

# Reference 4430

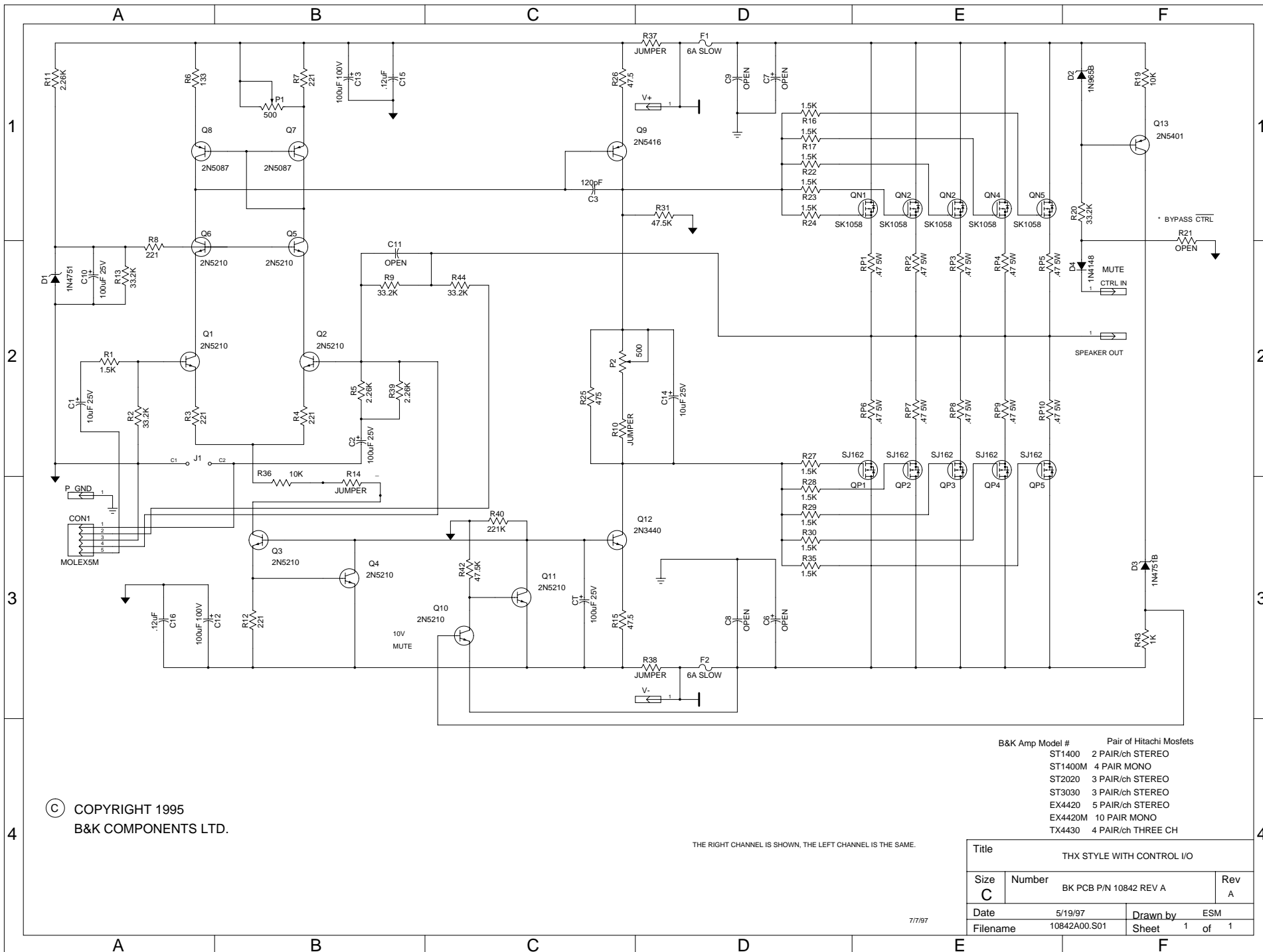
## SERVICE MANUAL

B&K COMPONENTS, LTD.  
2100 Old Union Road  
Buffalo, New York 14227-2725  
U.S.A.



# Schematics

B&K COMPONENTS, LTD.  
2100 Old Union Road  
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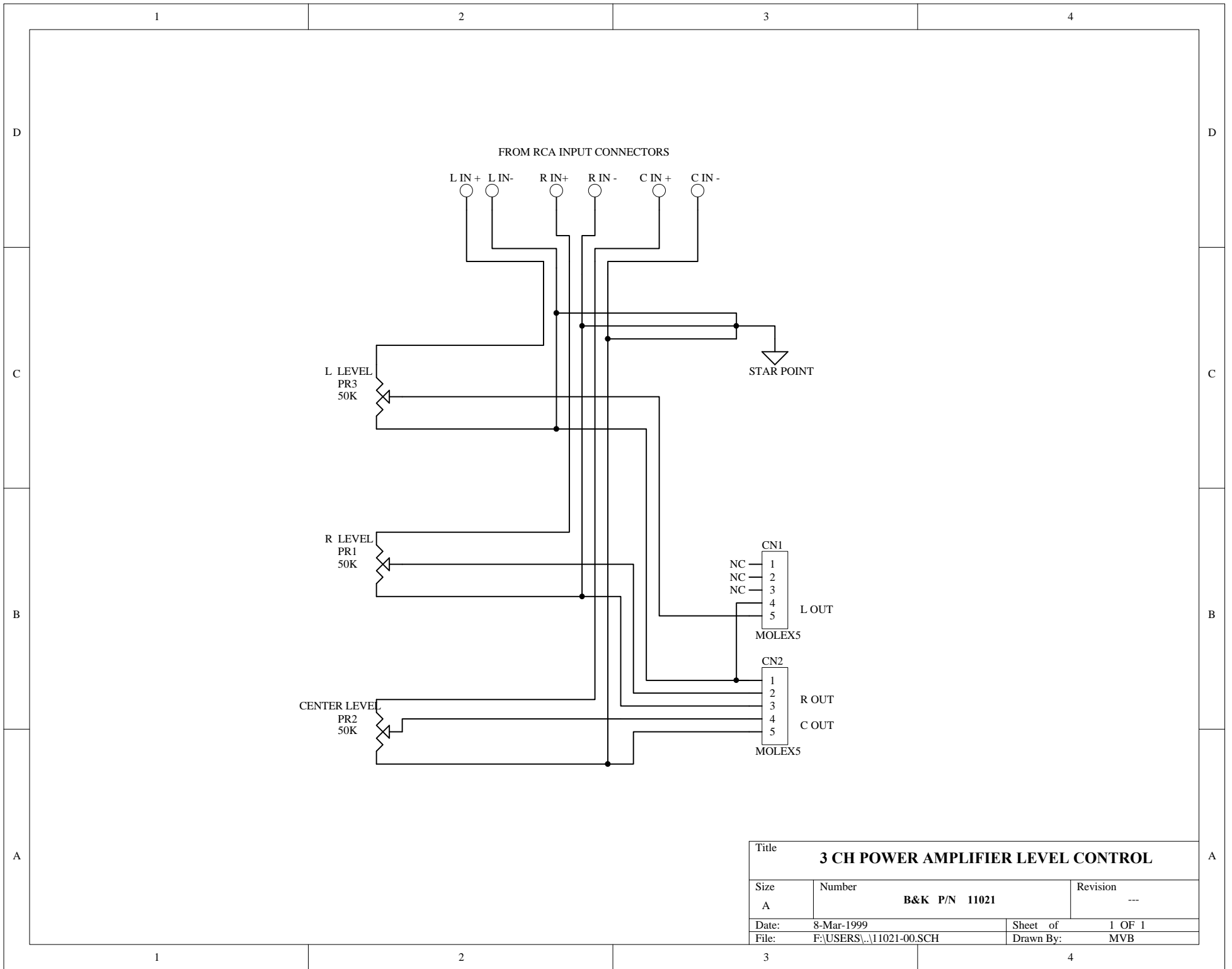
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B&K COMPONENTS LTD.

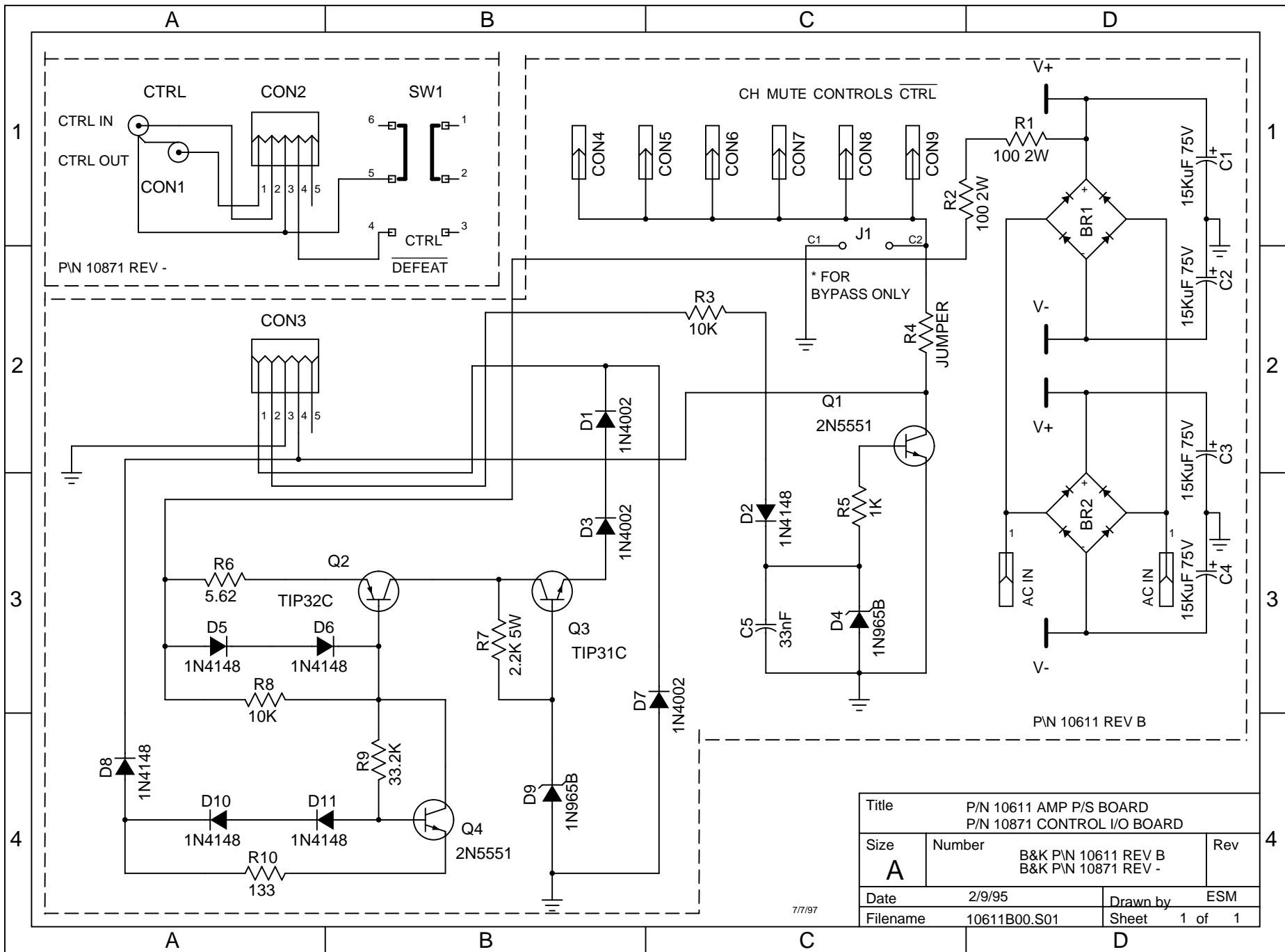
THE RIGHT CHANNEL IS SHOWN, THE LEFT CHANNEL IS THE SAME.

B&K Amp Model #      Pair of Hitachi Mosfets  
ST1400    2 PAIR/ch STEREO  
ST1400M   4 PAIR MONO  
ST2020    3 PAIR/ch STEREO  
ST3030    3 PAIR/ch STEREO  
EX4420    5 PAIR/ch STEREO  
EX4420M   10 PAIR MONO  
TX4430    4 PAIR/ch THREE CH

| Title                      |                        |          |
|----------------------------|------------------------|----------|
| THX STYLE WITH CONTROL I/O |                        |          |
| Size                       | Number                 | Rev      |
| C                          | BK PCB P/N 10842 REV A | A        |
| Date                       | 5/19/97                | Drawn by |
| Filename                   | 10842A00.S01           | ESM      |
|                            | Sheet                  | 1 of 1   |

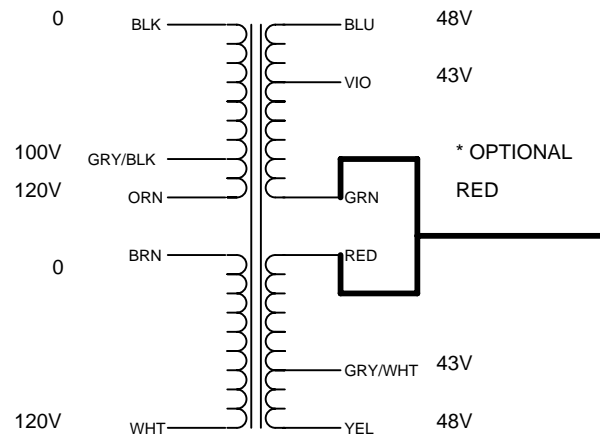
7/7/97





|  |  |     |  |
|--|--|-----|--|
| Title P/N 10611 AMP P/S BOARD<br>P/N 10871 CONTROL I/O BOARD |  |     |  |
| Size<br><b>A</b>   | Number<br>B&K P/N 10611 REV B<br>B&K P/N 10871 REV - | Rev |  |
| Date<br>2/9/95   | Drawn by<br>ESM                                      |     |  |
| Filename<br>10611B00.S01                                     | Sheet<br>1 of 1                                      | 1   |  |

# 625VA MULTI SEC/PRI TOROID



THE SECONDARY VOLTAGES LISTED ARE FOR FULL LOAD CONDITIONS.

APPROX. MAX DIMENSIONS OF TOROIDAL TRANSFORMER:

HEIGHT: 3.5"

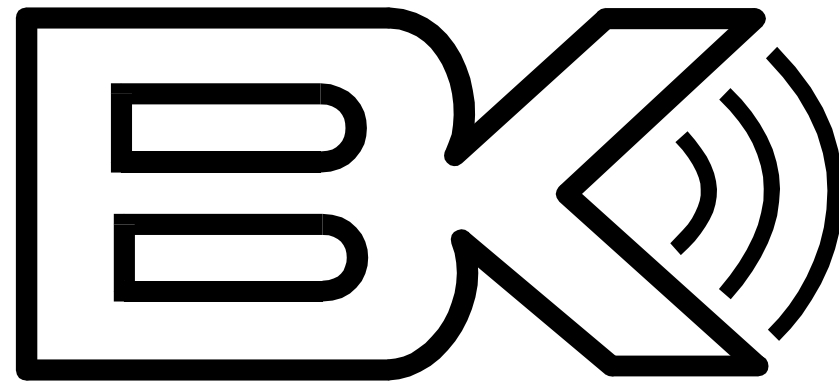
APPROX. MAX MOUNTING DIM. 6.0"

LEAD LENGTH: 9"

THE ABOVE PHYSICAL DIMENSIONS ARE MAXIMUM DIMENSIONS.

7/22/97

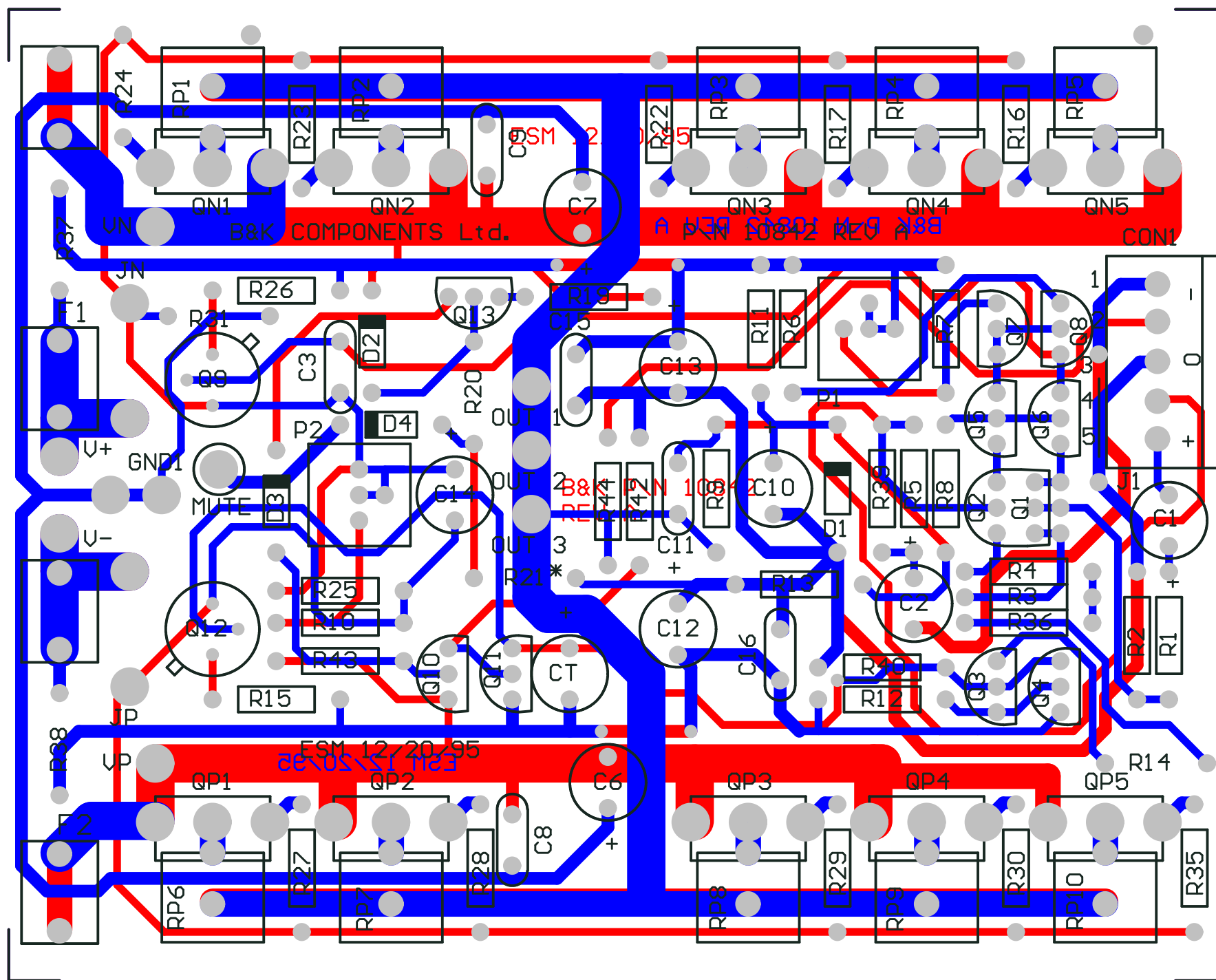
|                           |                      |       |  |
|---------------------------|----------------------|-------|--|
| Title B&K COMPONENTS LTD. |                      |       |  |
| Size A                    | Number B&K P/N 10085 | Rev - |  |
| Date 1/18/95              | Drawn by ESM         |       |  |
| Filename 10085.S01        | Sheet 1              | of 1  |  |



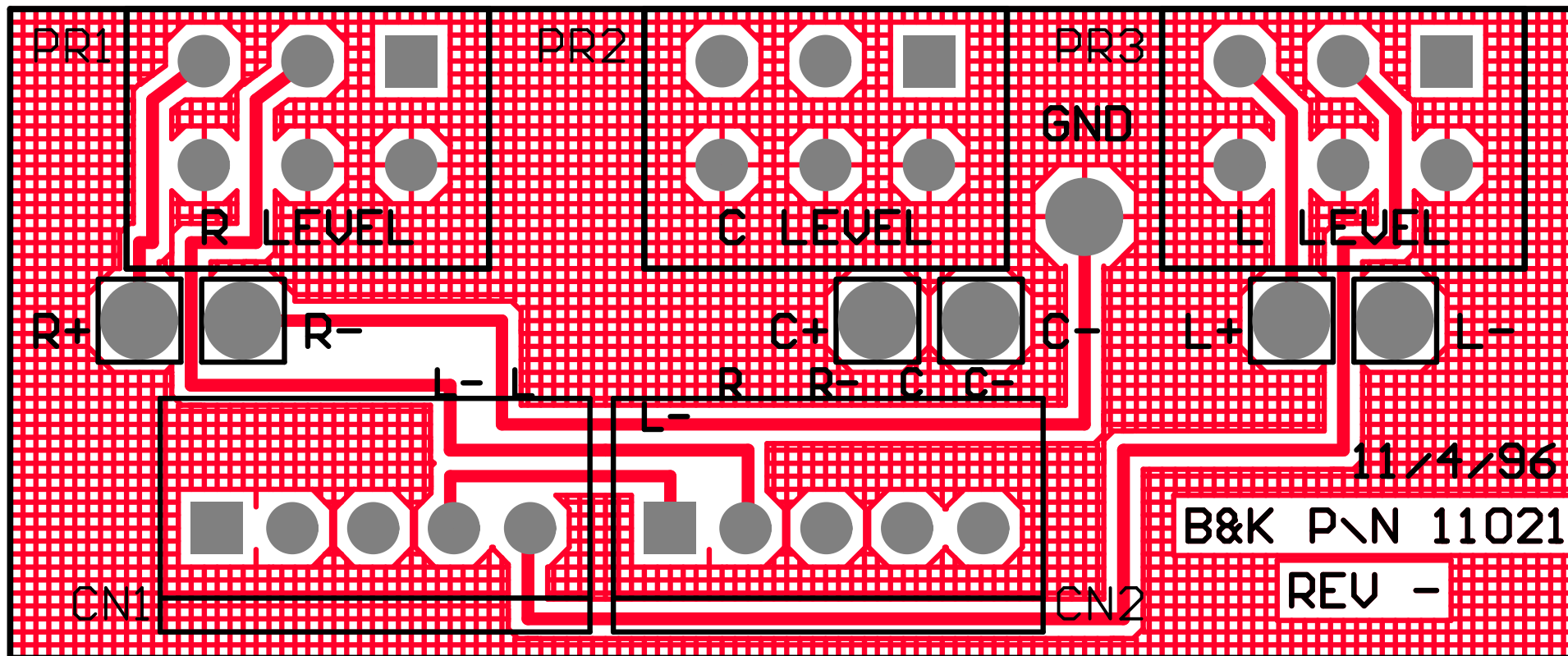
# Printed Circuit Boards

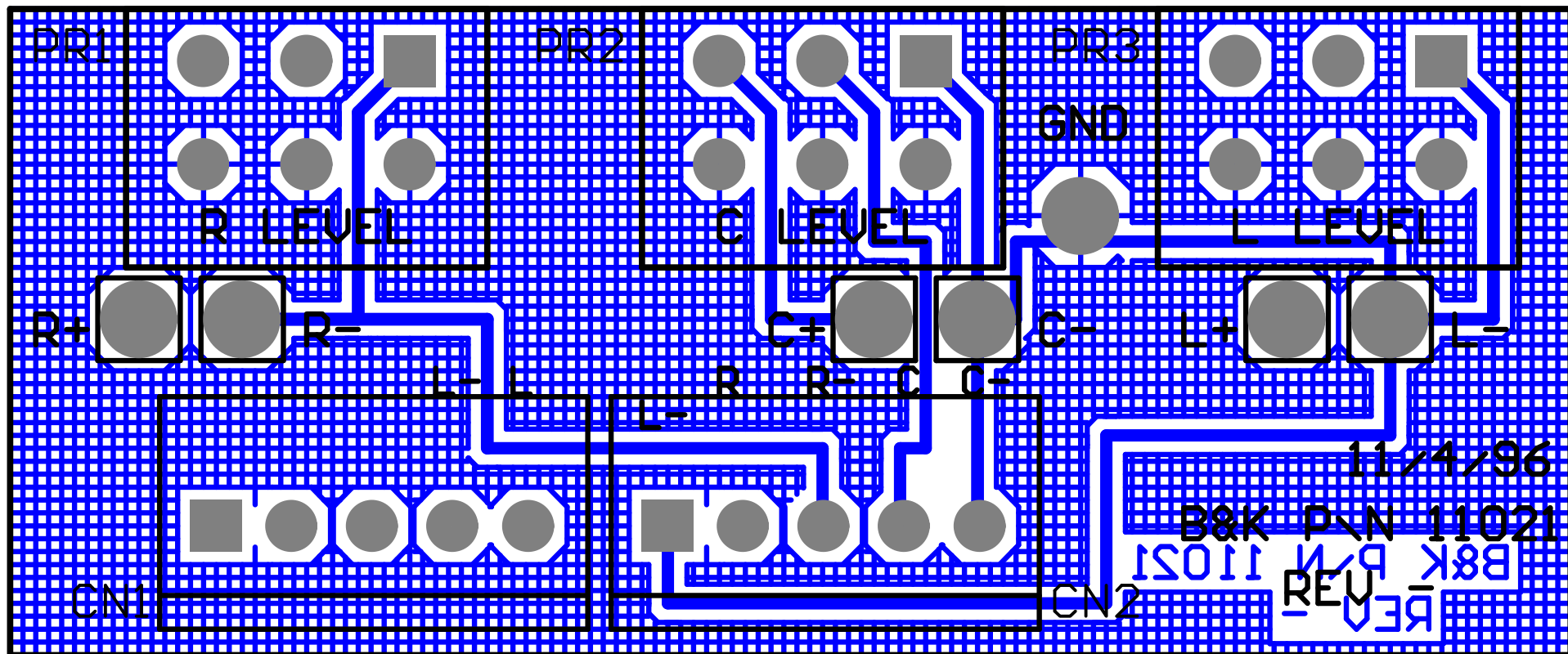
## PCB's

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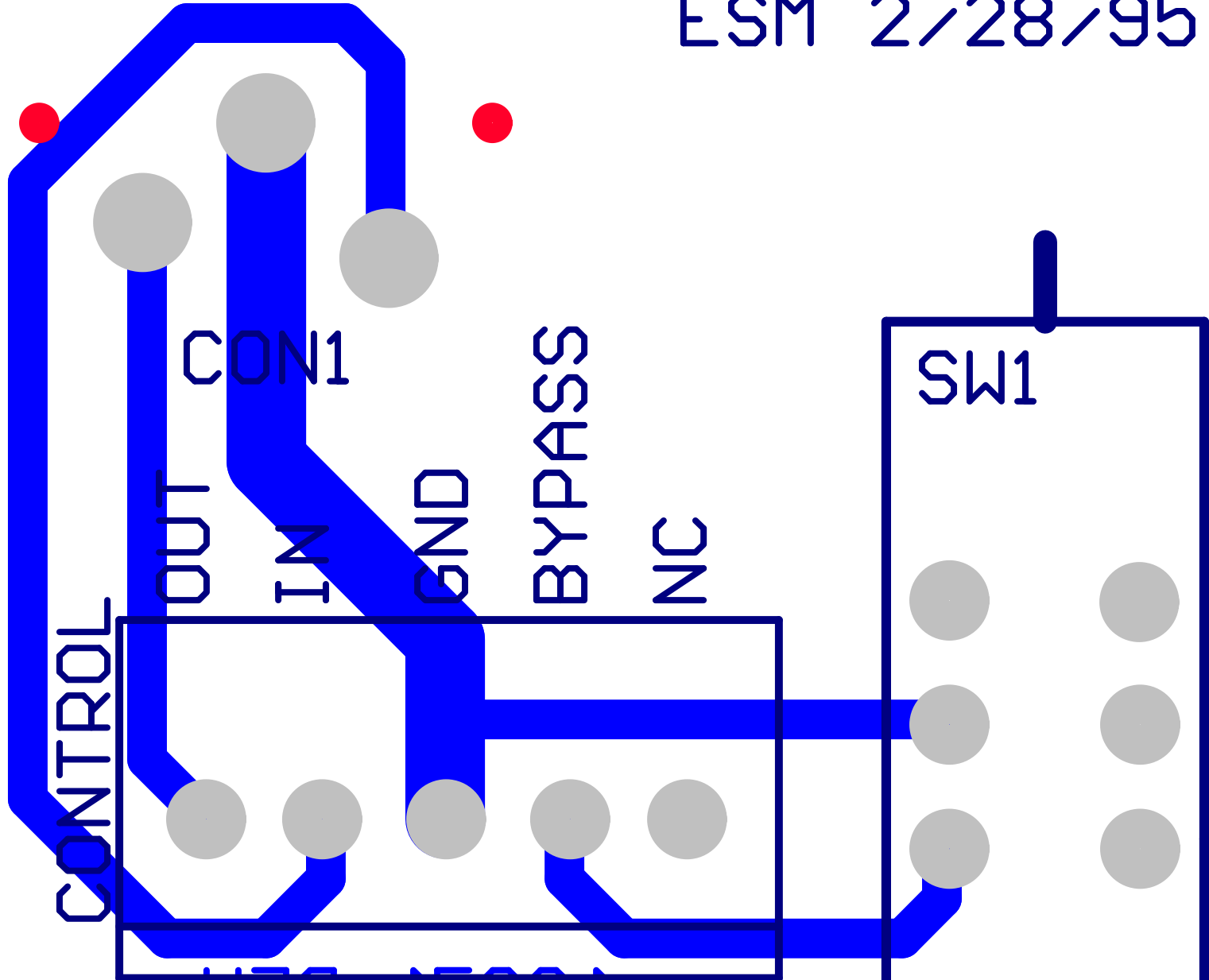




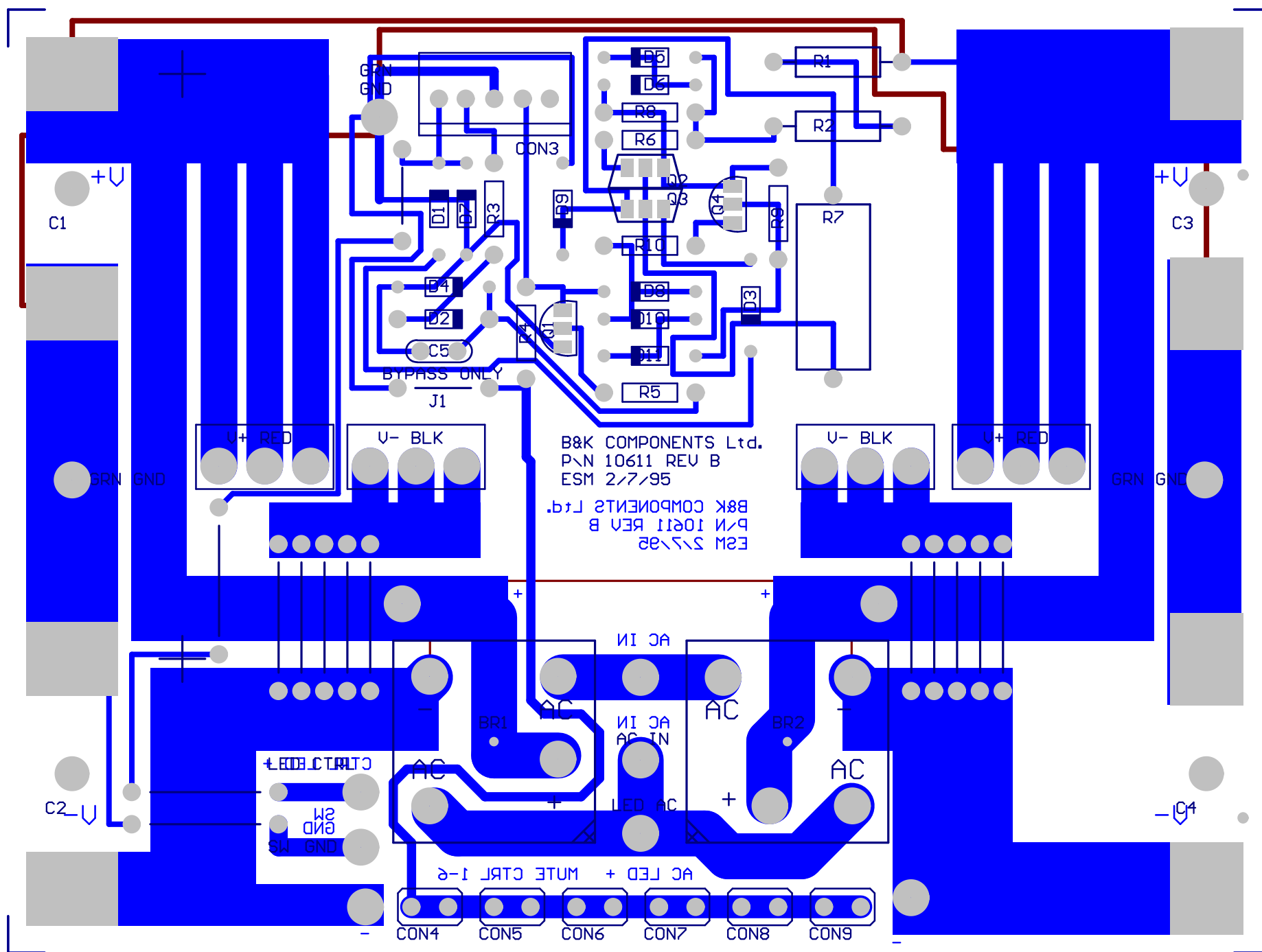


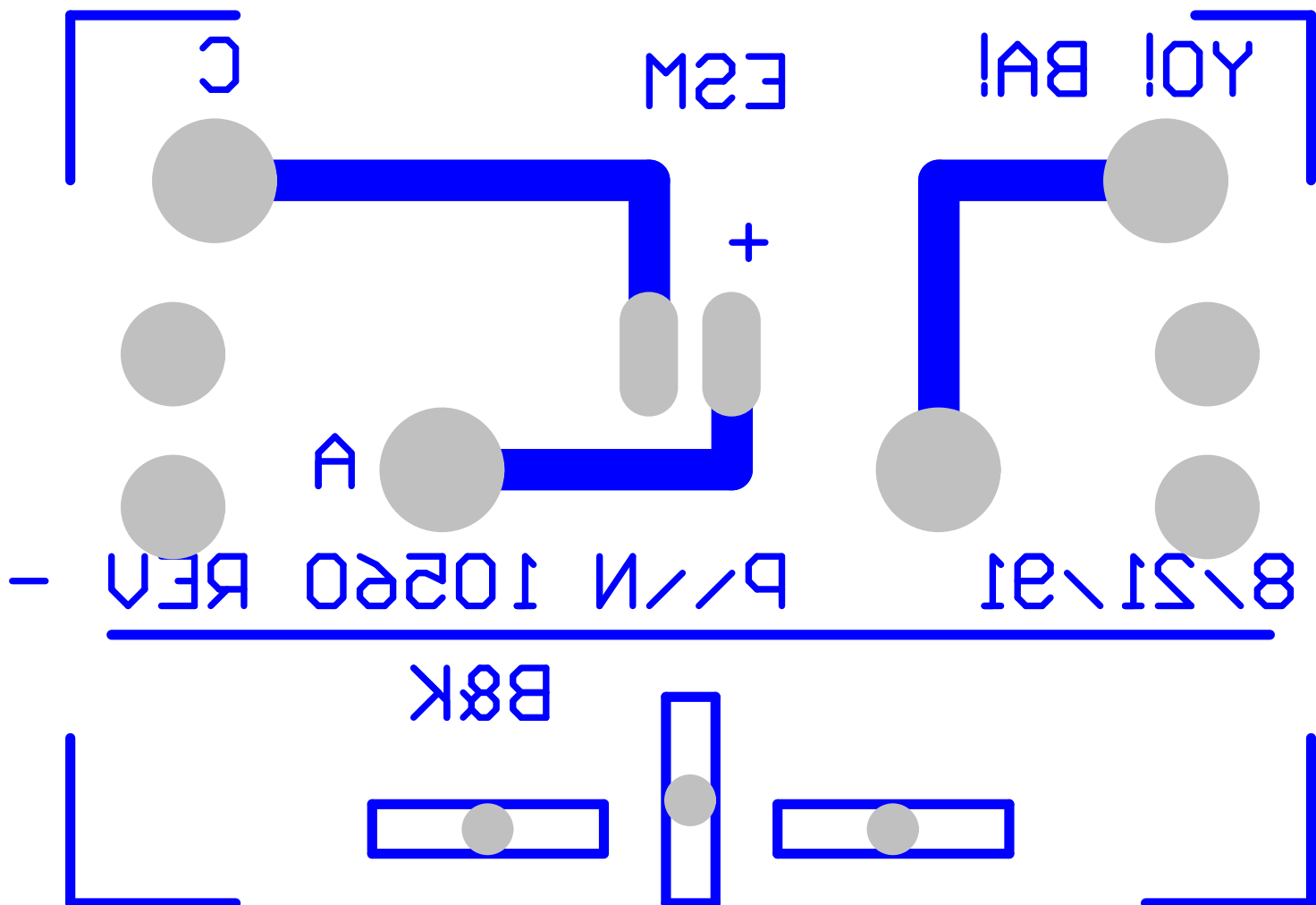


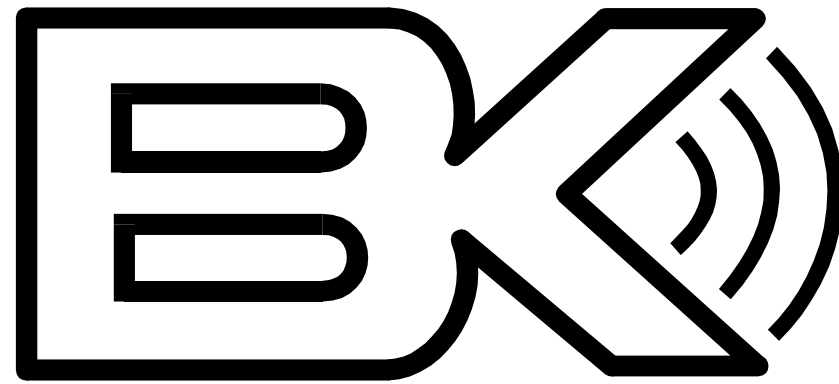
ESM 2/28/95



CON2 10871 REV -







# **Bill of Materials**

## **BOM's**

B&K COMPONENTS, LTD.  
2100 Old Union Road  
Buffalo, New York 14227-2725  
U.S.A.

Bill of Material for P/N 10842  
ST1400/ST1400M/ST2020/ST3030/EX4420/EX4420M/TX4430 AMP BOARD WITH  
CONTROL I/OF

| Comment    | Pattern  | Quantity | Components   |
|------------|----------|----------|--|
| .12uF      | RAD200   | 2        | C15, C16   |
| .47 5W     | R5W.S    | 10       | RP1, RP2, RP3, RP4, RP5, RP6,<br>RP7, RP8, RP9, RP10 |
| 1.5K       | RES500   | 1        | R1   |
| 100uF 100V | CAP200RP | 2        | C12, C13   |
| 100uF 25V  | CAP200RP | 3        | C2, C10, CT  |
| 10K        | RES500   | 2        | R19, R36   |
| 10uF 25V   | CAP200RP | 2        | C1, C14  |
| 120pF      | RAD200   | 1        | C3   |
| 133        | RES500   | 1        | R6   |
| 1K         | RES400   | 1        | R24  |
| 1.5K       | RES500   | 10       | R16, R17, R22, R23, R27, R28,<br>R29, R30, R35, R43  |
| 1N4148     | DIODE.4  | 1        | D4   |
| 1N4751     | D0-35    | 1        | D1   |
| 1N4751     | DIODE.4  | 1        | D3   |
| 1N965B     | DIODE.4  | 1        | D2   |
| 2.26K      | RES500   | 3        | R5, R11, R39   |
| 221        | RES500   | 5        | R3, R4, R7, R8, R12                                  |
| 221K       | RES500   | 1        | R40  |
| 2N3440     | TO5      | 1        | Q12  |
| 2N5087 M   | TO92     | 2        | Q7, Q8   |
| 2N5210 M   | TO92     | 4        | Q1, Q2, Q5, Q6                                       |
| 2N5210 U   | TO92     | 4        | Q3, Q4, Q10, Q11                                     |
| 2N5401     | TO92     | 1        | Q13  |
| 2N5416     | TO5      | 1        | Q9   |
| 33.2K      | RES500   | 4        | R2, R9, R13, R44                                     |
| 47.5       | RES500   | 2        | R15, R26   |
| 47.5K      | RES400   | 2        | R20, R31   |
| 47.5K      | RES500   | 1        | R42  |
| 475        | RES500   | 1        | R25  |
| 5 MOLEX M  | MOLEX5   | 1        | CON1   |
| 500        | POT      | 2        | P1, P2   |
| FUSE 6A SB | FUSE.3AG | 2        | F1, F2   |
| JUMPER     | JUMP.5   | 1        | J1   |
| JUMPER     | RES400   | 4        | R14, R21, R37, R38                                   |
| JUMPER     | RES500   | 1        | R10  |
| OPEN       | CAP200RP | 2        | C6, C7   |
| OPEN       | RAD200   | 3        | C8, C9, C11  |
| SJ162      | TO3P     | 5        | QP1, QP2, QP3, QP4, QP5                              |
| SK1058     | TO3P     | 5        | QN1, QN2, QN3, QN4, QN5                              |

Bill of Material for P/N 10611  
POWER SUPPLY BOARD FOR LARGE CHASSIS AMPS

| Comment     | Pattern    | Quantity | Components  |
|-------------|------------|----------|---|
| 100 2W      | AXIAL0.7   | 2        | R1, R2  |
| 10K         | RES500     | 2        | R3, R8  |
| 133         | RES500     | 1        | R10   |
| 15000uF 75V | PCAP.BIG   | 4        | C1, C2, C3, C4  |
| 1K          | RES500     | 1        | R5  |
| 1N4002      | D0-35      | 3        | D1, D3, D7  |
| 1N4148      | D0-35      | 6        | D2, D5, D6, D8, D10, D11                                    |
| 1N965B      | D0-35      | 2        | D4, D9  |
| 2.2K 5W     | RES5WAXIAL | 1        | R7  |
| 2N5551      | TO92       | 2        | Q1, Q4  |
| 33.2K       | RES500     | 1        | R9  |
| 33nF        | RAD200     | 1        | C5  |
| 400V 40A    | BRIDGE.HP  | 2        | BR1, BR2  |
| 5 PIN       | MOLEX5     | 1        | CON3  |
| 5.62        | RES500     | 1        | R6  |
| JUMPER      | JUMP.5     | 1        | J6  |
| JUMPER      | JUMP.8     | 13       | J2, J3, J4, J5, J7, J8, J9, J10,<br>J11, J12, J13, J14, J15 |
| JUMPER      | RES500     | 1        | R4  |
| PCB FASTON  | FASTON.25  | 6        | CON4, CON5, CON6, CON7, CON8,<br>CON9                       |
| TIP31C      | TO220      | 1        | Q3  |
| TIP32C      | TO220      | 1        | Q2  |
| OPEN        | AXIAL500   | 1        | J1  |