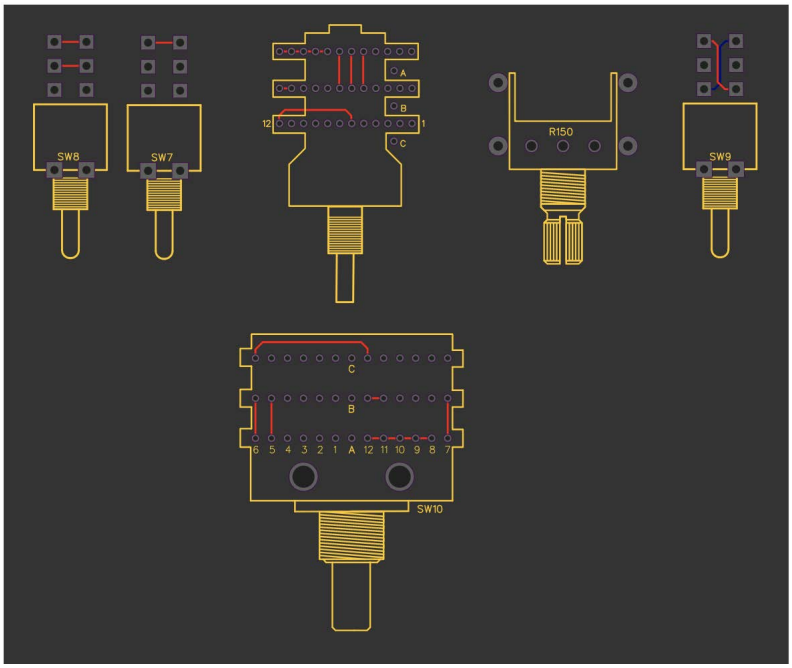
BOM_GC-73 Preamp rev3

Q.ty	Resistors:	N° on PCB
2	6k81 0,1% 1/4w	R1, R2
1	47R 1% 3w	R3
1	56k 1% 1/4w	R4
3	18k 1% 1/4w	R5, R6, R7
3	33k 1% 1/4w	R8, R26, R27
3	68k 1% 1/4w	R9, R10, R11
4	3k3 1% 1/4w	R12, R13, R14, R15
4	2k2 1% 1/4w	R16, R17, R18, R19
1	1k2 1% 1/4w	R20
1	12R 1% 1/4w	R21
3	1k5 1% 1/4w	R22, R23, R43
1	620R 1% 1/4w	R25
3	5k1 1% 1/4w	R28, R29, R30
2	51k 1% 1/4w	R31, R32
2	47k 1% 1/4w	R33, R34
2	120k 1% 1/4w	R35, R36
1	15k 1% 1/4w	R37
2	10k 1% 1/4w	R38, R39
2	470R 1% 1/4w	R40, R41
2	390R 1% 1/4w	R42, R43
1	82R 1% 1/4w	R44
3	1k8 1% 1/4w	R45, R46, R47
1	270R 1% 1/4w	R48
1	12k 1% 1/4w	R49
3	3.9k 1% 1/4w	R50, R51, R52
3	2K7 1% 1/4w	R53, R54, R55
1	360R 1% 1/4w	R56
1	130R 1% 1/4w	R57
1	1k 1% 1/4w	R58
1	510R 1% 1/4w	R59
1	4k3 1% 1/4w	R60
1	7k5 1% 1/4w	R61
1	39k 1% 1/4w	R62
Q.ty	**Trimmers & pots:**	**N° on PCB**
1	Trimmer P64 4k7	R63
1	Pot LIN 20mm + bracket (option)	R149
Q.ty	**Switchs:**	**N° on PCB**
1	Rotary Switch GRAYHILL 71BD30-03-1-AJN - 12 POSITION, 1 POLE, 3 GANG	SW2
3	Switchs DPDT 7201MD9AV2BE (GH version only)	SW1, SW3, SW4
Q.ty	**transistors:**	**N° on PCB**
1	2N3055	Q1
8	BC184C	Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9
Q.ty	**Ceramics MLCC Capacitors:**	**N° on PCB**
2	100 pF 50V C0G/NP0 p=5mm	C1, C2
1	220 pF 50V C0G/NP0 p=5mm	C3
1	330 pF 50V C0G/NP0 p=5mm	C4
1	180 pF 50V C0G/NP0 p=5mm	C34
1	4,7 nF 50V C0G/NP0 p=5mm	C5
2	680 pF 50V C0G/NP0 p=5mm	C7, C8
2	1,5 nF 50V C0G/NP0 p=5mm	C9, C10
Q.ty	**Film Capacitors:**	**N° on PCB**
1	10 nF Wima MKP p=5.08mm	C6
2	1 nF Wima MKP p=5.08mm	C11, C12
Q.ty	**Tantalum Capacitors:**	**N° on PCB**
3	10 µF 25V Tag d=5.5mm p=2.5mm	C13, C14, C15
7	22 µF 35V Tag p=5.08mm	C16, C17, C18, C19, C20, C21, C22
Q.ty	**Electrolytic Capacitors:**	**N° on PCB**
6	100 µF 25V elect d=6.3mm p=2.5mm	C23, C24, C25, C26, C27, C28
3	470 µF 35V d=10mm p=5.08mm	C29, C30, C31
2	470 µF 16V elect d=8mm p=3.5mm	C32, C33
Q.ty	**Various:**	**N° on PCB**
1	SCREW TERMINAL 3PIN p=5.08mm (OSTTC032162)	J1
2	Header 3p Molex KK-254 AE-6410-03A 1x03 P2.54mm vertical	J3, J5, J6
1	Header 2p Molex KK-254 AE-6410-02A 1x02 P2.54mm vertical	J2
1	Header (p Molex KK-254 AE-6410-02A 1x02 P2.54mm vertical	J4
1	Transfo Micro Carnhill VTB9045 or UTM 2545	U2
1	Output Transfo Carnhill VTB1847 or UTM 3547	Not on PCB
1	LORLIN SERIE PT 3 DECKS or GRAYHILL 71BDF30-03-1-AJN	SW1

WIRING SWITCHS



Bias Calibration:

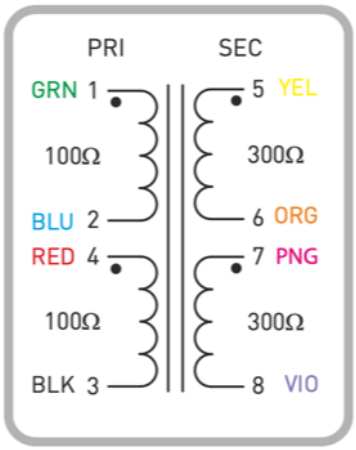
- Measure the voltage across R6 on the PSU board. You should initially get a reading of about 70-80mV DC
- Adjust R63 (Out Bias) until you read 130mV

* If you have the equipment available, the “correct” way to do this is by measuring the output distortion and adjusting R63 (Out Bias) for minimum. However, you will probably end up with a current of about 130mA anyway so the above method works fine.

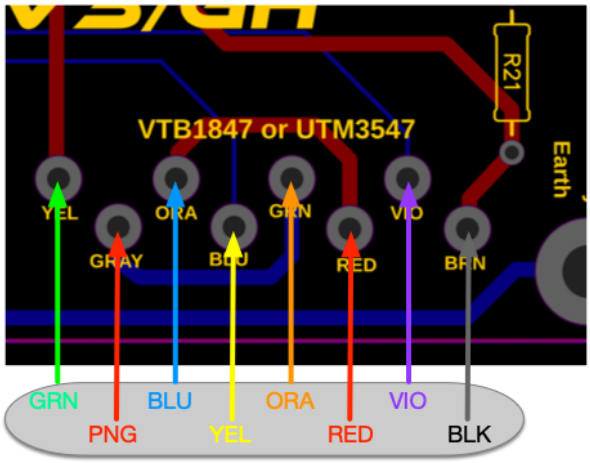
some links :

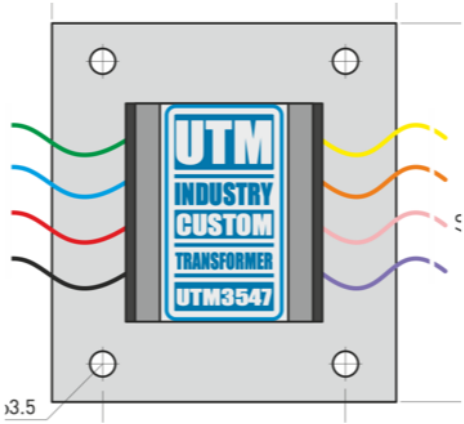
- Lorlin serie PT 3 decks : you need 3 parts :
  - ° https://fr.rs-online.com/web/p/entretoises-pour-interrupteurs-rotatifs/2371031
  - ° https://fr.rs-online.com/web/p/commutateurs-rotatifs/0352294
  - ° https://fr.rs-online.com/web/p/commutateurs-rotatifs/0665837
- switches :
  - ° https://www.mouser.fr/ProductDetail/CK/7201MD9AV2BE?qs=FbdvdS3ZqjiRhKbgAoF%252BhA%3D%3D
- Gain output trim pot (you don’ need the bracket , hard to find !):
  - ° https://www.mo-user.fr/ProductDetail/Bourns/PDB181-A420K-103B?qs=h2IHEVivlqD7EoAYF1S1sQ%3D%3D
- DI Jack socket :
  - ° https://www.lcsc.com/product-detail/Audio-Connectors_HOOYA-PJ-609BA_C309277.html
    or Aliexpress

UTM3547

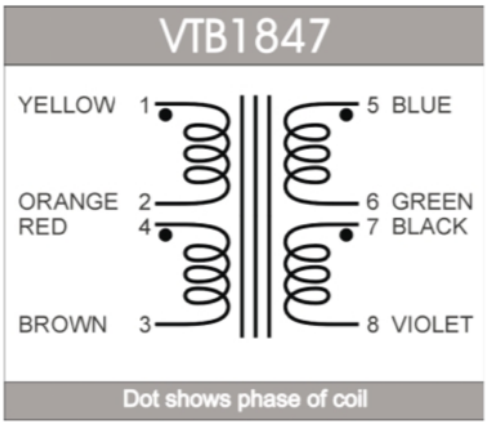


Low profile, Output Audio transformer
Ratio: 1.25:1, 1:1.6, 1:4
Impedance: 200Ω : 600Ω, 200Ω : 150Ω,
50Ω : 600Ω, 50Ω : 150Ω
DC Resistance: (6Ω+6Ω) : (22Ω + 22Ω)
Fitted with 150 mm flying leads
Gapped. Open frame package.





VTB1847



Optimum Source / Load Impedances

Series wired primaries	Parallel wired primaries	Series wired secondaries	Parallel wired secondaries	Voltage Gain dB
200Ω		600Ω		+4
200Ω			150Ω	-2
	50Ω	600Ω		+10
	50Ω		150Ω	+4

Turns Ratio; N1:N2 = 1+1:1.7+1.7
DC Coil Resistances: P1:P2:S1:S2 = 6:6:20:20 (Ohms)
All values are approximate

