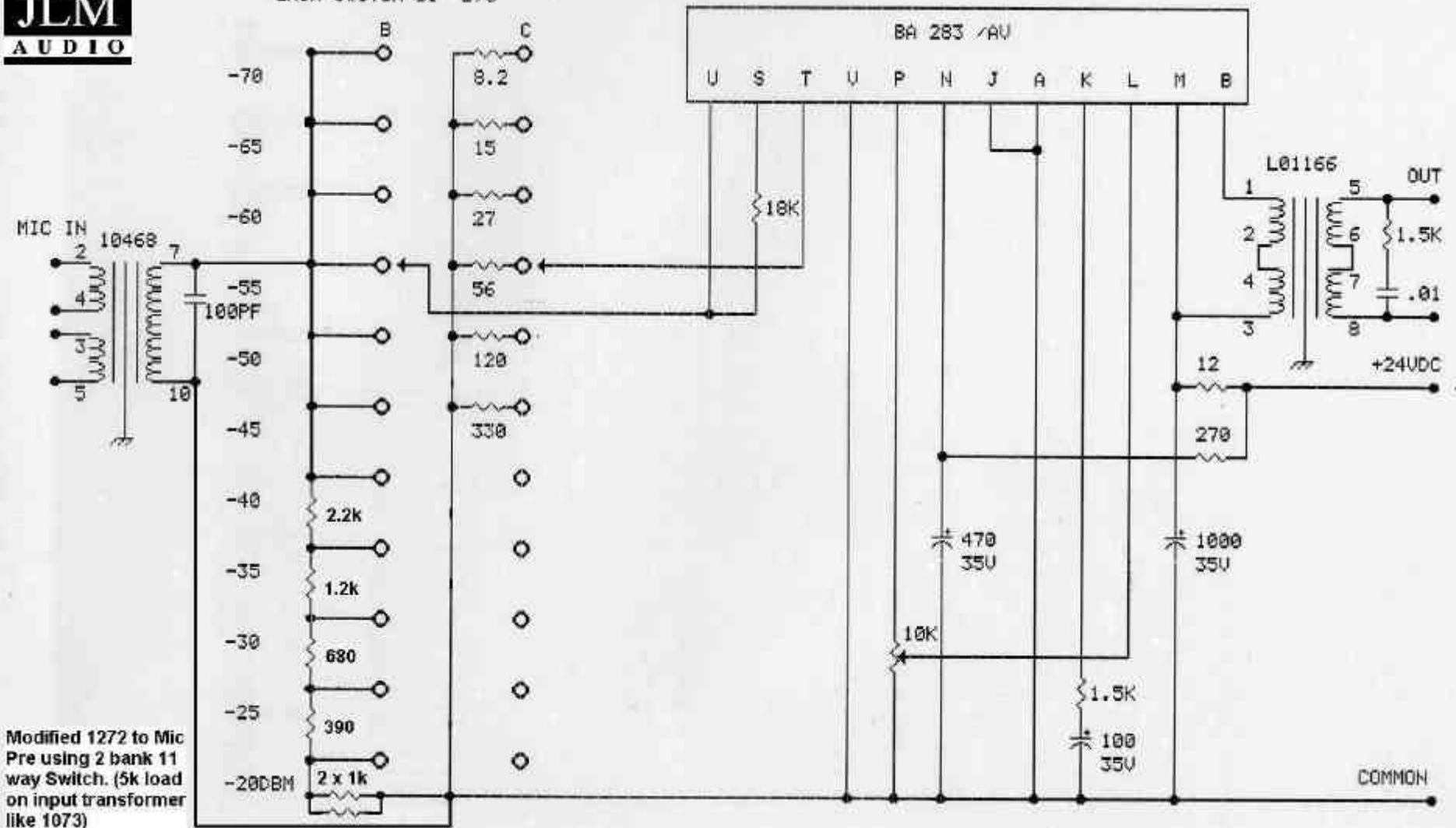
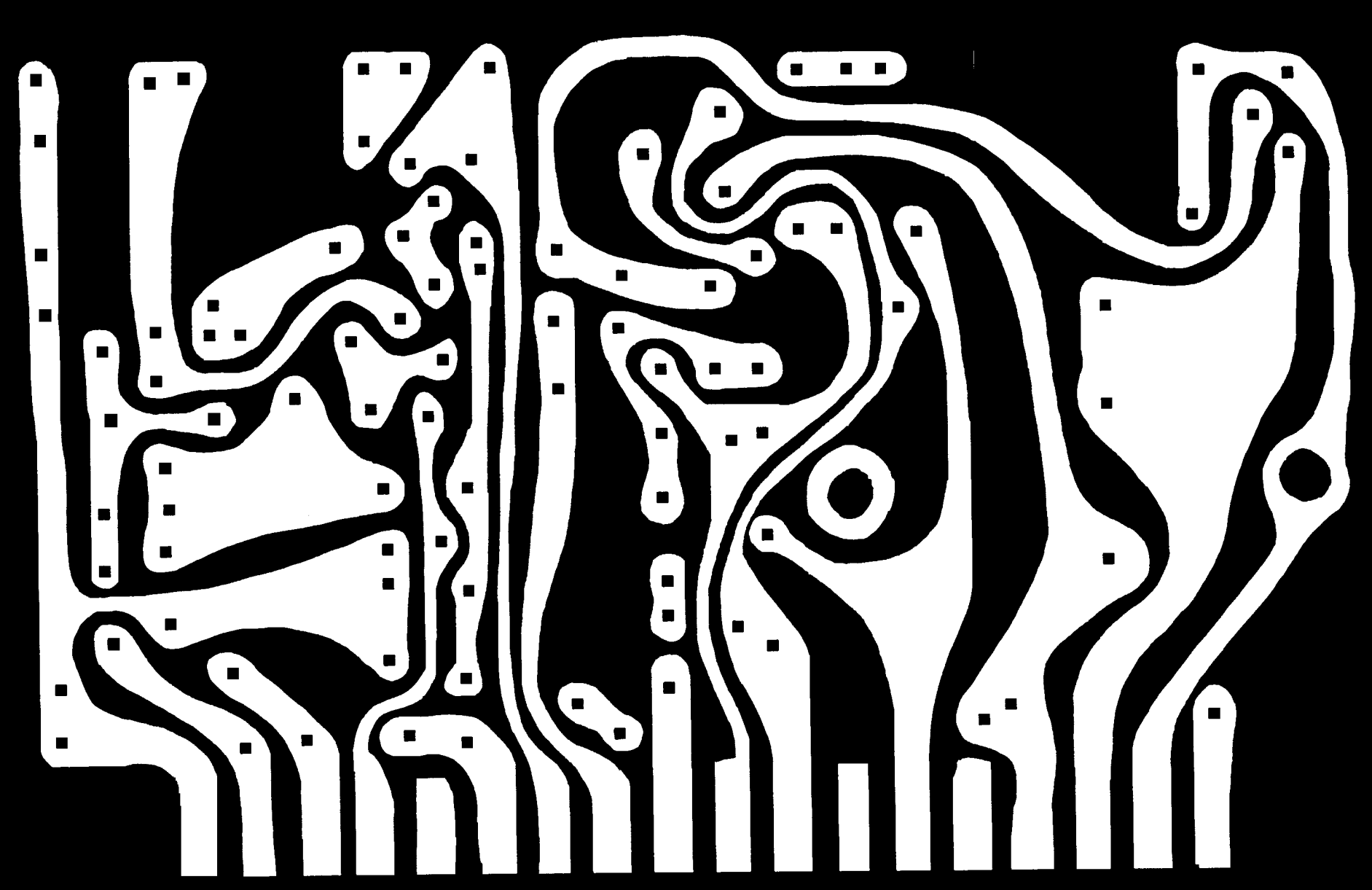


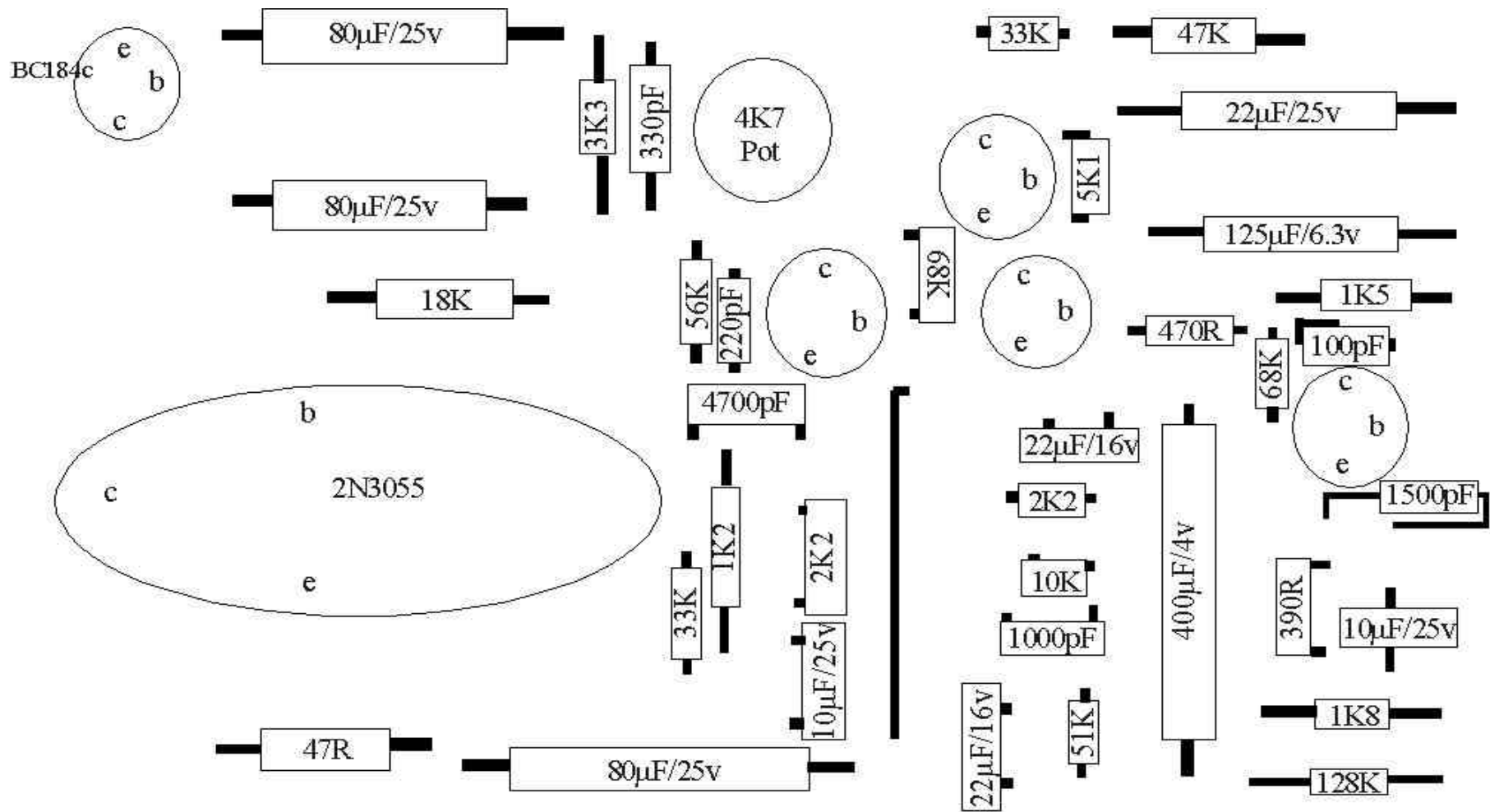
GAIN SWITCH S1 B,C



Modified 1272 to Mic Pre using 2 bank 11 way Switch. (5k load on input transformer like 1073)

COMMON





A B C D (E) F (G) J K L M N P (R) S T U V
 H I O Q

The following are comments found on the Phoenix web site. In no particular order.

I'll try to find the link for Phoenix.

Gosh! Thanks Sean. . . glad you like the site, a lot of work went into it. By '70's gain stages, I presume you mean the discrete silicon transistor op amps that Neve used prior to succumbing to IC's around 1976. The first IC's they used were Mullard TDA1034 which eventually became more common as 5534 type. The pre amp circuits (eg BA238, 338, 438) were basically identical circuitry but didn't use true differential inputs. . . the non inverting input went into the base and the inverting input into the emitter. The only "true differential" Neve circuit (not including rare pcbs used on the 5402 which were an exercise in how many transistors you could squeeze on a pcb!) was the BA512 which was an alternative to the BA440 with the normal long tail pair on the input instead of the single transistor. T

The transistors on all of the daughter board amplifiers should all be fitted with white spacers between them and the circuit board. Missing spacers indicate changed transistors which, in itself, is not detrimental unless non original BC184L and 214L transistors are fitted in their place (should be BC184C and BC214C).

It never ceases to amaze me at what strange mods are made to 1081 modules, for whatever reason because any change from its original specification reduces their value!

Hi Adrian, I'm glad you like your 1066, they are lovely modules! I think (I don't have my notes near me) that they were introduced around 1969 and share most of the same components as most of the Channel Amplifiers from 1064 to 31102. There's a lot of hype about old Neve modules with 1073, 1081 and 1272 being the most famous numbers. In reality they all used the same BA283 and 284 amplifiers cards (or 183/184 earlier versions) and LO1166 output transformers. The characteristic sound comes from the unusual input amplifiers with three separate feedback paths, the input transformers, the inductor based equaliser and the class A output stage with the LO1166 having around 70mA dc bias applied via the 283 pcb. If you look at the first tip on our tech tips page you'll see a very simple mod that will make your 1066 sound even more special! Snip, Snip, and you're there! Geoff Tanner, 30th Aug

Stuff I found,

2N5458 NFET Uni,sym,Idss>2mA,Up<7V BFS71,2N3822,2N5361

this is for the 1176

2N3707 Si-N NF-V,ra,30V,0.03A,0.36W,80Mhz BC169,BC184,BC239,BC549
2n3391A Si-N Uni,25V,0.1A,0.36W,160Mhz,B>250 BC168,BC183,BC238,BC548

BC184c not there but,

BC184 Si-N Uni,45V.0.2A,0.3W,280Mhz BC413,BC550, and maybe BC167,BC237.BC547

Other BC184's were K,L and P they are all refered back to BC184 as above – just different pin/packaging.

Neve BA283AV Class A Circuit

The famous Neve Class A recording series modules such as the 1066, 1073, and 1272 all used a similar gain building block like the BA283AV shown here. This circuit consists of two stages of amplification on a single printed circuit board with an input voltage gain stage and a line driver output stage. The BA283AV input and output stages shown here are connected with EQ, filters and fader inserted between them in the case of the channel amplifier modules such as the Neve 1073 or directly connected with just a level control or an external fader between the two stages in the case of the Neve 1272. Note that the [Neve L01166](#) output transformer is an integral part of the second stage of the BA 283 circuit and DC is supplied to the collectors of the 2nd BC 184C transistor and the 2N3055 output transistor through its primary winding. The BA283AV input stage would normally have an input transformer such as a [Neve 10468](#) connected directly to it (pin U being the input) in the case of a 1272 or by way of an input sensitivity or gain switch in the case of a 1073. It's interesting to note that many people feel that the sound of the Neve class A modules is in large part due to the transformers themselves ("The sound's in the iron"). By the way, the BA283AV operates on a single +24 volt DC supply.

[What is Class A and why all the fuss about it? \(Recently updated\)](#)

Neve BA283AV Circuit (BA283 AM & AV)

First Stage:

Second Stage:

There originally was an error which has recently been corrected in this drawing. The 4K7 ohm trim pot was originally labeled as 47K ohm. The trim pot is used to set for symmetrical clipping at maximum output.

Connections: (The BA283AV uses an Amphenol 18-pin card edge connector for all connections.)

A	Connect to B- (power supply common).
B	Connect to L01166 output transformer pin 1.
C	
D	
E	
F	Unbalanced output.
H	
J	B- (power supply common).
K	Second stage gain adjustment. Connect in series with an 80uf or larger capacitor to pin J with a resistor from the table below to increase gain.
L	Second stage input.
M	B+ (+24VDC) Connect to power supply in series with 12 ohm resistor. Bypass to B- with a 1000uf or larger capacitor.
N	B+ (+24VDC) Connect to power supply in series with 270 ohm resistor. Bypass to B- with a 470uf or larger capacitor.
P	Output of first stage.
R	
S	Connect to pin U in series with a 15K to 18K ohm resistor.

T	First stage gain adjustment. Connect to pin V in series with a resistor from the table below to increase gain.
U	Input of first stage.
V	B- (power supply common).

The gain of the first stage, which normally is fixed at 18 db, can be increased by connecting a resistor between pins T and V as shown by the following table.

Gain dB	18	23	28	33	38	43	48
Resistor Ohms	(open)	330	120	56	27	15	8.2

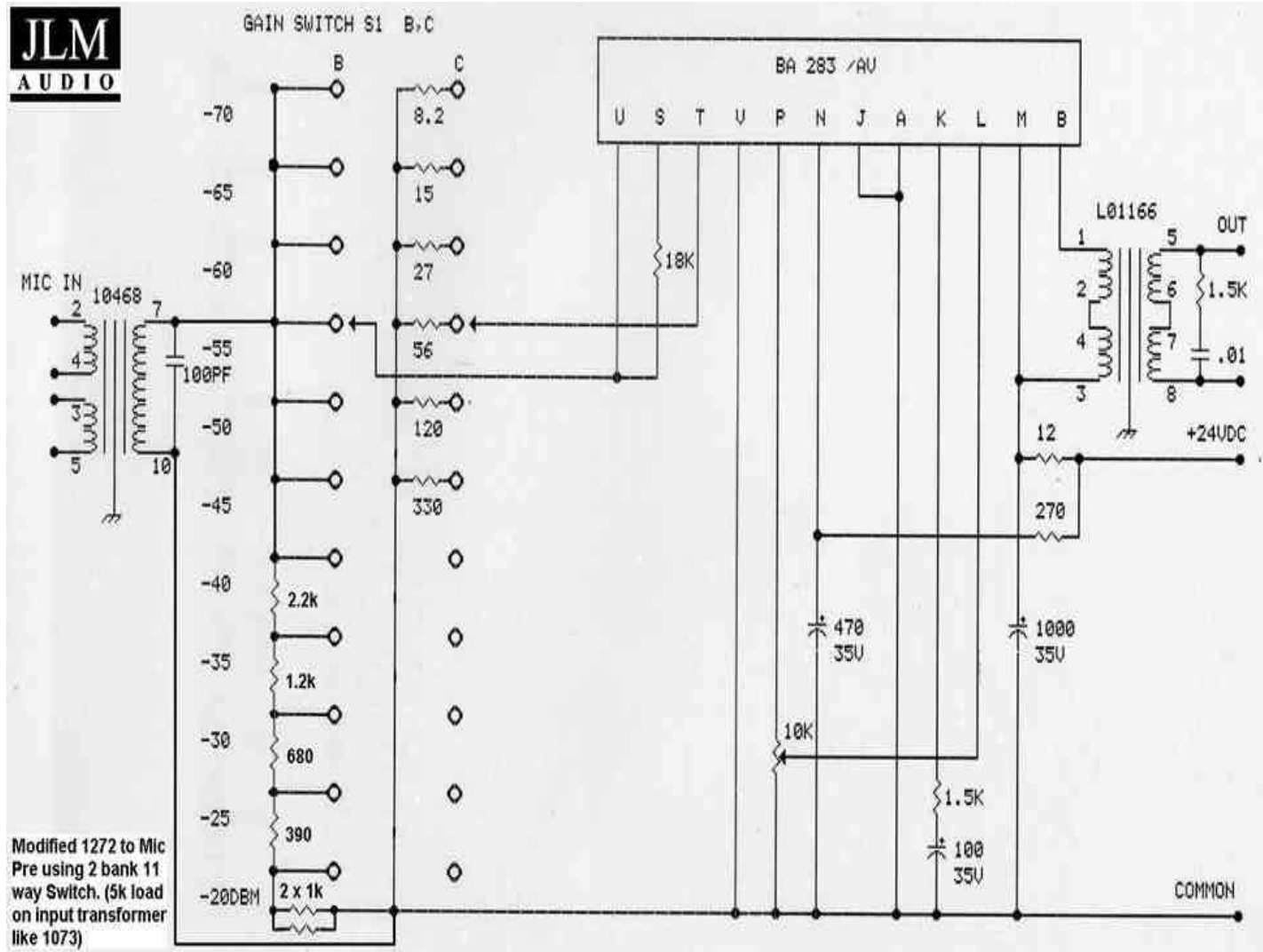
The gain of the second stage, which is normally fixed at 15 dB, can be increased by connecting, in series with an electrolytic capacitor, a resistor between pins J and K as shown by the following table.

Gain dB	15	18	20	25	30	35
Resistor Ohms	(open)	1K5	1K2	470	220	110

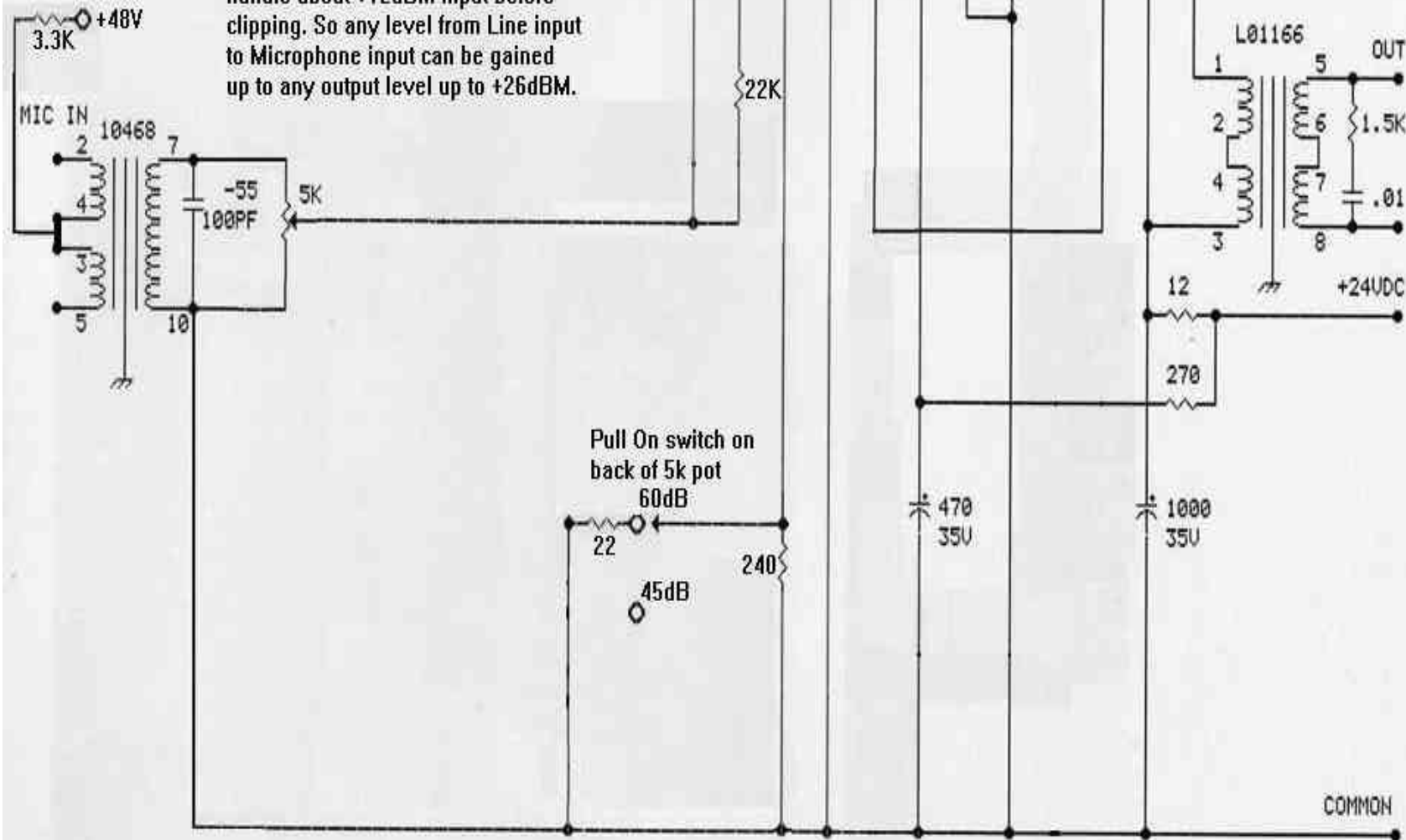
(1K5 = 1.5K, 1K2 = 1.2K, etc.)

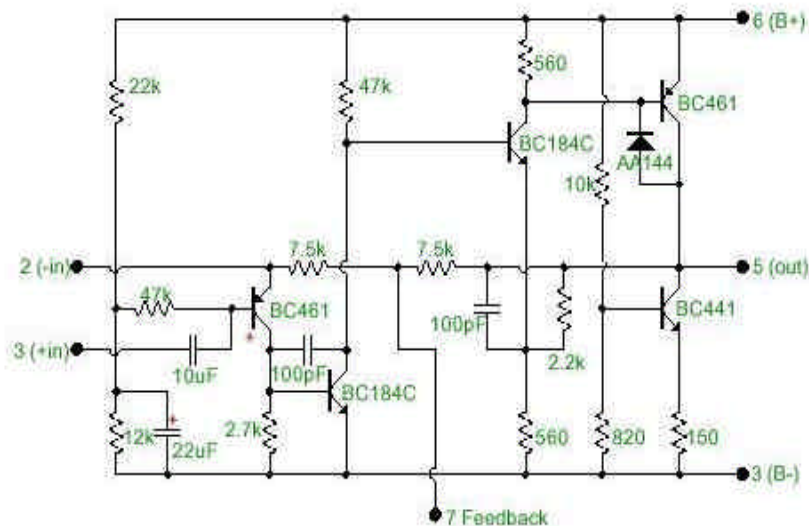
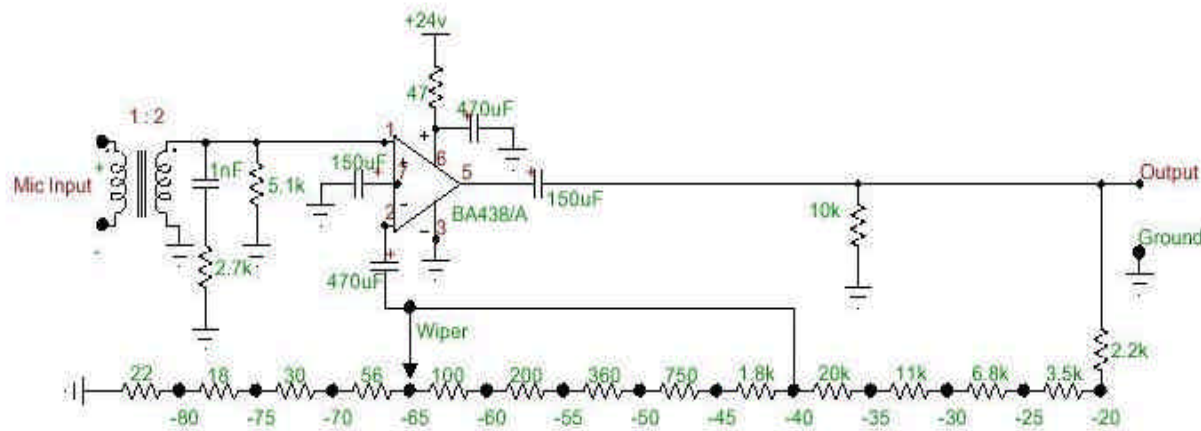
Here is [printed circuit board artwork](#) for making your own BA283 style amplifier circuit that someone was nice enough to send. Check it out, and perhaps you'll find it useful. Note that there are two separate sections to the BA283, and the second stage output section of the BA283 that uses the large 2N3055 output transistor is on the right side of the board. You'll notice the two large holes on the right middle of the board for mounting the 2N3055.

This is a modified version of the circuit on Rob Rowlette's [Classic and Vintage Circuits Web Site](#). My Modification keeps a constant 5k load on the secondary of the input transformer and simplifies the switching to a 2-bank switch. (Note that the three bank circuit on Robs page changes load for 5k to 12k about half way through the switching steps because of a missing 12k resistor across the input transformer secondary which the real 1066, 1073, 1078 had fitted. These modules used a 3-bank switch due to an extra preamp stage and a line switching section as well. Loading transformers properly is a big part the Neve sound.



This Simple Mod of a Neve 1272 only Requires a Pot with a pull on Switch and a couple of Resistors. The 10468 input transformer can handle about +12dBm input before clipping. So any level from Line input to Microphone input can be gained up to any output level up to +26dBm.

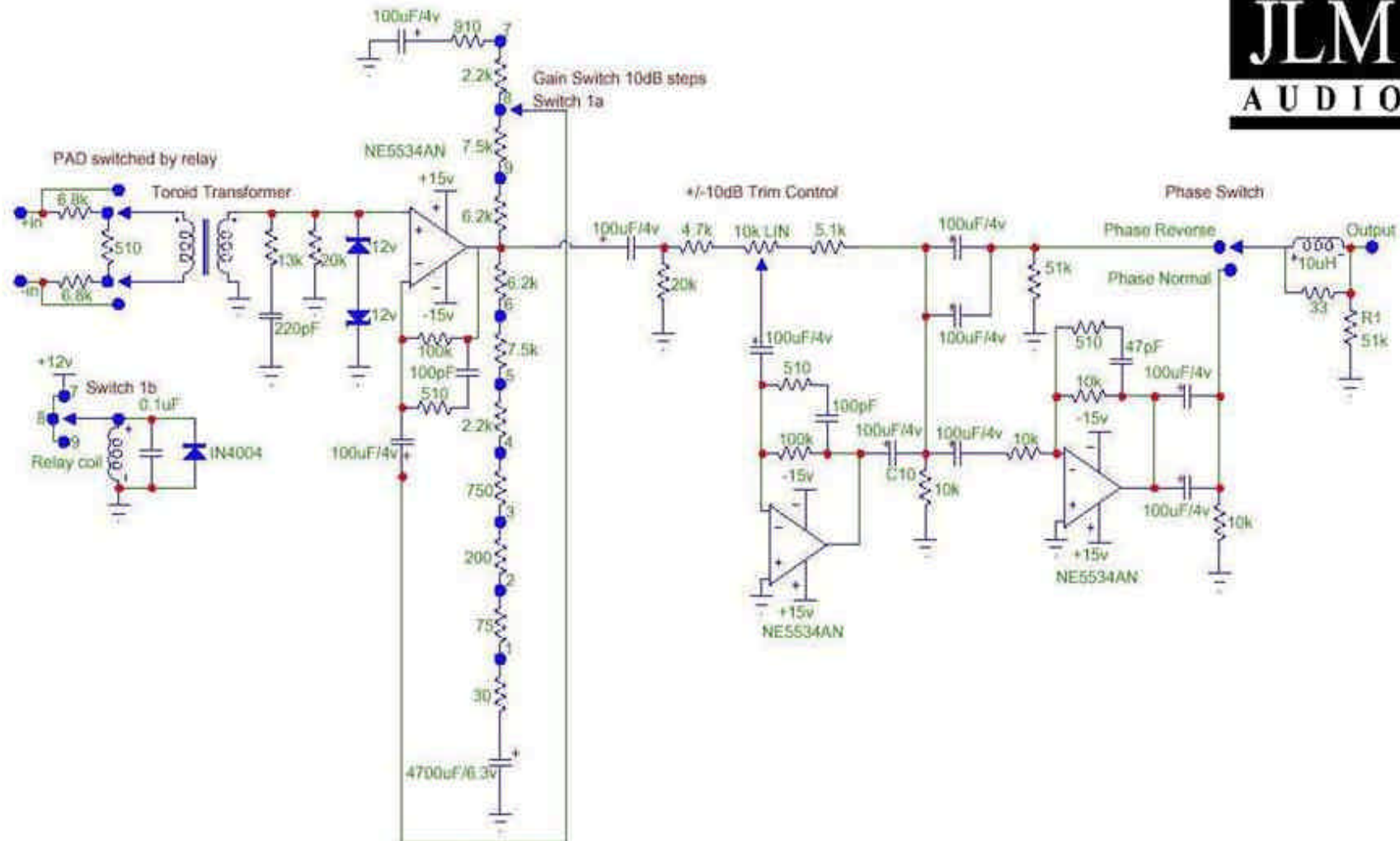




BA438/A (BA438 has BC214KC as input transistor instead of BC461 otherwise the same as BA438/A)

Changing the 150 ohm resistor in the output of the BA438 to 39 ohm will make the module capable of driving A -class into a 300 load

NEVE 1081 MIC PRE



Switch position 1 is the highest gain, position 9 is the lowest gain.
 Relay is turned on switching in 30dB PAD in position 7 to 9 of switch.
 The original IC is actually a TDA1034 which is the NE5534AN
 All IC's have 22pF across the Freq Comp pins 5 & 8
 The gain at position 6 = 9, 5 = 8, 4 = 7 except that the 30dB pad is switched in while at position 7 to 9.
 So the 4 resistors and one cap used for position 7 to 9 can be left out and position 7 to 9 can be wired to the other position that they equal.

NEVE IC MIC PRE

Fig. 12-84C. Schematic diagram for Teletronix Engineering Co. leveling amplifier Model LA-2A.

