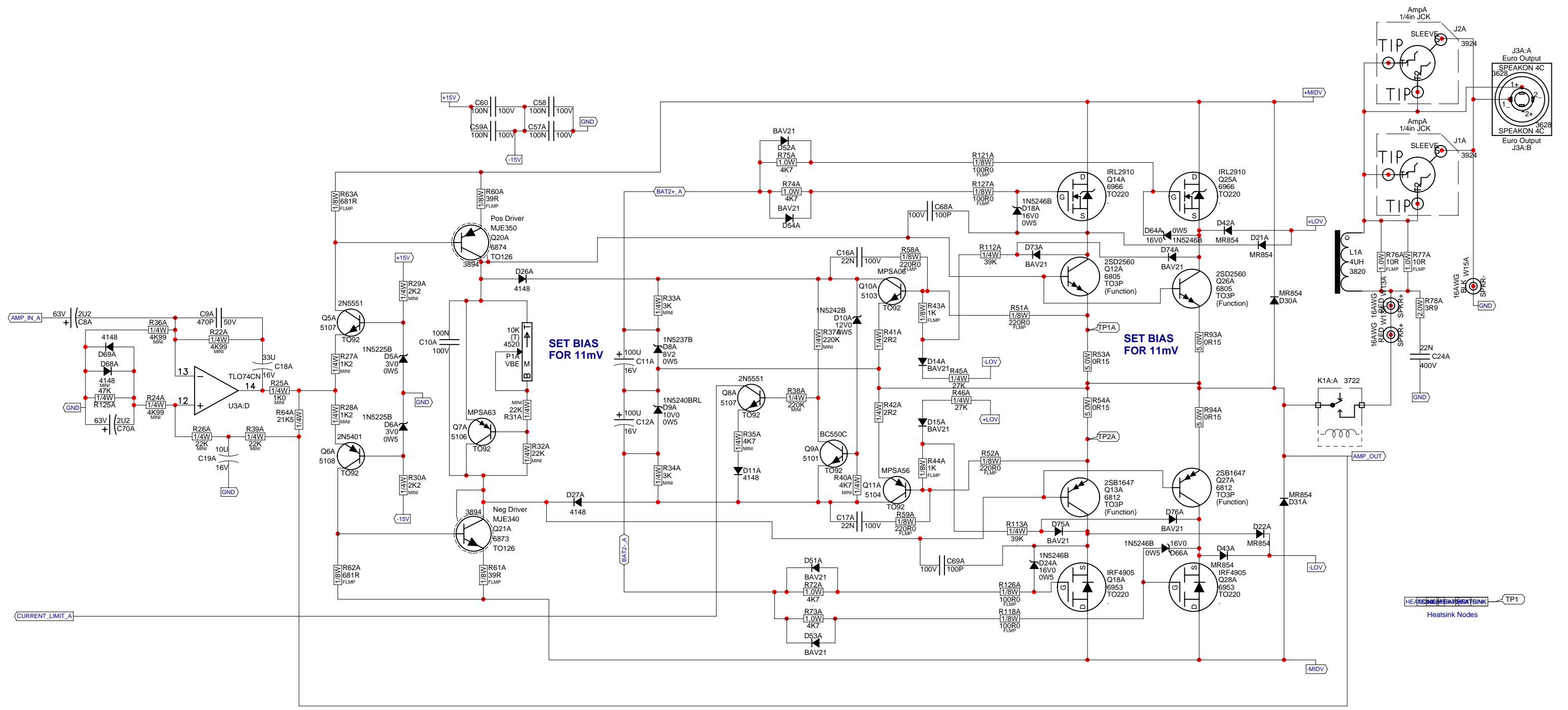


M1190.PCB_DATABASE_HISTORY				#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S):- M1610				24	.	.	R79A&B #6127 470K->#6127 220K
				25	.	.	ADDED D4 #5124 5V1/5W, R97&R98 #2006 1R/1W->#5124
				26	.	.	Corrected the position of some test nodes.
				27	.	.	Fixed BlankSize field
#	DATE	VER#	DESCRIPTION OF CHANGE	28	Jun-15-2006	7.00	AH, PC#7021, SPACE BETWEEN R96 AND R53
1	7 Jan, 2004	1.00	Rationalize wire refdes	29	.	.	PC#6983, WIDEN TRACE BETWEEN C32 AND C37
2	24 Feb, 2004	1.00	Add speakon jacks to output section	30	.	.	PC#7091, ENLARGE HOLE SIZE FOR #3522
3	10 Mar, 2004	1.00	Enlarge cutouts for 8841 nuts	31	2008/04/25	8.00	Swap c37 with c51; c57 with c36. Moved x11b & x31b to
4	21-APR-2004	1.00	PC#6681 Modify route to let grn wire pass board near pwr cap	32	.	.	middle of HS slots. Solder updates, part updates.
5	6-MAY-2004	2.00	PC#6684 R83(A,B)->5K6,R5(A,B)6K8->18K, D16&D17(A,B) 4148->BAT85,R47&R48(A,B)22R1->100R0	33	.	.	Changed Q8a&b from 5107 to 5113 - MPSA42
6			ADDED D71, D72	34	2008/05/29	9.00	PC#7590 - PS hum fix. Moved K1B away from X15B.
7			GT:PC#6787: Fixed AC clearance, and W2&W3 tab label	35	2009/11/09	10.00	PCs 7875, 7876 - Ribbon cable change - XTR screws flipp
8	DEC-14-2004	3.00	PC#6809 Remove D17,D16,D12,D13, R47,R48,R49,R50,C14	36	03-FEB-2010	.	PC7942,PC7980: Update #4xTO220-MTG GG
9	FEB-07-2005	4.00	C15 (All A/B) R45,R46 A/B 36K->43K, D10 16V->12V	37	04-FEB-2010	11.00	PC7983: Change D2,D3,D4 #5124 span to .525 GG
10	D	V	D9 A/B 14V->10V0, D8 A/B 12V->8V2. ADD R95 A/B	38	D	V	N
11	D	V	ADD R96 A/B, R97 A/B, R98 A/B, D71 A/B, D72 A/B	39	D	V	N
12	D	V	D73 A/B, D74 A/B, X1 ,X2 ,X3 ,X4 X5 AND X6	40	D	V	N
13	D	V	RECREATED MASK LAYER TO FIX TESTPADS	41	D	V	N
14	MAR-30-2005	5.00	CHANGE IRF3205 #6954 TO IRL2910 #6966	42	D	V	N
15	MAR-13-2005	5.10	PLACE MICA UNDER MIDDLE TIER MOSFETS	43	D	V	N
16	.	.	Force update parts to fix pad orientation	44	D	V	N
17	21 Apr, 2005	5.11	PC#6919:GT:MOVED R95B AVOID HEATSINK COLLISION	45	D	V	N
18	JUN-08-2005	6.00	XFORMER -> CH1302/E, ADDED 2x#4599,SWAPPED W8 &	46	D	V	N
19	.	.	W35,R106A&B #6122 33K->#4868 36K, D56A&B #6440	47	D	V	N
20	.	.	4V7/0.5W->#6484 10V/1W, C32&C33 #5903 12000UF/35V ->	48	D	V	N
21	.	.	#5898 8200UF/50V, C36&C37 #5896 4700UF/80V->#5898	49	D	V	N
22	.	.	C25A&B #5224 47N/100V->#5212 100N/63V	50	D	V	N
23	.	.					

M1190 Drill History				M1190 PENDING CHANGES		
MODEL(S):- M1610				MODEL(S):- M1610		
#	DATE	VER#	DESCRIPTION OF CHANGE	#	PC#	PENDING CHANGE
1	5-MAY-2004	V03	Added notch to pass GRN wire from front	1	PC	X
2	6-MAY-2004	V04	To match V2.00 changes	2	PC	X
3	NOV-05-2004	V05	HG:PC#6730:REMOVED EXTRA ROUTING BITS	3	PC	X
4	AUG-26-2005	V07	GT:CHANGES FOR 6V00 RELEASE. SEE HISTORY BOX	4	PC	X
5	2008/04/25	V08	Solder updates.	5	PC	X
6	2008/05/29	V09	PC#7590	6	PC	X



	<b>Product M810-2</b>		
	Ampln	PCB# M1194	Sheet 1 of 4
	Date: Fri Feb 05, 2010	Rev: V10.00	YsType: .
	Filename: M1194V1000sch.sch2002		



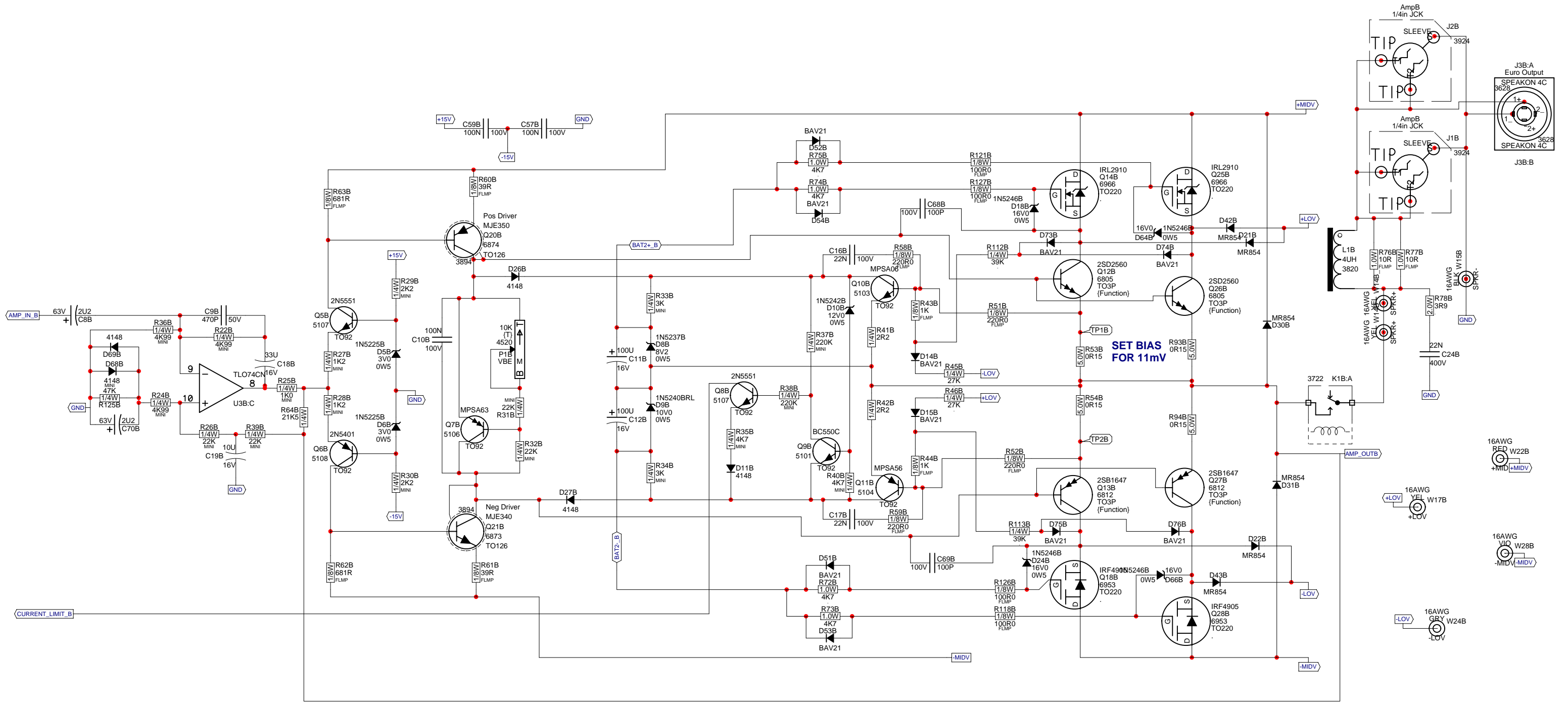
SET BIAS FOR 11mV

SET BIAS FOR 11mV

Heatsink Nodes



Product <b>M810-2 Amp A</b>		
Channel A	PCB# M1194	Sheet 2 of 4
Date: Fri Feb 05, 2010	Rev: V10.00	YsType:..
Filename: M1194V1000sch.sch2002		



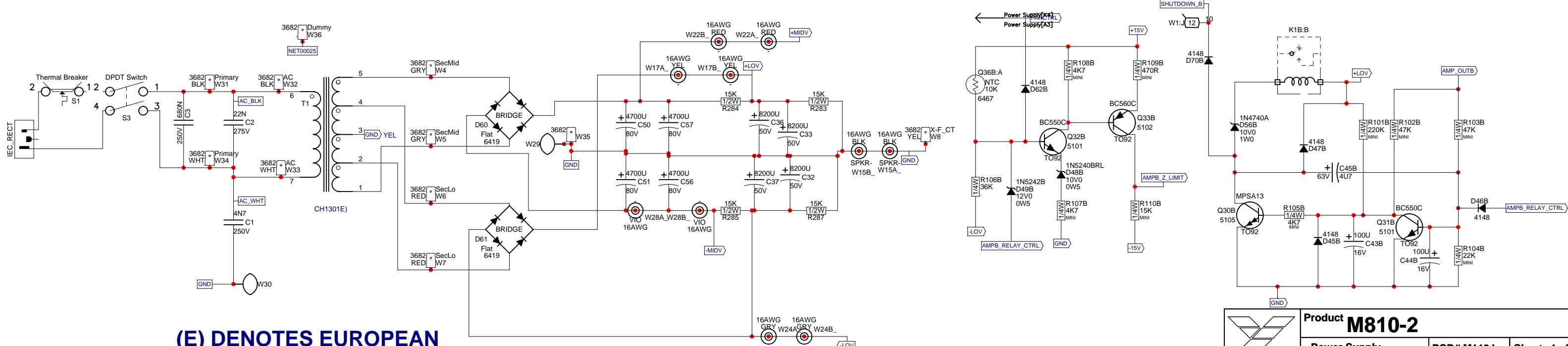
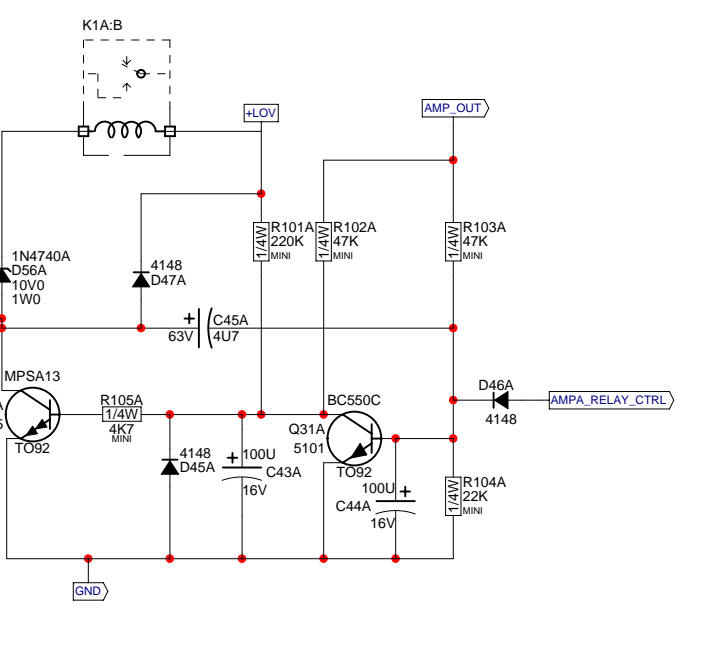
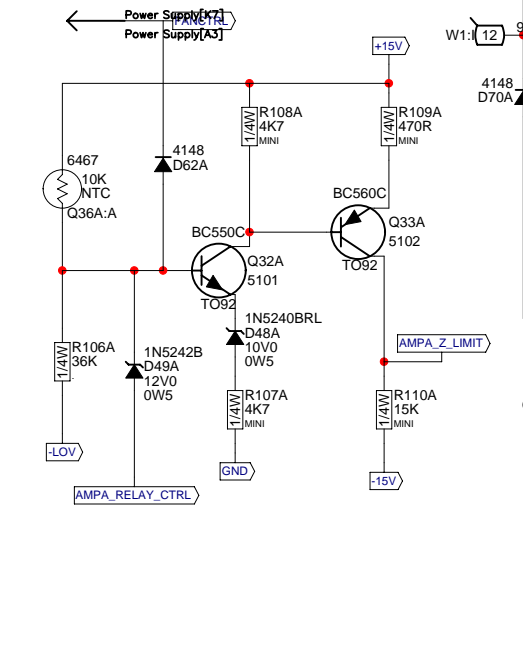
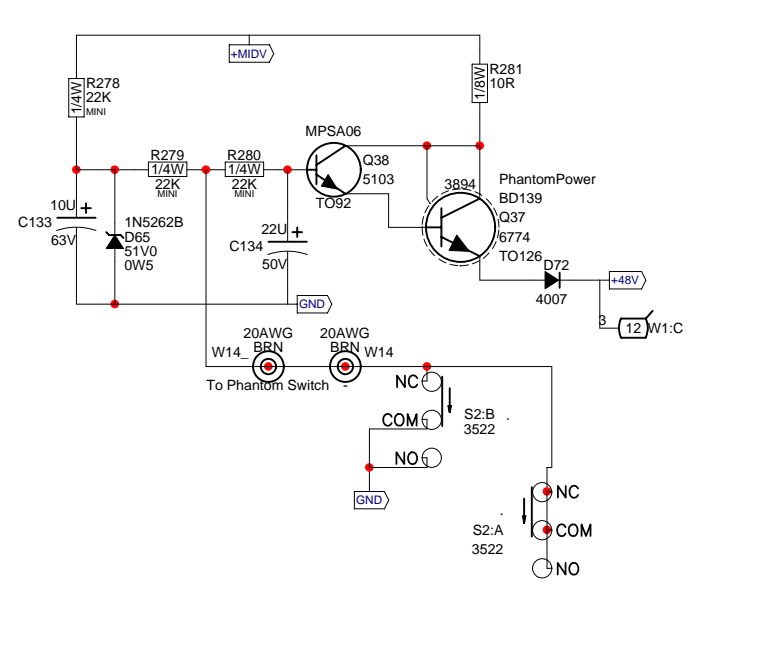
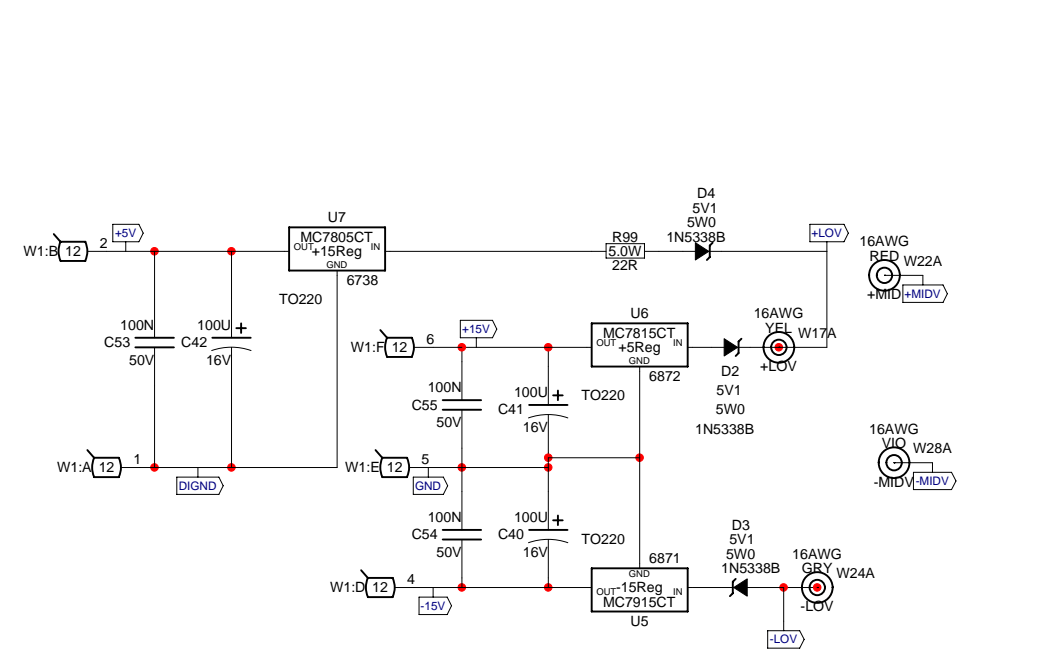
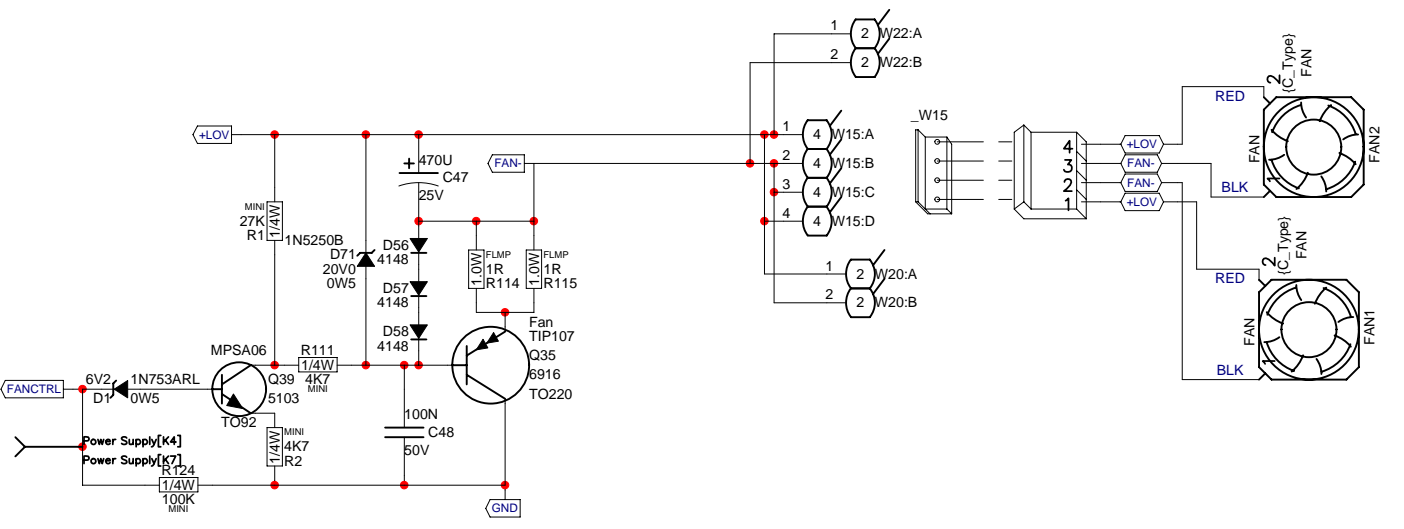
SET BIAS FOR 11mV



Product <b>M810-2 Amp B</b>		
Channel B	PCB# M1194	Sheet 3 of 4
Date: Fri Feb 05, 2010	Rev: V10.00	YsType:..
Filename: M1194V1000sch.sch2002		

### M1194.PCB\_DATABASE\_HISTORY

#	DATE	VER#	DESCRIPTION OF CHANGE	#	DATE	VER#	DESCRIPTION OF CHANGE
1	10 Jan, 2004	1.00	Rationalize wire refdes	24			35V AND C36&C37#58964700/80V->#5898 8200U/50V
2	24 Feb, 2004	1.00	Add speakon jacks to output section	25			UPDATED BIAS NOTE TO READ 11mV, R45A/B&R46A/B
3	10 Mar, 2004	1.00	Enlarge cutouts for 8841 nuts	26			#4890 30K->#4833 27K, R112A/B&R113A/B #4868 36K->
4	1-APR-2004	1.10	PC#6674 Change R31A,B 15k->22k (4979->6118)	27			#4853 39K, C25A/B #5224 47N/100V->#5212 100N/63V,
5	15-APR-2004	1.20	PC#6678 Chg. R5A,B 6k8->18k; R82A,B 5k6->3k3	28			R79A/B #6127 470K->#6126 220K, SWAPPED W8 AND W35
6	D	V	R83A,B 56k->3k3; R80A,B, R81A,B 133k->100k	29	19-JUN-2006	7.00	AH, PC#6983, WIDEN TRACE BETWEEN C32 AND C37
7	21-APR-2004	1.20	PC#6681 Modified route to let grn wire pass near power	30			PC#7091, ENLARGE HOLE SIZE FOR #3522
8	6-MAY-2004	2.00	PC#6685 R80&R81(A,B) 100K->82K, ADDED D71, D72	31	2008/09/23	8.00	Complete force update of pcb. Moved Q7a,b closer to xtrs.
9	JUN/17/2004	2.10	PC# 6707 Q12 (A+B) Q26 (A+B) TIP142 -> MJH11018	32			Solder updates. Thickened traces to R74, R75. Added
10			Q13 (A+B), Q27 (A+B) TIP147 -> MJH11017	33			NO RTV note to 5watt resistors. Added breaks near caps
11	13 Sept, 2004	2.11	TC:PC#6763:Moved HS alignment hole to match HS	34			and jacks - PC#7349. Flipped xtr spring screws
12	JAN-05-2005	4.00	PC#6808 R72,R73,R74,R75 FROM 10K0 1W TO 4K7 1W	35			- PC#7624 and added fan connector - PC#7628.
13			D8 A/B 12V0 TO 8V2, D9A/B 14V0 TO 10V0, D10A/B 16V0	36	26-FEB-2008		PC7706, CHANGE #6779 WITH #6805 NPN AND CHANGE
14			TO 12V0. ADD R112A/B, R113A/B (36K), D73A/B, D74A/B	37			#6802 WITH #6812 PNP
15			D75A/B, D76A/B (BAV21). R45A/B, R46A/B 36K TO 30K	38	2009/09/24	9.00	PCs 7875, 7876 - Ribbon cable change - XTR screws flipped.
16			REMOVE D16,D17,R47,R48,R49, R50 (ALL A/B)	39	03-FEB-2010		PC7942,PC7980: Update 4xTO220-MTG, 2xTO218-MTG GG
17			ADD JUMPERS X1 TO X12	40	05-FEB-2010	10.00	PC7983: Enlarge D2,D3,D4 span to .550
18			PC#6794: AC CLEARANCE FIX	41			
19	MAR-24-2005	5.00	FIXED MASK SPREAD TO 30MIL	42			
20	APR-13-2005	5.10	CHANGE IRF3205 #6954 TO IRL2910 #6966	43			
21			PLACE MICA UNDER MIDDLE TIER MOSFETS	44			
22	JUN-29-2005	6.00	PC#6920:GT:R106A/B #6122 33K->#4868 36K, D56A/B	45			
23			#6440 4V7/0W5->#6484 10V1W, C32&C33#5903 12000U/50	46			



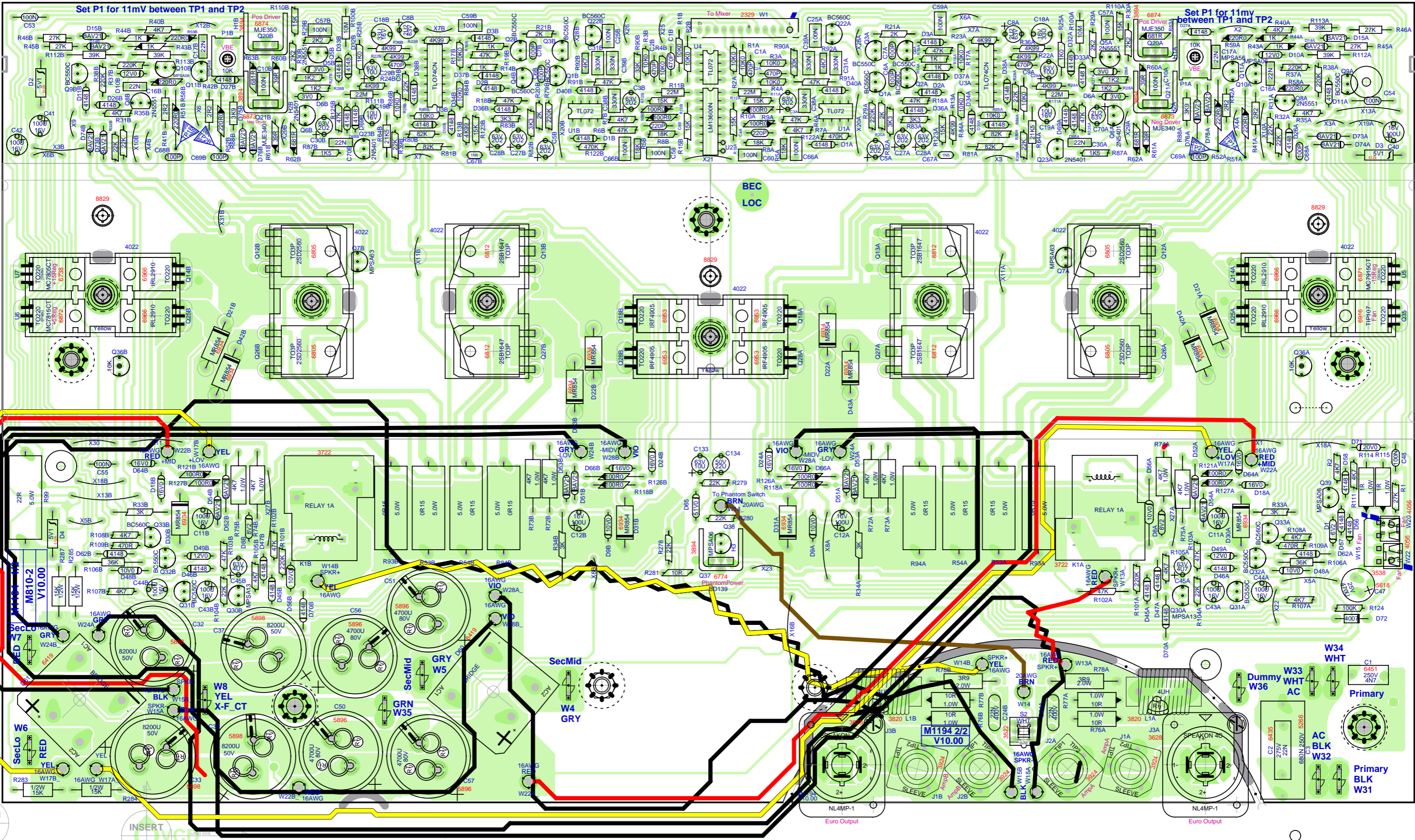
**(E) DENOTES EUROPEAN**

Product **M810-2**

Power Supply PCB# M1194 Sheet 4 of 4

Date: Fri Feb 05, 2010 Rev:V10.00 YsType:..

Filename: M1194V1000sch.sch2002



Set P1 for 11mV between TP1 and TP2

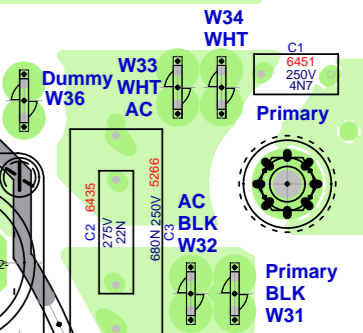
Set P1 for 11mV between TP1 and TP2

BEC LOC



SEE LAYOUT DOCUMENTATION

USE 2 OZ COPPER



Euro Output

Euro Output

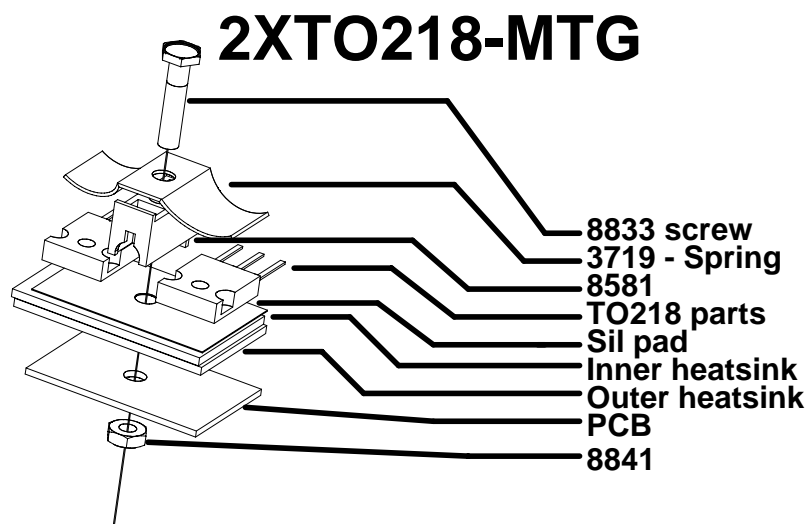
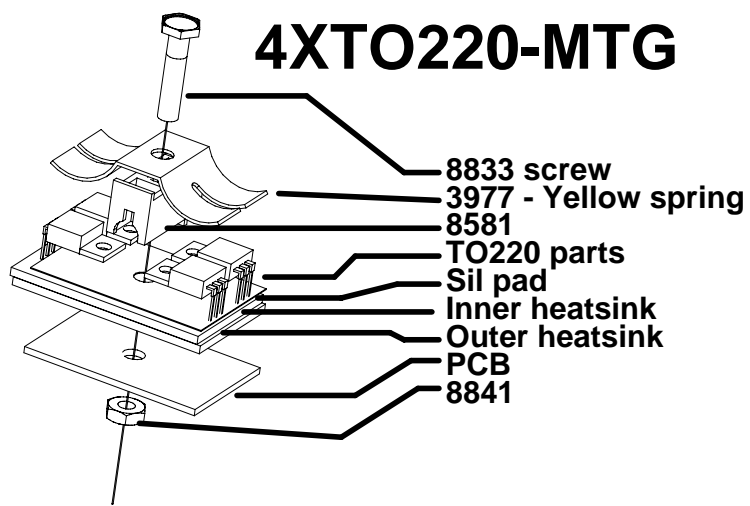


SEE LAYOUT DIAGRAM

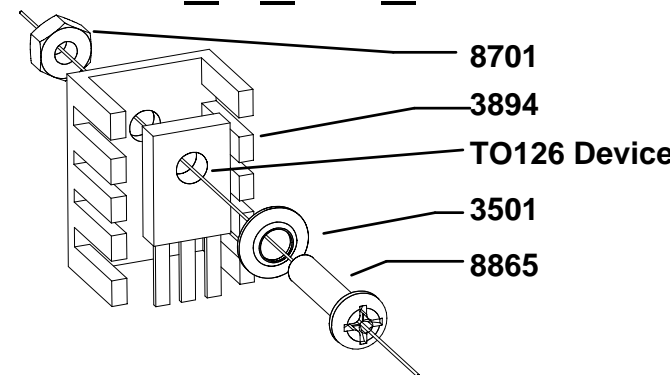


# M1194 PRODUCTION NOTES

1. Use three 8829 screws to align and attach the heatsinks to the board.
2. When assembling heatsinks to Q20(A&B),Q21(A&B),Q37, ensure heatsinks are straight and sit flat against board. Add a very small amount of RTV between heatsink and board if necessary. This prevents the heatsink from shorting other components.
3. Add grease under middle tier mosfets.
4. No RTV under stones.



## TO126\_V\_HS\_MTG







# SEE LAYOUT DIAGRAM



M1194.PCB_DATABASE_HISTORY				#	DATE	VER#	DESCRIPTION OF CHANGE
MODEL(S):- M810				24	.	.	35V AND C36&C37#58964700/80V->#5898 8200U/50V
MODEL(S):- M810				25	.	.	UPDATED BIAS NOTE TO READ 11mV, R45A/B&R46A/B
#	DATE	VER#	DESCRIPTION OF CHANGE	26	.	.	#4890 30K->#4833 27K, R112A/B&R113A/B #4868 36K->
1	10 Jan, 2004	1.00	Rationalize wire refdes	27	.	.	#4853 39K, C25A/B #5224 47N/100V->#5212 100N/63V,
2	24 Feb, 2004	1.00	Add speakon jacks to output section	28	.	.	R79A/B #6127 470K->#6126 220K, SWAPPED W8 AND W35
3	10 Mar, 2004	1.00	Enlarge cutouts for 8841 nuts	29	19-JUN-2006	7.00	AH, PC#6983, WIDEN TRACE BETWEEN C32 AND C37
4	1-APR-2004	1.10	PC#6674 Change R31A,B 15k-->22k (4979-->6118)	30	.	.	PC#7091, ENLARGE HOLE SIZE FOR #3522
5	15-APR-2004	1.20	PC#6678 Chg. R5A,B 6k8->18k; R82A,B 5k6->3k3	31	2008/09/23	8.00	Complete force update of pcb. Moved Q7a,b closer to xtrs.
6	.	.	R83A,B 56k->3k3; R80A,B, R81A,B 133k->100k	32	.	.	Solder updates. Thickened traces to R74, R75. Added
7	21-APR-2004	1.20	PC#6681 Modified route to let grn wire pass near power caps	33	.	.	NO RTV note to 5watt resistors. Added breaks near caps
8	6-MAY-2004	2.00	PC#6685 R80&R81(A,B) 100K->82K, ADDED D71, D72	34	.	.	and jacks - PC##7349. Flipped xtr spring screws
9	JUN/17/2004	2.10	PC# 6707 Q12 (A+B) Q26 (A+B) TIP142 -> MJH11018	35	.	.	- PC#7624 and added fan connector - PC#7628.
10	.	.	Q13 (A+B), Q27 (A+B) TIP147 -> MJH11017	36	26-FEB-2008	.	PC7706, CHANGE #6779 WITH #6805 NPN AND CHANGE
11	13 Sept, 2004	2.11	TC:PC#6763:Moved HS alignment hole to match HS	37	.	.	#6802 WITH #6812 PNP
12	JAN-05-2005	4.00	PC#6808 R72,R73,R74,R75 FROM 10K0 1W TO 4K7 1W	38	2009/09/24	9.00	PCs 7875, 7876 - Ribbon cable change - XTR screws flipped.
13	.	.	D8 A/B 12V0 TO 8V2, D9A/B 14V0 TO 10V0, D10A/B 16V0	39	03-FEB-2010	.	PC7942,PC7980: Update 4xTO220-MTG, 2xTO218-MTG GG
14	.	.	TO 12V0. ADD R112A/B, R113A/B (36K), D73A/B, D74A/B	40	05-FEB-2010	10.00	PC7983: Enlarge D2,D3,D4 span to .550 GG
15	.	.	D75A/B, D76A/B (BAV21). R45A/B, R46A/B 36K TO 30K	41	D	V	N
16	.	.	REMOVE D16,D17,R47,R48,R49, R50 (ALL A/B)	42	D	V	N
17	.	.	ADD JUMPERS X1 TO X12	43	D	V	N
18	.	.	PC#6794: AC CLEARANCE FIX	44	D	V	N
19	MAR-24-2005	5.00	FIXED MASK SPREAD TO 30MIL	45	D	V	N
20	APR-13-2005	5.10	CHANGE IRF3205 #6954 TO IRL2910 #6966	46	D	V	N
21	.	.	PLACE MICA UNDER MIDDLE TIER MOSFETS	47	D	V	N
22	JUN-29-2005	6.00	PC#6920:GT:R106A/B #6122 33K->#4868 36K, D56A/B	48	D	V	N
23	.	.	#6440 4V7/0W5->#6484 10V1W, C32&C33#5903 12000U	49	D	V	N
				50	D	V	N

DRILL & ROUTE HISTORY				M1194 PENDING CHANGES		
MODEL(S):- M810				MODEL(S):- M810		
#	DATE	VER#	DESCRIPTION OF CHANGE	#	PC#	PENDING CHANGE
1	10-MAR-2004	V02	Enlarged routing for hex nuts	1	PC	X
2	5-MAY-2004	V03	Added notch to routing to pass GRN wire from front	2	PC	X
3	6-MAY-2004	V04	To match v2.00 changes	3	PC	X
4	JAN-05-2005	V05	PC#6763 MOVE TOP LEFT HEATSINK LINE-UP HOLE	4	PC	X
5	20 Apr,2005	5.11	Corrected 'BlankSize' field for clinch program	5	PC	X
6	.	.	Corrected pad orientations on 4520, 5840 and 3722	6	PC	X
7	2008/09/23	13	Solder updates, several PCs. New drill and route.	*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY		
8	D	V	N			
9	D	V	N			
10	D	V	N			
11	D	V	N			
12	D	V	N			
13	D	V	N			

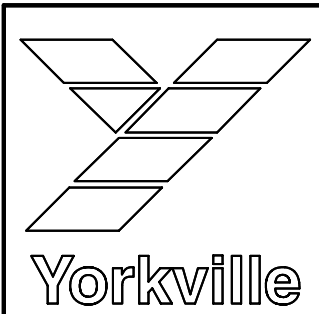
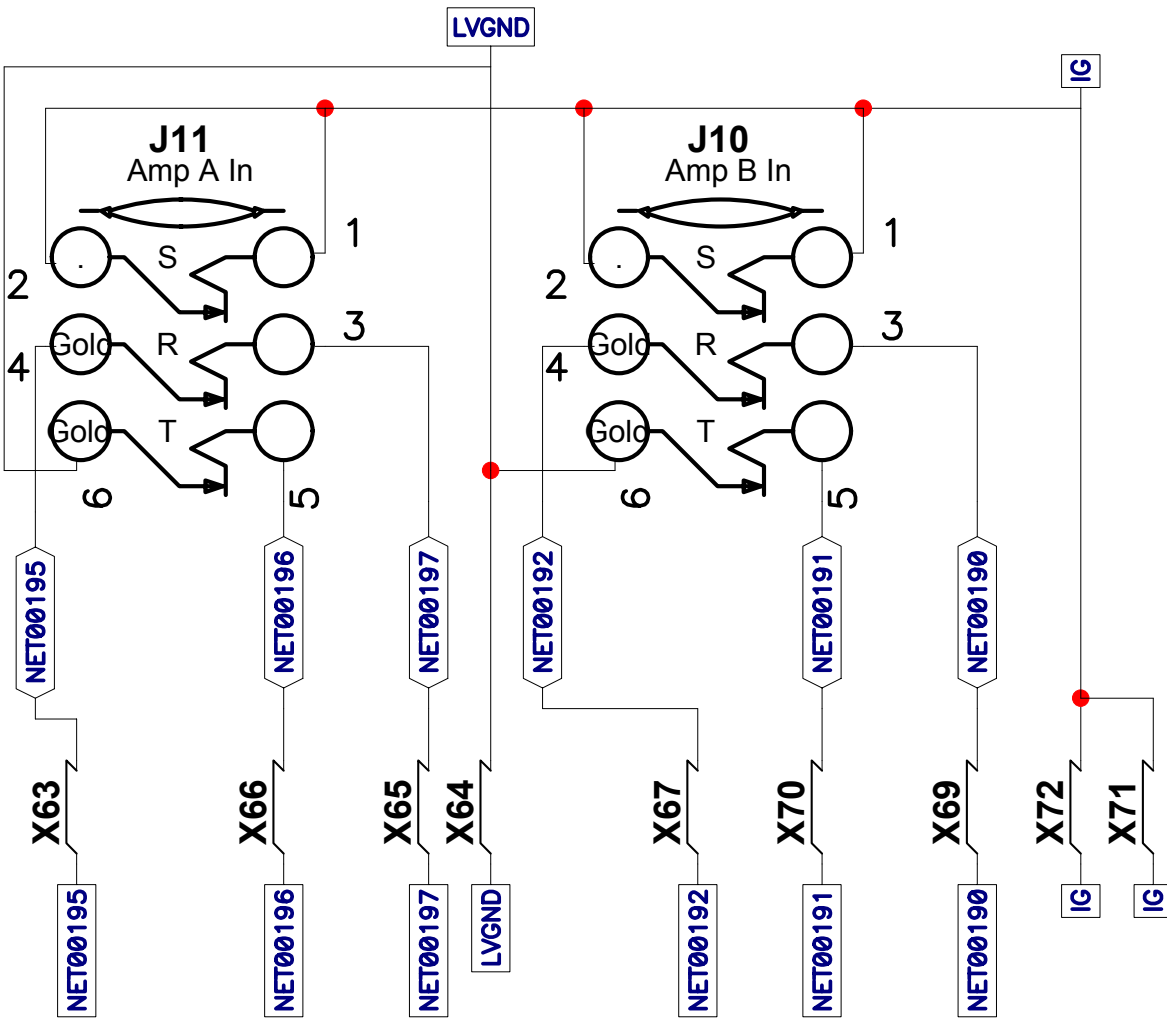


# M810/M1610

## Series 2



<b>Effect</b>	<b>Modify</b>	<b>Effect</b>	<b>Modify</b>
1. Room Reverb	decay	9. Fast Echo	decay
2. Hall Reverb	decay	10. Short Decay Echo	delay
3. Hall Reverb - Vocals			
4. Hall Reverb w/Echo	decay	11. Long Decay Echo	rate
5. Plate Reverb			
6. Plate Reverb - Vocals			
7. Plate Reverb w/Echo	decay	12. Chorus	gain
8. Gated Reverb			
		13. Flanger	
		14. Rotary Speaker	
		15. Distortion	
		16. Harmonizer	pitch



Product <b>M1610</b>		
Amp in Jacks	PCB# M1191	Sheet 1 of 2
Date: Tue Feb 10, 2004		Rev: V1.00
Filename: m1191 sch .sch2002		

StepAndRepeat - X9@1750:Y4@2000  
BlankSize = 16.750 x 9.000

SHEAR OFF THIS SIDE SECOND

ETCH GUIDE

BlankSize = 16.750 x 9.000

SHEAR

SHEAR

SHEAR

SHEAR

FEED THIS SIDE INTO SHEARER FIRST

SHEAR OFF THIS SIDE FIRST

CLINCH ORIGIN

ETCH GUIDE









INSERT ORIGIN

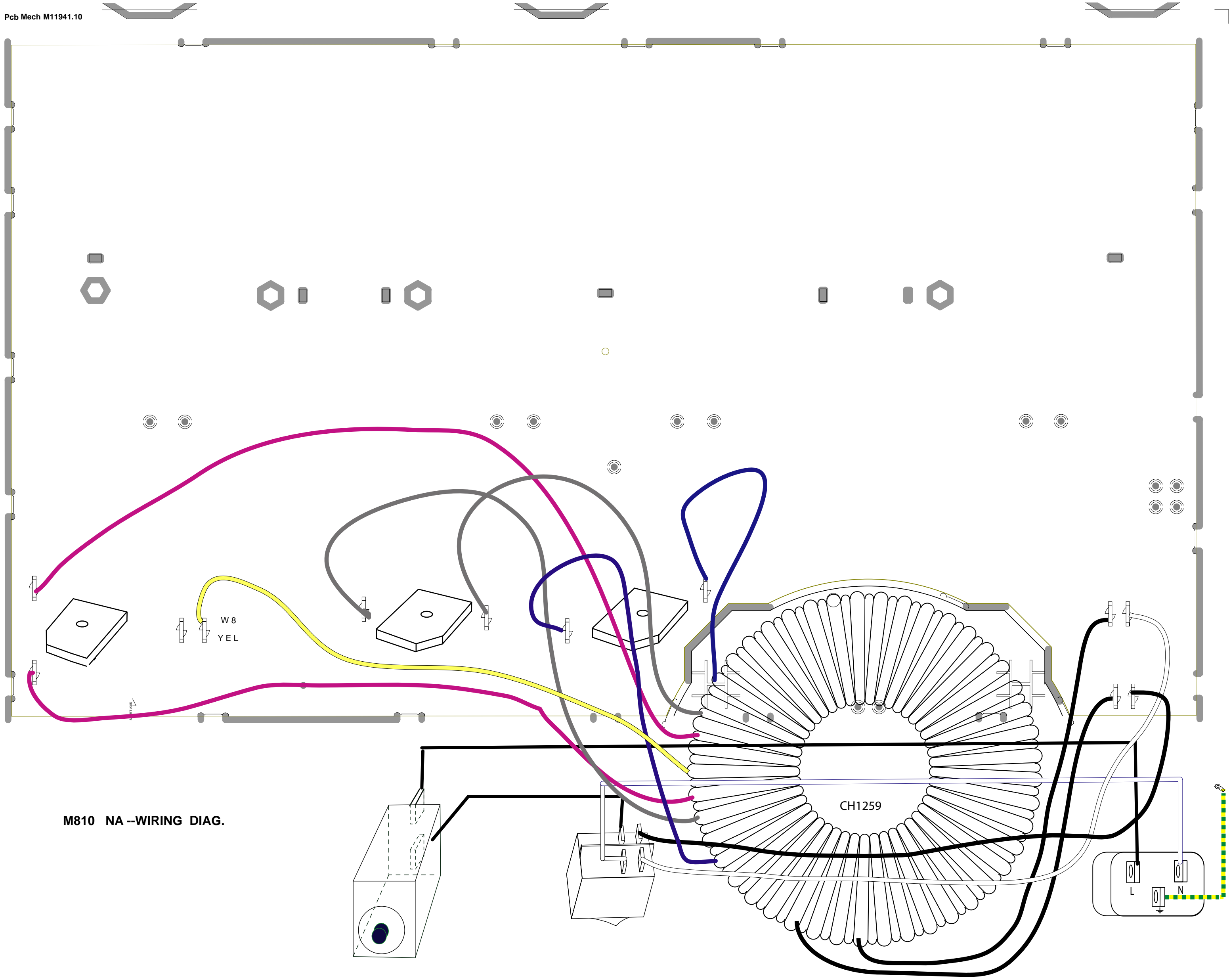
Top Assy M1191v1.00

# PRODUCTION NOTES

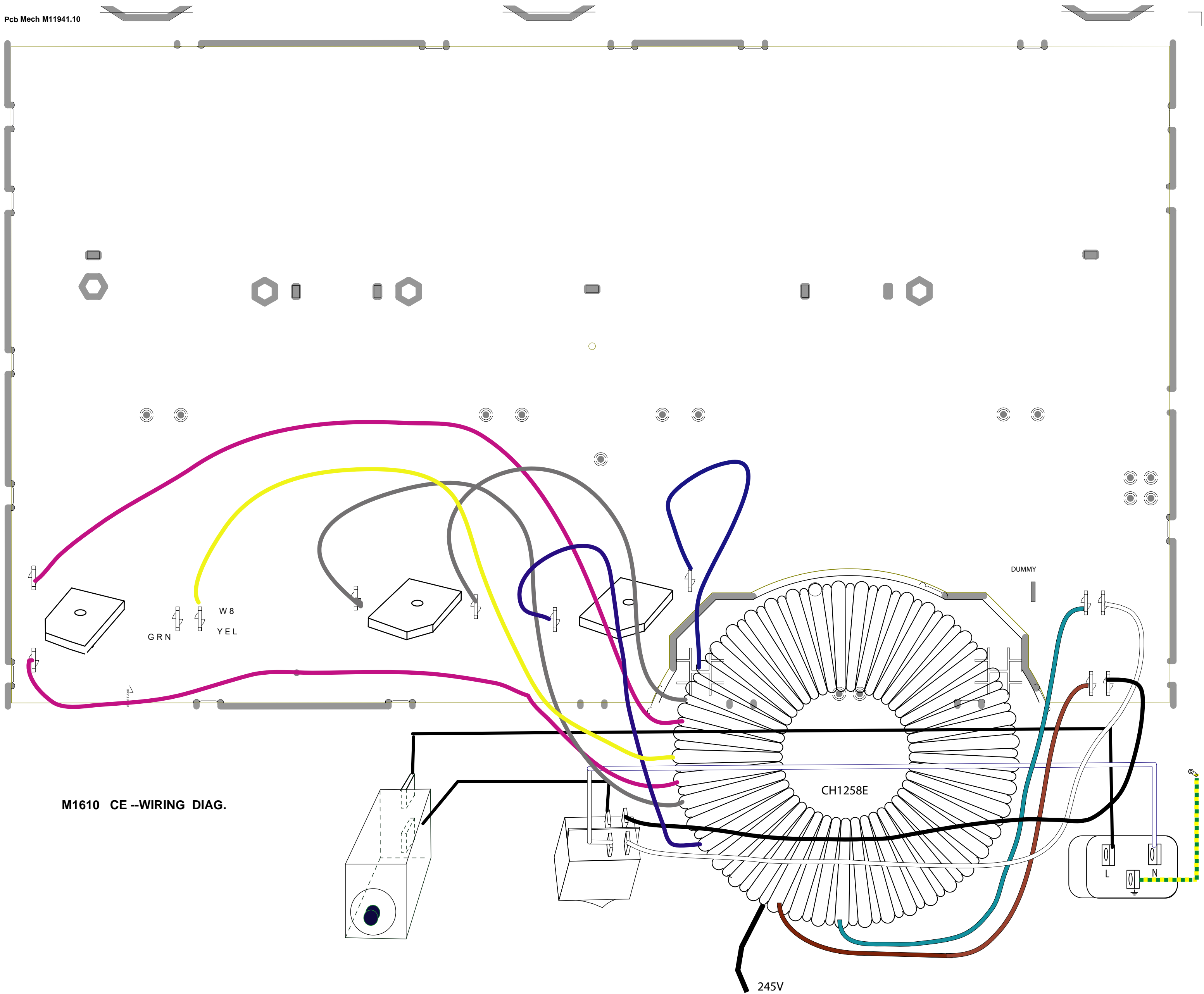
1. Shear off sides containing VCD origin and VCD finger tabs (top and bottom sides) before shearing the board into rows.
2. Feed board into shearer in the direction shown.
3. DO NOT remove the strip of board attached to each set of jumpers. It will keep the jumpers straight until they arrive in wiring.



-  YS#9920 White Knob (qty: 9)
-  YS#9921 Gray Knob, no cover (qty: 6)
-  YS#9915 Red Knob (qty: 2)
-  YS#9916 Gray Knob (qty: 29)
-  YS#9918 Blue Knob (qty: 10)
-  YS#9917 Green Knob (qty: 9)
-  YS#9919 Yellow Knob (qty: 8)
-  YS#8397 Large Gray Knob (qty: 1)



M810 NA --WIRING DIAG.



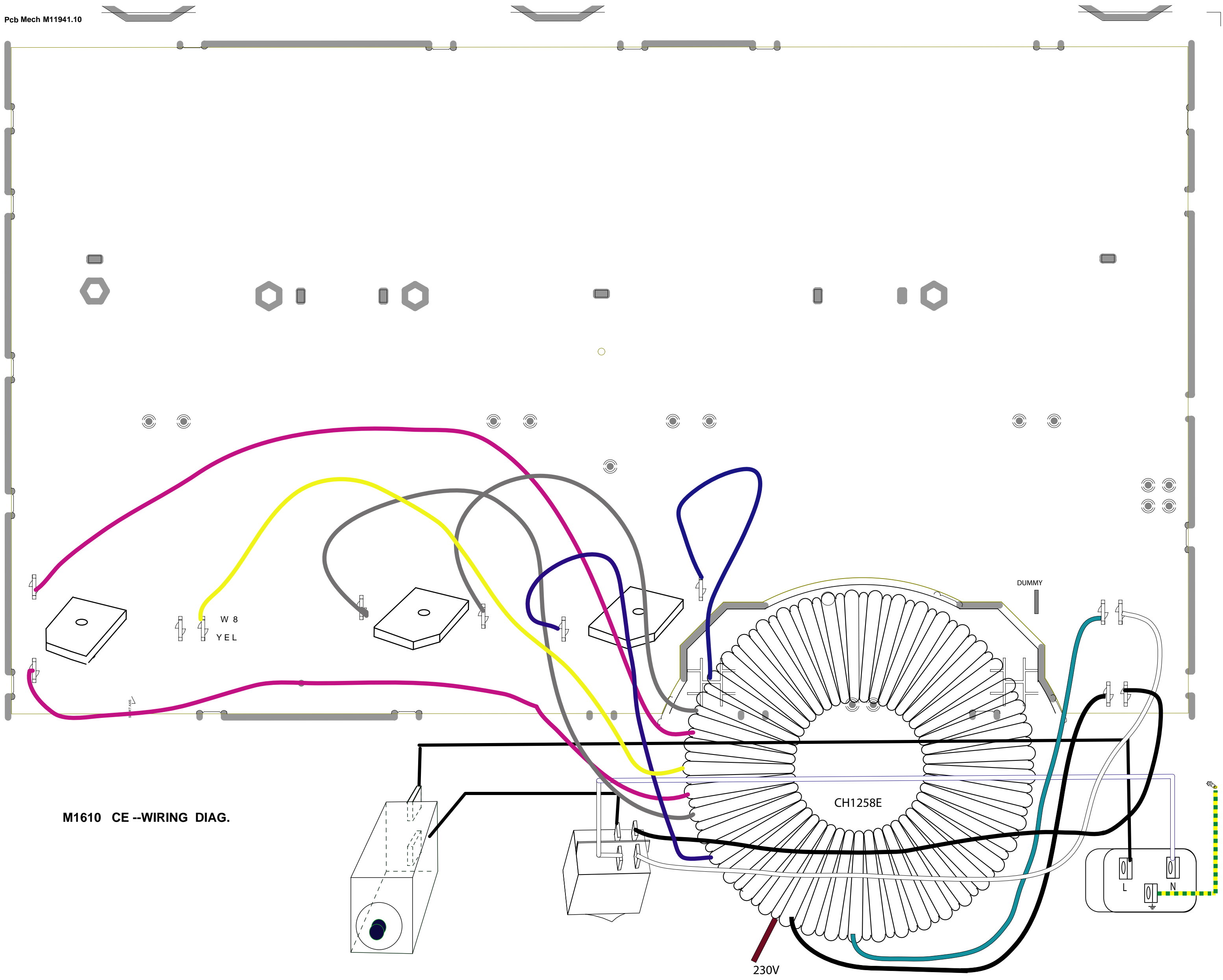
M1610 CE --WIRING DIAG.

CH1258E

DUMMY

245V

SHOWN AS 230V OPERATION



M1610 CE --WIRING DIAG.

CH1258E

230V

SHOWN AS 245V OPERATION  
FOR 245V: USE BLUE AND BLACK PRIMARY WIRES