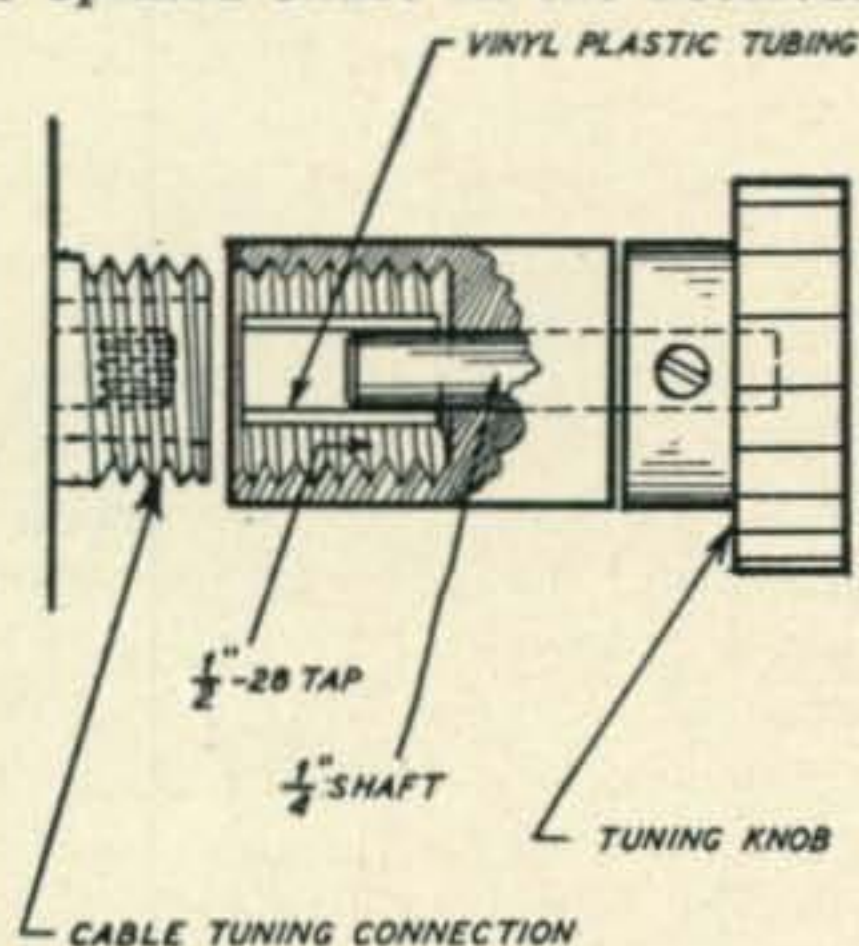


274N Receiver Tuning Knob

This is a homemade tuning adaptor for the 274 N series receivers. The shaft and tuning knob are standard items. The only special parts are a piece of vinyl plastic tubing, the inside of which should be slightly smaller than $\frac{1}{4}$ inch, and the adaptor fitting itself which is machined out of ordinary brass, or even aluminum. This adaptor is $\frac{3}{4}$ inch in diameter and $\frac{3}{4}$ -inch long. One end is tapped to a depth of $\frac{3}{8}$ inch with a $\frac{1}{2}$ inch, No. 28 tap. A $\frac{1}{4}$ -inch diameter hole is reamed on through to the other end. The length of the $\frac{1}{4}$ -inch shaft should be such that the end of the shaft butts against the end of the splined shaft in the receiver tuning fit-



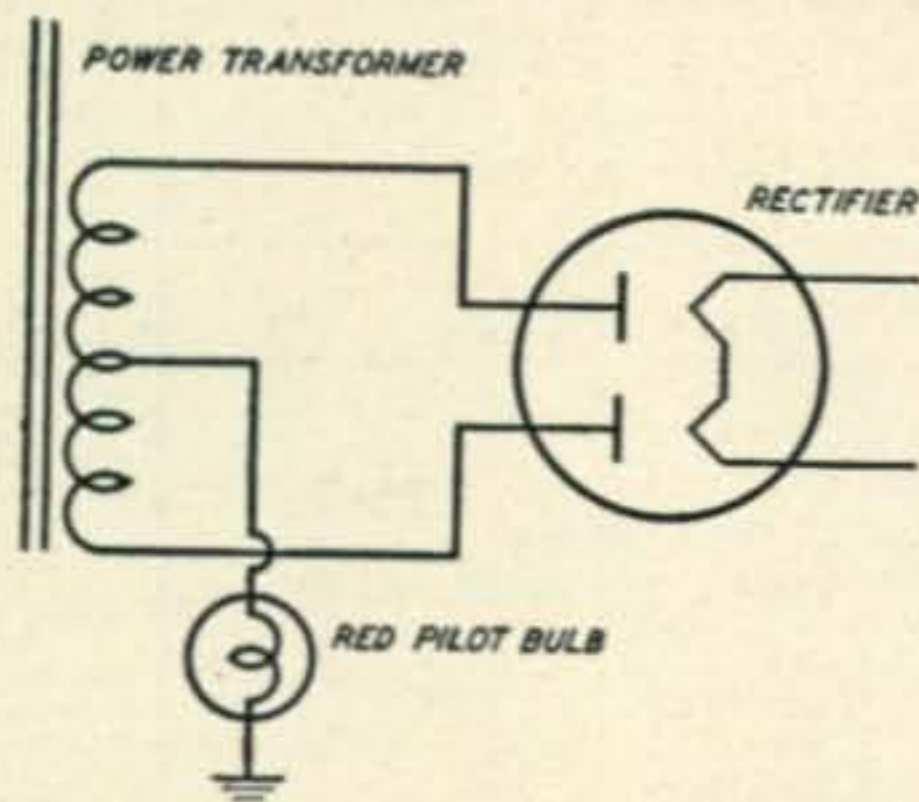
ting and the plastic tubing fits evenly over both shafts when the adaptor is screwed onto the receiver fitting.

The plastic tubing retains its elasticity indefinitely and there is no noticeable backlash in tuning the receiver. For convenience a crank may be added to the tuning knob if desired.

T. C. Freedom, W3HVE

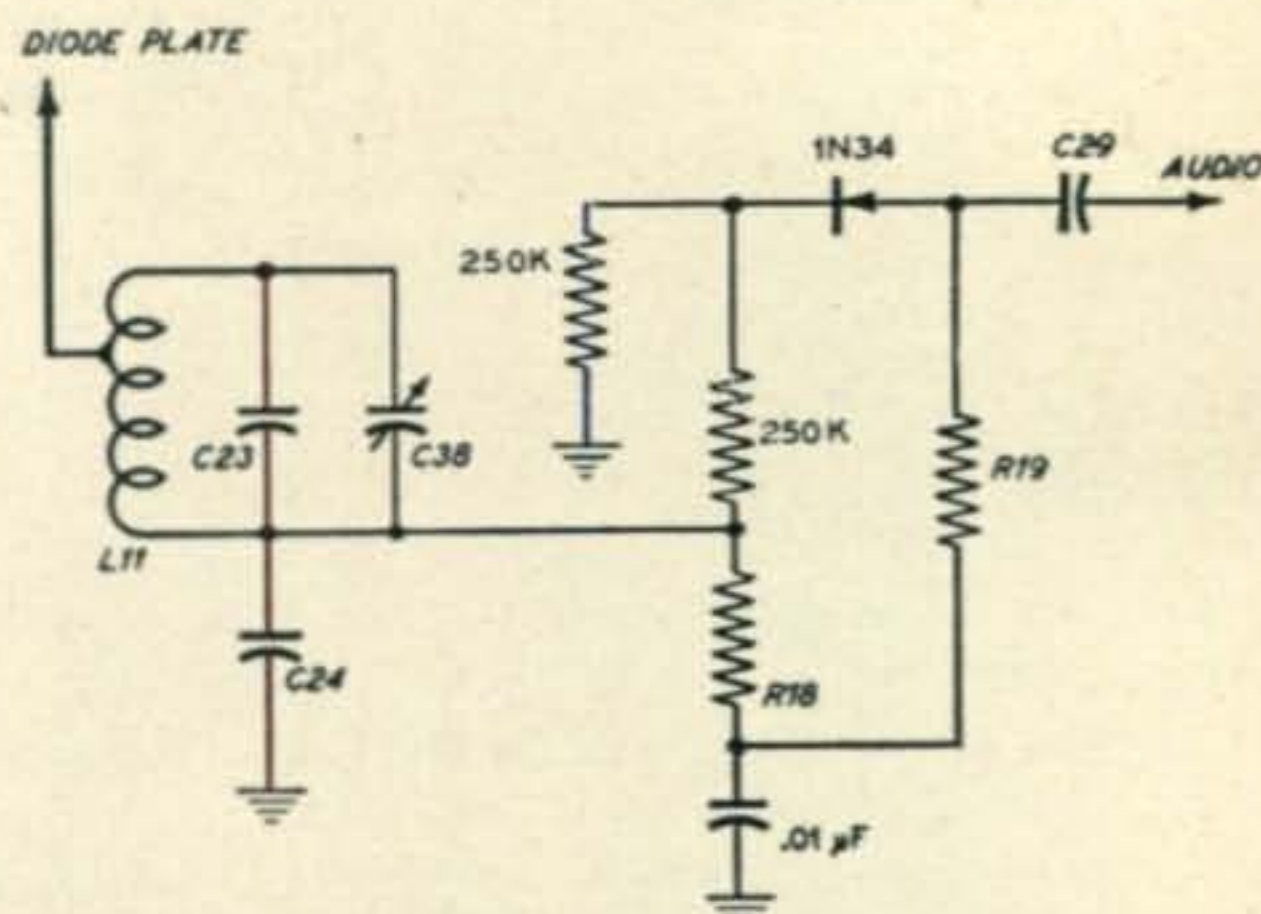
High Voltage Pilot Bulb

A simple panel light indicator for high voltage power supplies can be made by inserting a dial light in series with the secondary center-tap of the



high voltage transformer. The pilot bulb should have a current rating suitable for the drain on the supply. When current is being drawn the pilot will light, and in addition will act as a fuse.

F. C. Johnston, VK3EL



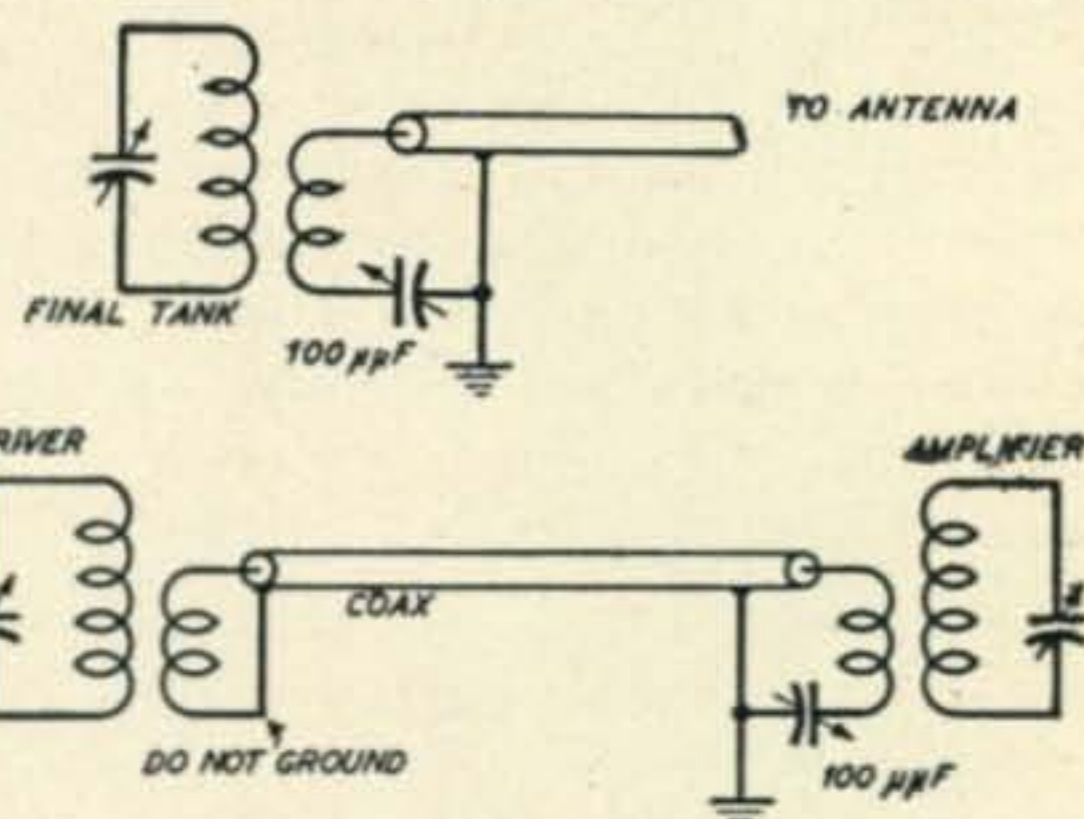
Noise Limiter for the SCR-274N Receivers

This is the simplest and most effective noise limiter I have used with 274N command receivers. The circuit calls for the addition of two resistors, a 1N34 crystal diode and a paper condenser. The noise limiter is of the self-adjusting series type and does not require a removal switch from the circuit since the quality and signal loss are negligible. The noise limiter may be wired into the receiver in about five to ten minutes.

Don Jeppesen, WØQFZ

Tuning Out Coax Cable Reactance

This little trick does not seem to be sufficiently well appreciated by the average amateur, although it has been used to good advantage in commercial and military radio equipment. Better coax cable



matching and transfer characteristics can be obtained by inserting a variable tuning condenser between the return of the link and ground. This condenser is tuned for maximum loading, which in this case means minimum reactance in the link. Maximum power transfer may be obtained with minimum coupling by using this method.

A particular instance of its effectiveness was in trying to drive a pair of 4-125A's to 700 watts input with an 807 doubler. Without the tuning condenser in the link return between these two stages I could only obtain 10-ma grid current. Tuning out the reactance brought the 4-125A grid current up to over 20 ma. It is equally effective when trying to load a beam feed with coax line.

Ken Chase, W2MA