

# Electro-Resales LLC

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## Code Practice Oscillator with Pitch Control

### Background

This is an additional note to the user guide for the CPO, designed to provide the information that pertains to the CPO with Pitch control and hence should be read in conjunction with that user guide. All functions of the CPO with Pitch control are the same as for the CPO, with the exception of the pitch control potentiometer.

Start by referring to the CPO user guide and refer to this note when you need information on the use of the Pitch control. A photo of the PCB is given at the end of this document to assist in locating the major components of this variant of the CPO.

### Basic use & practice

The CPO with pitch control should be set up as per the user guide for the CPO, with the exception that the Pitch potentiometer is set to its mid-point (approx.) and volume control slightly advanced clockwise.

Move the power switch to the 'on' position and depress the Morse key, a tone will be heard, whose volume and pitch may be varied by changing the position of the appropriate control. It has been found that the best setting for your ear is found by setting the pitch control to its mid-point and sending a few characters, then moving the control either clockwise to decrease the pitch or anti-clock to increase the pitch.

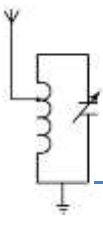
It is important to send a few characters at each pitch control setting before deciding to change the setting; this allows the 'ear/brain' to acclimate to the tone. Moving the control about randomly and just listening to the tone (key down) will not give a good or consistent result.

### Use of Apps to determine the frequency

Many smartphone apps exist that allow you to determine a tonal/pitch frequency – among these we have found that those aimed at musicians for instrument tuning provide an excellent resource. Also frequency spectrum apps have also been found to give a good result. Most (if not all) of these apps are free or have a free option and can be used to set your oscillator to a preferred frequency.

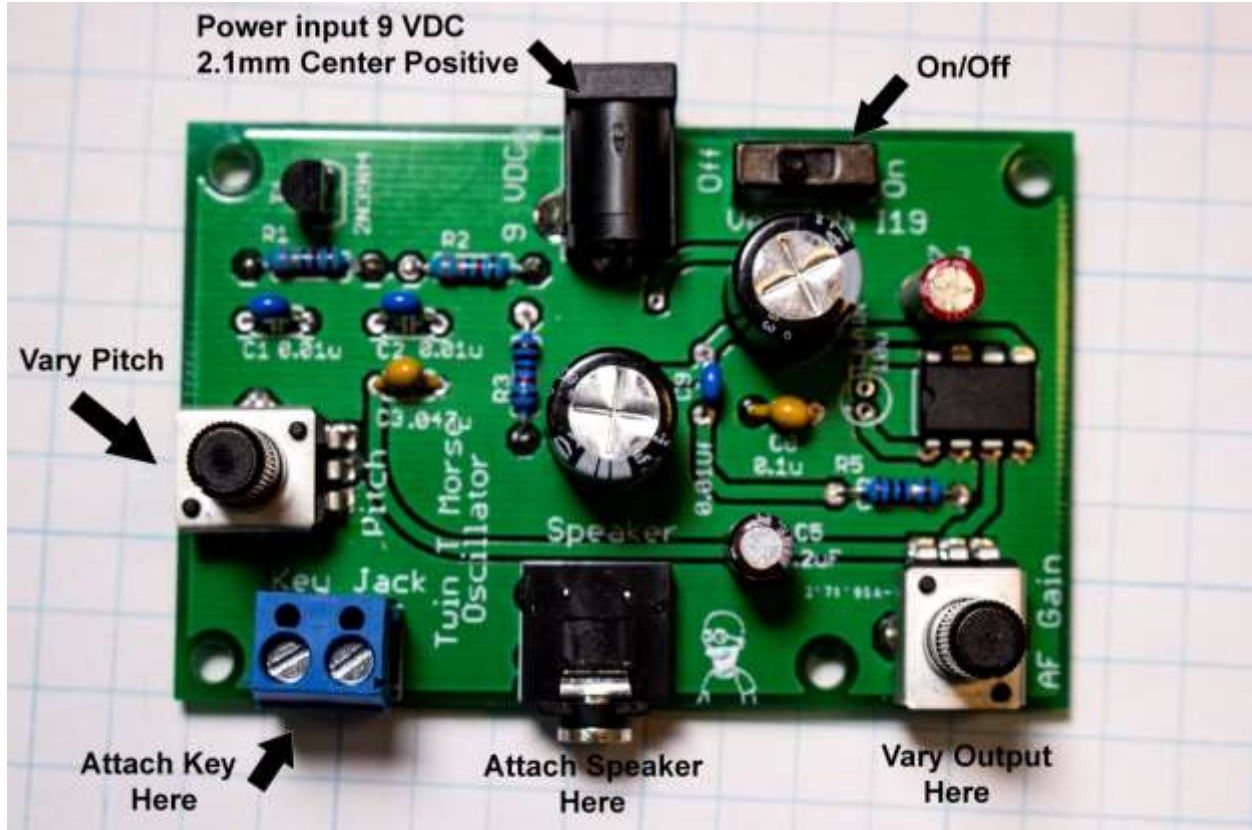
### Final Notes

It is worth noting that the extreme ends of the pitch control potentiometer are 'dead' in that the tone is too high/low to be discerned at these points, if the oscillator is not functioning a first step would be to check the pitch control position and move it to the mid-point.



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## CPO with Pitch Control



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