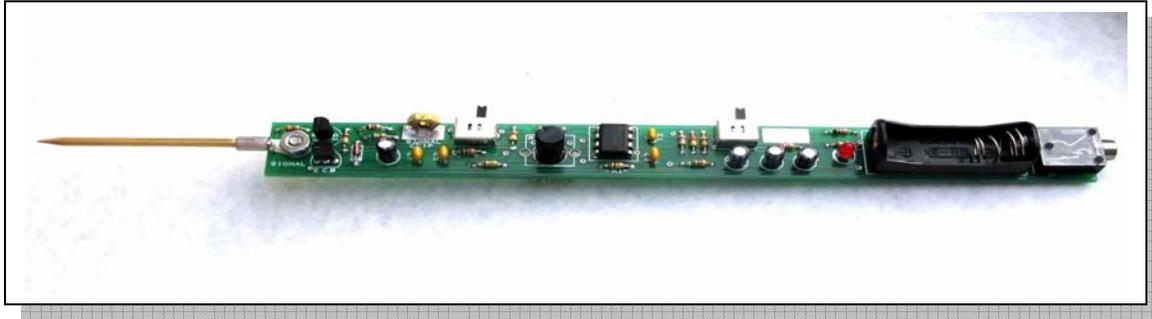
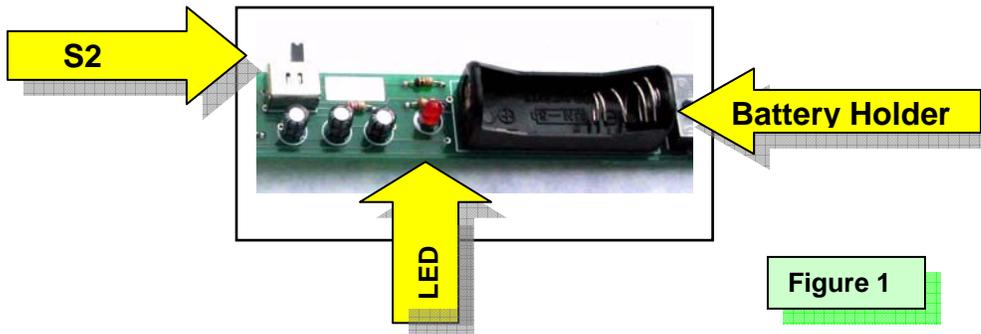


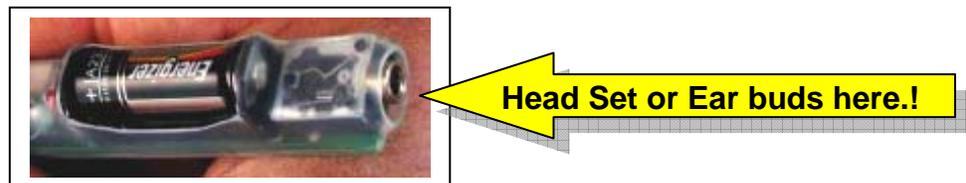
# Using the QRPKits.com Injector/ tracer



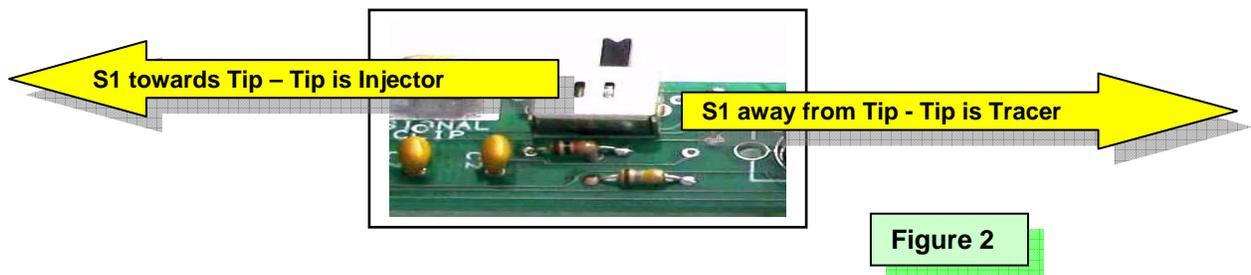
Using the QRPKits.com Injector/ tracer is fairly simple and easy. This document is not intended to make you an expert; it is to give you an idea of how to use it properly and get you started using it. You will discover that this little gadget will save you some valuable time trying to determine where a fault has occurred in your project. Make sure you install the little 12V battery first (you should removed the battery whenever the I/T (Injector/Tracer) is not in use. Turning the Injector/Tracer on (S2) should make the red LED up.



Now, plug an earphone into the jack and clip the Alligator lead to the probe tip. You should hear a tone in the earphone. Vary the gain control and the tone should vary in amplitude and then set it to a comfortable level.



Next, Set the probe slide switch (S1) into the inject position (toward the tip).



Connect the Alligator lead to the output of the amplifier or the radio.

Note: Figure 3 is a 3 stage audio amplifier common to small transistor radios.

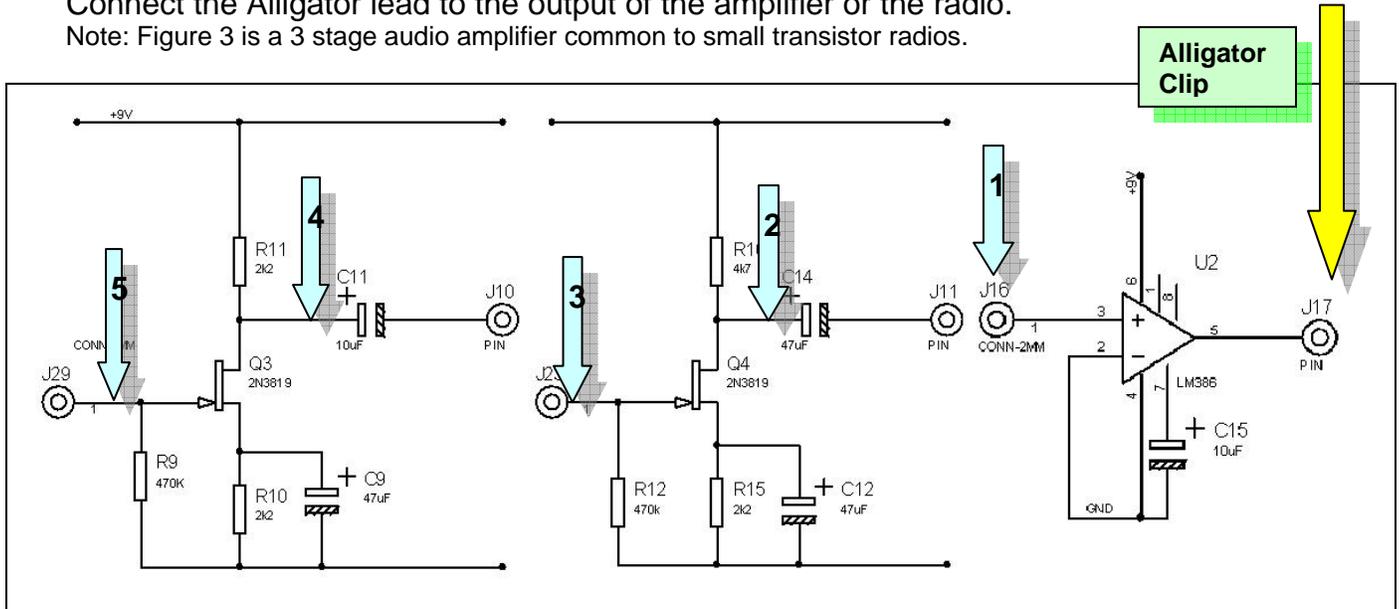


Figure 3

Touch the probe tip either to the input of the last stage of the amplifier or just to the speaker. If the Injector/Tracer is working, the tone should be heard in the earphones (or in the speaker). You can continue moving the tip from stage to stage. (From input then output of each). **See blue arrows marked 1 to 5 in Figure 3.** Be careful and vary the gain of the tester so as not to over drive either the device or your ears.

If you are using an AM radio, try injecting the signal into the IF and RF stages. (leave the Alligator right where it is) You should be able to hear the harmonics of the injectors 1 kHz signal.

Now put the switch (S1) to the tip tracer position (S1 should be in the 'back' position, farthest from the Tip). See Figure 2

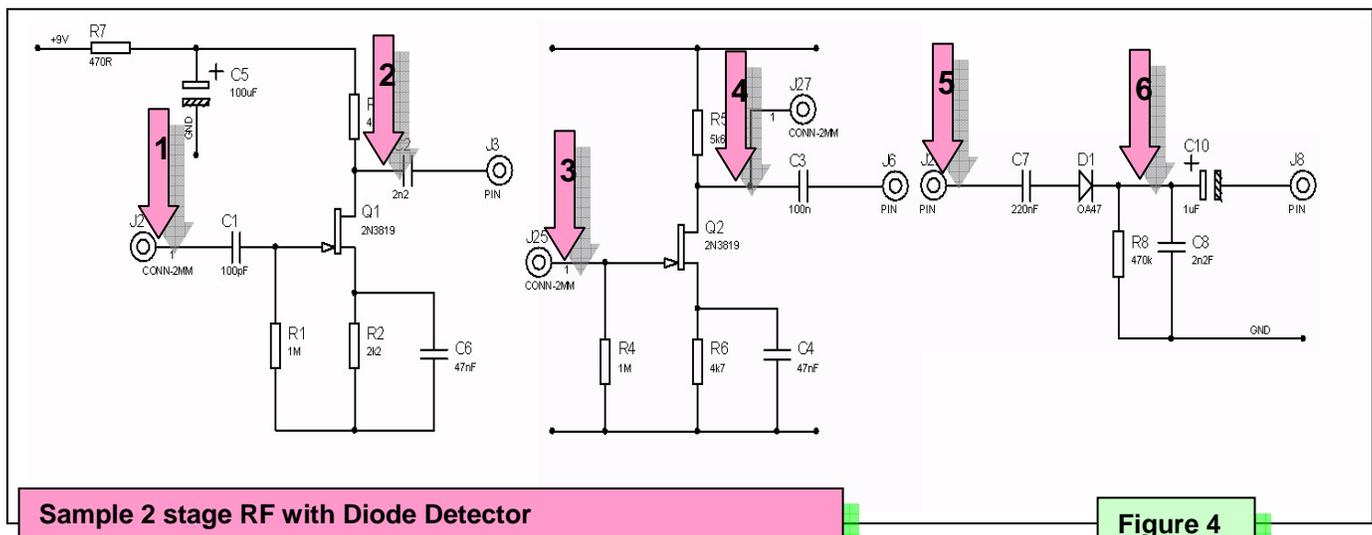


Figure 4

Now, connect the Alligator lead to the input of one of the RF stages on the device you are testing, The probe tip now is used to pickup the signal. Start with the first stage (figure 4 - **See Purple (Pink?) arrows marked 1 to 6 in Figure 4** and continue to the last stage (Figure 2 – **Moving from arrows 5 to 1**). This is the reverse of what of the first procedure; this procedure will be helpful determining which at which stage the signal is getting lost.

That's all there is to it. Simple device, simple procedure.  
Good Luck.

## **Darwin (Dar) Piatt - W9HZC**

Midwest HomeBrewer's and QRP Group

<http://www.qsl.net/hbqrp>

### **Credits;**

**a. The Injector/Tracer kit and parts from  
Doug Hendricks KI6DS  
QRPKits.com**

**b. The Circuit and Diagrams complements of**

**Dr D M Holburn, G3XZP  
Electrical Engineering  
Division,  
Engineering Department,  
University of Cambridge, England**

**From his course on Linear Circuits and Devices.**