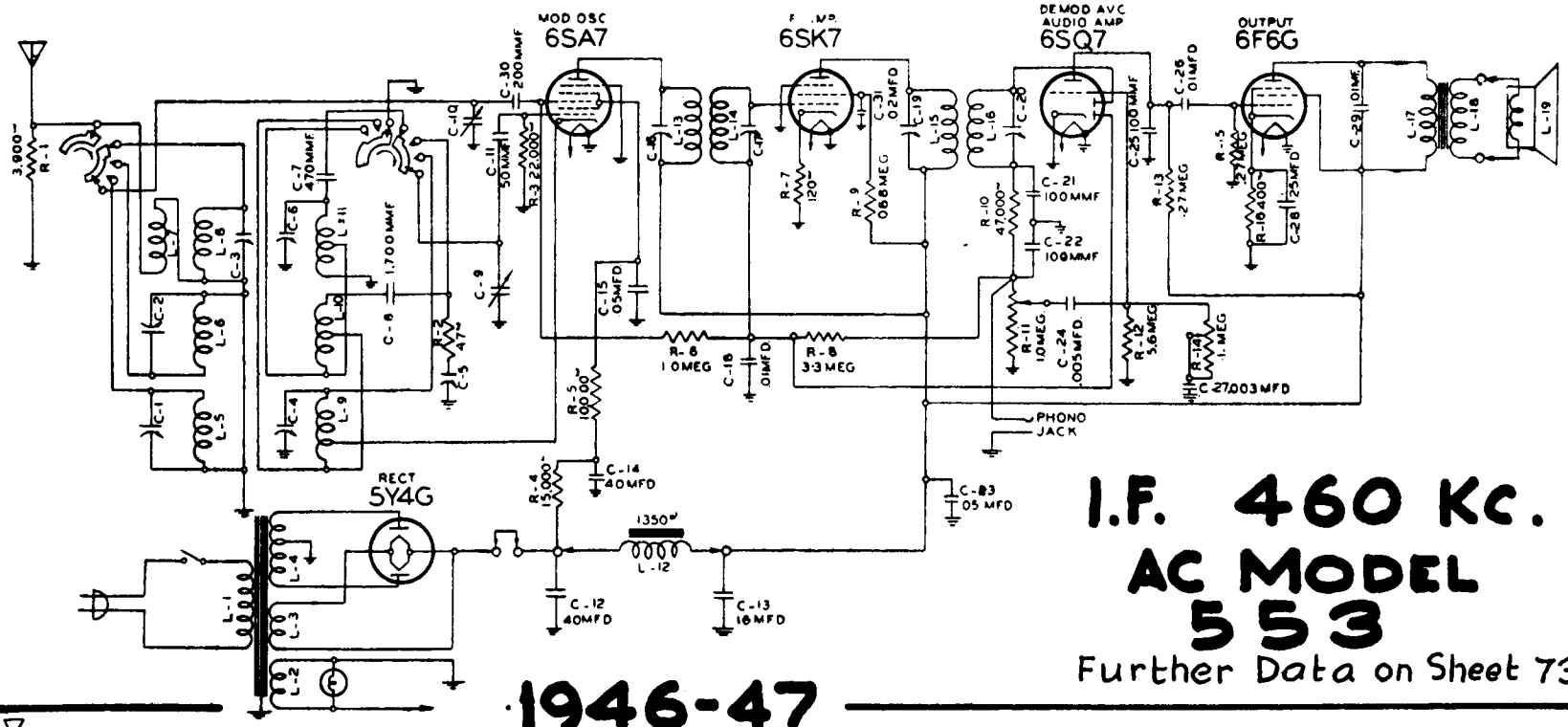
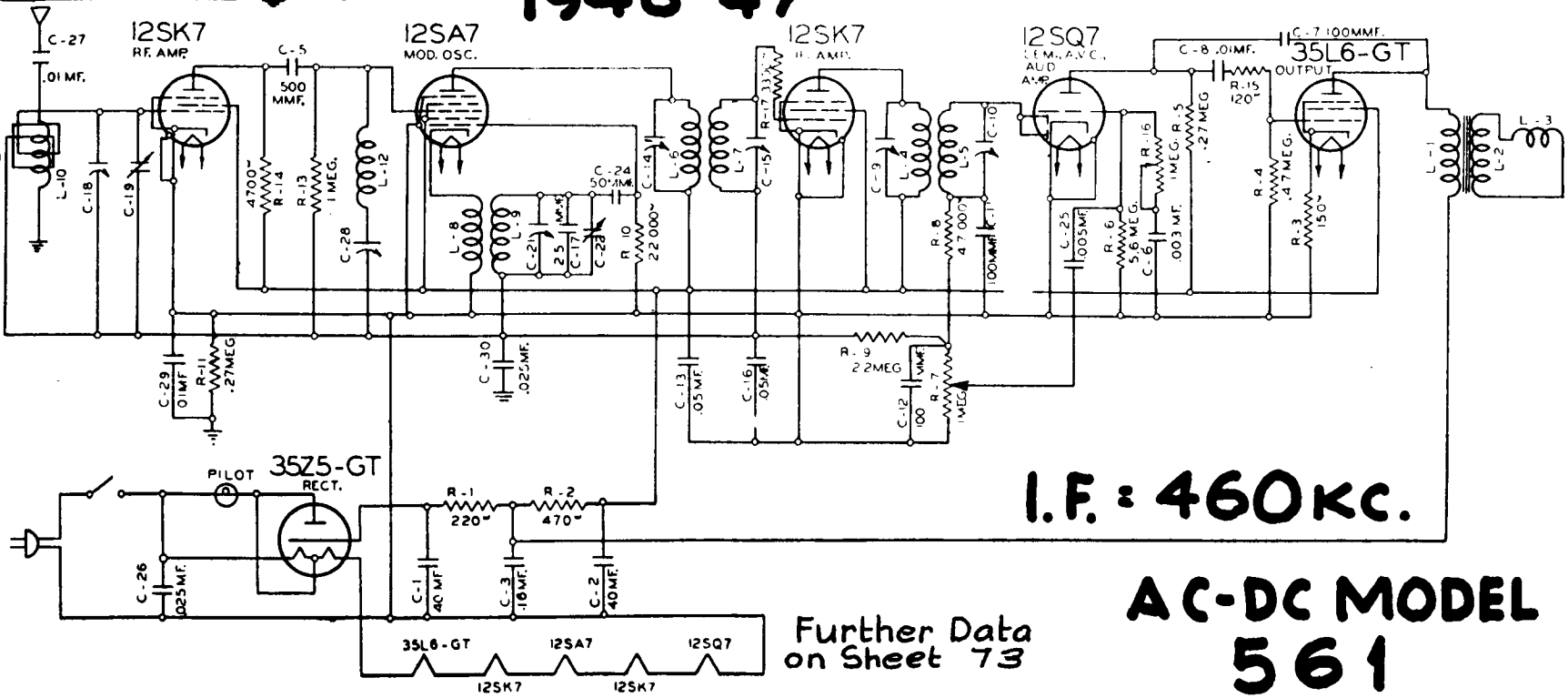
STROMBERG-CARLSON DATA SHEET 72



I.F. 460 Kc.
AC MODEL
553

Further Data on Sheet 73

1946-47



I.F. = 460 Kc.
AC-DC MODEL
561

Further Data on Sheet 73

ALIGNING INFORMATION

Never re-align unless absolutely necessary.

Use a good modulated signal generator (test oscillator with variable output voltage and a sensitive output meter across the voice coil of the speaker.)

Always align using the smallest possible input from the signal generator. A strong signal makes adjustments inaccurate.

Always have the volume control "full on".

ALIGNING PROCEDURE. (Follow this order exactly.)

I. Dial pointer adjustment.

With the plates of the gang tuning capacitor fully engaged, check to be sure that the dial pointer is in a vertical position directly on the calibration marks located at the low frequency end of the dial scale. Adjust pointer if necessary.

II. Intermediate frequency adjustments.

1. Set Range Switch to standard broadcast position "A" band.
2. Set Pointer to extreme low frequency end of dial.
3. Connect the ground terminal of the signal generator to the chassis ground terminal.
4. Introduce a modulated 460-kilocycle signal to the grid of the 6SA7 modulator and oscillator tube (terminal No. 8) using a .1 microfarad capacitor in series with the output lead of the signal generator.
5. Adjust the I. F. 460-kc. trimmers for maximum output, in the following order:

   A—Secondary of second I. F. transformer.

   B—Primary of second I. F. transformer.

   C—Secondary of first I. F. transformer.

   D—Primary of first I. F. transformer.

III. Radio frequency adjustments.

Short Wave Range (C Band)

1. Connect a 400 ohm carbon resistor in series with the antenna lead from the signal generator and the receiver antenna binding-post.
2. Set the range switch to "C" band.
3. Set the signal generator frequency and the receiver tuning dial to 20. mc.
4. Adjust the oscillator "C" band trimmer C-4 for maximum signal and correct calibration.

   Note—Two peaks are usually obtained when adjusting the 20 mc. trimmer, using a strong signal. The peak highest in frequency is the correct one. This is important.
5. Adjust antenna trimmer C-1 for maximum output. "Rock" the gang capacitor so that maximum peak is obtained.
6. Check calibration and sensitivity at 8. mc.

Medium Wave Range (B Band).

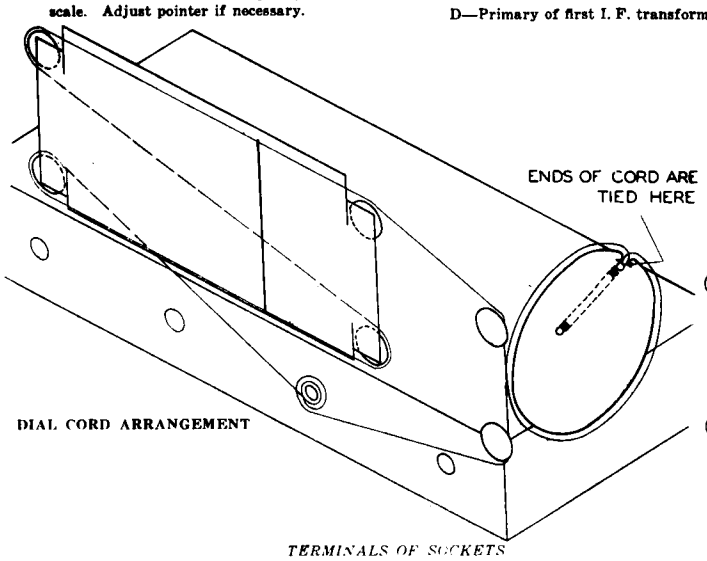
1. Connect a 200 mmfd. capacitor in series with the antenna lead from the signal generator, replacing the 400 ohm carbon resistor.
2. Set the range switch to "B" band.
3. Set the signal generator frequency and the receiver tuning dial to 6. mc.
4. Adjust the oscillator "B" band trimmer C-5 for maximum signal and correct calibration.

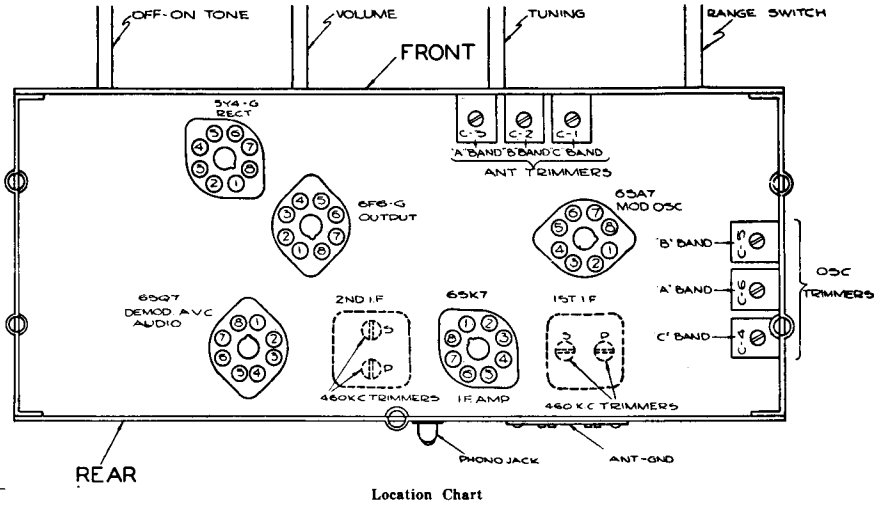
Note—Use peak highest in frequency.

5. Adjust antenna trimmer C-2 for maximum output. "Rock" the gang to obtain maximum peak.
6. Check calibration and sensitivity at 2.3 mc.

Standard Broadcast Range (A Band).

1. Set the range switch to "A" band.
2. Set the signal generator frequency and the receiver tuning dial to 1500 kc.
3. Adjust the oscillator "A" band trimmer C-6 for maximum signal and correct calibration.
4. Adjust antenna trimmer C-3 for maximum output. "Rock" the gang to obtain maximum peak.
5. Check calibration and sensitivity at 600 kc.





TERMINALS OF SOCKETS

Tube	*Circuit*	1	2	3	4	5	6	7	8
6SA7	Modulator and Oscillator	0	0	+250	+95	0	0	*6.3*	0
6SK7	I. F. Amplifier	0	0	0	0	1.3	+95	*6.3*	+250
6SQ7	Demodulator, A. V. C., Audio	0	0	0	0	0	+50	*6.3*	0
6F6G	Output	0	0	+235	+250	0	0	*6.3*	+14
5Y4G	Rectifier	0	—	*320*	0	*320*	0	+330	+330

Location Chart

ALIGNMENT DATA A.C. MODEL 553

ALIGNMENT DATA A.C. MODEL 561

NORMAL VOLTAGE READINGS

Use a good high resistance voltmeter having a resistance of at least 1000 ohms per volt.

Take all D. C. voltage readings on the 500 volt scale except where an asterisk appears.

Take all readings with chassis operating and tuned to 1000 Kc.—no signal.

Use a line voltage of 120 volts or make allowance for the variation.

Read from indicated socket terminals to terminal No. 3 of the 12SK7 I. F. Amp. Socket (B—).

See Location Chart for position of terminals.

A. C. Voltages are indicated by italics; when the receiver is operated from a D. C. power supply, D. C. voltages will be obtained in place of A. C. voltages shown.

ALIGNING INFORMATION

CAUTION.—When the chassis has been removed from the cabinet for servicing, the operator must be extremely careful not to place the chassis on any grounded object while the line cord is "plugged-in" to the supply line. Tube shells and other metal parts of the chassis are "Hot" with respect to ground, therefore the operator must guard against accidental contact with "ground" while handling the chassis.

Never realign unless absolutely necessary.

Use a good modulated signal generator (test oscillator) with variable output voltage and a sensitive output meter across the voice coil of the speaker.

Always align using the smallest possible input from the signal generator. A strong signal makes adjustments inaccurate.

Always have the volume control "full on".

CAUTION.—Do not "ground" the Signal Generator.

ALIGNING PROCEDURE (follow this order exactly).

I. Dial Pointer Adjustment.
With the plates of the gang tuning capacitor fully engaged set the dial pointer in a horizontal position directly parallel with the dividing line between the dark and light sections of the dial, pointing towards the .550 Mcs. mark.

TERMINALS OF SOCKETS

Tube	*Circuit*	1	2	3	4	5	6	7	8
12SK7	R. F. Amp.	—	*52*	0	0	0	+91	*37*	+86
12SA7	Mod. and Osc.	—	*37*	+86	+91	+7.5*	0	*24.8*	0
12SK7	I. F. Amp.	0	*24.8*	0	0	0	+91	*12.5*	+86
12SQ7	Demod., AVC and Audio Amp.	0	0	0	0	0	+23	*12.5*	0
35L6GT	Output	0	*86*	+98	+91	0	—	*52*	+4.8
35Z5GT	Rectifier	—	*120*	*114*	—	*114*	—	*86*	+115

*Read on 100 V. scale of meter having a resistance of 1000 ohms per volt.

Intermediate Frequency Adjustments.

1. Tune the set to the extreme low frequency position. (Variable capacitor plates all the way in.)
2. Connect the ground terminal of the signal generator to the common bus.
3. Introduce a modulated signal of 460 kilo-cycles using a .01 M. F. capacitor in series with the lead from the signal generator to the oscillator aligning capacitor located on the front section of the variable capacitor.
4. Adjust the I. F. aligners for maximum output in the following order:
   A. Secondary of second I. F. Transformer.
   B. Primary of second I. F. Transformer.
   C. Secondary of first I. F. Transformer.
   D. Primary of first I. F. Transformer.

Radio Frequency Adjustments.

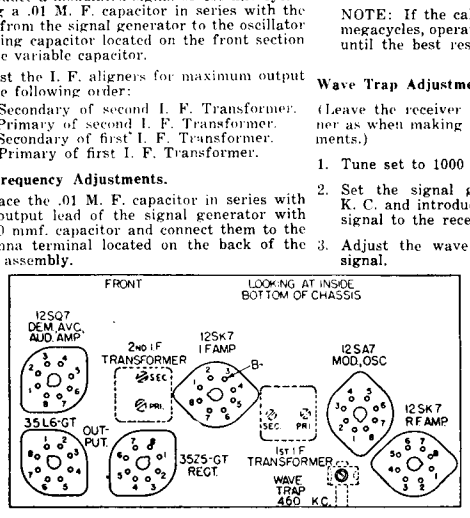
1. Replace the .01 M. F. capacitor in series with the output lead of the signal generator with a 200 mmf. capacitor and connect them to the antenna terminal located on the back of the loop assembly.
2. Set the signal generator's frequency and the receiver's tuning dial to 1.4 megacycles.
3. Adjust the oscillator and antenna aligning capacitors for maximum signal.
4. Set both the signal generator's frequency and the receiver's tuning dial to 0.6 megacycles and check calibration.

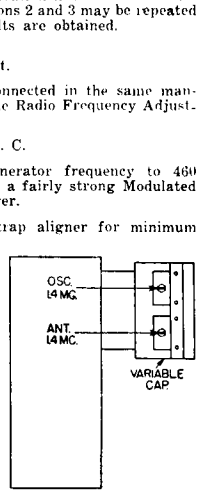
   NOTE: If the calibration is too far off at 0.6 megacycles, operations 2 and 3 may be repeated until the best results are obtained.

Wave Trap Adjustment.

(Leave the receiver connected in the same manner as when making the Radio Frequency Adjustments.)

1. Tune set to 1000 K. C.
2. Set the signal generator frequency to 460 K. C. and introduce a fairly strong Modulated signal to the receiver.
3. Adjust the wave trap aligner for minimum signal.





Location Chart

STROMBERG-CARLSON DATA SHEET 73