

Capt. A. B. Jones, K9LKC

CARE should be taken when aligning the slugs in the i.f. transformers of the BC-348 receiver. Give special consideration to the secondary circuit (the top slug) of the transformer. Sometimes the slug-retaining spring becomes dislodged and shorts out the exposed terminals at the top of the transformer. Advancing the slug in too far will also release the spring and short the terminals.

The neon-bulb oscillator is adjusted to oscillate at 10 kc. by the potentiometer R_1 , and its output is coupled to the screen grid of the 6AU6 oscillator by a 30- μf . capacitor. The resultant beats of the 10-kc. and 100-kc. frequencies produce 10-kc. markers between the stronger 100-kc. points. The neon-bulb oscillator will synchronize or lock in with the 100-kc. crystal-controlled oscillator, making this circuit easy to adjust. The oscillator is set by adjusting R_1 and listening to the calibrator signals on the station receiver. The 10-kc. oscillator may lock in with the 100-kc. oscillator at several settings of R_1 , and the setting that gives the optimum signal strength will have to be found experimentally.

ple. The pen point is easily removed from the tube. Fastidious builders can use a small piece of cleaning tissue and a stiff wire to clean out any traces of ink inside the plastic tube.

I installed a diode, CR_1 , from the plate of the 6AL5 bias rectifier to ground, as shown in Fig. 4. This diode acts as a voltage doubler and gives the system more sensitivity. With the above modification it is also necessary to add some gain to the anti-trip section, this can be accomplished in the same manner with a second diode, CR_2 . Although I used a pair of the newer silicon diodes for the modification, less expensive 1N38As would probably work satisfactorily.