

User Manual of

PWM DC Motor Control Circuit: 8-30VDC (400-3000 Hz, 50A Max) --- Open Frame with Soft Start Built In & Large Heat Sink



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FEATURES:

- Power supply : 8-30VDC.
- Load voltage : 8-30VDC. / 50A. max.
- Frequency can be fixed at 100Hz and adjustable from 400Hz to 3kHz.
- Motor speed (PWM) can be adjusted from 0% to 100%
- LED for power indication.
- PCB dimensions : 3.42x4.92 in.

CONNECTING AND TUNING:

- Point +BATT is to be connected to the positive pole of power supply 8-30VDC.
- Point +L is to be connected to the positive pole of DC motor.
- Point -L is to be connected to the negative pole of DC motor.
- Point -BATT is to be connected to the negative

pole of power supply.

- VR is used for adjusting the speed of DC motor (PWM) 0-100%.

- VR is used for adjusting the frequency from 400Hz-3kHz.


- J1 is used for selecting the frequency. If J1 is jumping, the circuit can adjust the frequency from 400Hz to 3kHz, but if J1 isn't jumping, the frequency will be fixed at 100Hz.


NOTE:

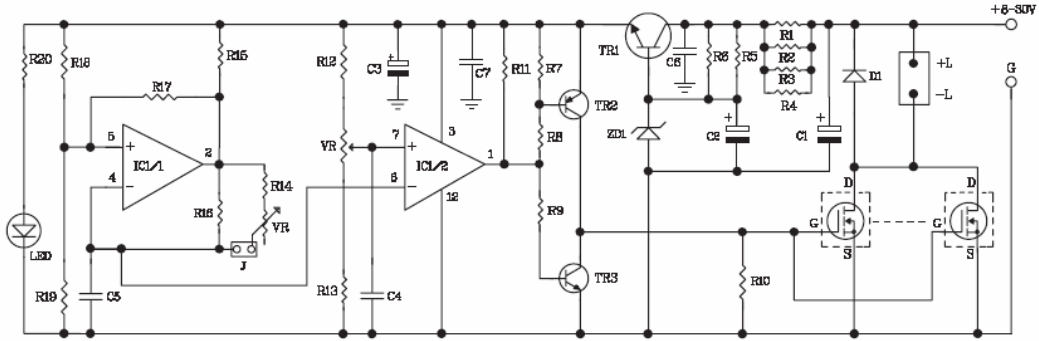
- Use electric wire No. 12 AWG to connect between circuit and load.

- When adjust the frequency too high, mosfet will be easily heated (we recommend to use the frequency at 100Hz). If the frequency is adjusted to higher than 500Hz, a mini fan should be installed at the heatsink.

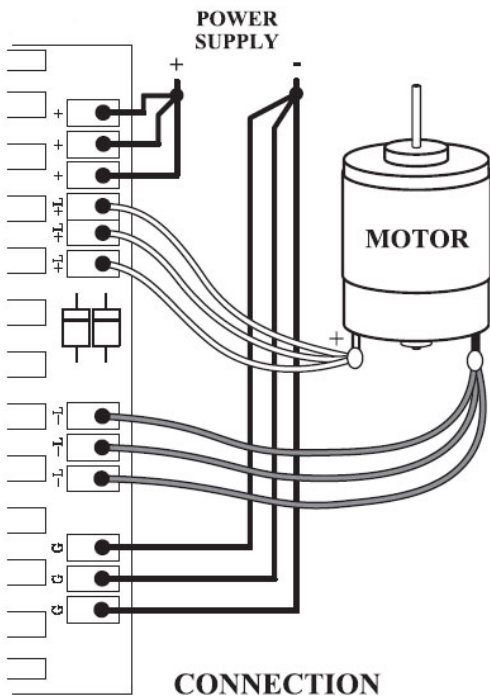
SELECT FREQUENCY

 **J1** NOT JUMPING = Fix the frequency at 100Hz.

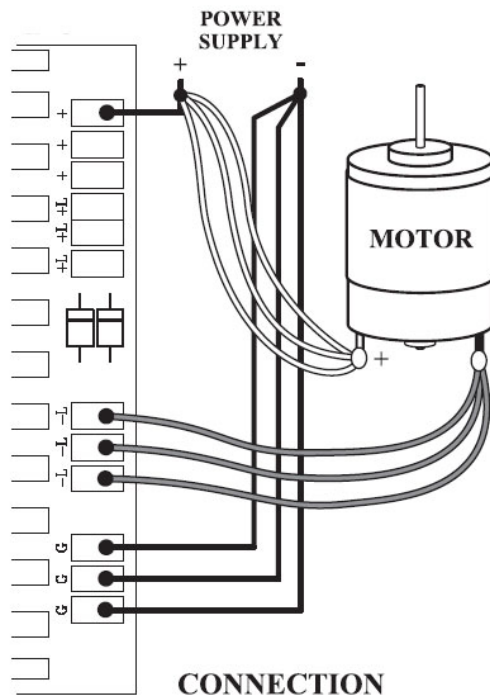
 **J1** JUMPING = Adjust the frequency from 400Hz to 3kHz.



CIRCUIT DIAGRAM



LOAD LESS THAN 30A.



LOAD MORE THAN 30A.