DF91   DK40   DF91   OC71   OC71   2 x OC72

$I_c = -.7 mA$ $I_c = -1.4 mA$ $I_c = 2.5 mA$

600 KC

462 KC   462 KC   OA 85

OC71   OC71   2 x OC72

100 µF   150 Ω   5K

470K   100K   4.7K   47K

38 V

01

2MΩ   001   1/5   4.7MΩ   47K   10S   001   16 µF   05   15K   1K   680   56

100   500K   10K   10K   100

100K   3.3MΩ   430   1MΩ

36 V

67.5 V

.1µF   15K 1W   16 µF

10S   ON   OFF   100 µF   95 Ω   4.2 V

67.5 V   9V   IF DF91   RF DF91   DK40   .1 µF

DC MEASUREMENTS WITH
20.000/V METER
OFF STATION VOLTAGES APPR.
ALL RESISTORS ½ W UNLESS
OTHERWISE STATED.
INDICATED COLLECTOR CURRENTS
ARE QUIESCENT CURRENTS.

HYBRID PORTABLE

Maitland Radio Co. Ltd.

RED SPOT

EMITTER   BASE   COLLECTOR

BASE CONNECTIONS
OC71 & OC72

MODEL	DWN. 20/11/57
34 P7	CH'D. 20/11/87
Nº 5B-107	
BELL RADIO AND T.V. CORP.	

34 P7   Hybrid (new)

IF valve DF91

RF
Amplifier DF91

Mixer DK40

AERIAL

RF

OSCILLATOR

SPEAKER

TONE
CONTROL
Preset Contr.
Base Curr.
Output transistors
2 x OC72

2 x OC71

ON/OFF switch

1st IF
transformer

2nd IF
transformer

B BATTERY
67.5 v

A BATTERY 9 v

RF
Interstage Coil Oscillator
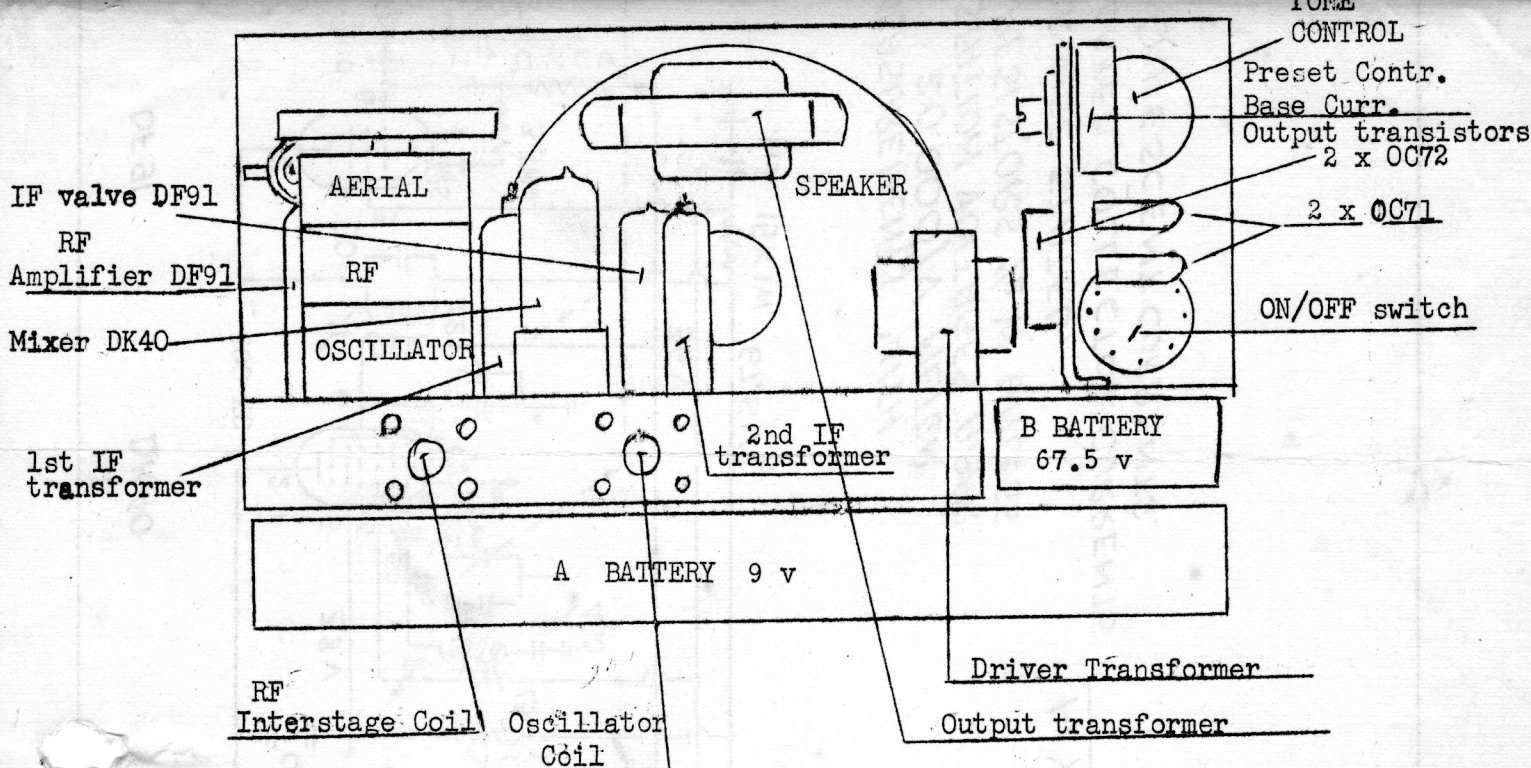Coil

Driver Transformer
Output transformer

BACK VIEW

ALIGNMENT INSTRUCTIONS

1. Remove back half of carrying case from chassis by undoing handle screws and
      screws at back.   Leave loop aerial connected to set.
2. Connect a signal generator to the coupling link of the loop aerial.   Insert
      a milliamp-meter (range 10 milliamps) in the centre-tap of the priamary of
      the output transformer.
3. Short oscillator gang condenser to ground.
4. Adjust signal generator to the IF frequency 462 Kc/s.   Turn volume control to
      the off position.   Switch set on.   Adjust potentiometer, connect it to the
      centre-tap of the secondary of the driver transformer, until meter reads
      between 2½ and 3½ milliamps.
5. Turn volume control full on.   Adjust output of signal generator, until a meter
      indication is obtained.
6. Adjust the iron cores of the IF transformers starting from the diode side
      working towards the front end of the receiver.   Reduce output of signal
      generator to a minimum while aligning receiver.   Repeat these adjustments
      until no further improvement of meter readings results.
7. Remove oscillator gang condenser short.   Adjust signal generator to six hundred
      Kc/s.   Tune dial to "6" on dial scale.   Adjust slug of L3 for maximum
      sensitivity.
8. Tune dial to "14".   Switch signal generator to 1400 Kc/s and adjust trimmer
      across the oscillator gang section for maximum reading on meter.
9. Repeat process mentioned under 7 and 8 until "6" and "14" on dial scale fall
      in line.
10. Follow same proceedure for the RF interstage coil L2 and aerial coil L1.
11. Seal slugs and trimmers with a suitable polystarene cement.
12. Put chassis back into cabinet and make overall sensitivity check for weak
      stations.

        The resistor in the emitter of the first OC71 stage which is at present
1.5K is to be increased in value 4.7K.   In addition a resistor of 12 ᴧ is to be
placed between the OC72 emitters (which are tied together) and positive of the battery.

        After this alteration it will be necessary to adjust the collector current
in the OC72 output stage to 3 MA on no signal