MODEL - BQL

FOR OPERATION FROM:

200-240 Volt 40 or 50 Cycle AC. Mains (Power Transformer T202)
Power trans. Primary Tap-red-common
" " " " -green-200 Volt mains.
" " " " -black-230 & 240 Volt mains

200-250 Volt 40 or 50 Cycle AC. Mains (Power transformer T203)
Power trans. Primary Tap-red-common
" " " " -green-200 Volt mains.
" " " " -black-230-240 Volt mains
" " " " -white-250 Volt mains

NOTE: Record changer drive pulley for 40 cycle mains operation is Part No: 846/524

POWER CONSUMPTION:

Radio Operation - 50 Watts-approx.
Gramo Operation - 75 Watts-approx.

TUNING RANGE: 535-1640 Kc/s. - 560.7-182.9 Metres.

ALIGNMENT PROCEDURE.

EQUIPMENT

Signal Generator: Modulated 400 CPS.
Output Meter :
Mica Capacitor : 0.01MF. (for IF. trans. alignment)
Dummy antenna : 200MMF Mica Capacitor
Alignment Tools :
(a) type M195 for IF. transformer alignment.
(b) type PM581 for broadcast trimmer alignment

ALIGNMENT CONDITIONS

Output Meter: Connect output meter across secondary winding of one output transformer

Output Level: 50 milliwatts speaker voice coil disconnected
20 milliwatts speaker voice coil connected

Output Meter Impedance: 4 Ohms.

Vol. Control: Max. Vol. Fully clockwise

Intermed. Freq. 455 Kc/s.

Input Voltage: 230 Volts 50 Cycle AC. input to trans. 230-240 volt pri. tap.

Tone control : Treble position. Fully clockwise.

TRANSFORMER CONNECTIONS.

POWER TRANSFORMER.

PART NO. T202 40 & 50 cycle mains

PRI. Red lead - Common
" Green lead - 200V mains
" Black lead - 230 & 240V mains

Electro-static shield joined internally to centre tap of HT. secondary.

HT. Secondary

Start - Blue lead
Centre tap - yellow lead
Finish - Blue lead

LT. Secondary

Start and finish in winding wire

PART NO. T203 40 & 50 cycle mains

PRI. Red lead - Common
" Green lead - 200V mains
" Black lead - 230 & 240V mains
" White lead - 250V mains

HT. Secondary

Start - Blue lead
Centre tap - yellow lead
Finish - Blue lead

LT. Secondary

Start and finish in winding wire

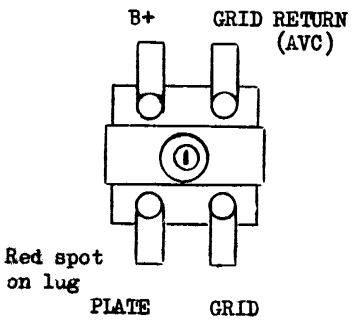
ANTENNA COIL

Start of winding - furthest from mounting end - Junction of Circuit No. 2, 41 and antenna.
Finish of winding - nearest to mounting end - Junction of Circuit No. 1, and 3

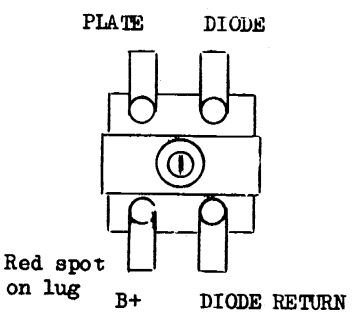
OSCILLATOR COIL.

Start of winding - furthest from mounting end - Junction of Circuit No. 6 and 8
Finish of winding - nearest to mounting end - Junction of Circuit No. 5 7, 43, and 44.

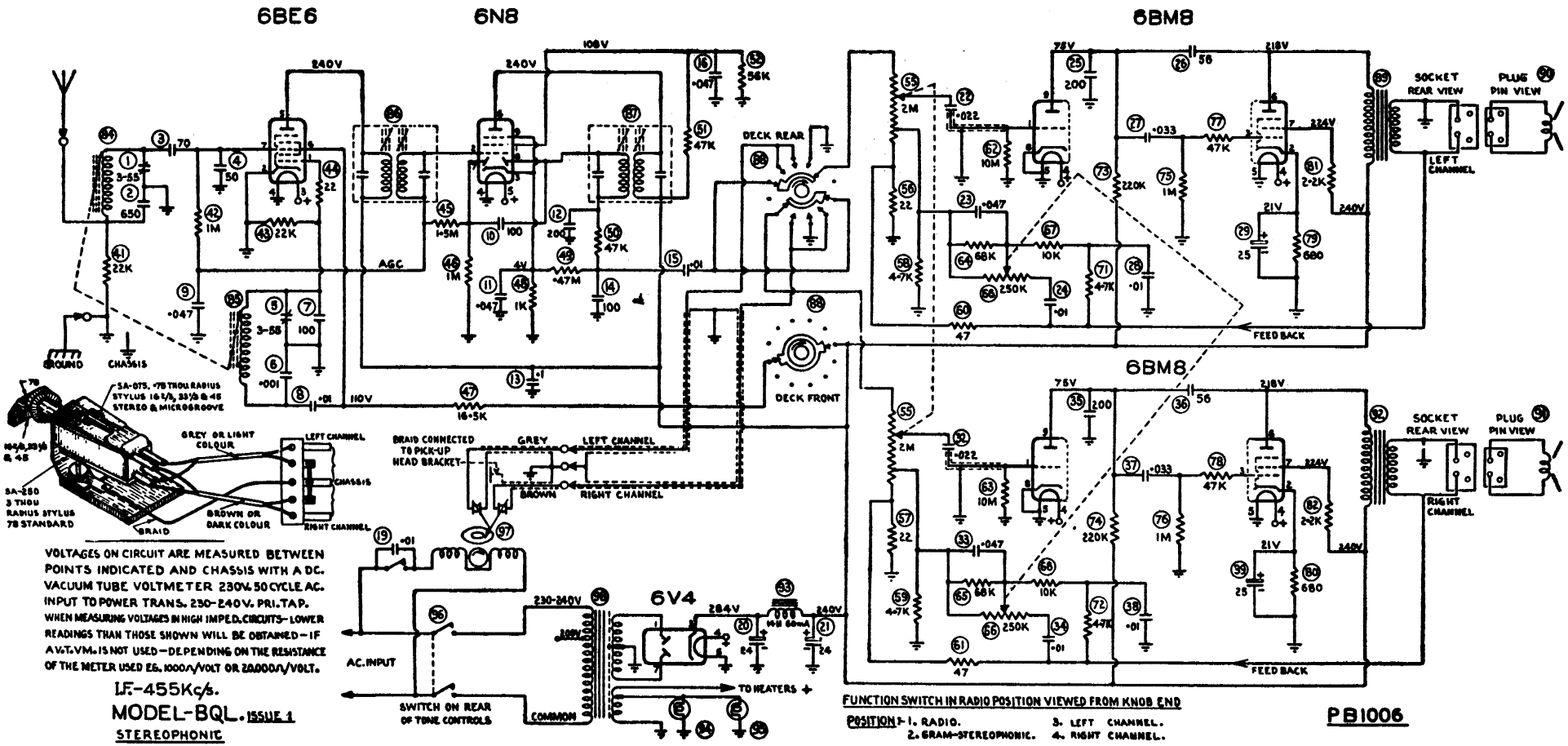
1ST I.F. TRANS.



2ND I.F. TRANS.



A22. ASTOR MODEL BQL.



Open lid of cabinet and secure pick-up arm under rest pillar clip.

Remove the screws fastening the rear panel then remove panel from cabinet.

With the rear of the cabinet toward operator place the cabinet on to a table so that end of the cabinet adjacent to the record changer is against the flat surface of the table.

IF. TRANSFORMER ALIGNMENT.

Oper No.	Generator Connection	Generator Frequency	Dummy Antenna	Instructions
1.	To signal grid of 6N8 IF. valve pin No. 2	455 Kc/s.	0.01MF Mica capacitor in series with generator.	Turn gramo-radio switch to radio position. Leave grid wire attached to valve socket. Peak 2nd IF. trans. pri. and sec. for max. output.
2.	To signal grid of 6BE6 valve pin No. 7.	455 Kc/s.	0.01MF Mica capacitor in series with generator.	Turn perm. tuner so that iron cores are fully out of winding and the unit is hard against the stop. Leave grid wire attached to valve socket. Peak 1st. IF. trans. pri. and sec. for max. output.
3.				Repeat operations 1 and 2.

TUNING DISC SETTING.

Insert a sharp pointed thin spike in hole in gold coloured metal cover in centre of moulded tuning disc, then lever cover out of the disc.

Loosen the three $\frac{1}{4}$" x 3/32" Whit. csk. hd. screws fastening the washer in centre of tuning disc.

Turn the tuning spindle anti-clockwise until perm tuner unit iron cores are out of windings on coil formers and unit is hard against stop.

Set the centre of the indicator line on the tuning disc to align with the centre of the end of travel spot near 1700 Kc/s, on the dial reading.

Securely tighten the three 3/32" screws in centre washer then refit cover to the centre of tuning disc.

BROADCAST ALIGNMENT

NOTE: 1

Both iron cores in the perm. tuner unit are pre-set at the factory to an exact dimension of 2.275" between the extreme end of the former protruding through the rubber grommet and the end of the iron core in the former, when the unit spindle is turned fully anti-clockwise and is hard against the stop,

If incorrect logging and misalignment are to be avoided, no adjustment of the iron cores must be made to vary this dimension. Both iron cores must have the same colour identification spot on the end of the iron core.

NOTE: 2.

The 200 MMF Dummy antenna must be connected to the antenna junction lug on the chassis. Should an antenna be connected to the short antenna lead from the receiver it is to be disconnected or rolled into a small hank.

Oper. No.	Generator Connection	Generator Frequency	Dummy Antenna	Instructions
1.	To antenna junction lug on chassis	1000 Kc/s.	200 MMF mica capacitor in series with generator	Turn perm tuner and tuning disc. until centre of indicator line on tuning disc. aligns with centre of 1000 Kc/s spot on dial reading. Peak oscl. coil trimmer cond. then peak ant. coil trimmer cond.for maximum output. Repeak oscl. coil trimmer cond.
2.	Check logging at each end of tuning dial.			
	Tuning range after alignment 535 to 1640 Kc/s.			

AUDIO AMPLIFIER GAIN TEST

Oper. No.	Generator Connection	Generator Frequency	Instructions
1.	To antenna junction lug on chassis	1000 Kc/s.	(A) Connect output meter across secondary winding of one channel output transformer.
			(B) Tune receiver to generator 1000 Kc/s signal.
			(C) Adjust signal input until output meter reads 20 milliwatts (volume control turned maximum clockwise, speaker voice coil connected).
			(D) Leave input signal set at this level. Disconnect output meter and then connect output meter across the secondary winding of the other channel output transformer and note the output meter reading. (volume control turned maximum clockwise, speaker voice coil connected.)
			(E) The difference in output between the amplifier channels must not exceed 7 milliwatts.