



# **SERVICE MANUAL**

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## **MICROMIX MP6**

## IMPORTANT SAFETY INSTRUCTIONS



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

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

### **CAUTION:**

**TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.**

**REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

### **AVIS:**

**AFIN DE REDUIRE LES RISQUE DE CHOC ELECTRIQUE, N'ENLEVEZ PAS LE COUVERT (OU LE PANNEAU ARRIERE). NE CONTIENT AUCUNE PIECE REPARABLE PAR L'UTILISATEUR.**

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

### **Read Instructions:**

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

### **Packaging:**

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

### **Warning:**

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

#### **Power Sources:**

Your unit should be connected to a power source only of the voltage specified in the owners manual or as marked on the unit. This unit has a polarized plug. Do not use with an extension cord or receptacle unless the plug can be fully inserted. Precautions should be taken so that the grounding scheme on the unit is not defeated.

#### **Hazards:**

Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious personal injury and serious damage to the product. Use only with cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer.

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

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

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 étre comprises avant l'opération de votre appareil. Conservez S.V.P. ces instructions pour consultations ultérieures

### **Emballage:**

Conservez la boîte au cas ou l'appareil devait étre retourner pour réparation.

### **Warning:**

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

#### **Alimentation:**

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

#### **Hazard:**

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

Les dispositifs marqués d'une symbole "d'éclair" sont des parties dangereuses au toucher et que les câblages extérieurs connectés à ces dispositifs de connection extérieure doivent étre 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.

## MP6 SPECIFICATIONS

### MIXER SECTION:

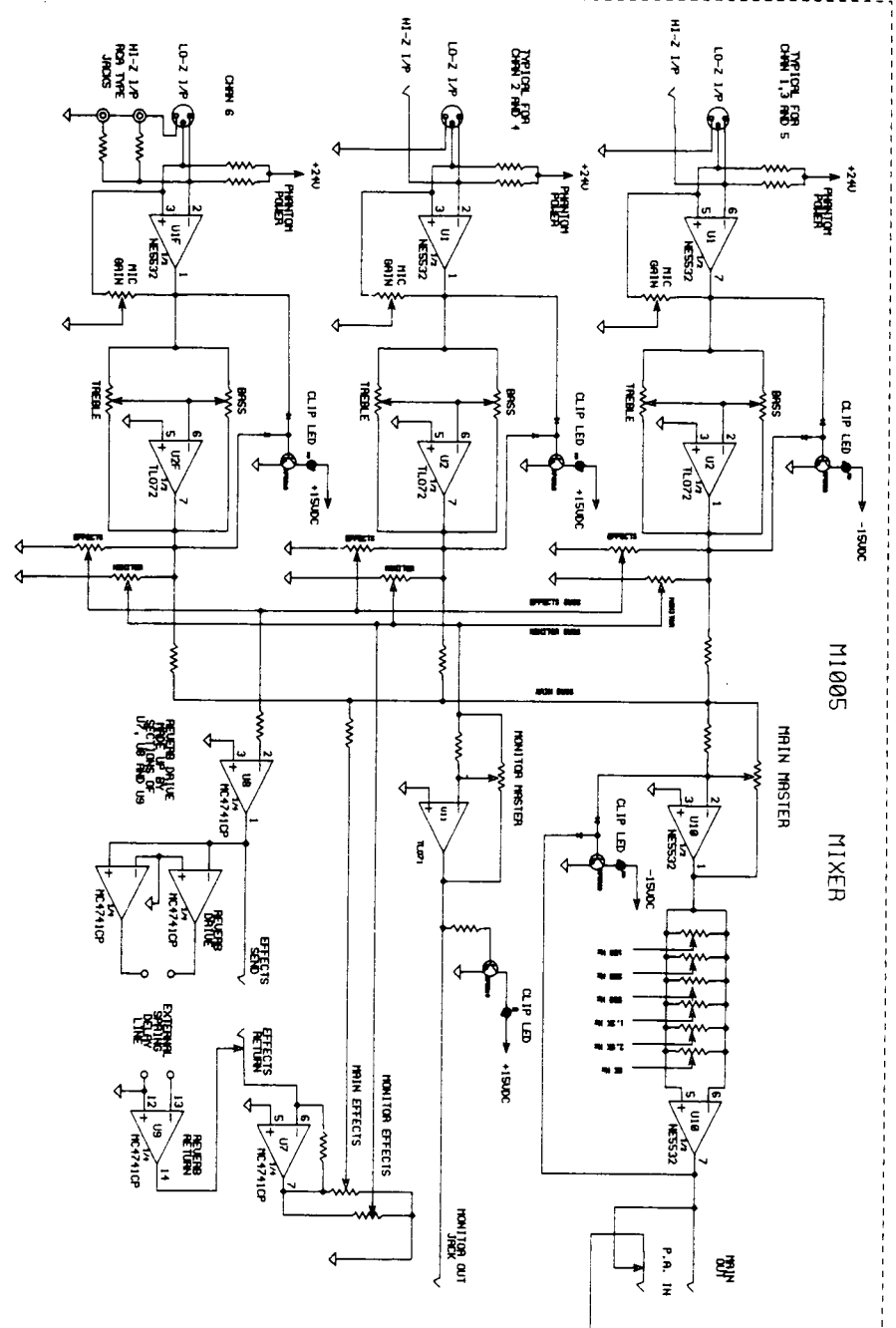
Input referred noise..... -125 dBv  
Max balanced input gain..... 54 dB  
Balanced input impedance..... 1200 Ohms.  
Max unbalanced input gain 1/4 inch jacks..... +46 dB  
Unbalanced input impedance at 1/4 inch jacks ..... 47k  
Unbalanced input impedance at RCA ..... 47k  
Balanced CMRR..... min 18dB, typical 32dB.  
Frequency response at 36 dB gain..... +/-3 dB, 20 Hz to 20 KHz.  
Signal path distortion..... less than 0.1% 20Hz-20KHz.  
  
Typical signal level at patch bay..... 1 VRMS  
Clip LED threshold..... 2.5 dB before clipping.  
Minimum LED flash time..... 40 milliseconds.  
Channel EQ adjustment range..... 30 dB  
Graphic EQ adjustment range..... 24 dB  
Phantom Voltage (If equipped)..... 24 V

### AMPLIFIER:

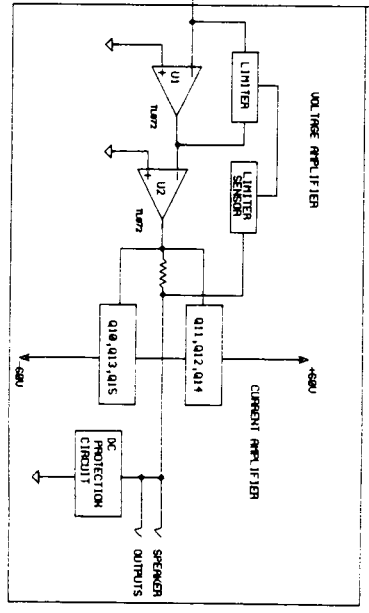
Frequency response..... +/-3 dB, 20 Hz to 20 KHz.  
Gain..... 27 dB  
Input sensitivity..... 1.4 VRMS  
Distortion... (at 90% Power)..... 0.1% at 1KHz.  
Minimum load for full power..... 4 Ohms.  
Max power into 4 Ohms 1% THD..... 255 Watts.  
Maximum power consumption..... 550 Watts.

MP-6 MAIN PARTS LIST

3586	SHORT REVERB '1BB1010'	1.000	EA
8458	LONG BLACK PLASTIC STRAP HANDLE	1.000	EA
8674	R385 PLASTIC CORNER PIECE W TREAD	8.000	EA
8843	10-32 X 1&1/8 FL PH MS BO SCREW	2.000	EA
8889	RUBBER GROMMET 2183	4.000	EA
3549	MOLEX T-REEL 08500187/6838	8.000	EA
3559	MOLEX SF F- 26034081/6442	1.000	EA
6451	4N7 400V A.C. CAP PANASONIC	1.000	EA
1236	MP-6 TRANSFORMER	1.000	EA
2428	6A SB 1/4X1 1/4" 3AG BUSS# MDQ-6	1.000	EA
3412	LOWPROFILE FUSEHOLDER 1/4" H345601	1.000	EA
3480	8' LINECORD SJT 3/18 60 C	1.000	EA
3659	NC3FFP FEMALE XLR PLASTIC	6.000	EA
3695	WHT BLK ROCKER SWITCH RA911RWBON	1.000	EA
3817	BUMPER BUTTON STYLE SJ5018 WHITE	4.000	EA
3834	STRAIN RELIEF SR-6L-1	1.000	EA
8684	MICROMIX ROTARY KNOB BLUE	12.000	EA
8685	MICROMIX ROTARY KNOB MAUVE	7.000	EA
8687	MICROMIX ROTARY KNOB ORANGE	8.000	EA
8688	MICROMIX ROTARY KNOB PEACH	7.000	EA
5102	BC560C PNP SS XTR T&R T092	6.000	EA
5105	MPSA13 NPN SS XTR T&R T092 DARL	4.000	EA
5106	MPSA63 PNP SS XTR T&R T092 DARL	4.000	EA
5229	150N 63V 10% CAP T&R RPE .2"	1.000	EA
5233	330N 63V 5% CAP T&R RPE .2"	1.000	EA
5267	100U 25V 20% CAP T&R REL 0.2"	7.000	EA
5875	4U7 63V CAP T&R REL 0.1"	2.000	EA
5871	22U 50V CAP T&R REL 0.1"	11.000	EA
6798	MC4741CP QUAD OP AMP	3.000	EA
6878	TL071CP FET OP AMP	1.000	EA
6882	TL072 DUAL OP AMP YORK	3.000	EA
6884	NE5532 FE OP AMP SIGNETICS	4.000	EA
3498	M203-92 PLAIN PC MNT JK SKT	2.000	EA
3557	MOLEX 4 PIN MALE (09-65-1041)	2.000	EA
3815	T03 PREGREASED MICA 56-03-ZAP	4.000	EA
3819	SUH COIL 19AWG AIR CORE	1.000	EA
4529	470 OHM TRIMPOT 483 75471	1.000	EA
5101	BC550C NPN SS XTR T&R T092	1.000	EA
5102	BC560C PNP SS XTR T&R T092	1.000	EA
6434	200V\MAX 6AMPS SILICON RECTIFIER	4.000	EA
6448	BT139/500 TRIAC T0220	1.000	EA
6468	100K 5% THERMISTOR 642/63104	1.000	EA
5840	22N 400V CAP R	1.000	EA
5866	4700U 63V CAP	2.000	EA
6810	MJF15030 NPN XSTR T0220	2.000	EA
6811	MJF15031 PNP XSTR T0220	2.000	EA
6870	CLM50 OPTO COUPLER CLAIREX	1.000	EA
6900	MJ15022 NPN TRANSISTOR	2.000	EA
6927	MJ15023 PNP TRANSISTOR	2.000	EA
6425	200PIV 250MA DIO T&R BAV21	2.000	EA
6438	400PIV 1A DIO T&R 1N4004 YORK	6.000	EA
6440	4V7 500MW 5% ZEN T&R BZX79C4V7	3.000	EA
6824	16V 500MW 5% ZEN T&R BZX79C16	5.000	EA
6825	75PIV 450MA DIO T&R IN4148 IN914	15.000	EA
5101	BC550C NPN SS XTR T&R T092	4.000	EA
5102	BC560C PNP SS XTR T&R T092	1.000	EA
5108	2N5401 PNP SS XTR T&R T092	1.000	EA
5192	MBS-4991 DIAC T&R T092	1.000	EA
6882	TL072 DUAL OP AMP YORK	2.000	EA

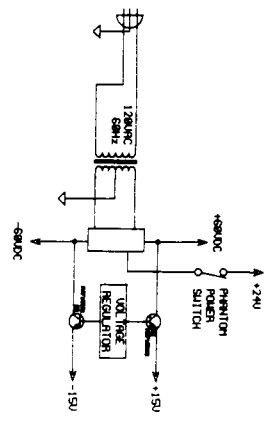


M1005 MIXER

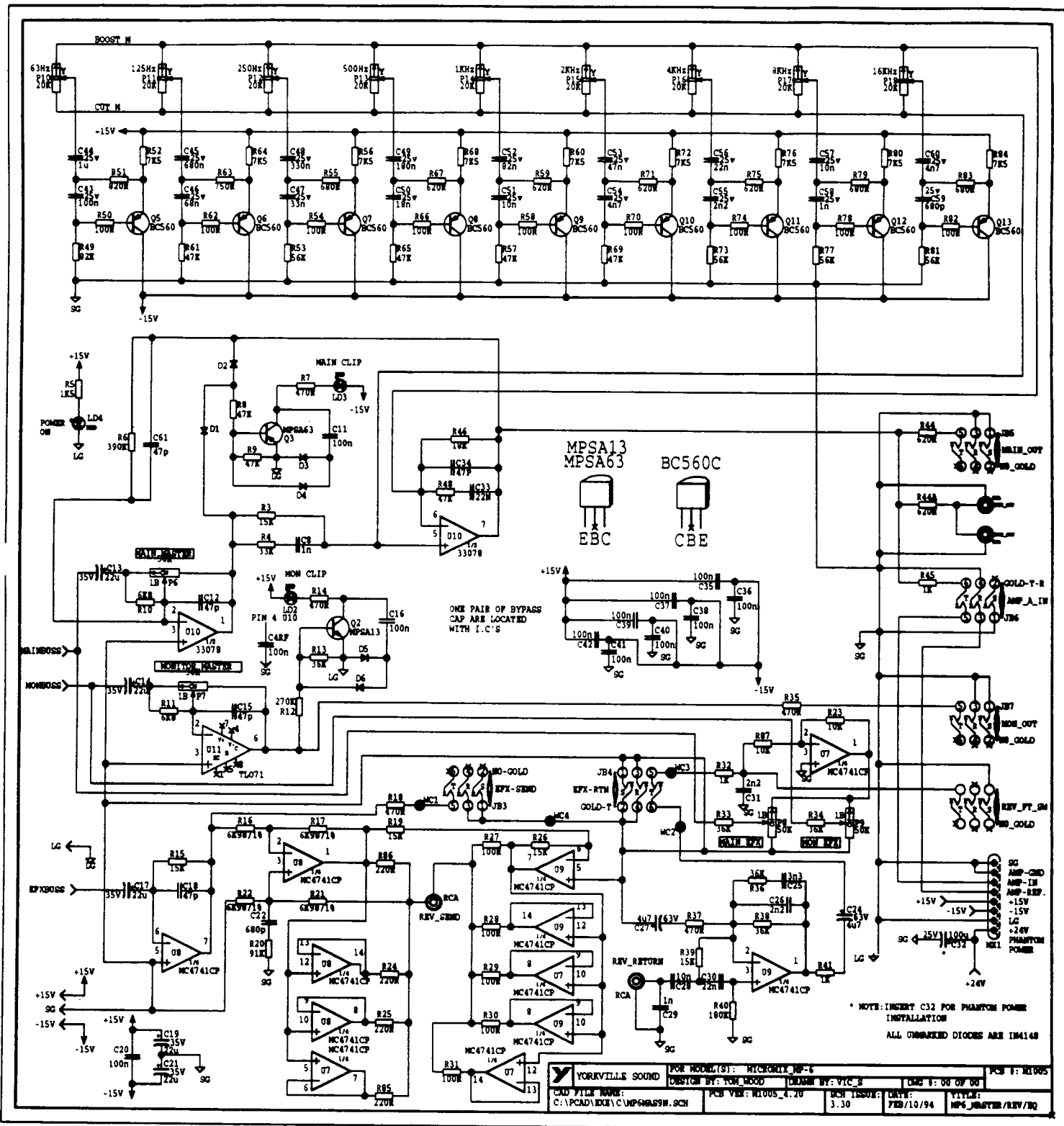


M1006 POWER AMP

MP6 BLOCK DIAGRAM



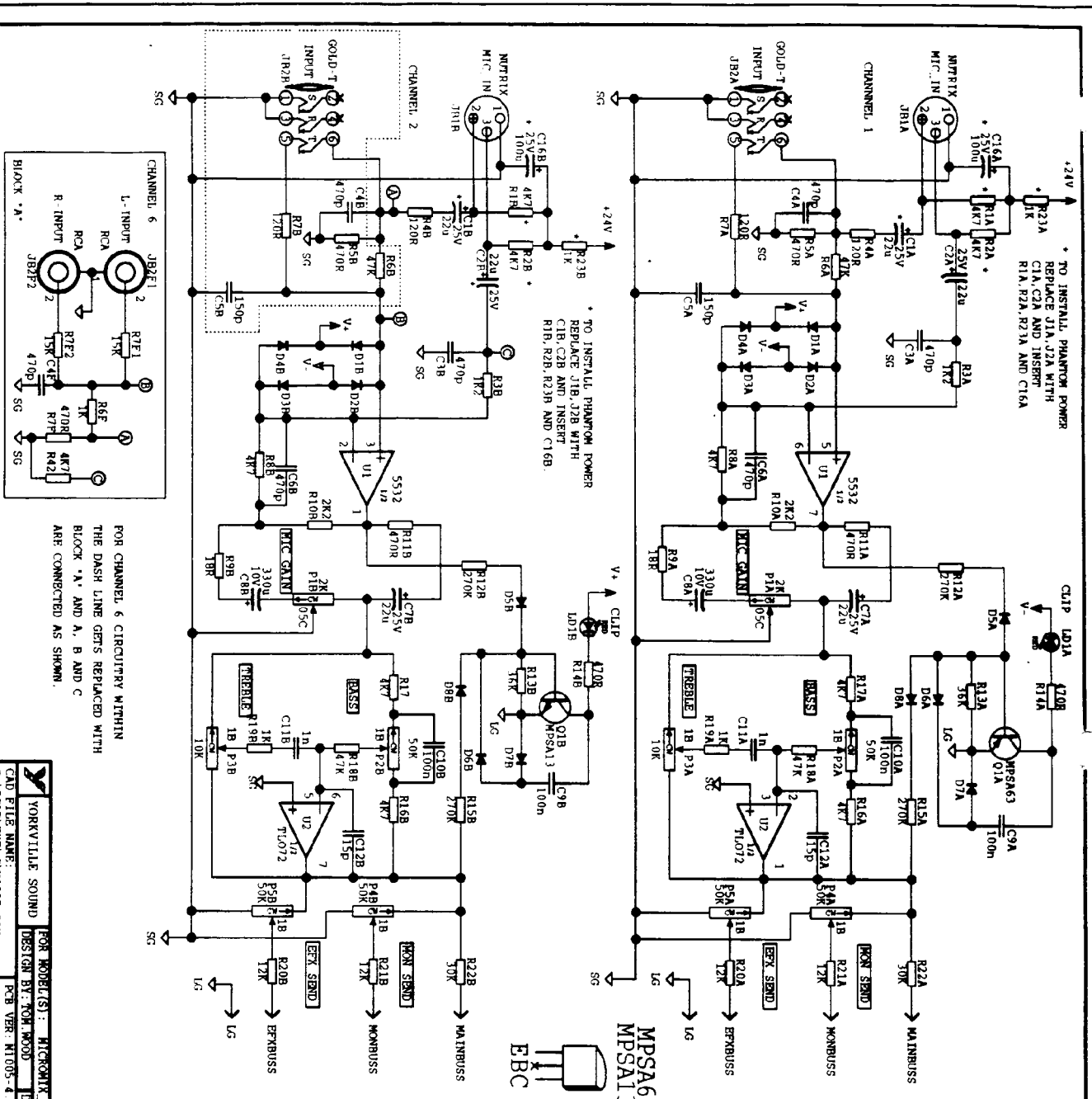




ONE PAIR OF BYPASS CAP ARE LOCATED WITH I.C.'S

\* NOTE: INSERT C32 FOR PHANTOM POWER INSTALLATION  
ALL UNMARKED DIODES ARE 1N4148

YORKVILLE SOUND		FOR MODEL(S): MICRONIX MP-6		PCB #: RI005	
CAD FILE NAME: C:\PCAD\REV1\CMP69859H.SCH		DESIGN BY: YOM MOOD		DATE: 06/09/00	
C:\PCAD\REV1\CMP69859H.SCH		PCB VER: RI005_4_20		SCH ISSUE: DATE: 3.30	
				FILED: 10/94	
				TITLE: MP6_MASTER/REV/00	



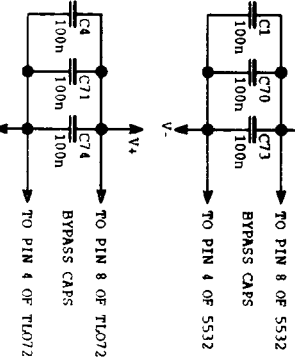
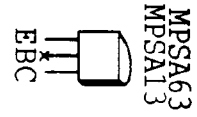
\* TO INSTALL PHANTOM POWER  
 REPLACE J1A, J2A WITH  
 C1A, C2A AND INSERT  
 R1A, R2A, R3A AND C1A

\* TO INSTALL PHANTOM POWER  
 REPLACE J1B, J2B WITH  
 C1B, C2B AND INSERT  
 R1B, R2B, R3B AND C1B.

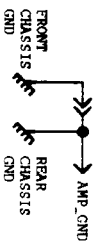
FOR CHANNEL 6 CIRCUITRY WITHIN  
 THE DASH LINE GETS REPLACED WITH  
 BLOCK 'A', AND A, B AND C  
 ARE CONNECTED AS SHOWN.

NOTE: CHANNEL PAIR 'A' AND 'B' ARE UNKNOWN.  
 CHANNEL PAIRS C, D AND E, F ARE NOT  
 RIF HAS THE SAME FUNCTION IN  
 CHANNEL 'A'. ALL OF THE CHANNEL  
 PART NUMBERS FOLLOW THIS  
 METHOD OF ADDING A SUFFIX LETTER  
 TO THE DESIGNATOR.

NOTE: ALL UNMARKED DIODES ARE 1N4148



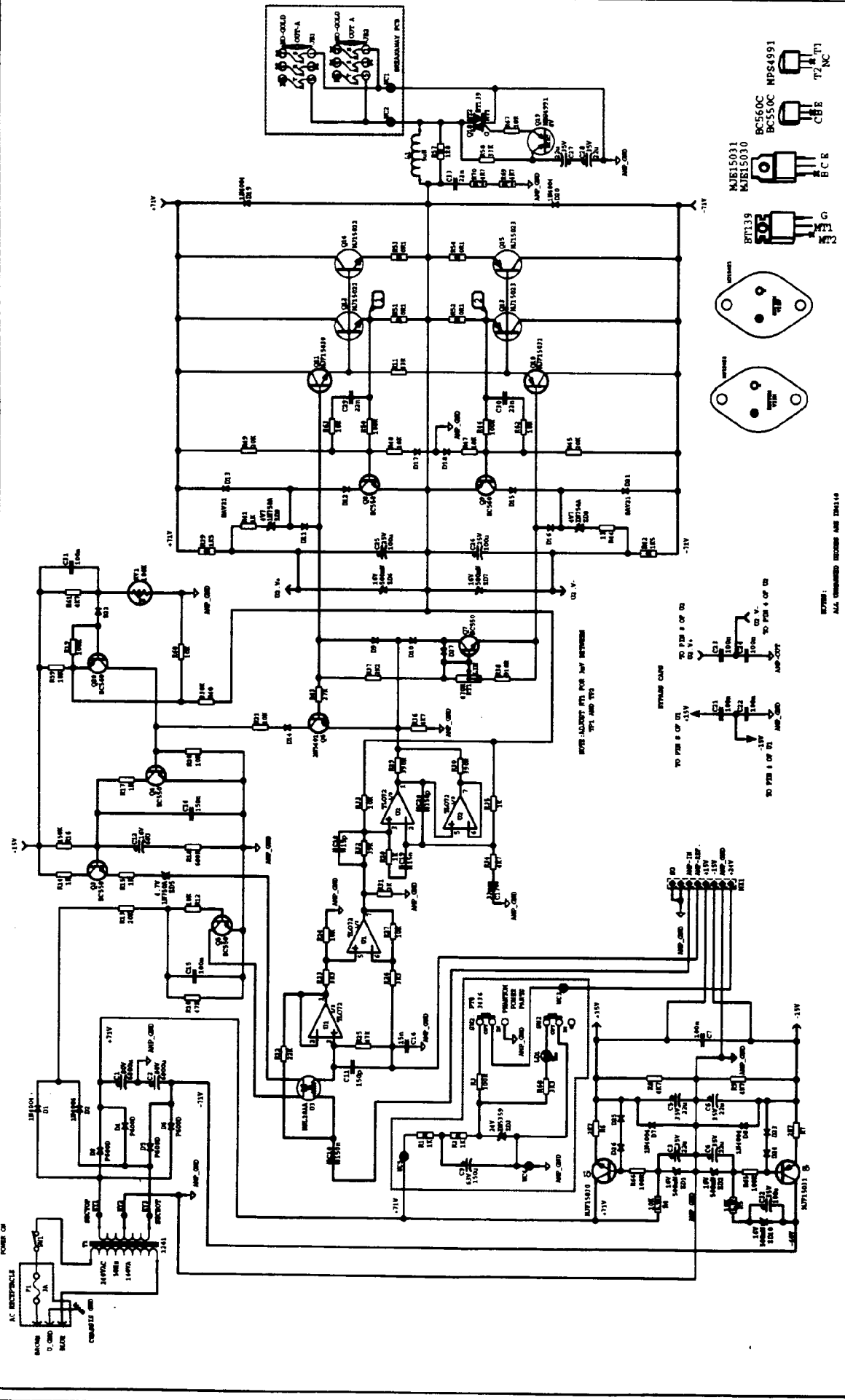
These caps are placed on each channel between pin 4 and pin 8 of the 5532 and that channel's XLR ground. This is for RFI rejection.



YORKVILLE SOUND	FOR MODEL(S):	MICROMIX-6
CAD FILE NAME:	DESIGN BY:	TOM WOOD
C:\CAD\EXEL\C1M1005.SCH	PCB VER:	M1005-4.20
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	DWG T:	00 OF 00
	TITLE:	MP-6_CHANNEL_BOARD
	PCB T:	M1005

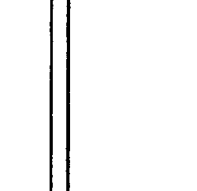
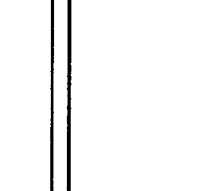
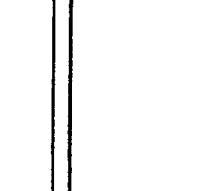
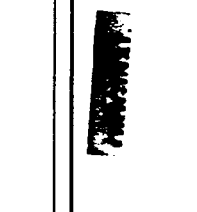
ORIGINAL





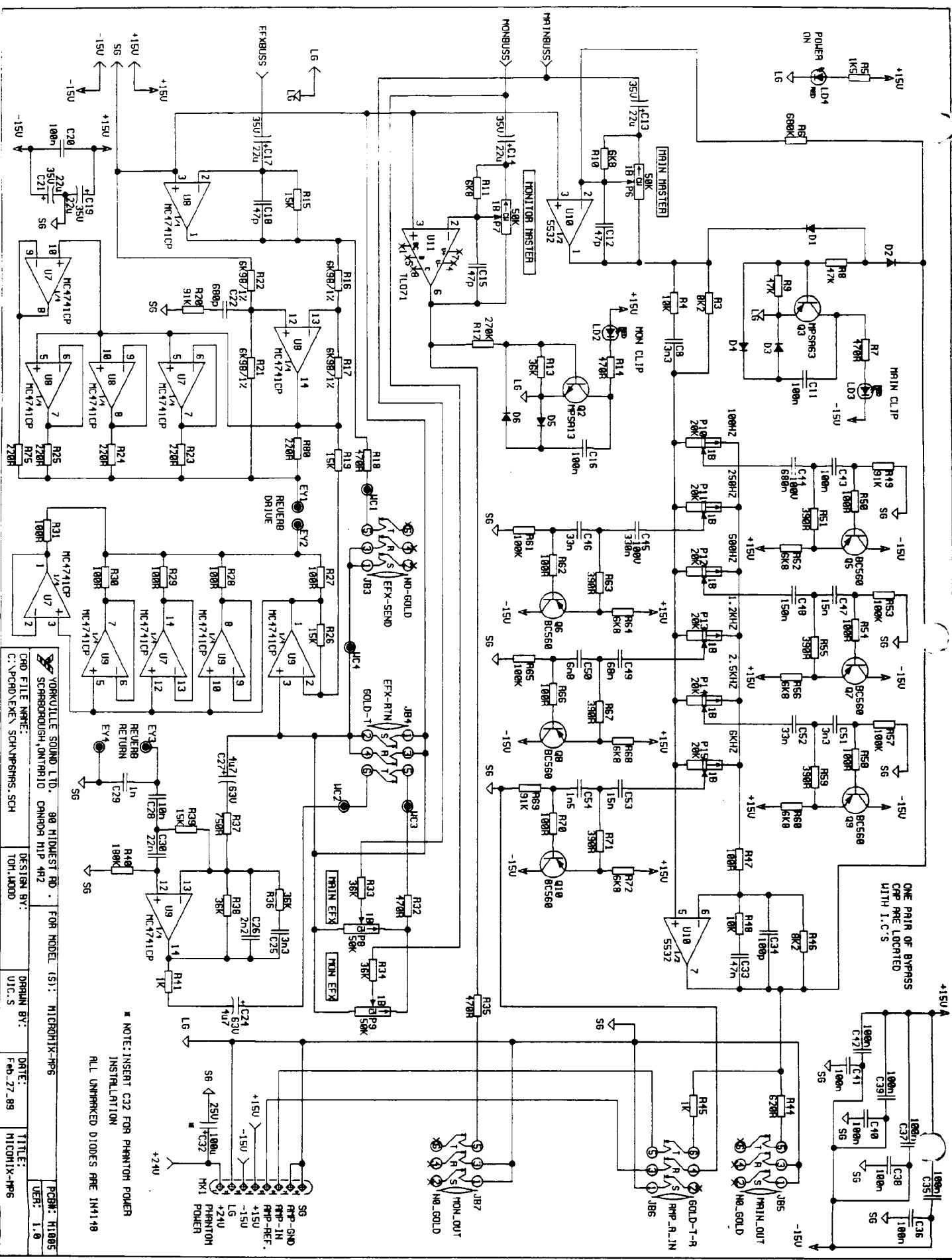
DATE: 08/17/1970	REV: 000001	REV: 000001	REV: 000001
BY: J. J. ...	CHK: J. J. ...	APP: J. J. ...	DES: J. J. ...
TITLE: POWER SUPPLY			

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED. PARTS LOCATED IN THIS DRAWING ARE LOCATED ON THE DRAWING. VERIFY PARTS.





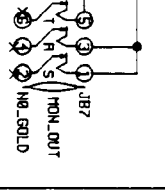


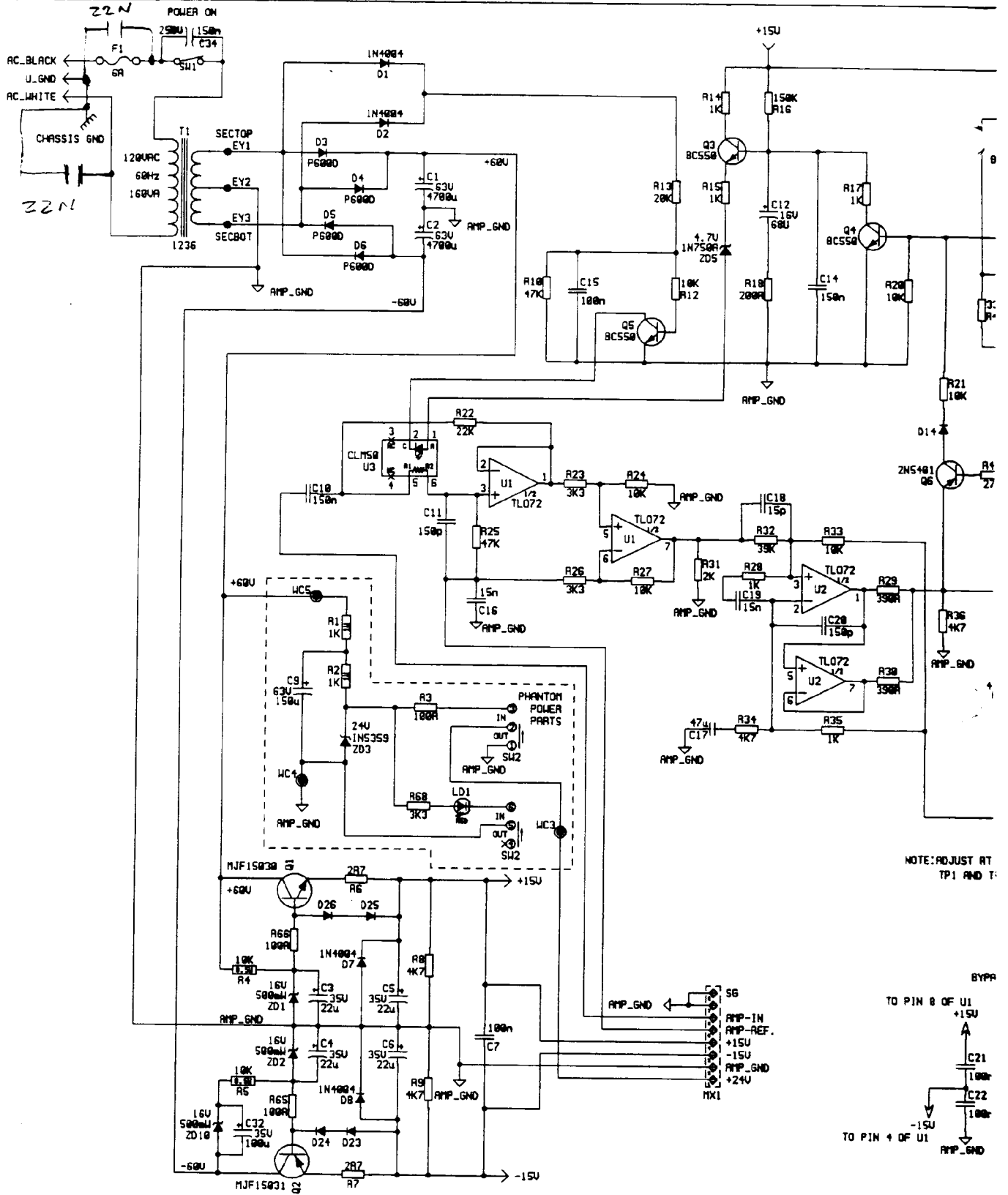


YORKVILLE SOUND LTD. 88 HIGHEST RD. FOR MODEL (S): MICROPHIX-4P6  
 CAD FILE NAME: SCHEM00SH\_001PH10 CANNOR NIP 4K2  
 C:\PDR\EXEN\SCANKP4P6.SCH  
 DESIGN BY: UIC.S  
 DRAWN BY: UIC.S  
 DATE: Feb-27-89  
 TITLE: MICROPHIX-4P6  
 UER: 1.0

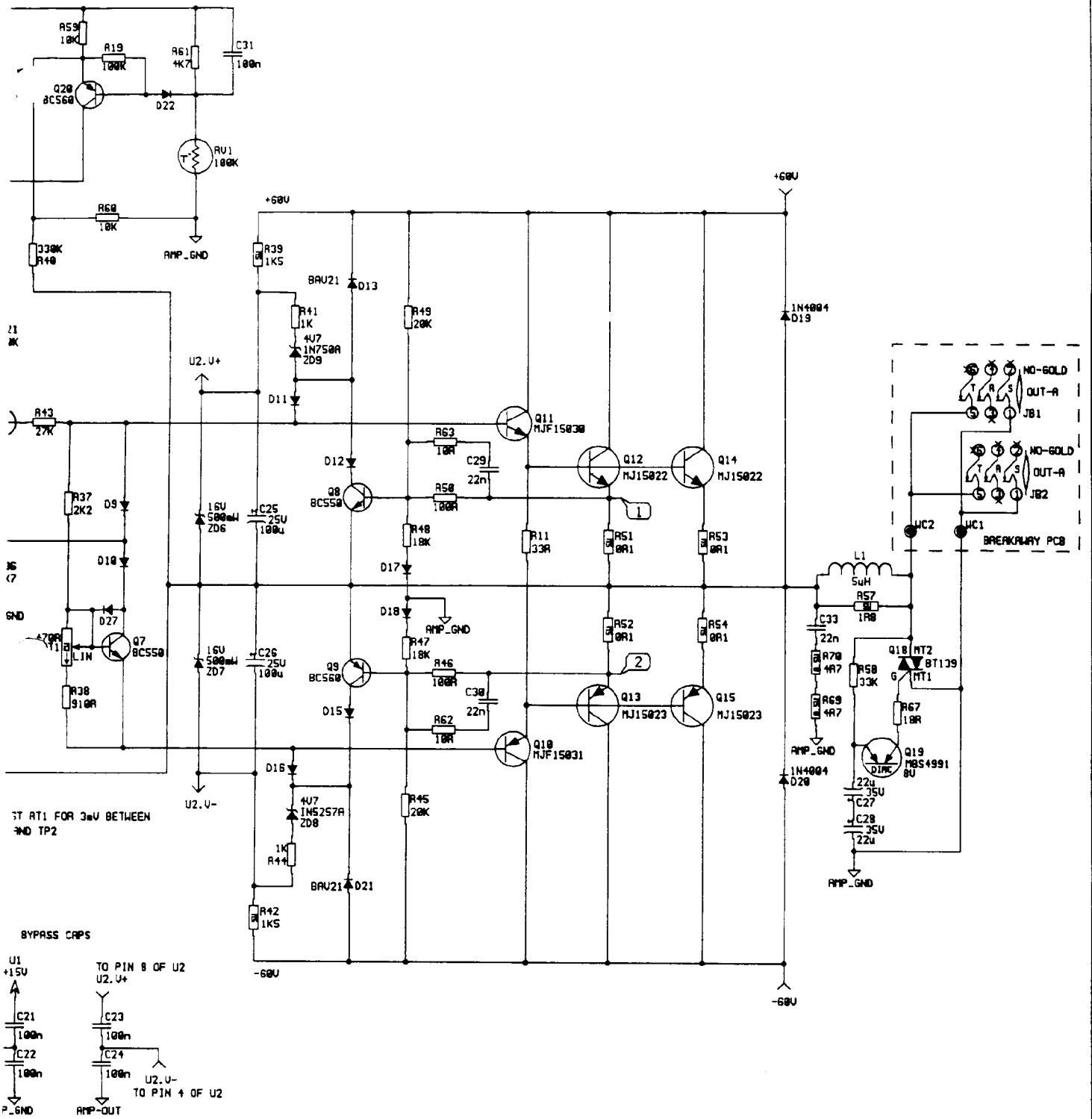
NOTE: INSERT C32 FOR PHANTOM POWER INSTALLATION  
 ALL UNMARKED DIODES ARE 1N4148

PHANTOM POWER  
 +24V  
 -15V  
 +15V  
 LG  
 RFP-1H  
 RFP-REF.  
 RFP-GND  
 RFP-1H  
 RFP-REF.  
 RFP-GND



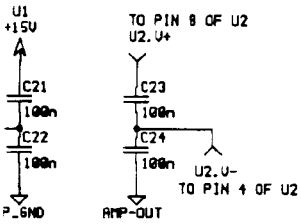


M1006 2.2 →



ST RT1 FOR 3mV BETWEEN AND TP2

BYPASS CAPS

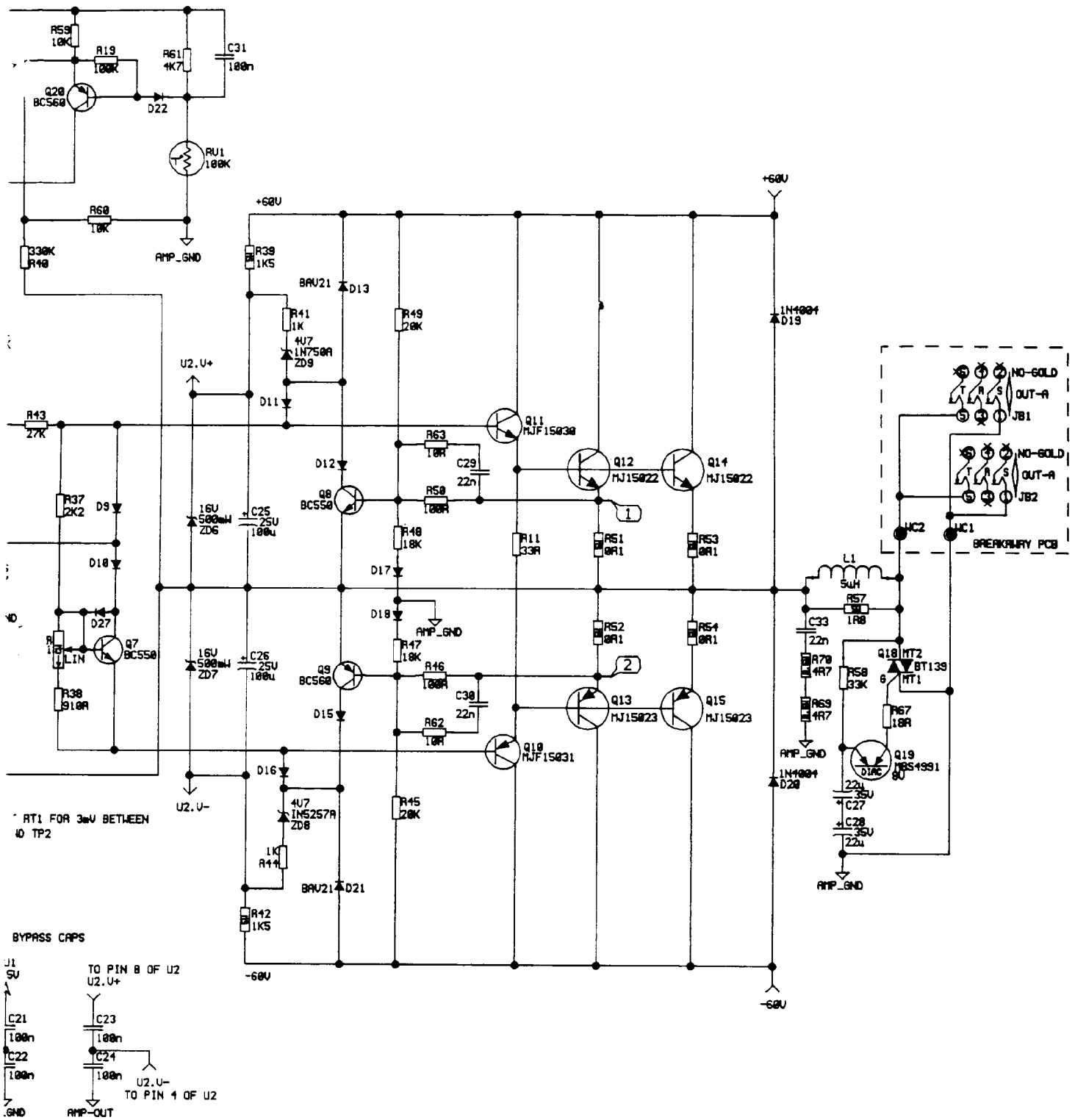


NOTES:  
 ALL UNMARKED DIODES ARE 1N4148  
 PHANTOM POWER PARTS ARE LOCATED ON PCB BREAKAWAY.  
 TEST POINT TP

YORKVILLE SOUND LTD	FOR MODEL(S): MICROMIX-MP6	PCB #: M1006
DESIGN BY: T.M	DRAWN BY: U.S	DWG #: 1 OF 3
CAD FILE NAME: C:\PCAD\EXE\CM1006.SCH	PCB VER: M1006-2.20	SCH ISSUE: 2.20
	DATE: DEC/15/89	TITLE: 250-POWER_AMP.

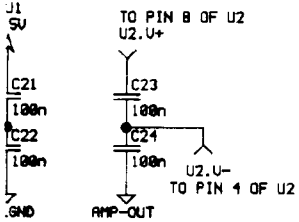
← M1006 2.2





RT1 FOR 3mV BETWEEN  
40 TP2

**BYPASS CAPS**



**NOTES:**  
ALL UNMARKED DIODES ARE IN4148  
PHANTOM POWER PARTS ARE LOCATED  
ON PCB BREAKAWAY.

TEST POINT TP

	YORKVILLE SOUND LTD	FOR MODEL(S): MICROMIX-HP6	PCB #: M1006
DESIGN BY: T.M	DRAWN BY: U.S	DWG #: 1	OF 3
CAD FILE NAME: C:\PCAD\EXE\C\M1006E.SCH	PCB VER: M1006-3.00	SCH ISSUE: 2200	DATE: JUN/87/91
		TITLE: 250W-POWER-AMP.	

← M1006



## Installation of phantom power for the MP-6

Remove the front and back chassis from the wooden sleeve and disconnect the wire harness that connects the two chassis.

Take the power amp chassis and undo the plastic nuts on the output jacks (15mm size nut) and pull the small circuit board away from the chassis. Compare the parts layout of this board with the supplied drawing noting the location of the parts that must be installed. Please pay special attention to the polarity of capacitors, zener diode and the LED. Attach the three wires as shown in the diagram and reinstall the jack board. attach the other ends of the wires to the power amp board as shown. Better access to the power board may be achieved by undoing the two nuts and then gently prying the end of the board up. Please be sure to follow the color code of the wires. Power amp section is now complete.

Now the real fun. remove the back cover from the mixer section and unplug the reverb delay line. Usually one of the RCA type connectors to the reverb line is marked so note which jack on the reverb line it is plugged into. This will be of benefit when you reassemble the unit.

Remove all of the knobs from the controls and all the nuts from the phone plug jacks and undo the four small screws that are located near the reverb / effects controls. **NOTE IT IS NOT NECESSARY TO REMOVE THE SCREWS ON THE XLR JACKS AS THEY UNDO FROM THE REAR.**

Remove the mixer board from the chassis. The board that has the input jacks is the one that requires modification. Again take a moment to compare the drawing with the actual board again noting the polarity of the capacitors that must be installed.

First remove the jumper wires and replace them with the 22uf/25v as shown. Then install the remaining parts and re-assemble.

Parts needed for output jack board

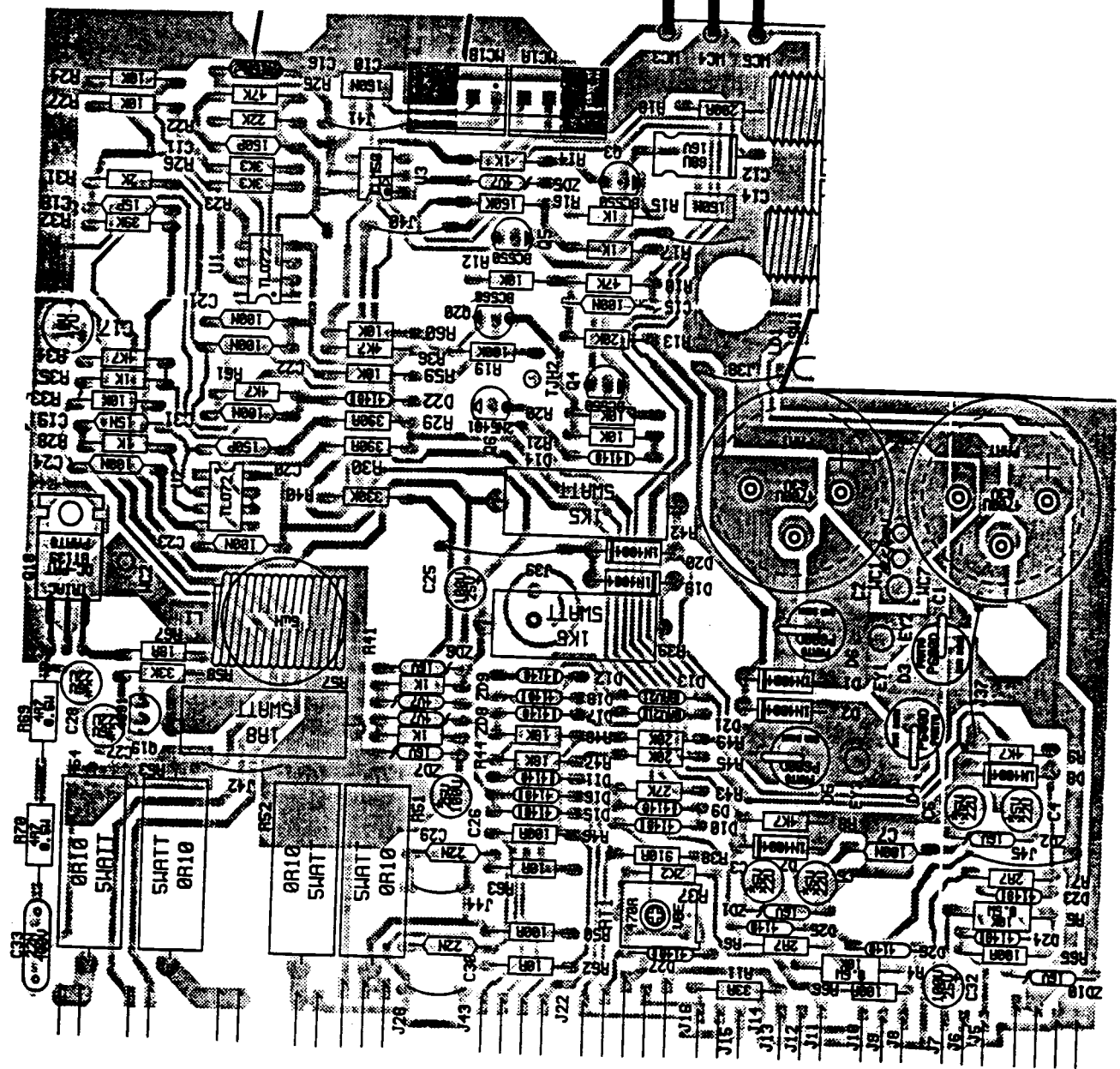
Qty	Yorkville part #	Description
1	3436	DPDT push button switch
1	8661	grey button knob for switch
1	6405	3MM red LED
1	5813	150uf/63V capacitor (axial leads)
2	no #	1K 1 watt resistors
1	4852	100 ohm 1/4 watt resistor
1	4863	8K2 ohm 1/4 watt resistor
1	6875	1N5359B 24V 5W zener diode
1	3944	14" 22 gauge orange wire
1	3947	14" 22 gauge red wire
1	3952	14" 22 gauge black wire

parts needed for mixer input board

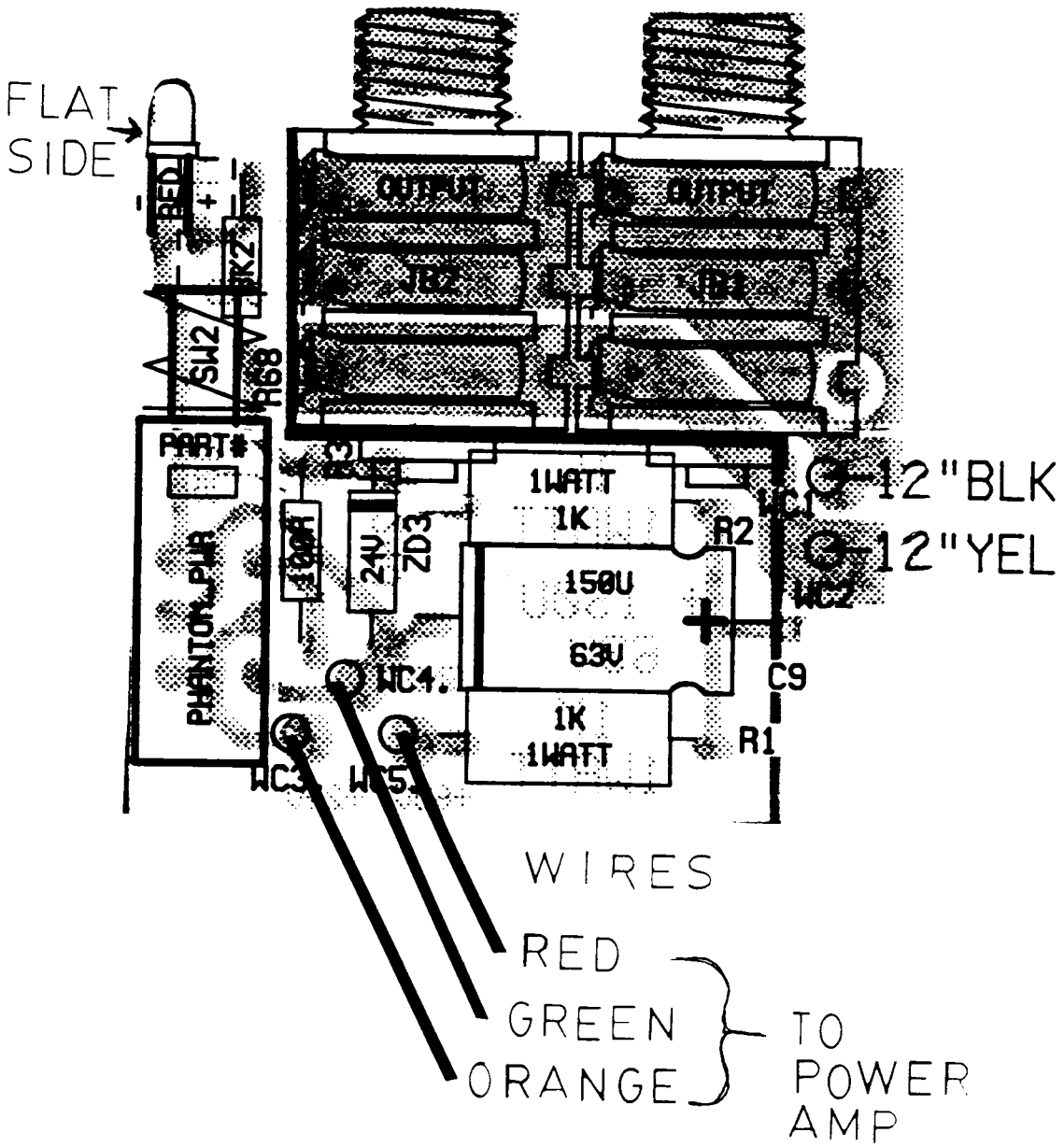
Qty	Yorkville part #	Description
12	5846	22uf/25v capacitors (axial leads)
7	5267	100uf/25v capacitors (radial leads)
6	4823	1K ohm 1/4 watt resistors
6	4827	4K7 ohm 1/4 watt resistors

POWER BOARD

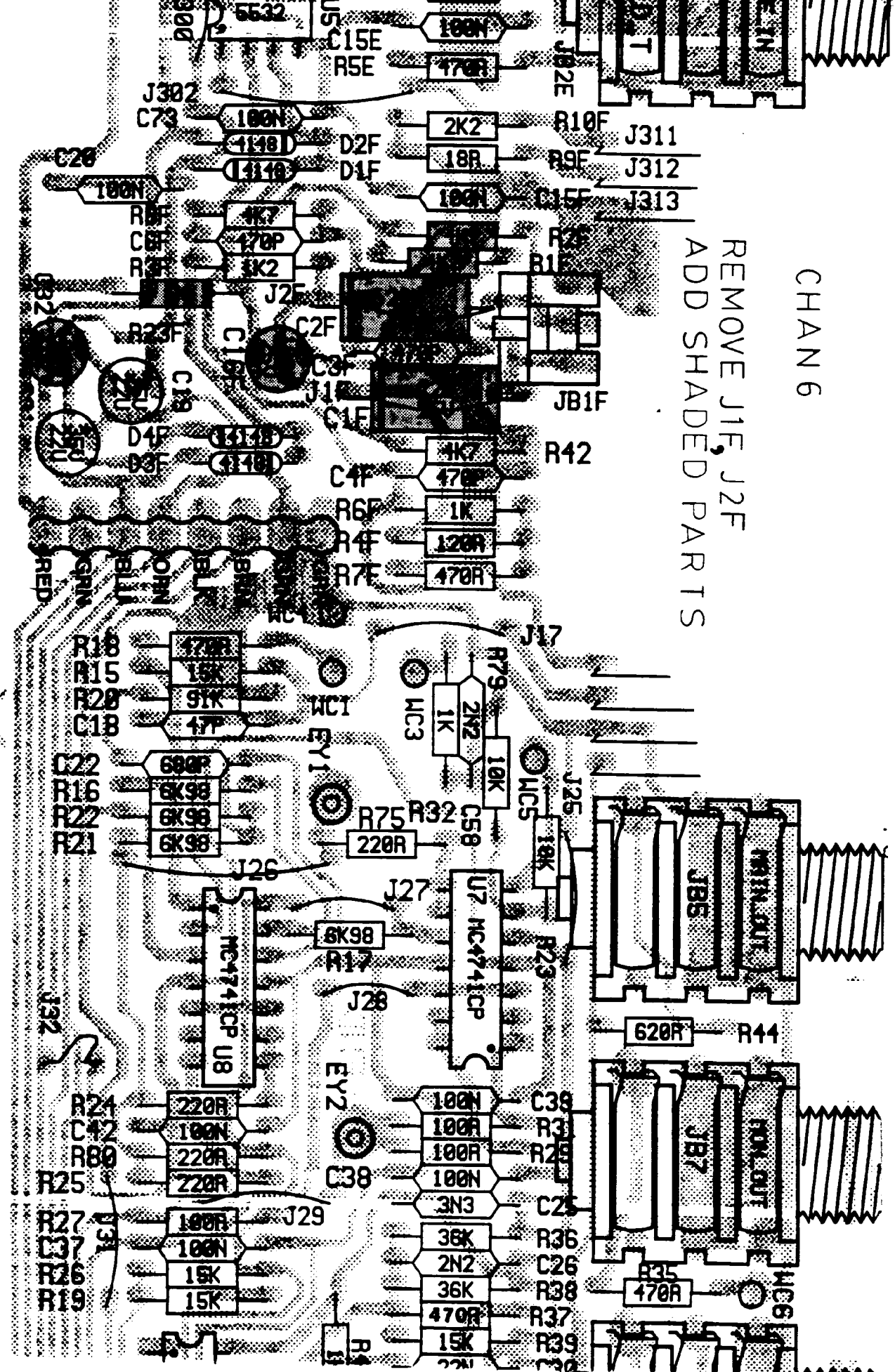
ORANGE  
GREEN  
RED  
WIRES  
FROM  
JACK  
BOARD



# OUTPUT JACK BOARD

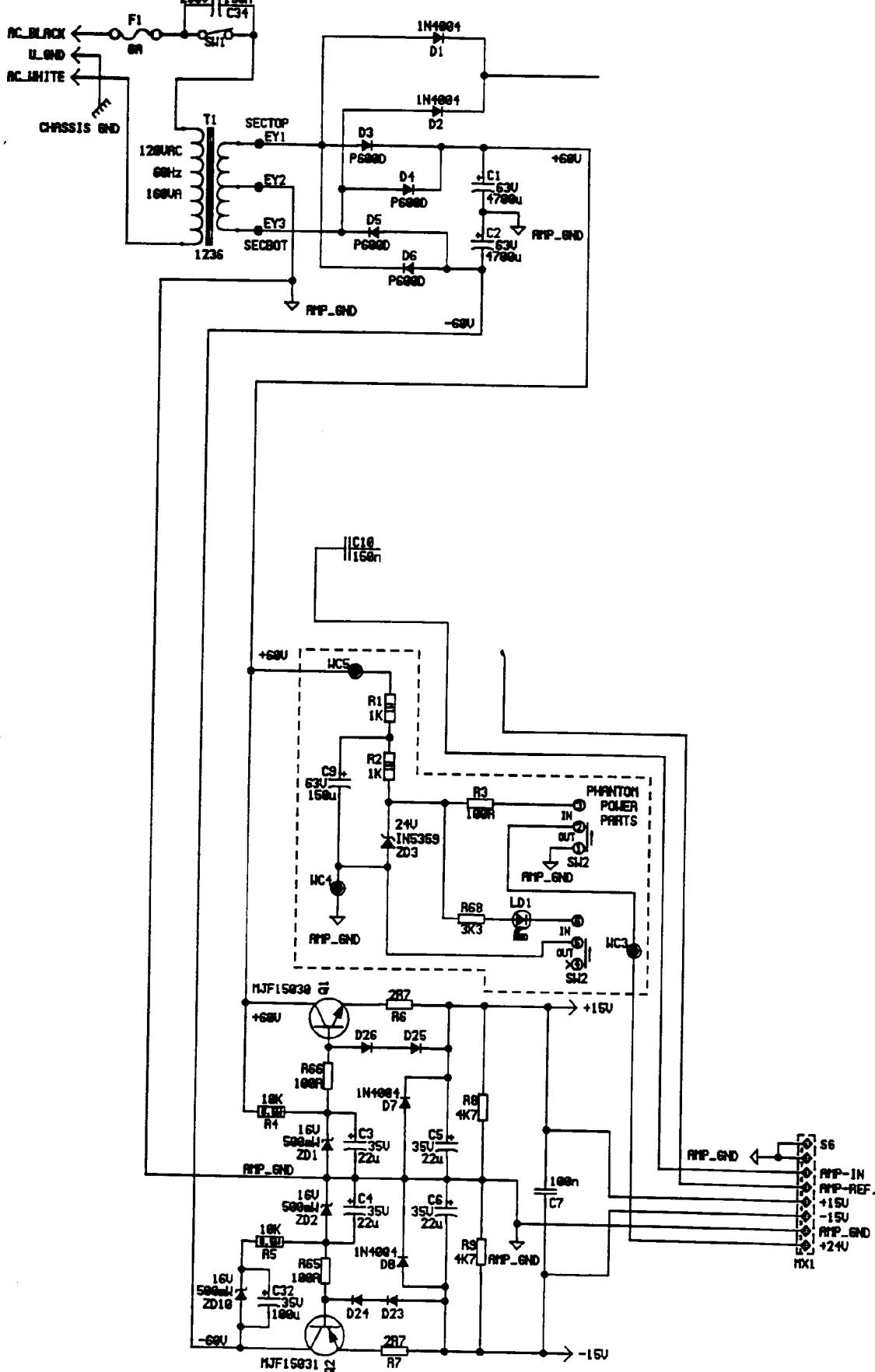




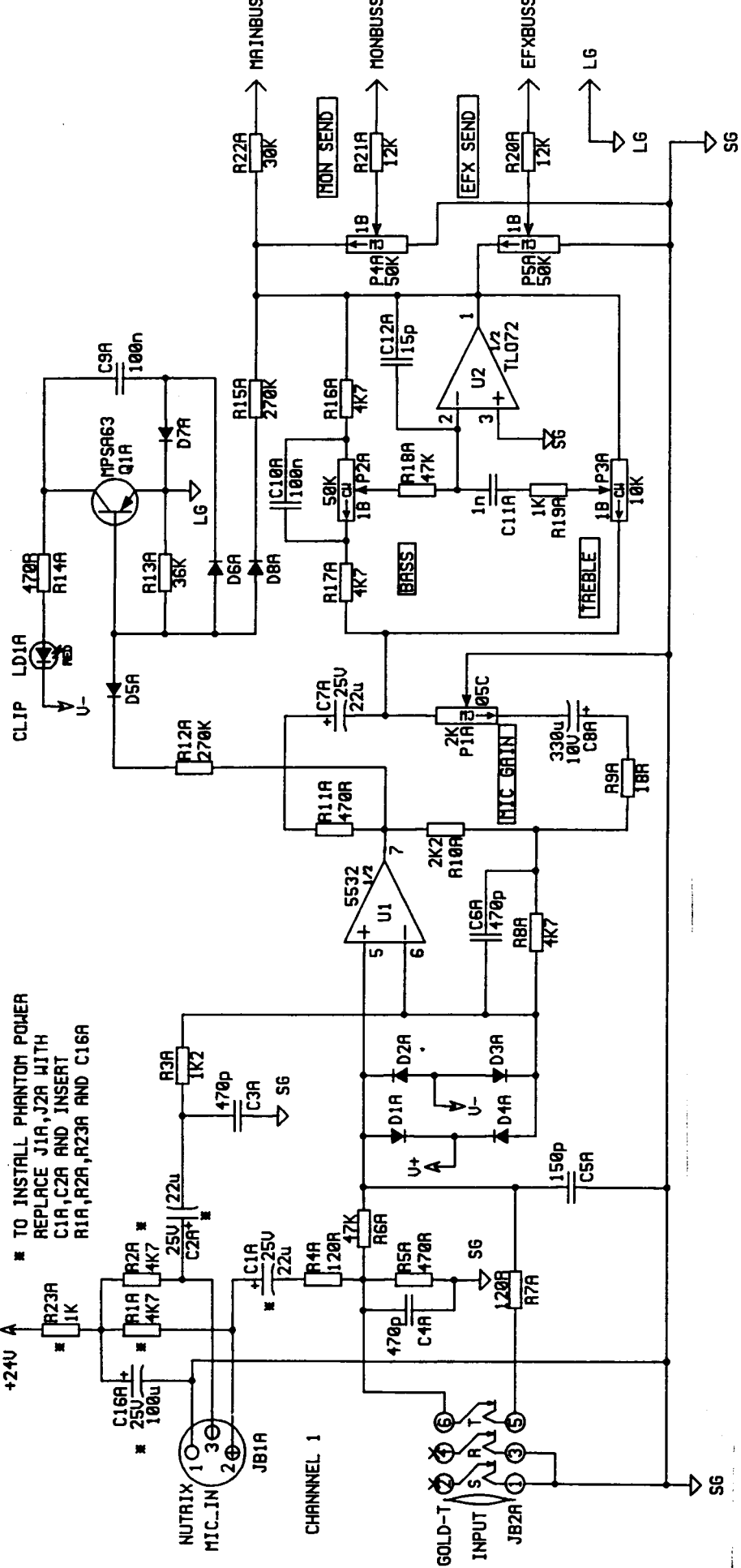


CHAN 6

REMOVE J1F, J2F  
ADD SHADED PARTS



\* TO INSTALL PHANTOM POWER  
 REPLACE J1A, J2A WITH  
 C1A, C2A AND INSERT  
 R1A, R2A, R23A AND C16A



CHANNEL 1