

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

RF-03PLL Stereo FM Transmitter kit instructions

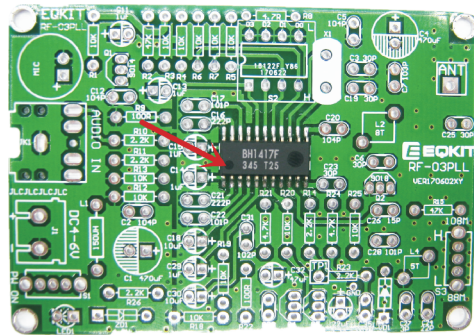
Rev. 1.0

May 30 2017

Produced by YiQi

1. Install the IC:

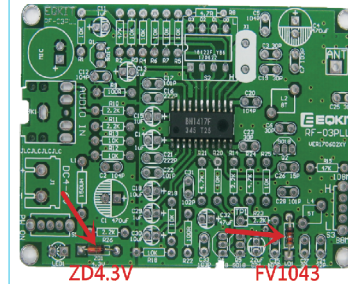
IC.BH1417F corresponds to the silk screen on PCB Note that the welding pin must not be short circuited



2.Install the diode :

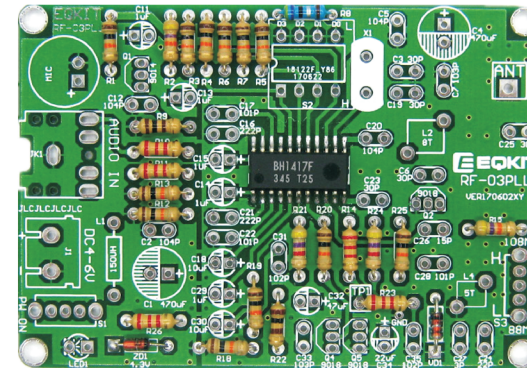
(bend is a zener diode 4.3V.Vertical is the variable capacitance diode FV1043)
ZD1 to 4.3V.VD1 to FV1043

Notice the direction of the diode



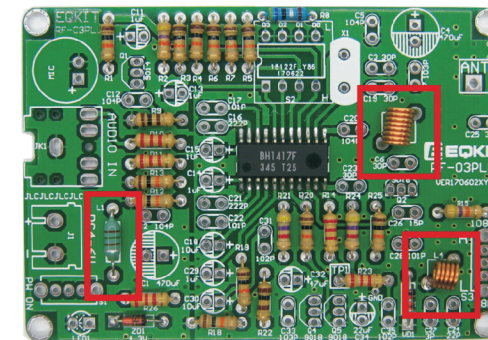
3.Installation resistance

Fit the 24 resistors on the PCB according to the resistance values on the PCB



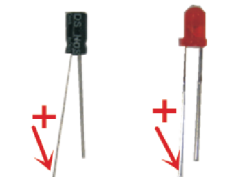
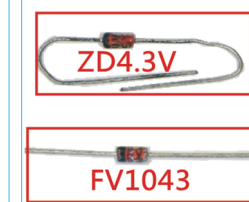
4. Installation inductance :

150UH to L1
5T to L4
8T to L2



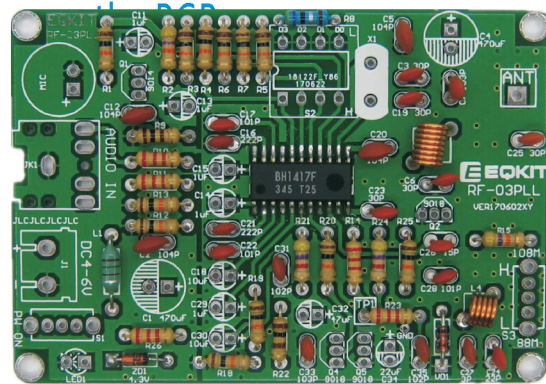
Note:

Diode. LED. The positive electrode of the electrolytic capacitor is soldered to the PCB.Zd1 is curved.VD1 is straight



5. Install ceramic capacitors :

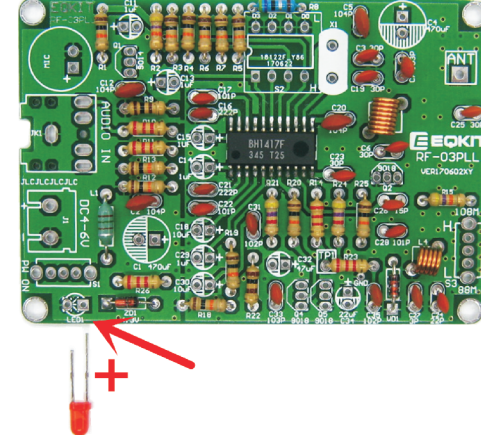
Install the 21 capacitor on the PCB according to the parameters



6. Install LED :

Install the red LED to LED1

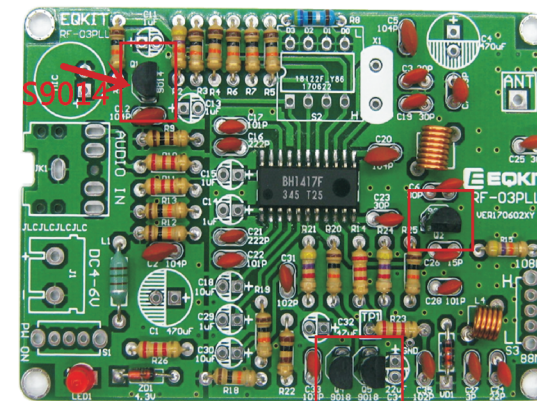
Note the positive and negative of the LED.



7. Install triode:

S9014 into Q1

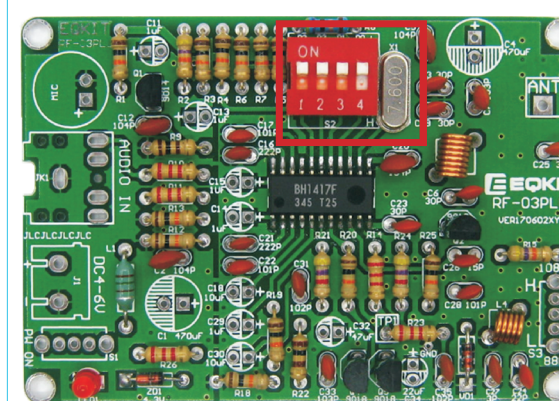
S9018 into Q2 , Q4 , Q5



8. Fit quartz and toggle switch :

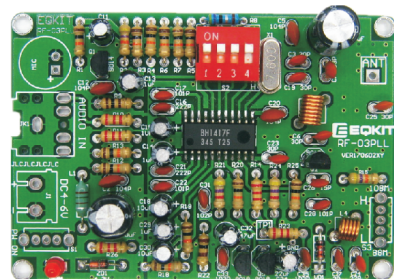
7.6MHz quartz into X1

Toggle switch into S2



9. Install electrolytic capacitors :

Install 11 electrolytic capacitors on the PCB. Please refer to PCB's silk screen Note that the polarity of the electrolytic capacitor cannot be reversed.



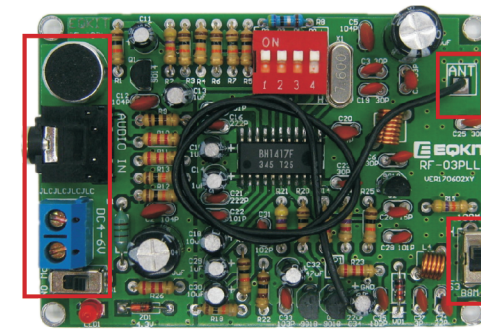
10.Install toggle switches to S1 and S2

Microphone into MIC1

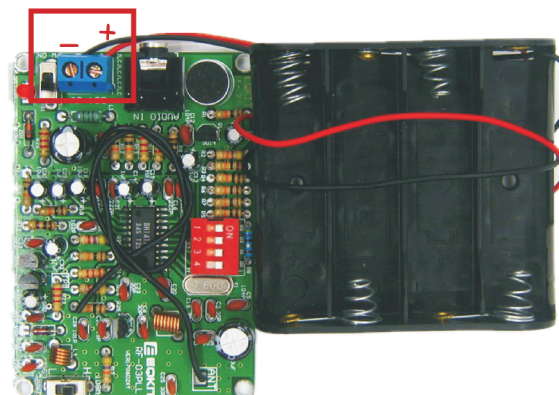
Audio input into JK1

Battery terminal into J1

300mm Wireway into ANT



11. Buy the battery box red line into J1 +, black line into J1 -



12 TEST :

Check whether the PCB electrolytic capacitor is polarity reversal

Are zener diodes and varactor diodes properly soldered

Supply DC 4 to 6V. S1 is the power switch

LED1 is the power indicator

The operating frequency is 87.7-88.9MHz,106.7-107.9MHz

Code	D0	D1	D2	D3	FREQ
Code switch pin	4	3	2	1	L. FREQ
S3 TO L88M	L	L	L	L	87.7MHz
	H	L	L	L	87.9MHz
	L	H	L	L	88.1MHz
	H	H	L	L	88.3MHz
	L	L	H	L	88.5MHz
	H	L	H	L	88.7MHz
S3 TO H108M	L	H	H	L	88.9MHz
	L	L	L	H	106.7MHz
	H	L	L	H	106.9MHz
	L	H	L	H	107.1MHz
	H	H	L	H	107.3MHz
	L	L	H	H	107.5MHz

RF-03PLL Stereo FM Transmitter component list			
NO.	Name	Mode	QTY
R8	RES	4.7R	1
R9, R22	RES	100R	2
R10, R11, R14, R23, R26	RES	2.2K	5
R21, R24	RES	4.7K	2
R1, R3, R4, R5	RES	10K	12
R6, R7, R12, R13, R18, R19, R20, R25	RES	47K	2
R2, R15	RES	47K	2
C27	Cap	3P	1
C26	Cap	15P	1
C24	Cap	22P	1
C3, C6, C19, C23, C25	Cap	30P	5
C17, C22, C28	Cap	101P	3
C31, C35	Cap	102P	2
C16, C21	Cap	222P	2
C7, C33	Cap	103P	2
C2, C5, C12, C20	Cap	104P	4
C11, C13, C14, C15, C29	E. Cap	1uF	5
C18, C30	E. Cap	10uF	2
C34	E. Cap	22uF	1
C32	E. Cap	47uF	1
C1, C4	E. Cap	470uF	2
IC1	I. C	BH1417F	1
Q2, Q4, Q5	Triode	S9018	3
Q1	Triode	S9014	1
X1	Xtal OSC	7.6MHz	1
S1, S3	Switch	3P2	2
S2	Dial switch	4 section	1
ZD1	Zener diode	4.3V	1
VD1	Variode	FV1043	1
LED1	LED	Red 3mm	1
L1	Inductor	150uH	1
L4	Inductor	5T	1
L2	Inductor	8T	1
JK1	Audio input socket	Stereo 5 pin	1
MIC	Microphone	F10*H7mm	1
J1	Battery terminal	KF301-2	1
ANT	Wireway	300mm	1
	PCB	RF-03PLL	1

