



**Resistors**

R1	500
R2	10,000
R3	100,000
R4	100,000
R5	300
R6	50,000
R7	10,000
R8	10,000
R9	10,000
R10	10,000
R11	10,000
R12	10,000
R13	10,000
R14	10,000
R15	10,000
R16	10,000
R17	10,000
R18	10,000
R19	10,000
R20	10,000
R21	10,000
R22	10,000
R23	10,000

**Condensers**

C1	.005
C2	.005
C3	.0005
C4	.0005
C5	.0005
C6	.0005
C7	.0005
C8	.0005
C9	.0005
C10	.0005
C11	.0005
C12	.0005
C13	.0005
C14	.0005
C15	.0005
C16	.0005
C17	.0005
C18	.0005
C19	.0005
C20	.0005
C21	.0005
C22	.0005
C23	.0005

Wagner Reproducer Type  
350-20002/20002  
IE - 955 Kc

Arizona (883) 114	
Wm. Dutton (883) 814	
Phone No.	2-6-35
Circuit No.	
Address	
Date No.	289

## ALIGNMENT OF CHASSIS TYPE 604

**I.F. FREQUENCY 455 KC.** When aligning the I.F. system of this receiver, particular care is necessary, as being an inductive band pass system, misalignment can readily be brought about.

The output of the test oscillator should be connected to the control grid of the 6A7 and the frequency set to 455 KC., according to instructions in Service Sheets Nos. 16 and 17. The oscillator in the receiver is allowed to function in the normal way, but the tuning condenser must be turned to the full in position, 550 Kilocycles. Proceed to align the I.F. system as follows:-

First adjust the small trimming condenser (A) located on the side of chassis, then the trimmer (B) in the first I.F. unit which is normally the plate trimmer, but in the 604 receiver is the coupling coil trimmer. Next, the grid trimmer (C) in the same I.F. unit and then adjust the plate trimmer (D) in the second I.F. can, and then the diode trimmer (E) which is normally the grid circuit trimmer. Should the I.F. system be badly out of alignment, repeat this procedure, following the same sequence of adjustment each time.

Remove test oscillator lead from the grid of the 6A7 and replace the grid clip. Then connect the test oscillator leads to the aerial and earth wires located at the rear of the chassis, the white being the aerial and black the earth. Be sure the "high" potential lead from the test oscillator connects to the white aerial wire.

**SHORT WAVE ALIGNMENT:** Set test oscillator to 18.8 metres (Approx. 16 megacycles) and set the pointer of the receiver dial to 18.8 metres, (Making sure that with the gang fully closed the pointer coincides with the "stop" mark on the dial just above 550 KC)

The three Short Wave trimmers are located just to the right of the gang condenser under the chassis, and are adjusted from the top. Set the Wave Change Switch to the short wave position.

Starting with the rear trimmer (J) (which is the oscillator) adjust this until the signal is heard in the receiver with the pointer of the receiver showing 18.8 metres. Make sure that the right peak of the oscillator is chosen, this can be noted by increasing the test oscillator output and tuning the receiver to approximately 20 metres and noting if the image appears at this point, if it does not, the wrong oscillator frequency has been chosen. It will then be

necessary to decrease the trimmer capacity until the correct oscillator frequency is found with the receiver dial set at 18.8 metres. Now adjust the centre trimmer (K) at the same time rocking the gang condenser, (as is done for the padding operation on the broadcast band) until maximum deflection on the output meter is obtained. Now adjust the trimmer (L) at the front of the chassis, using the same procedure as for the last. This completes the short wave alignment. No variable short wave padder is used, so unless the gang plates have been tampered with, no padding operation is necessary. A check can be made at 42.8 metres (the padding point) to ascertain if alignment at this point is correct. A slight bending of the oscillator rotor plates will show up this condition, but no such condition should exist under average conditions.

**BROADCAST BAND ALIGNMENT:** Turn the Wave Change Switch of the receiver to broadcast position, set test oscillator to 1400 K.C. and set the pointer of the receiver dial to 1400 K.C. Adjust the left hand trimmer (I) in the top of the oscillator coil can (can at the rear of the 6A7 valve) until the signal is heard. Now adjust the trimmers (M) & (N) in the tops of the two coil cans to the left of the 6A7 and 6DG respectively until maximum deflection of the output meter is obtained, and then return to the oscillator trimmer for a final adjustment.

Now set the test oscillator to 600 K.C. and rotate the pointer of the receiver to 600 K.C. and adjust the right hand trimmer (L) (padder) in the top of the oscillator can until maximum deflection of the output meter is obtained.

The maximum output should be obtained no more than 1/16" each side of the 600 K.C. marking on the scale providing the calibration of the test oscillator is correct.

TRIMMER LOCATIONS ON CHASSIS TYPE 604

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