



Models 1206 & 1207

Models 1206 and 1207 are powerful 8-tube console radiograms of exceptional performance on all bands. The use of push-pull beam tetrodes in the output stage and a 12in. P.M. speaker ensures reproduction of the highest quality on both radio and gramophone. The frequency ranges covered are 550-1600 K.C. on broadcast, 2.5 M.C. to 22 M.C. on normal short-wave, and five spread bands covering the 31, 25, 19, 16 and 13 metre bands.

The normal bands are tuned by a variable condenser, while the spread bands are tuned by a three-gang permeability tuner driven from the same control, with shunt aligning condensers for each band, and designed to spread the short-wave frequencies more than twenty times further apart.

Model 1206 is fitted with an induction motor and magnetic pick-up.

Model 1207 uses a high-grade automatic record-changer with light-weight crystal pick-up and edge-driven turntable.

TUBES USED:

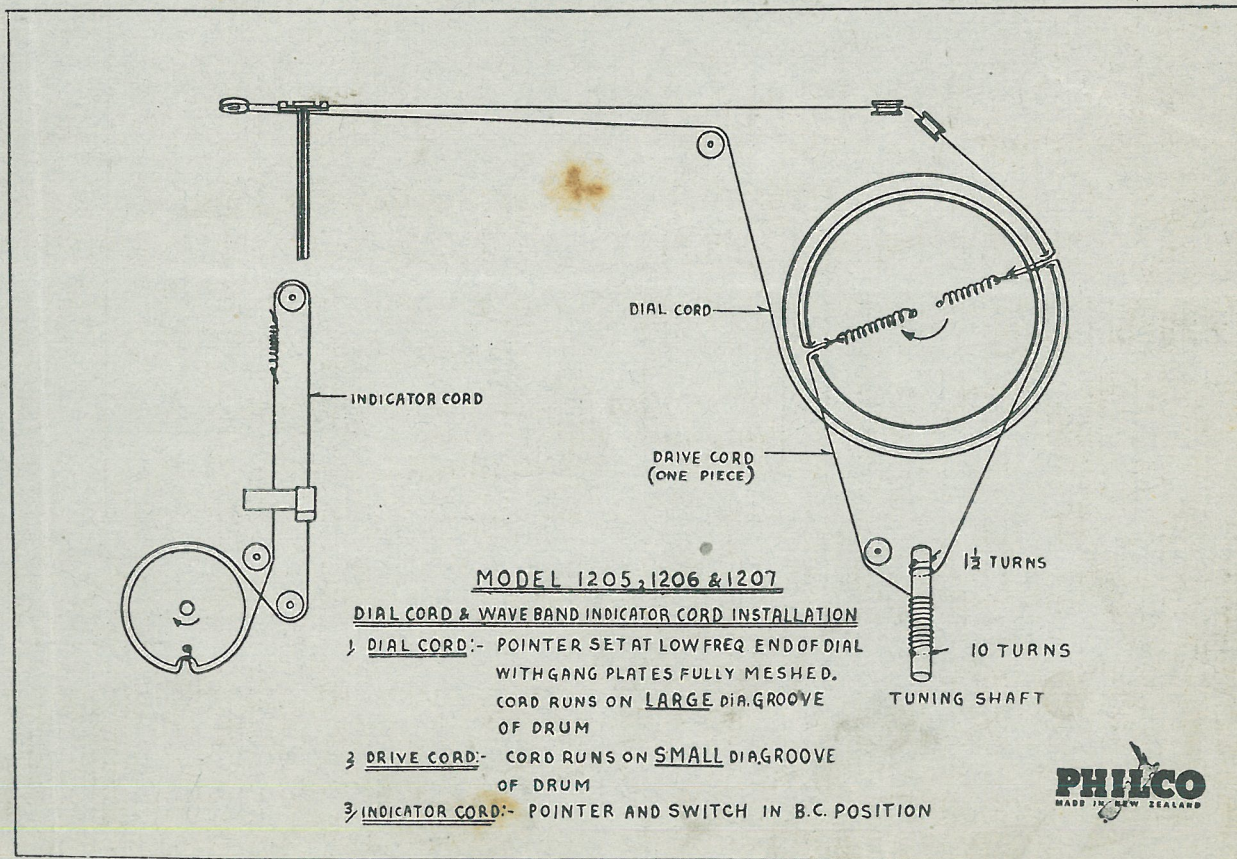
R.F. Amplifier	7A7
Converter	6K8GT/G
I.F.	6U7G
2nd Detector/Amplifier	6Q7GT/G
Phase Inverter	6J5
Output	6V6GT/G (2)
Rectifier	5Y3G

Power Supply: 230v. A.C., 50 cycles.

Power Consumption: 80 watts.

TUNING BAND FREQUENCIES:

Broadcast	550 K.C. - 1600 K.C.
S.W.1	2.5 M.C. - 7.5 M.C.
S.W.2	7.5 M.C. - 22 M.C.
Bandspread, 31 M.	9.4 M.C. - 9.8 M.C.
25 M.	11.5 M.C. - 12 M.C.
19 M.	14.9 M.C. - 15.5 M.C.
16 M.	17.3 M.C. - 18 M.C.
13 M.	20.9 M.C. - 21.8 M.C.



P7 AUG 1947

ALIGNMENT OF NORMAL TUNING RANGES.

Equipment Required:

Signal Generator and Dummy Aerial. (If a standard dummy aerial is not available, use a 200 mmfd condenser in series with generator output for broadcast frequencies, and a 400 ohm resistor in series for short-wave frequencies.)

Output Meter or Vacuum Tube Voltmeter. (The output meter may be connected to any convenient source of audio, such as the speaker voice coil or the V.T.V.M. can be used to measure the D.C. voltage across the A.V.C. resistor.)

Alignment of Normal Ranges:

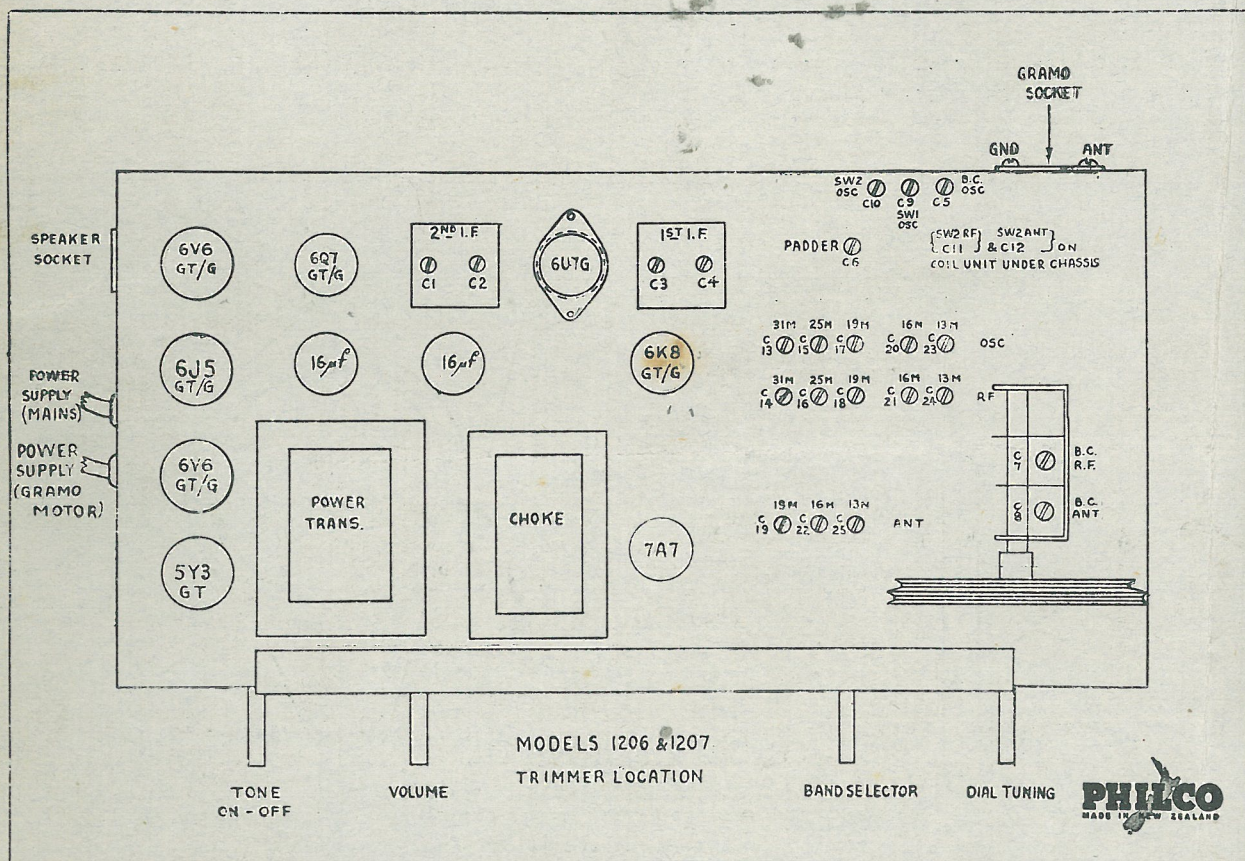
(1) I.F.—Connect signal generator to fixed plates of the centre section of the gang through a .1 mfd Condenser with gang fully open and volume control at maximum, tone control high. (Note: These control settings are maintained throughout the whole alignment procedure.) Tune signal generator to 455 K.C. and trim condensers C1, C2, C3 and C4 in that order for

maximum output, keeping output of generator at minimum consistent with a readable indication on the meter. Repeat this procedure and check for correct alignment by tuning generator through resonance to see that there is only one peak of correct frequency.

(2) Broadcast. (Note: See that dial pointer is set to the calibration mark at the low frequency end of the dial.) Connect the generator to the aerial terminal and adjust C5 at 1400 K.C. Adjust C6 at 600 K.C., rocking gang for maximum output. Return to 1400 K.C., check C5 and adjust C7 and C8 for maximum output.

(3) S.W.1.—Set generator and receiver to 6 M.C. (using dummy aerial or 400 ohm resistor), and adjust C9, rocking gang for maximum output. (Check for image at 6.91 M.C. on generator.)

(4) S.W.2.—Set generator and receiver to 18 M.C. Adjust C10 (checking for image at 18.91 M.C. on generator). Adjust C11 and C12 for maximum output (these trimmers are located on the coil unit under the chassis).



CHECKED
APPROVED
No. 1498

DOMINION RADIO & ELECTRICAL CORP. LTD. AUCK. N.Z.

BLACK ROTOR AT FRONT OF WAFER
WHITE ROTOR ON UNDER SIDE OF WAFER
SWITCH IN B'DCAST POSITION

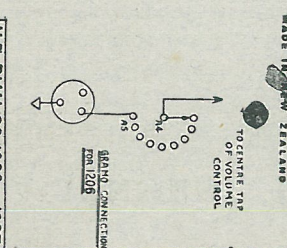
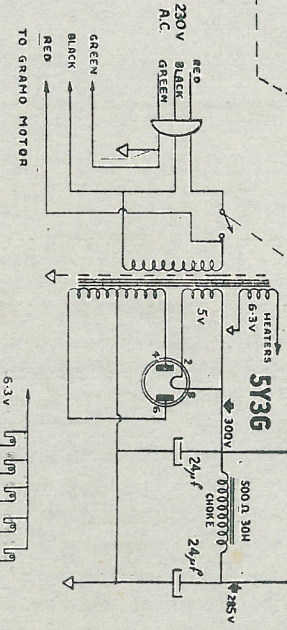
WAFERS VIEWED FROM FRONT OF CHASSIS
 BLACK ROTOR AT FRONT OF WAFER
 WHITE ROTOR ON UNDER SIDE OF WAFER
 SWITCH IN 0 POSN POSITION

ROTATION OF WAFERS

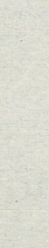
DOMINION RADIO & ELECTRICAL CORP LTD AUCK. N.Z.

I.F. 455 K.C.

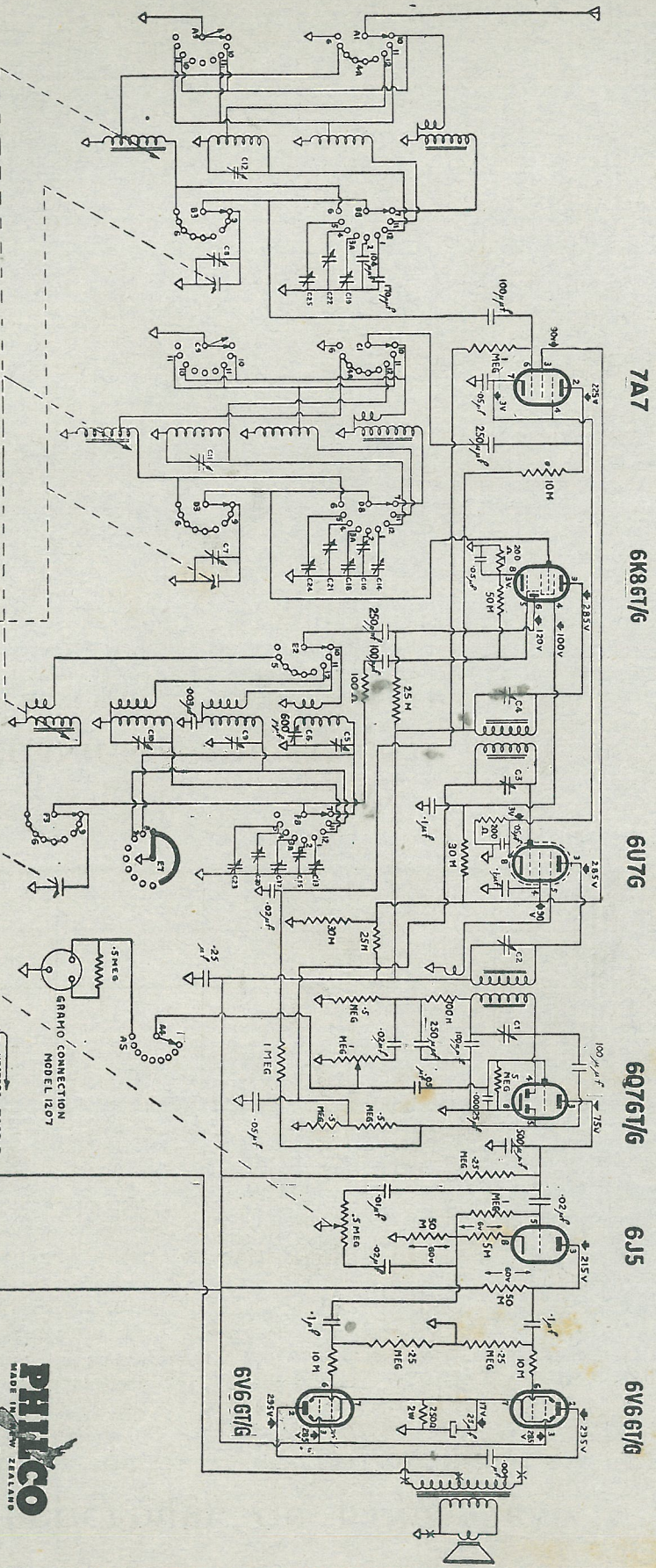
NOTE:-
 ALL VOLTAGE CAPACITY & RESISTANCE
 VALUES SHOWN ARE AVERAGE THE VOLTAGES
 GIVEN WERE MEASURED WITH A 20000
 OHM VOLT METER BETWEEN THE INDICATED
 POINTS AND CHASSIS, WITH THE
 VOLUME CONTROL AT MINIMUM AND
 THE TUNING-CONDENSER PLATES
 FULLY MESHED.
 THESE VOLTAGES ARE FOR
 230V. A.C. OPERATION



TO CENTRE THE
 OF VOLUME
 CONTROL



N.Z. PHILCO 1205 & 1207	
DRAWN	20.6.47
CHECKED	
APPROVED	No. 1498



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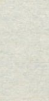
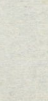
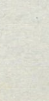
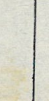
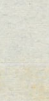
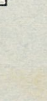
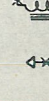
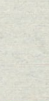
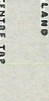
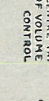
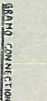
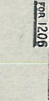
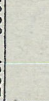
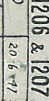
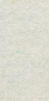
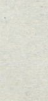
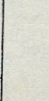
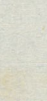
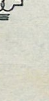
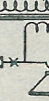
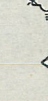
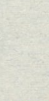
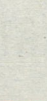
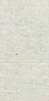
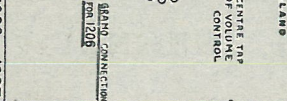
6K6GT/6

6U7G

6Q7GT/6

6J5

6V6GT/6



ALIGNMENT PROCEDURE ON BANDSPREAD.

Complete alignment of the bandspread circuits of these receivers requires a good signal generator, together with a crystal calibrator. However, the calibration of these bands can be checked by comparison with short-wave broadcast stations of known frequency, and the signal generator calibration can be accurately checked by beating its output with the receiver tuned to a station of known frequency on the normal S.W.2 band. This method is useful for approximate positioning of the oscillator on these bands. (Note: A change of converter tube will alter the alignment of these circuits.)

IMPORTANT.—On all spread bands for Models 1206 and 1207, the oscillator frequency is above the signal frequency, i.e., normal. (Image will be .91 M.C. higher on generator scale.)

If it becomes necessary to re-align these bands, the following procedure is recommended:—

Adjust oscillator trimmer condenser until a station of known frequency is identified in its correct position. Beat the signal generator with this station and check for image .91 M.C. higher on generator scale. Then adjust R.F. and Antenna trimmers on noise. (It is important to check that the image signal is weaker than the fundamental.)

NOTE.—There are no Antenna trimmers on the 31 and 25-metre bands.

	31M	25M	19M	16M	13M
Osc.	C13	C15	C17	C20	C23
R.F.	C14	C16	C18	C21	C24
Ant.	—	—	C19	C22	C25

MECHANICAL ADJUSTMENT

The position of the iron cores in relation to the coils has been very carefully set and these should not be moved unless it is absolutely necessary. With

the gang condenser fully open, the distance the core protrudes beyond the end of the coil former is 3-16in. for all coils.

7 AUG 1947

DOMINION RADIO & ELECTRICAL CORP. LTD.

RADIO & ELECTRICAL ENGINEERS & MANUFACTURERS



*Broadway, Newmarket,
Auckland, New Zealand*

4th July, 1947.

PRODUCTION CHANGE

PHILCO RADIO RECEIVERS, MODELS 1205, 1206, 1207.

As a precautionary measure to prevent the possibility of cabinet veneer cracking due to heat from the rectifier tube in these models, asbestos sheets size 6" x 4" are now being fitted inside the top of the cabinets above the rectifier. If any of these models have been received without this protective sheet, we would strongly advise that it be fitted.

The asbestos should be mounted with one end resting on the ledge above the dial bracket and should be tacked to the top of the cabinet so as to protect the cutaway portion of the plywood at the top bend of the cabinet front.

If you have no suitable asbestos, the factory will supply sheets cut to size upon request.