



# 73 test the Knight CPO

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Before you turn to the next article, thinking that since you already have your ticket, what use would you have for a code practice oscillator, I would like to point out that there are many uses that a ham has for one of these versatile gadgets aside from learning the code. The Knight code practice oscillator is a one transistor oscillator powered by a single penlight cell. It has enough output for comfortably driving a pair of headphones and is very useful for learning the code or for increasing your code speed, the use that it is intended for. There are other uses. The kit costs only \$3.89, very little for such a useful accessory. The construction takes about 1/2 hour. There are several large, clear, diagrams which speed up construction, as do the step-by-step instructions.

Besides learning the code, the oscillator can be used for sending *ICW*. It is only necessary to put a 5k resistor across the phone jack and couple the audio into the microphone jack through two .05 condensers (one in each lead). This should help the use of code on VHF where many of the stations have no bfo's in their transceivers and therefore cannot copy a normal CW signal. By using it in the same basic manner, it can be used for an audio signal generator for trouble-shooting modulators and other equipment. It can be used for a monitor and for sending *MCW* by building the following detector. The detector consists of a diode, capacitor, rf choke, and a way of obtaining the proper rf voltage. For high power transmitters, it is only necessary to have a piece of hookup wire near the trans-

mitter (see Fig 1). For lower power rigs, the power should be taken from the coax through resistor "R." Resistor "R" should be determined by placing a 10k resistor across the output and adjusting the output until the voltage is about 1 1/2v. The voltage should be checked even if a wire is used. The battery is removed from the osc. and the detector is connected to where the battery was. Be careful to observe polarity. The key jack is then shorted. Whenever the carrier is turned on, the oscillator will oscillate. The oscillator only requires a few milliwatts so it takes very little power from the transmitter. I'm sure that monitoring will improve the fists of a lot of amateurs and make many more solid contacts. For MCW, connect the oscillator to the detector as for monitoring, but connect the output to the microphone input as in ICW. The carrier is keyed. The oscillator will provide a note to the modulator whenever the carrier is on. This type of emission is useful on VHF during an aurora when you cannot tell if a station is tuning with his BFO on or not.

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## Audio Filters for Selectivity

It now seems that everybody is getting filter-happy. No wonder, with the bands as crowded as they are. W4THU stirred up a new wave of interest with his article in the March issue, "Cure That Angry Band," starting a run on FL-5 and FL-8 filters. Best price we've seen so far is from S.E.G. Sales, 1306 Bond St., L. A. 15, Calif. FL-5 or FL-8, \$2.49 each. So cheap it's unreasonable not to have one or two handy to insert in your receiver audio output lines for added selectivity.

Newcomers to this particular gimmik are astounded to find they can copy signals they never heard before. We old-timers and W-tens knew *that*.

