

ALIGNMENT

(For all 1936 models providing single band operation. Intermediate frequency 175 Kcs. Both A. C. and Battery models)

Periodically it may be necessary or desirable to re-align the R. F., oscillator and I. F. stages of these receivers.

Such re-alignment may be desirable following changes affecting the R. F., I. F. or oscillator coils or tube changes affecting those stages.

When alignment is necessary, it should only be carried out with the proper equipment, as it is a very important adjustment. When attempting re-alignment, the serviceman should be equipped with a proper output indicator, a satisfactory aligning wrench and screw-driver and a good signal generator, capable of supplying fundamental frequencies at 175, 550 and 1,400 kilocycles.

The procedure of alignment is as follows:

(1) Connect the output lead of the signal generator to the control grid cap of the type 6A7M(1C6S) oscillator-modulator tube, allowing the control grid clip to remain in position.

(2) Connect an output indicator across the speaker voice coil terminals.

(3) Short the plates of the oscillator section of the gang condenser.

(4) With the signal generator tuned to exactly 175 kilocycles, align in order, the condensers C9, C8, C7 and C6 for maximum increase in reading of output indicator. As these adjustments are being made, it is important that the output of the signal generator be kept at a low value in order to avoid overload of the audio or output tubes. Such overload, if allowed to develop may result in a false reading being shown by the output indicator. As the receiver is brought into proper alignment the sensitivity will increase, and a gradual reduction of the signal generator output should be made from time to time in order to prevent overloading.

(5) Connect output lead of signal generator to "green" antenna wire of the receiver. Ground signal generator to the "black" wire of the receiver. Remove the short in the oscillator section of the gang condenser.

(6) Tune receiver and generator to 1,400 kc/s. Roughly adjust oscillator, interstage and antenna stage parallel pads (C4, C3, C2) in that order for maximum sensitivity.

(7) Tune generator to exactly 600 kc/s., and adjust receiver (without regard for dial calibration) to the generator frequency.

(8) Adjust 600 kc/s. series pad C5, (without regard for dial calibration) for maximum sensitivity, rocking the tuning control in the usual manner during this adjustment.

(9) If after this adjustment the dial calibration is incorrect, loosen dial pointer screw and reset pointer to exactly 600 kc/s.

(10) Tune generator to 1,400 kc/s. and adjust receiver in tune. If calibration is incorrect, adjust oscillator parallel condenser to correct dial calibration, then carefully align antenna and interstage trimmers. Recheck oscillator, interstage and antenna parallel pads (C4, C3, C2) in that order for maximum sensitivity. When adjusting these condensers use as little capacity as possible.