

Tools you need.

- ①Iron (30W)
- ②Solder wire
- ③Multimeter
- ④Tweezers
- ⑤Wire cutters

Precautions:

- ①Check part values & quantities against part list
- ②Always meter resistor values before soldering
- ③Understand all part polarities and orientations

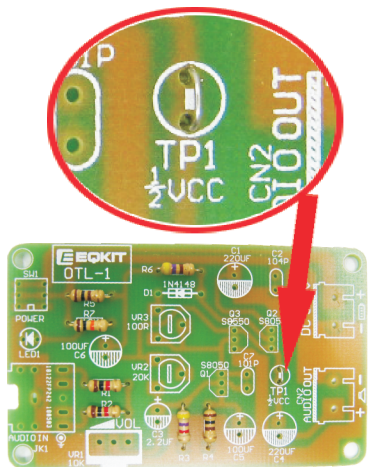
OTL-1 Discrete device power amplifier kit instructions

Rev. 1.0

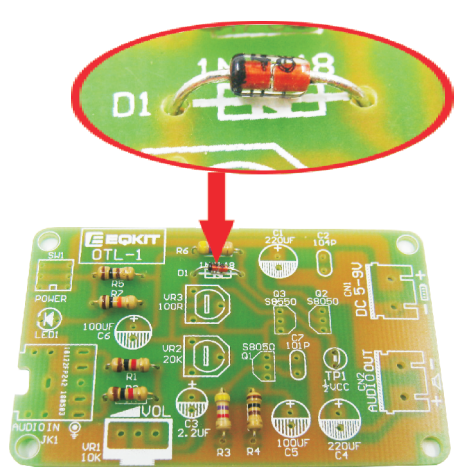
May 15, 2018

Produced by YiQi

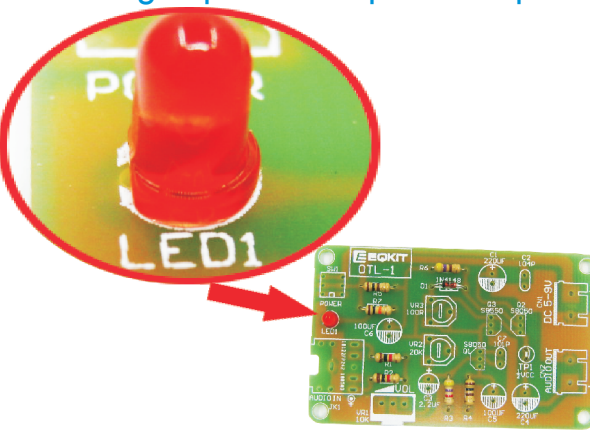
1. Install RES. Then a superfluous pin is welded to TP1



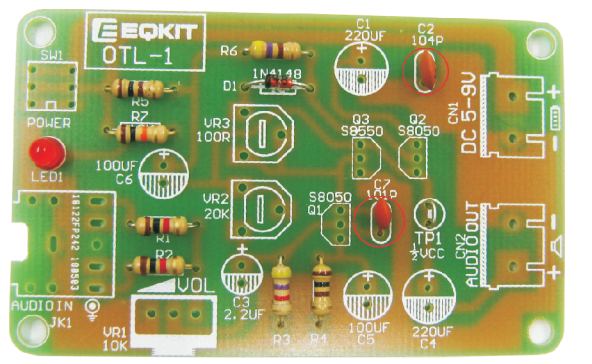
2. Install Diode D1.
Attention direction at installation



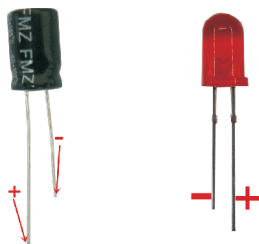
3. Install LED1.
Attention direction at installation
The longer pin is the positive pole



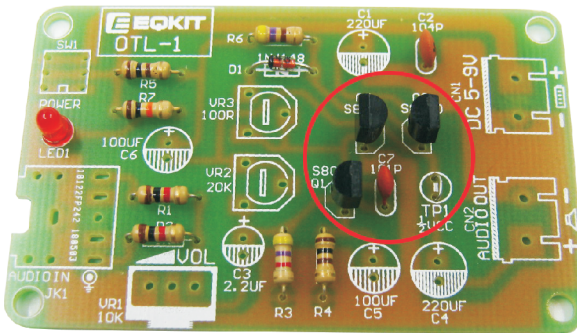
4. Install CAP.
C2=104pF, C7=101pF
This element has no direction



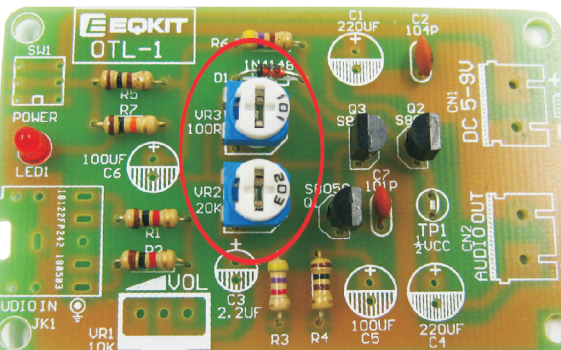
Warning
Light-emitting diode and electrolytic capacitor
the longer pin is the anode it should be installed
on the rectangle pad of PCB



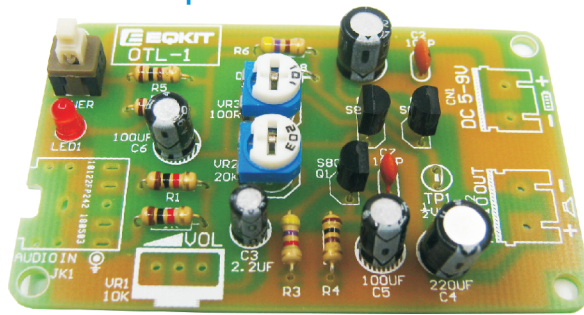
5. Install Triode.
Q1,Q2=S8050
Q3=S8550. Pay attention to the
model and direction of the triode.



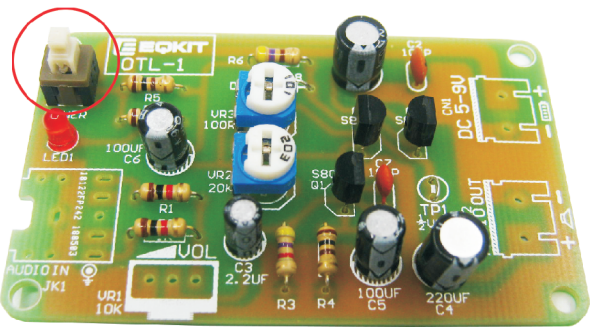
6. Install Adjustable resistance.
VR2=20K(203),
VR3=100R(101)



7. Install Electrolytic capacitor.
Refer to the logo on the
circuit board Install CAP
Pay attention to the direction
of the capacitance.



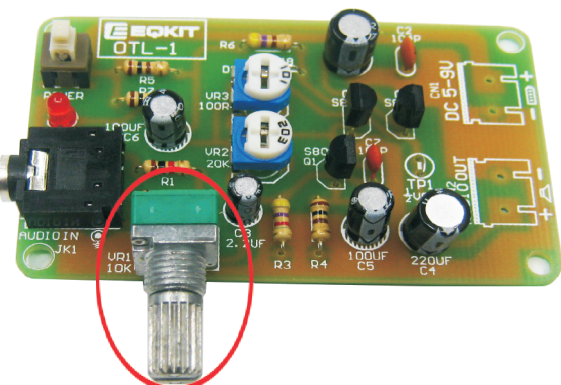
8. Install Sw1.
The gap direction of the
switch is down.



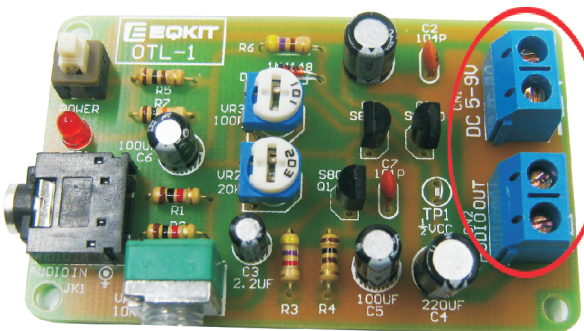
9. Install audio input JK1.



10. Install Vr1.



11. Install CN1 , CN2.



12. Check whether the
components on the
circuit board are
correctly welded.
Then the static
current is adjusted.

OTL-1 Discrete device power amplifier component list

NO.	Name	Parameter	QTY
R4, R5	RES	100R	2
R6	RES	470R	1
R1, R2	RES	1K	2
R3	RES	4.7K	1
R7	RES	10K	1
C7	CAP	101pF	1
C2	CAP	104pF	1
C3	E. CAP	2.2uF	1
C5, C6	E. CAP	100uF	2
C1, C4	E. CAP	220uF	2
D1	Diode	1N4148	1
LED1	LED	3mm Red	1
Q1, Q2	Triode	S8050	2+1
Q3	Triode	S8550	1+1
VR3	ADJ. RES	100R	1
VR2	ADJ. RES	20K	1
VR1	Potentiometers	10K	1
SW1	Power SW	6 Pin	1
CN1, CN2	Connection post	KF301-2	2
JK1	Audio input	5 Pin	1
JK1	Audio cable	1 meters	1
—	Pcb	OTL-1	1

13. Adjust the static working point :

<1> , Turn VR1, VR2, VR3 counter clockwise to the end.

turn on electricity , The red pens of the multimeter contact TP1 ,
Black pen connection power supply negative pole (GND) ,
Adjust VR2 , The voltage of the TP1 is half the voltage of the power supply
(for example:The power supply voltage is 8V,So the voltage of
the TP1 should be adjusted to 4V)

<2>

Connect the ammeter string to the power supply circuit,
The static total current value of the circuit is then read.

At this point, adjust the VR3 to increase the total
current value of the circuit by 0.5 mA.

When you enter the audio at this point, you can have sound output.

Optimum working voltage DC4-9V,Maximum output power of 1 watts!

