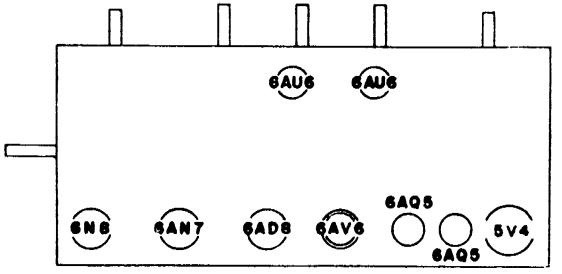
MODEL — "CPP" — CONCERTMASTER

GRAMO-RADIO COMBINATION



VALVE PLACEMENT DIAGRAM 1252/279

An automatic 3 Speed Record Changer (78, 45, 33⅓ r.p.m.) and a 9 Valve Superheterodyne Five Band Receiver incorporating Bandspreading of the 19 Metre, 25 Metre, 31 Metre and 49 Metre Shortwave Bands.

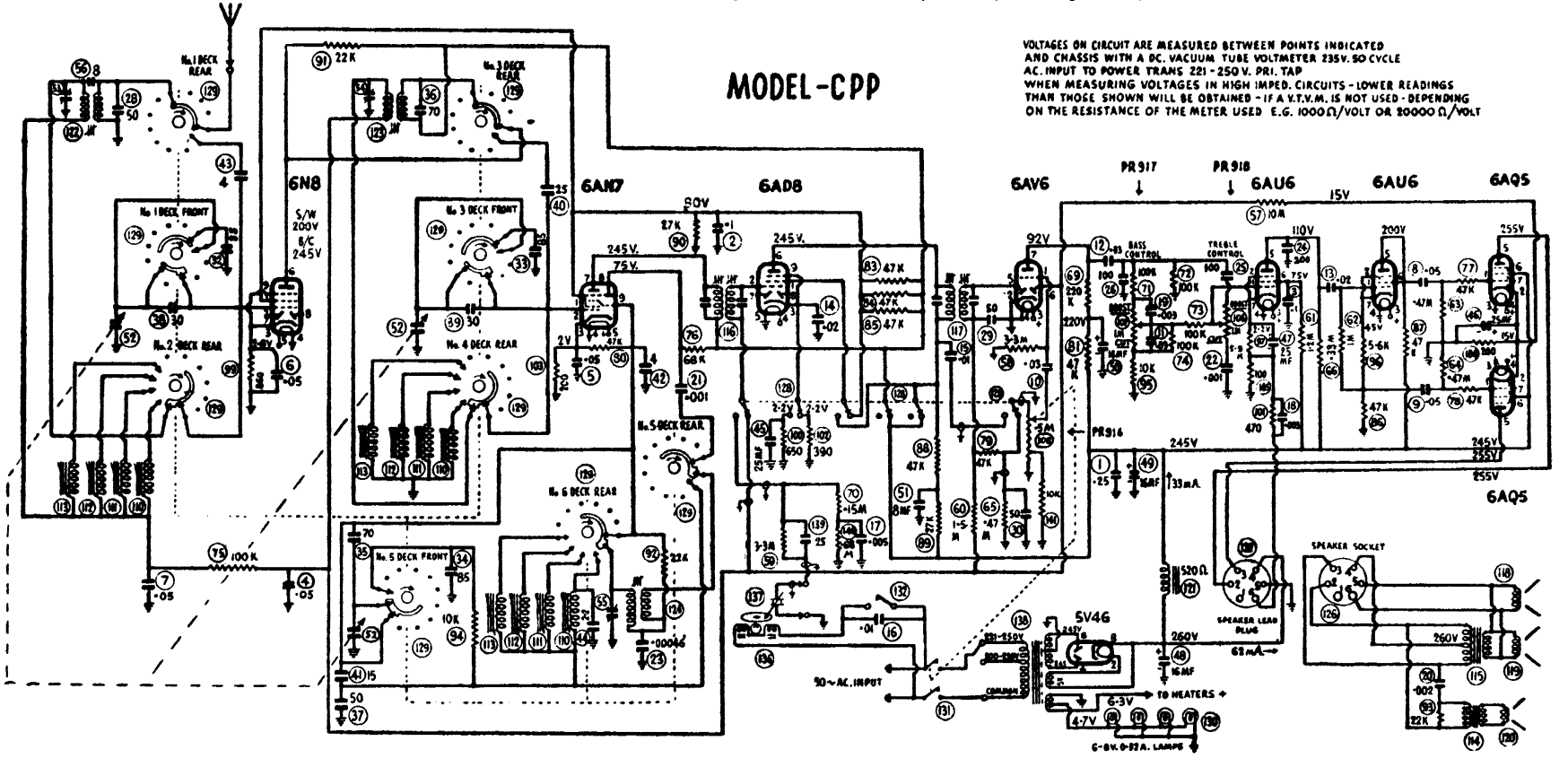
POWER CONSUMPTION:—

Radio Operation:— 80 Watts.-approx.
Gramo Operation:—100 Watts.-approx.

TUNING RANGES:—

Broadcast Band, 535-1610 Kc/s.		560.7-186.3 Metres.
19 Metre Band, 14.9-15.5 Mc/s.	(Bandspread)	20.13-19.29 Metres (approx.)
25 Metre Band, 11.6-12.1 Mc/s.	(Bandspread)	25.86-24.79 Metres (approx.)
31 Metre Band, 9.4-9.8 Mc/s.	(Bandspread)	31.91-30.61 Metres (approx.)
49 Metre Band, 5.95-6.25 Mc/s.	(Bandspread)	50.42-48.0 Metres (approx.)

RECEIVER COVERAGE:—



ALIGNMENT INSTRUCTIONS

ALIGNMENT CONDITIONS

Load Impedance: 10,000 ohms.
Output Level: 50 Milliwatts.
Vol. Control: Max. Vol. fully clockwise.
Bass Tone Control: Min. Bass Position.
Treble Tone Control: Min. Treble Position.
Intermed. Freq.: 455 Kc/s.
Supply Mains: 230 volts 50 cycle
AC. input to trans. 221-250V. primary tap.

EQUIPMENT

Signal Generator.
Output Meter.
Mica Capacitor: 0.01MF. (For I.F.T. alignment).
Dummy Antenna: 200MMF. Mica capacitor.
Dummy Antenna: 400 ohm. non-inductive resistor.
Alignment Tools: Type M195 and PM581.
IF. Attenuator: Type M174. This attenuator consists of a 20K ohm ½ w. resistor and a .004MF. cond. wired in series and having clips attached for connecting to the chassis and IF. valve signal grid during alignment of the RF. signal circuits.

Remove chassis from cabinet — refer page 12.

Operation No.	Generator Connection	Generator Frequency	Dummy Antenna	Instructions
1.	To signal grid of 6AD8 IF. valve pin No. 2.	455 Kc/s.	0.01MF mica capacitor in series with generator.	Turn wave change switch to B/cast band. Leave grid wire attached to valve socket. Peak 2nd. IF. trans. pri. and sec. for max. output.
2.	To signal grid of 6AN7 valve. Pin No. 2.	455 Kc/s.	0.01MF. Mica capacitor in series with generator.	Cond. gang plates fully out of mesh. Leave grid wire attached to valve socket. Peak 1st. IF. trans. pri. and sec. for max. output.
3.				Repeat operations No. 1 and 2.
4.	Set centre of dial pointer on centre of end of travel mark on dial reading near 540 Kc/s. Condenser gang plates fully meshed.			
5.	Connect IF. attenuator type M174 between receiver chassis and signal grid of 6AD8 IF. valve pin No. 2.			
6.	To antenna terminal.	600 Kc/s.	200 MMF. Mica capacitor in series with generator.	Turn cond. gang and dial pointer until centre of pointer aligns with centre of 600 Kc/s. dial mark. Leave the cond. gang and dial pointer set in this position and peak the B/cast oscl. coil. ind. trim. (iron core) for max. output.
7.	To antenna terminal.	1400 Kc/s.	200MMF. Mica capacitor in series with generator.	Turn. cond. gang and dial pointer until centre of pointer aligns with 1400 Kc/s. spot on dial reading. Adjust B/cast oscl. coil trim. condenser for logging and peak B/cast ant. and RF. trans. trim. condensers for max. output.
8.	To antenna terminal.	600 Kc/s.	200MMF. Mica capacitor in series with generator.	Turn cond. gang and dial pointer until centre of pointer aligns with centre of 600 Kc/s. dial spot. Leave the cond. gang and dial pointer set in this position and re-peak the B/cast oscl. coil. ind. trim. (iron core) for max. output, then peak the B/cast antenna and RF. trans. ind. trimmers (iron cores) for max. output. Do not rock the cond. gang to and fro through the signal or move the dial pointer off 600 Kc/s. dial mark, until after the ind. trimmers (iron cores) of both these transformers have been peaked for max. output.
9.	To antenna terminal.	1400 Kc/s.	200MMF. Mica capacitor in series with generator.	Turn cond. gang and dial pointer to 1400 Kc/s. Adjust B/cast oscl. coil. trim. cond. for logging and peak B/cast ant. and RF. trans. trim. condensers for max. output.
10.	Turn wave change switch to 49 metre band (this band must be aligned before the 31 metre, 25 metre and 19 metre bands).			
11.	To antenna terminal.	6.05 Mc/s.	400 ohm non-inductive resistor.	Turn cond. gang and dial pointer until centre of pointer aligns with centre of 6.05 Mc/s. dial mark. Adjust 49 metre band oscl. coil ind. trim. (iron core) for logging and peak 49 metre ant. and RF. trans. ind. trimmers (iron cores) for max. output. Rock cond. gang to and fro through the signal while adjusting.
12.	To antenna terminal.	9.6 Mc/s.	400 ohm non-inductive resistor.	Turn wave change switch to 31 metre band. Turn cond. gang and dial pointer until centre of pointer aligns with centre of 9.6 Mc/s. dial mark. Adjust 31 metre band oscl. coil. ind. trim. (iron core) for logging and peak 31 metre ant. and RF. trans. trimmers (iron cores) for max. output. Rock cond. gang to and fro through the signal while adjusting.

13.	To antenna terminal.	11.8 Mc/s.	400 ohm non-inductive resistor.	Turn wave change switch to 25 metre band. Turn cond. gang and dial pointer until centre of pointer aligns with centre of 11.8 Mc/s. dial mark. Adjust 25 metre band oscl. coil. ind. trim. (iron core) for logging and peak 25 metre ant. and RF. trans. trimmers (iron cores) for max. output. Rock cond. gang to and fro through the signal while adjusting.
14.	To antenna terminal.	15.2 Mc/s.	400 ohm non-inductive resistor.	Turn wave change switch to 19 metre band. Turn cond. gang and dial pointer until centre of pointer aligns with centre of 15.2 Mc/s. dial mark. Adjust 19 metre band oscl. coil. ind. trim. (iron core) for logging and peak 19 metre ant. and RF. trans. trimmers (iron cores) for max. output. Rock cond. gang to and fro through the signal while adjusting.

15. Disconnect IF. attenuator from receiver.

16. Check the logging of the shortwave bands on some well-known shortwave stations. If a crystal calibrator is available, check the logging at each 100 Kc/s. mark on the dial.

SHORTWAVE COIL COLOUR CODE

49 Metre spreadband coil, YELLOW spot on iron core end of former.
31 Metre spreadband coil, RED spot on iron core end of former.
25 Metre spreadband coil, WHITE spot on iron core end of former.
19 Metre spreadband coil, BLUE spot on iron core end of former.

INSTRUCTIONS FOR CHANGING MAINS VOLTAGE INPUT TAPS

MAINS VOLTAGE.–The mains adjustment tap should be adjusted as follows: For any AC. voltage between 200 V. and 220 V., on the 200-220 V. tap, and for any AC. voltage between 221 V. and 250 V., on the 221-250 V. tap.

MAINS VOLTAGE ADJUSTMENT.–For 200-220 Volt Operation: The receiver chassis has to be removed from the cabinet for this adjustment. DISCONNECT THE RECEIVER MAINS LEAD PLUG FROM THE POWER POINT SOCKET. Remove the chassis from the cabinet as detailed on page 12. The mains lead wire from the switch on the volume control which is attached to the 221-250 volt tap is to be un-soldered from the 221-250 V. tap and then re-soldered to the 200-220 volt tap. Refit the chassis to the cabinet in the exact reverse procedure to removing it.

19, 25, 31 AND 49 METRE ANT. TRANS.

Lead from top lug (iron core end) :– GRID.

Lead from bottom lug (mounting end) :–A.V.C.

19, 25, 31 AND 49 METRE RF. TRANS.

Lead from top lug (iron core end) :– GRID.

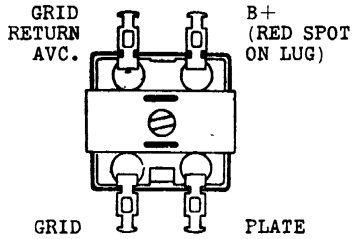
Lead from bottom lug (mounting end) :–CHASSIS-EARTH.

19, 25, 31 AND 49 METRE OSCL. COIL

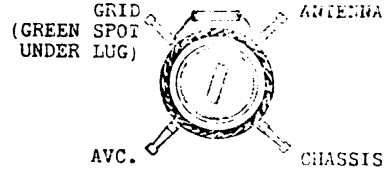
Lead from top lug (iron core end) :– GRID.

Lead from bottom lug (mounting end) :–OSCL. PLATE.

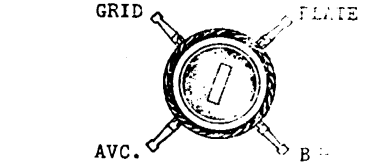
1st IF. TRANS.



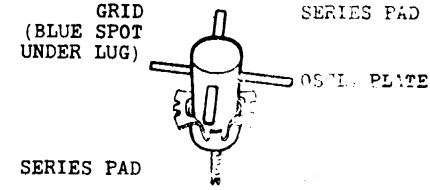
ANTENNA TRANS. B C. (IRON CORED)



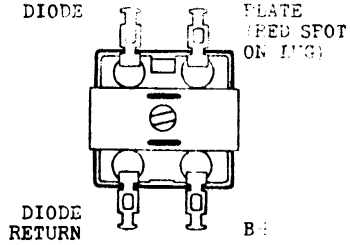
RF. TRANS B C. (IRON CORED)



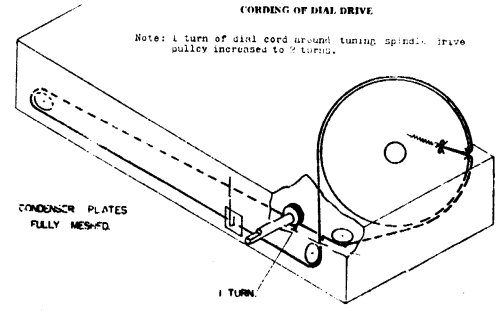
OSCL. COIL B C.



2nd IF TRANS.



CORDING OF DIAL DRIVE



Length of cord required is 5 ft. 6 ins. which includes about 6 ins. to spare for tying to the tension spring.
Cord Part No. 34/754.
Tension Spring Part No. 21/698.