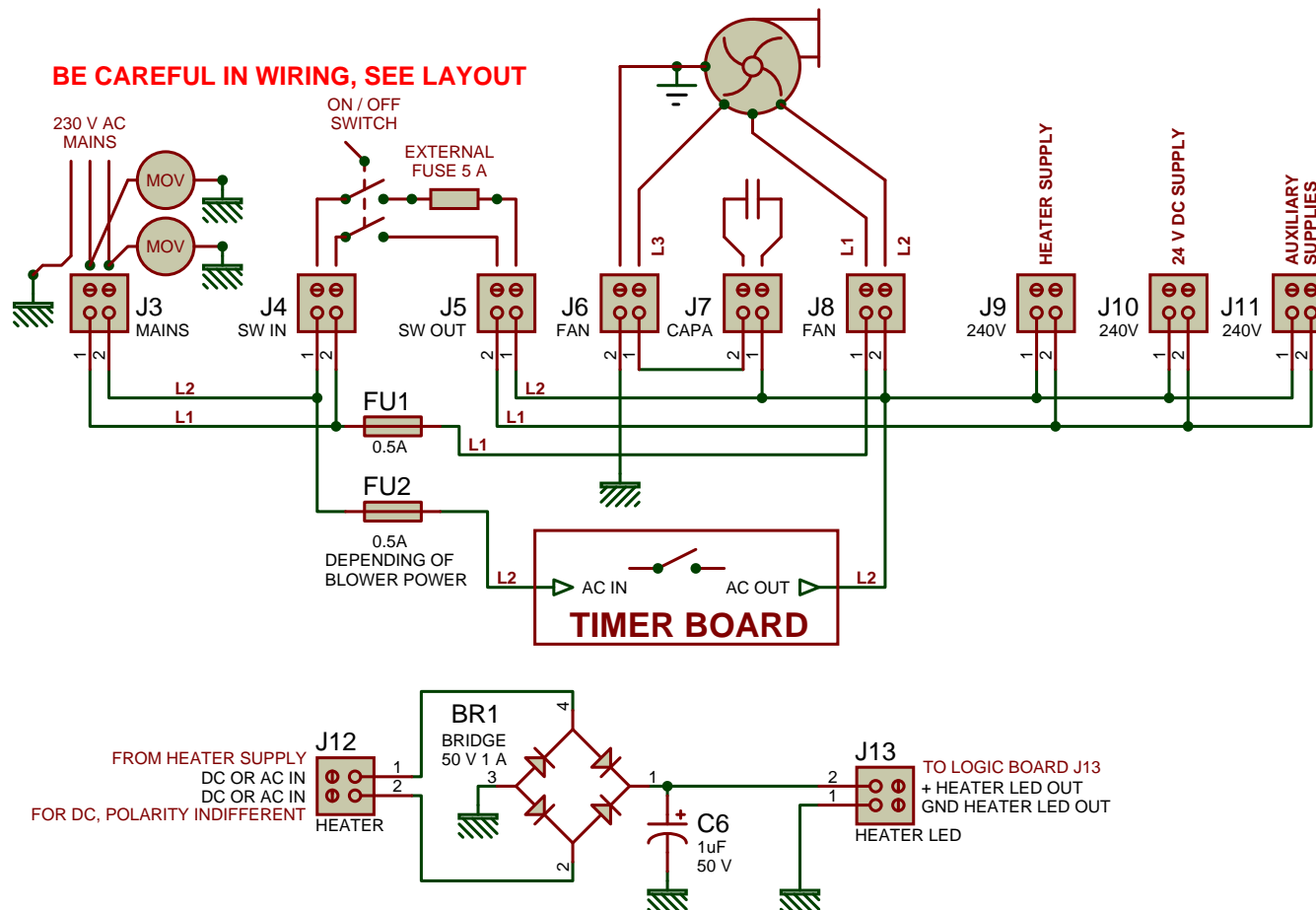


NOTA. TO USE BS170 (BEST CHOICE),  
ON PCB, INVERT Source & Drain, AS PCB  
SILKSCREEN WAS DRAWN FOR 2N7000

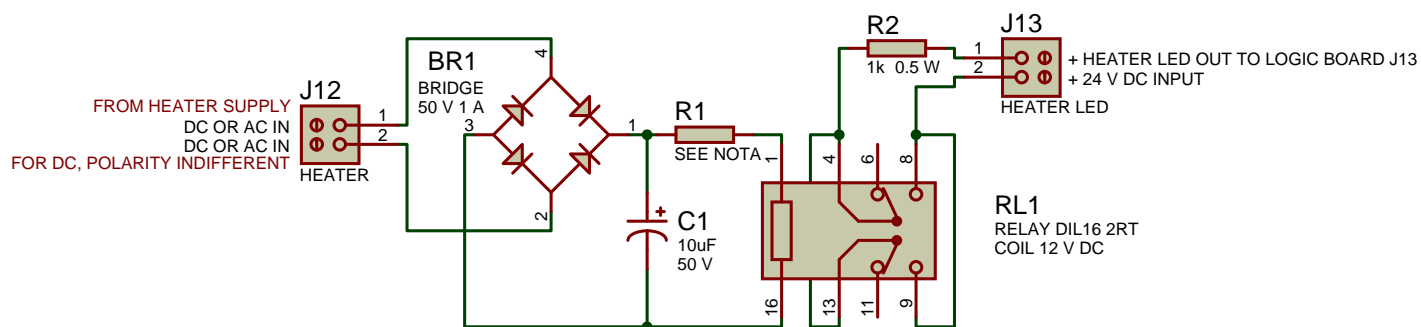
Rev 5A: Updated with BS170 & blower wiring more precise information

LINEAR AMPLIFIER DESIGN SUITE  
BLOWER DELAYED STOP TIMER

DATE: 24/08/17 REV: 5a PAGE: 1/2  
BY: f1frv@sfr.fr  
DOC N°: Amateur Radio



**NOTA. THE LED CURRENT (~10 mA) CAN CAUSE A SMALL NEGATIVE DEVIATION OF GRID CURRENT METER DURING RECEPTION. THIS IS NOT DAMAGEABLE. NEVERTHELESS, IF THIS IS TRAUMATIZING YOU, THERE IS A SOLUTION. DO NOT INSTALL J12, J13, BR1, & C6 ON BLOWER TEMPO PCB. USE THESE COMPONENTS FOR THE SMALL HEATER LED PCB, 19 x 62 mm, TO BE PLACED NEAR HEATER POWER SUPPLY. THANKS TO ERIC F1FLY FOR THIS POSSIBLE ALTERNATIVE.**



**FOR GS-35b HEATER WITH 12 V DC SUPPLY REPLACE R1 BY A STRAP  
FOR DIFFERENT HEATER VOLTAGES ADAPT R1 TO RELAY COIL**

# TRIODE OR TETRODE LINEAR AMPLIFIER DESIGN

## 230 VAC SWITCHES, FUSES & DELAYED BLOWER STOP TIMER

DATE: 08/2017 REV: 5b  
BY: f1frv@sfr.fr  
DOC Nr: AMATEUR RADIO

Rev 5b: Updated with BS170 & blower wiring more precise information  
NO PHYSICAL CHANGE ON PCB (SILKSCREEN DRAWN FOR 2N7000s)

DIMENSIONS DU CIRCUIT: 80 x 110 mm PCB DIMENSIONS: 3.15" x 4.325"

PERCAGE / DRILLING 138 TROUS / HOLES

FIXATIONS: 4 X 3 mm SCREWS. AXYS 70 x 100 mm

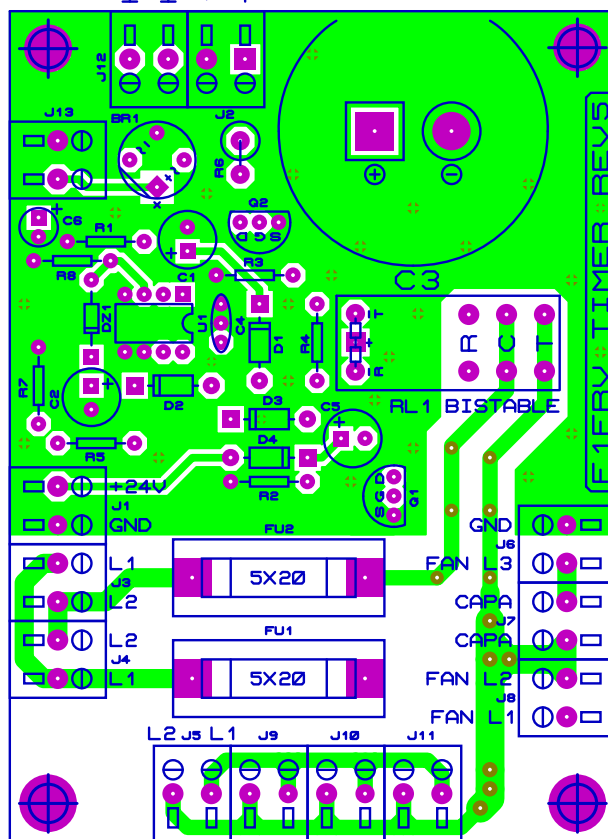
HEATER SUPPLY AC OR DC  
HEATER SUPPLY AC OR DC  
- OPTIONAL EXTERNAL C3  
+ OPTIONAL EXTERNAL C3

TO USE BS170 , INVERT Q1 & Q2 Source & Drain WHEN PLACING COMPONENTS , AS SILK SCREEN IS NOT DRAWN FOR BS170

HEATER LED GND  
TO LOGIC BOARD J13  
+ HEATER LED

FROM J3-1 LOGIC  
+24 V DC IN  
230 VAC GND  
230 VAC L1 IN  
230 VAC L2 IN  
L2 TO SWITCH & FUSE  
L1 TO SWITCH

TO BLOWER GND  
TO BLOWER L3  
TO CAPACITOR  
TO CAPACITOR  
TO BLOWER L2  
TO BLOWER L1



NOTA BE VERY CAREFUL!!  
RESPECT L1 & L2 WIRING  
TO AVOID FUSES BLOWING  
AT FIRST START-UP WITH  
BLOWER DELAYED SWITCH

NOTA. IF BLOWER CAPACITOR  
IS LOCATED NEAR BLOWER,  
USE ONLY L1 & L2 TERMINALS

L2 FROM SWITCH & FUSE  
L1 FROM SWITCH  
230 V TO 24 V DC SUPPLY  
230 V TO HEATER SUPPLY  
230 V TO AUX. SUPPLIES



# MODIFICATION TO LIMIT INRUSH CURRENT DURING START-UP

