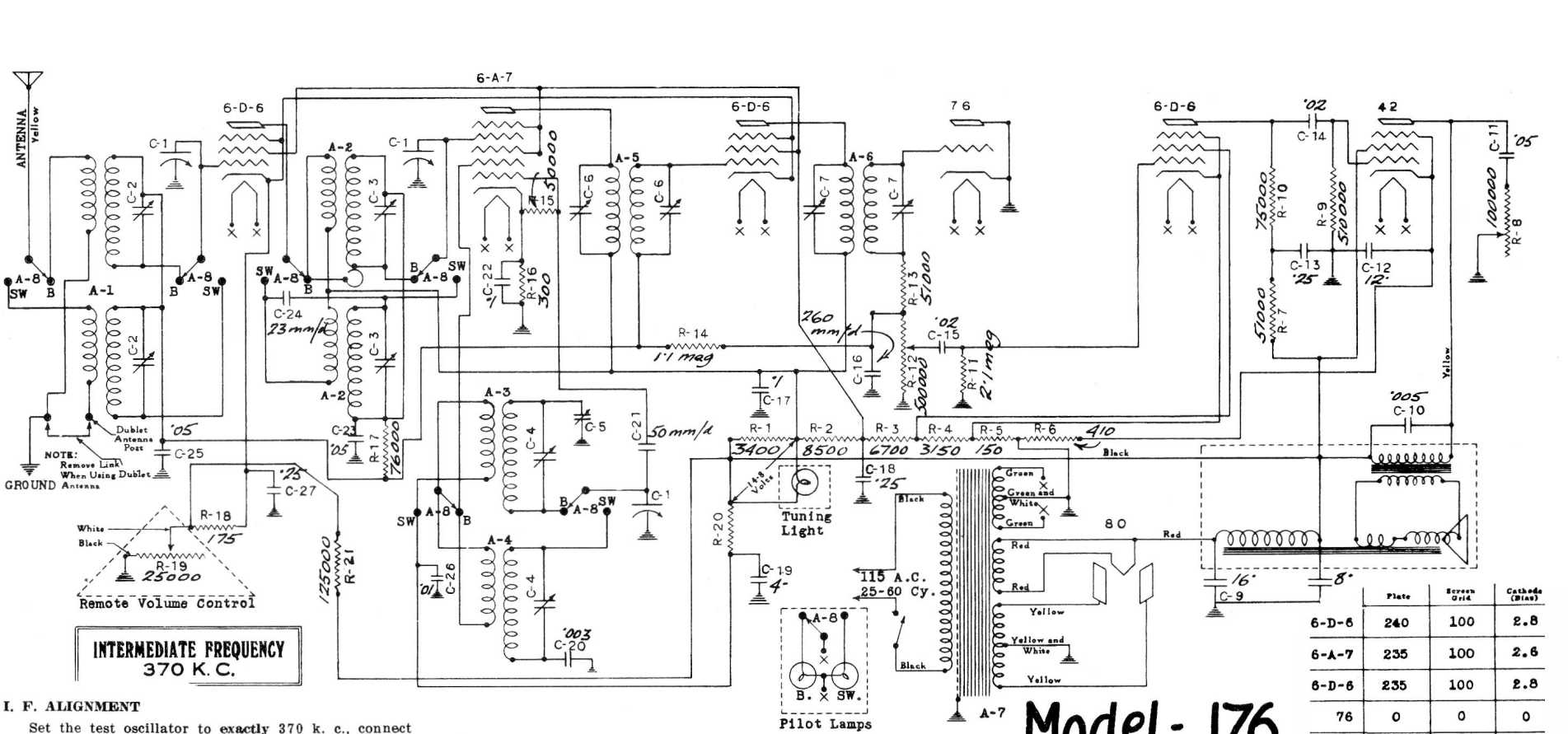
DATA SHEET

STEWART-WARNER-20

~ COURTESY ALEMITE CORP. LTD.



Model - 176
1934-35.

	Plate	Screen Grid	Cathode (Bias)
6-D-6	240	100	2.8
6-A-7	235	100	2.6
6-D-6	235	100	2.8
76	0	0	0
6-D-6	120	33	1.5
42	240	255	15.5

I. F. ALIGNMENT

Set the test oscillator to **exactly** 370 k. c., connect the output leads of oscillator through an .02 mfd. coupling condenser to the 6A7 control grid to ground. Set the range switch (lower left-hand knob) to the broadcast position (clockwise). Carefully adjust the I. F. transformer trimmer No. 1, 2, 3 and 4 for maximum output, beginning with 2nd I.F. trimmers No. 3 and 4. Repeat the four adjustments since the adjustment of each trimmer has some effect on the others.

BROADCAST BAND ALIGNMENT

4. Connect a standard dummy antenna in series with the test oscillator output and the receiver antenna lead. If a standard dummy antenna is not available a 400 ohm, 1 watt carbon resistor may be substituted with fairly good results.

5. With the test oscillator set at 1400 k. c., carefully tune receiver to the signal; adjust trimmer No. 9 (broadcast R. F. trimmer) and trimmer No. 8 (broadcast antenna shunt trimmer) for maximum output meter reading. Retune the receiver and check the adjustments.

6. Set the test oscillator to approximately 600 k. c., and tune the receiver to the signal. Adjust trimmer No. 7 (broadcast oscillator series pad) to get maximum output meter deflection. Retune the receiver dial pointer to a peak, and readjust the trimmer. Continue this procedure of adjusting the trimmer until the output meter reading cannot be increased. Trimmer No. 7 should also be used to adjust calibration of 550 k. c. end of dial. This procedure must be followed or the receiver will not be properly adjusted.

7. With a 1400 k. c. signal, recheck alignment of trimmers Nos. 7, 8 and 9.

SHORT-WAVE ALIGNMENT

Note: It should never be necessary to adjust the following short-wave circuits unless the short-wave trimmers or coils have been changed or tampered with. Alignment procedure, as a rule, should not go beyond this point.

VERY IMPORTANT—A 400-ohm, 1-watt carbon resistor ONLY must be connected in series with the antenna lead The following alignment procedure is extremely critical.

1. Turn the receiver range switch to the short-wave band position (counter clockwise).

2. Set the test oscillator to give a 15000 k. c. signal. If the oscillator cannot reach this frequency, use the second harmonic of 7500 k. c., the third harmonic of 5000 k. c., or the fourth harmonic of 3,750 k. c., all of which will give a 15000 k. c. signal.

3. To calibrate this point, turn the receiver dial indicator to 15 (15 megacycles or 15,000 k. c.) on short-wave position of dial, and adjust trimmer No. 5 (short-wave oscillator shunt trimmer) to give maximum output. Generally, two peaks will be found. Align on the peak secured with the trimmer screw farthest out. Then adjust trimmer No. 11 (short wave R. F. shunt trimmer) for maximum output. (When adjusting trimmer No. 11 two peaks may be found. The correct one is when trimmer is turned farthest in). Then adjust trimmer No. 10 (short wave antenna shunt trimmer) for maximum output.

4. With a strong 15,000 k. c. signal from the oscillator, tune the receiver to 14260 k. c. and check for the image signal which should be weaker than 15,000 k. c. signal. If the 14260 signal is as strong as the 15,000 it shows that trimmer No. 11 is not properly adjusted. If no signal is received at 14,260 k. c., but one at 15,740 k.c., it shows that trimmer No. 5 is aligned on wrong frequency, and thus both No. 5 and 11 must be readjusted at the proper frequency.

NOTE: After completing the alignment, all of the trimmers except padding trimmer should be locked in place with ambroid or some similar cement in order that they will not be jarred out of adjustment.

NOTE: The short jumper wire between the two—ground clips on rear top of set must be in place or the sensitivity will be poor at 6,000 k. c. (6 megacycles).