

**PHILCO**  
MADE IN NEW ZEALAND

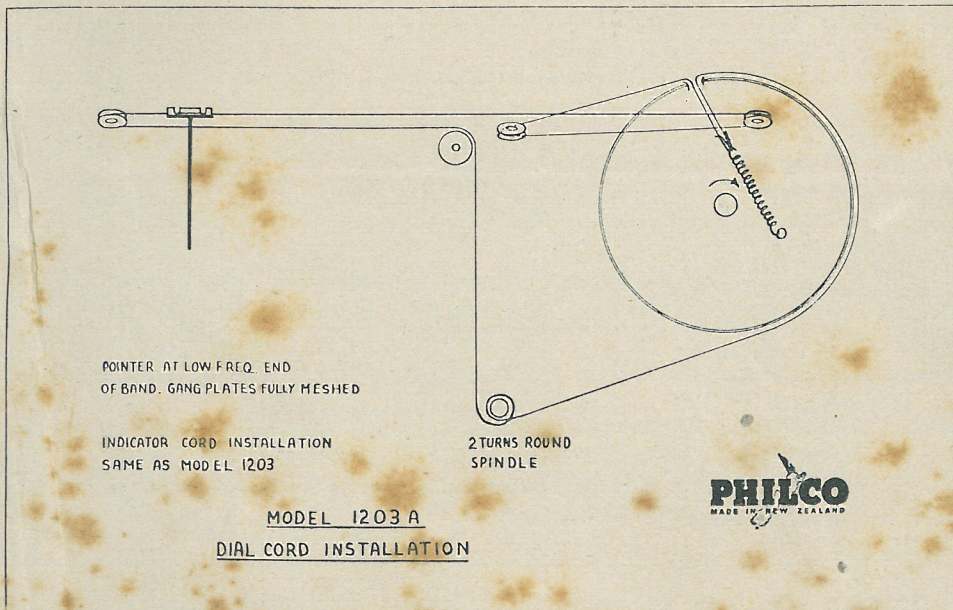
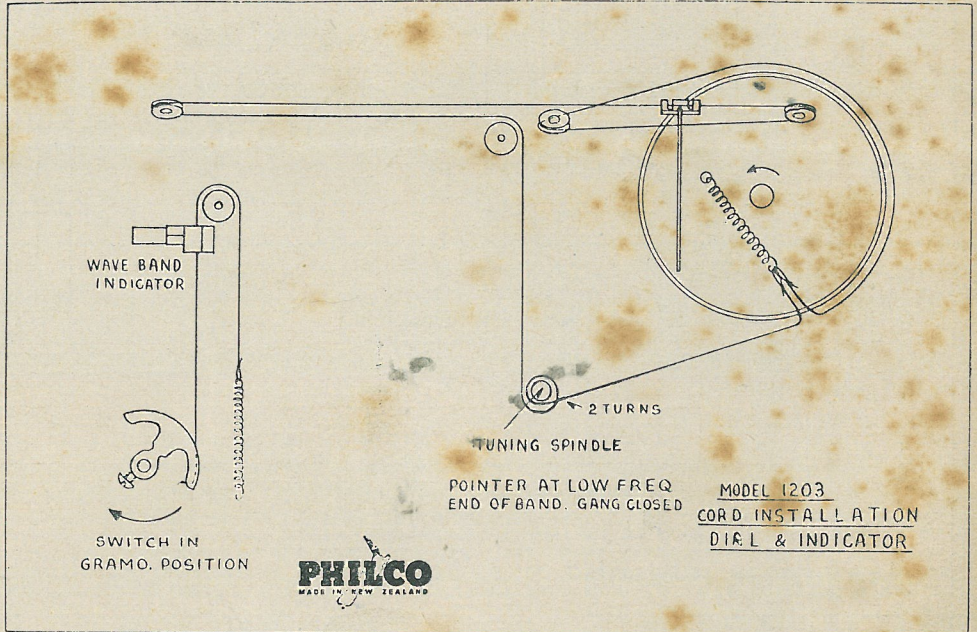
# Models 1203 and 1203A

## SPECIFICATIONS

### Type of Circuit and General Description:

Model 1203 is a powerful five-tube superheterodyne radio-gramophone combination, having three tuning bands with frequency ranges of 550-1600 K.C. on broadcast, and continuous coverage of 3 M.C. to 22 M.C. on the other two bands. The gramophone unit consists of an induction motor with automatic stop mechanism and magnetic type pick-up. A "Gramo" position is included at one extreme of the wave-change switch, and effectively switches cut the radio section of the receiver for operation on records.

Model 1203A is similar to Model 1203, the only difference being the type of gang condenser used. Model 1203A uses an upright gang of opposite rotation to 1203;



consequently the dial scale calibration is also opposite in direction.

### Tubes:

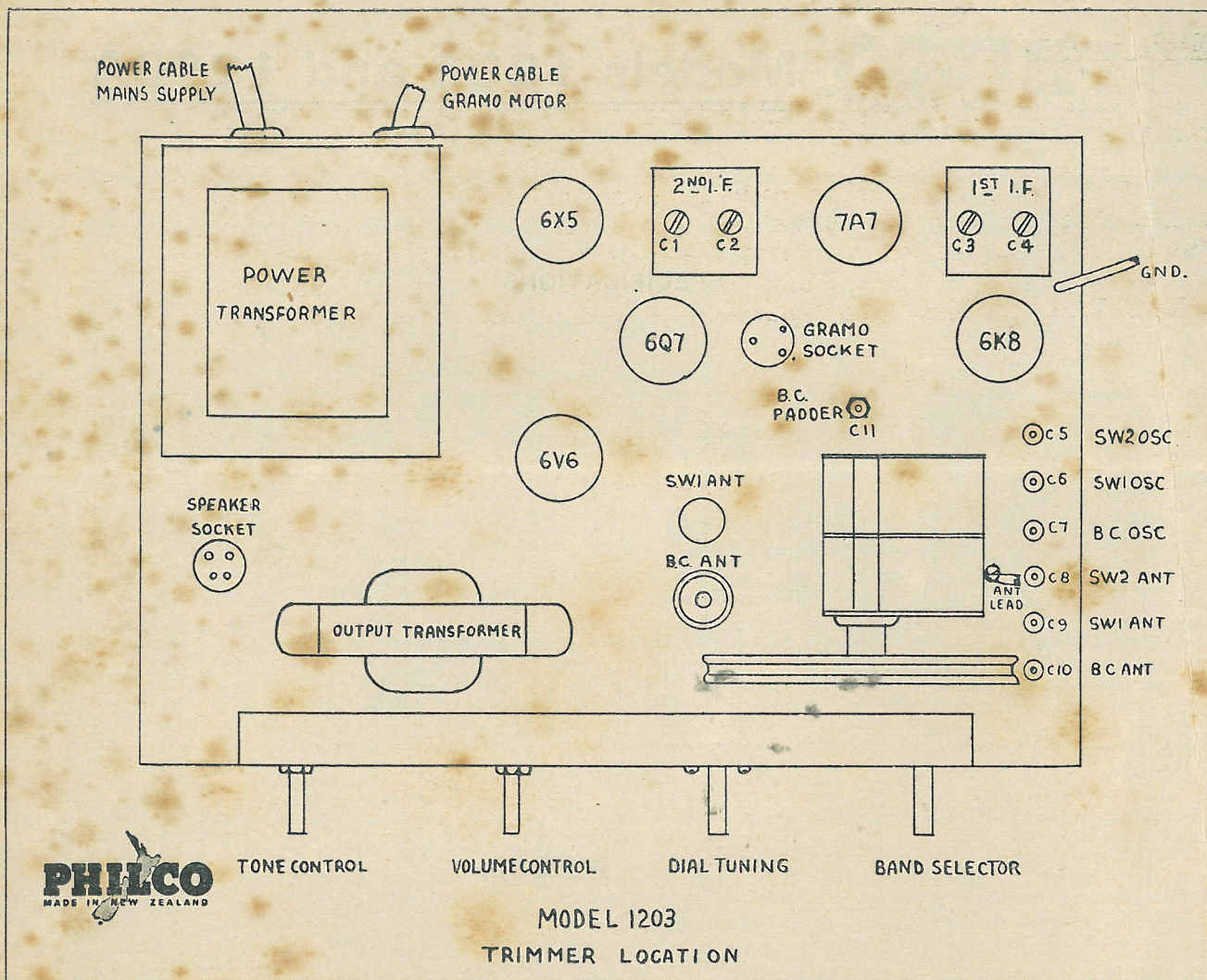
Frequency converter	---	6K8GT
I.F. Amplifier	---	7A7
Detector and 1st audio	---	6Q7GT
Output	---	6V6GT/G
Rectifier	---	6X5GT/G

### Tuning Band Frequencies:

Broadcast	---	550-1600 K.C.
Short Wave 1	---	3-9 M.C.
Short Wave 2	---	8-22 M.C.
Intermediate Frequency:		455 K.C.

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

Power Consumption:  
40 watts



## ALIGNMENT PROCEDURE

### Equipment Required:

- All-wave Signal Generator.
- Output Meter.

(N.B.—Before commencing alignment, it should be remembered that the receiver has been correctly aligned at the factory, and only small adjustments should be required except in extreme cases involving the replacement of components directly affecting the tuned circuits.)

- (1) Connect output meter across output transformer secondary at speaker socket, and signal generator to signal grid of 6K8G through a .1 mfd. condenser. Set generator at 455 K.C. Turn volume control to maximum.
- (2) With switch in B.C. position and gang fully open, adjust trimmers 1, 2, 3 and 4 in that order for maximum output. Repeat the procedure and check for correct alignment by tuning generator through resonance to observe that there is only one peak of correct frequency.
- (3) For alignment of the R.F. section of the receiver, a standard dummy aerial should be used; if this is not available, use a 400 ohm resistor between generator and receiver for short wave bands, and a 200mmfd condenser for broadcast frequencies.
- (4) See that dial pointer is correctly lined up at the extreme low frequency end of the dial with gang closed.
- (5) For all subsequent adjustments, the generator is connected to the aerial wire of the set through the appropriate termination.
- (6) Set switch to B.C. and tune generator and receiver to 1400 K.C. Adjust C7. Set generator and receiver to 600 K.C.—adjust C11 rocking gang for maximum output—return to 1400 K.C. and readjust C7 for frequency and C10 for maximum output.
- (7) Set switch to S.W.1 and generator and receiver to 7 M.C.—adjust C6 for frequency and C9 for maximum output (check that the weaker image signal appears higher on the generator scale, i.e., 7.91 M.C.).
- (8) Set switch to S.W.2 and generator and receiver to 18 M.C. Adjust C5 for frequency—check for image as in (7). Adjust C8 for maximum output.

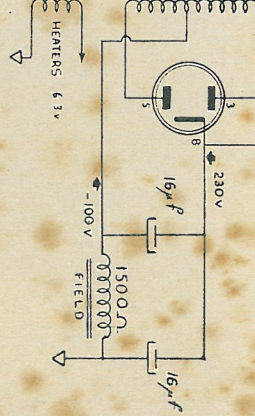
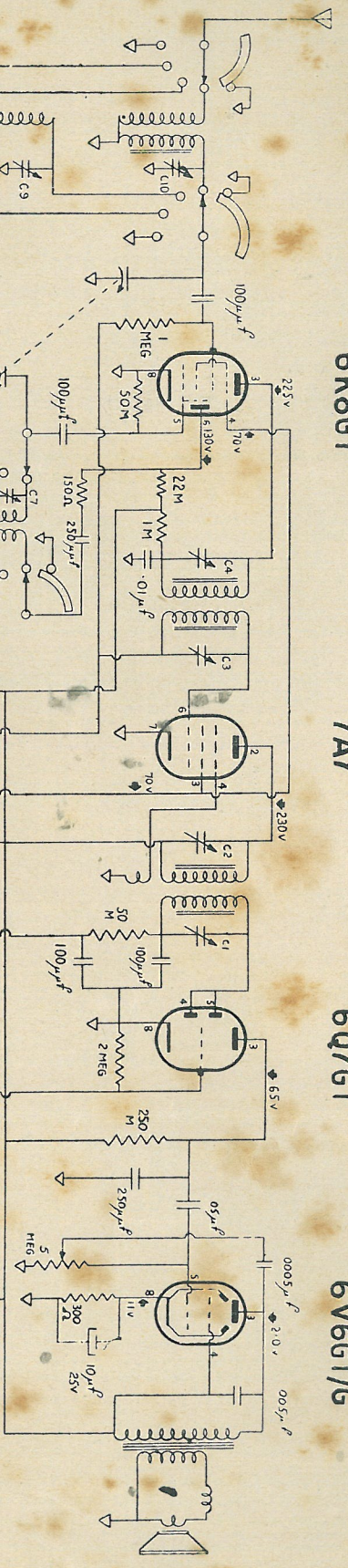
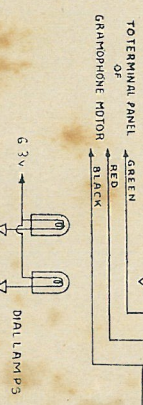
N.Z. PHILCO 1203 & 1203A		
DRAWN	B.P.	11-2-47
CHECKED		
APPROVED		No 13718

ALL VOLTAGE CAPACITY AND RESISTANCE VALUES SHOWN ARE AVERAGE. THE VOLTAGES GIVEN WERE MEASURED WITH A 20,000 Ω PER VOLT METER BETWEEN THE INDICATED POINTS & CHASSIS, WITH THE VOLUME CONTROL AT MINIMUM & THE TUNING CONDENSER PLATES FULLY MESHED (MAIN INPUT 230V)

I.F. 455 K.C.  
SWITCH IN B.C. POSITION



DOMINION RADIO & ELECTRICAL CORP LTD AUCKLAND N.Z.



**PH**  
MADE IN U.S.A.

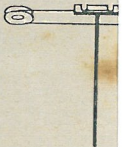
MODEL 1201A

Audio feedback from the Gramo unit usually due to a resonance in the tone arm - often cured by tightening the nuts holding the crystal cartridge or by loosening the tension of the spring clips holding the tone arm.

Type of Circuit and  
General Description

Model 1203 is a five-tube super-radio-gramophone unit, having three bands with frequencies of 550-1600 K.C. on and continuous coverage from 3 M.C. to 22 M.C. on two bands. The gramophone unit consists of an motor with automatic mechanism and a type pick-up. A position is included extreme of the w switch, and switches cut the radio of the receiver for on records.

Model 1203A is Model 1203, the difference being the type condenser used. 1203A uses an approach of opposite rotation



POINTER AT LOW  
OF BAND. GANG P

INDICATOR CORD  
SAME AS MOD

MODEL 1201A.

Loss of Sensitivity - Due to Similar Causes  
to Model 818.

The same method of curing loss of sensitivity due to A.V.C. line going positive was used on the last run of this model - the modification may easily be made by separating the two diodes of the 7C6 and connecting the spare one to A.V.C. line in the same manner as for Model 818.