

### BOM\_GC-73 Preamp rev3 + FET DI

| <b>Q.ty</b> | <b>Resistors:</b>                    | <b>N° on PCB</b>            |
|-------------|--------------------------------------|-----------------------------|
| 1           | 39k - 1/4w 1%                        | R62                         |
| 3           | 2k7 - 1/4w 1%                        | R55,R54,R53                 |
| 1           | 12R - 1/4w 1%                        | R21                         |
| 1           | 130R - 1/4w 1%                       | R57                         |
| 1           | 82R - 1/4w 1%                        | R44                         |
| 1           | 360R - 1/4w 1%                       | R56                         |
| 1           | 270R - 1/4w 1%                       | R48                         |
| 1           | 620R - 1/4w 1%                       | R25                         |
| 1           | 510R - 1/4w 1%                       | R59                         |
| 2           | 470R - 1/4w 1%                       | R41,R40                     |
| 2           | 390R - 1/4w 1%                       | R43,R42                     |
| 3           | 1k5 - 1/4w 1%                        | R24,R23,R22                 |
| 1           | 1k2 - 1/4w 1%                        | R20                         |
| 1           | 1k0 - 1/4w 1%                        | R58                         |
| 4           | 3k3 - 1/4w 1%                        | R15,R14,R13,R12             |
| 4           | 2k2 - 1/4w 1%                        | R16,R19,R18,R17             |
| 3           | 1k8 - 1/4w 1%                        | R47,R46,R45                 |
| 3           | 5k1 - 1/4w 1%                        | R30,R29,R28                 |
| 1           | 4k3 - 1/4w 1%                        | R60                         |
| 4           | 3k9 - 1/4w 1%                        | R52,R51,R50, R155           |
| 2           | 10k - 1/4w 1%                        | R39,R38                     |
| 1           | 7k5 - 1/4w 1%                        | R61                         |
| 3           | 18k - 1/4w 1%                        | R6,R7,R5                    |
| 1           | 15k - 1/4w 1%                        | R37                         |
| 1           | 12k - 1/4w 1%                        | R49                         |
| 2           | 51k - 1/4w 1%                        | R32,R31                     |
| 2           | 47k - 1/4w 1%                        | R34,R33                     |
| 3           | 33k - 1/4w 1%                        | R8,R27,R26                  |
| 2           | 120k - 1/4w 1%                       | R36, R35                    |
| 3           | 68k - 1/4w 1%                        | R11,R10,R9                  |
| 1           | 56k - 1/4w 1%                        | R4                          |
| 2           | 6K81 - 1/4w 0.1%                     | R2,R1                       |
| 1           | 47R - 3Watt                          | R3                          |
| 7           | 2.2M - 1/4w 1%                       | R2',R3',R7',R6',R5',R4',R1' |
| 1           | 22R - 1/4w 1%                        | R13'                        |
| 1           | 2.7K - 1/4w 1%                       | R12'                        |
| 2           | 100R - 1/4w 1%                       | R11',R10'                   |
| 2           | 470R - 1/4w 1%                       | R9',R8'                     |
|             |                                      |                             |
| <b>Q.ty</b> | <b>Transistor:</b>                   | <b>N° on PCB</b>            |
| 8           | BC184C                               | Q3,Q2,Q9,Q8,Q7,Q6,Q5,Q4     |
| 1           | 2N3055 + Heatsink TO3                | Q1                          |
| 2           | 2SK170                               | Q2',Q1'                     |
|             |                                      |                             |
| <b>Q.ty</b> | <b>Trimmer &amp; Potentiometers:</b> | <b>N° on PCB</b>            |
| 1           | Bias TRIMMER P94 4k7                 | R63                         |
| 1           | Output Gain TRIM 10k Lin 20mm        | R149                        |
| <b>Q.ty</b> | <b>Film capacitors:</b>              | <b>N° on PCB</b>            |
| 4           | 100nF film capa p=5mm                | C8',C7',C6',C4'             |
| 1           | 10nF Film Capa p=5.08mm              | C6                          |
| 1           | 4n7F Film Capa p=5.08mm              | C5                          |
| 3           | 680pF Film Capa p=5.08mm             | C12,C8,C7                   |

|             |                                                     |                             |
|-------------|-----------------------------------------------------|-----------------------------|
| 1           | 1nF Film Capa p=5.08mm                              | C11                         |
| 2           | 1n5F Film Capa p=5.08mm                             | C10,C9                      |
| 1           | 220pF film capa p=5mm                               | C5'                         |
|             |                                                     |                             |
| <b>Q.ty</b> | <b>Ceramic capacitors:</b>                          | <b>N° on PCB</b>            |
| 1           | 180pF ceramic capa p=2.54mm                         | C34                         |
| 2           | 100pF Ceramic Capa p=2.54mm                         | C2,C1                       |
| 1           | 220pF Ceramic Capa p=2.54mm                         | C3                          |
| 1           | 330pF Ceramic Capa p=2.54mm                         | C4                          |
|             |                                                     |                             |
| <b>Q.ty</b> | <b>Electrolytic capacitors:</b>                     | <b>N° on PCB</b>            |
| 7           | 22uF / 50V d=6.5mm                                  | C22,C19,C18,C21,C17,C16,C20 |
| 3           | 10UF / 50V d=5mm                                    | C13,C15,C14                 |
| 6           | 100UF / 25V d=6.5mm                                 | C24,C23,C25,C26,C28,C27     |
| 2           | 470UF / 16V d=9mm                                   | C33,C32                     |
| 3           | 470UF / 35V d=10mm                                  | C30,C29,C31                 |
| 3           | 100uF / 63V d=6.3mm Bi-polar                        | C3',C2',C1'                 |
|             |                                                     |                             |
| <b>Q.ty</b> | <b>Various:</b>                                     | <b>N° on PCB</b>            |
| 1           | VTB1847 Carnhill Output Transfo ( or UTM3547 )      | U1                          |
| 1           | VTB9045 Carnhill Mic Input Transfo ( or UTM2545 )   | U2                          |
| 2           | CONN 2P KK100_22-23-2021                            | J2',J2                      |
| 1           | LORLIN SERIE PT 3 DECKS or GRAYHILL 71BD30-03-1-AJN | SW1                         |
| 2           | CONN 3P KK100_22-23-2031                            | J3,J5                       |
| 2           | CONN 5P KK100_22-23-2051                            | J4,J1'                      |
| 3           | SWITCH C&K 7201MD9AV2BE                             | SW5, SW6, SW7               |
| 1           | RELAY 24v G6K-2P-Y-DC24                             | RLY1'                       |

#### 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](https://www.lcsc.com/product-detail/Audio-Connectors_HOOYA-PJ-609BA_C309277.html)
  - or Aliexpress

## WIRING SWITCHES

