



RADIO CORPORATION PTY. LTD.

DIVISION OF ELECTRONIC INDUSTRIES LTD.

126-130 GRANT STREET, SOUTH MELBOURNE, S.C.4.

Bulletin: HQ-2

File: Receivers AC.

Date: 4/6/51.

TECHNICAL BULLETIN

Page 1.

SUBJECT :

6BE6 CONVERTER TUBE

The type 6A8G converter tube used in the Model "HQ" receiver has been changed to a type 6BE6 converter tube.

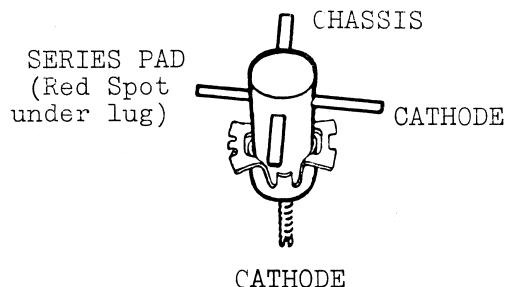
A new circuit using a 6BE6 tube in the converter stage is shown on page two of this service sheet.

The socket connections and new components required for the 6BE6 tube and the connections for the new oscillator coil are detailed below:--

NEW COMPONENTS

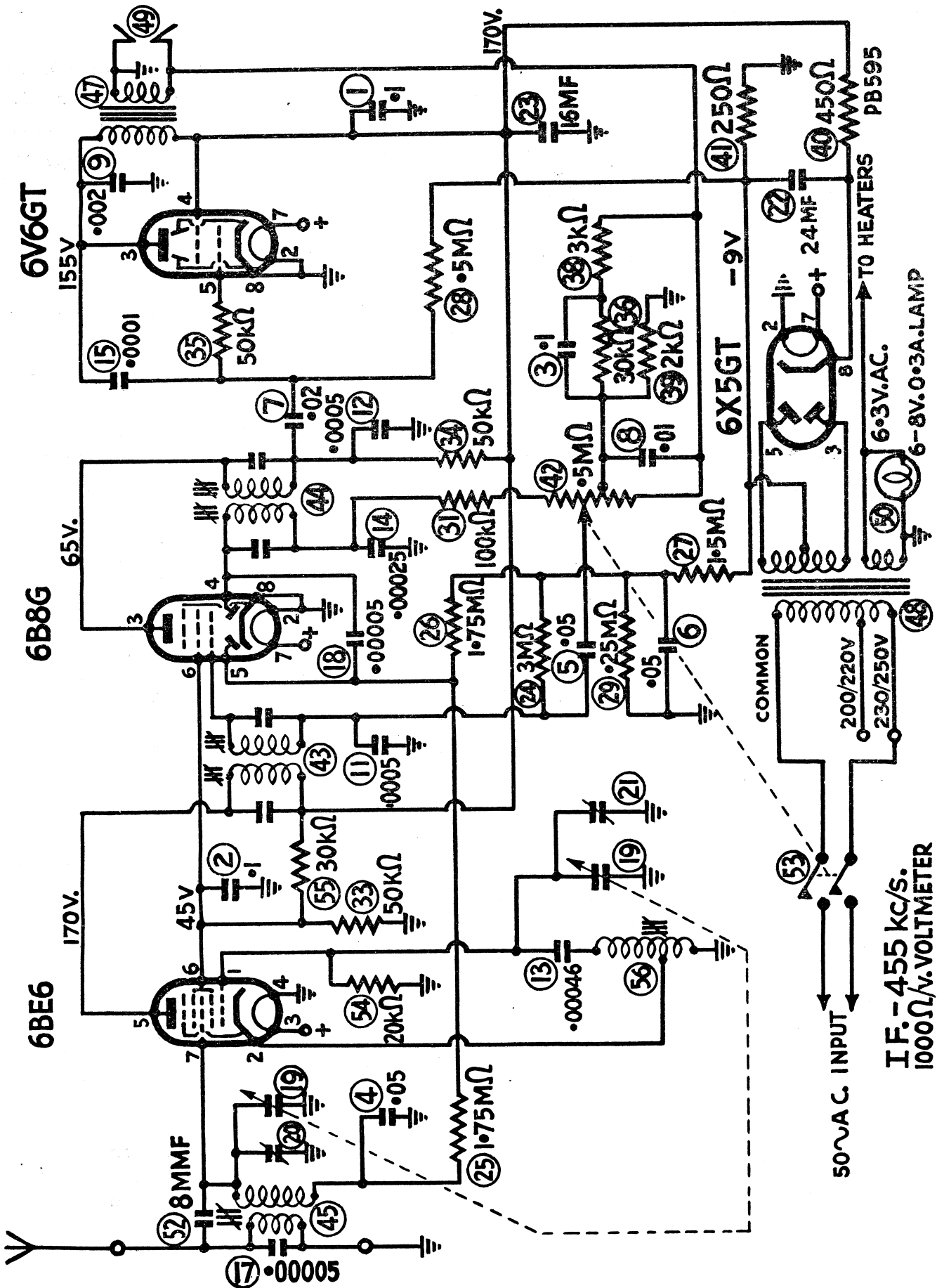
<u>Circuit No.</u>	<u>Description.</u>	<u>Part No.</u>
	7 pin socket	A104/58
	Socket Mount Plate	15/698
	Eyelets-socket mounting	2/291-1
	Eyelets-adaptor plate mtg.	4/291
54	20,000 Ohm $\frac{1}{2}$ watt resistor	PR166
55	30,000 Ohm 1 watt resistor	PR156
	6BE6 tube	-
56	Oscillator coil	PT859

OSCILLATOR COIL CONNECTIONS



6BE6 SOCKET CONNECTIONS

Pin No. 1.	Osc. grid	Pin No. 4.	Heater
" " 2.	Cathode	" " 5.	Plate
" " 3.	Heater	" " 6.	Screen
	Pin No. 7.		Signal grid



I.F. - 455 KC/S.
1000Ω/V. VOLTMETER



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BULLETIN HQ-3.

File:--Receivers AC.

Date: 7/3/52.

Page 1.

CIRCUIT COMPONENT CHANGE

To improve the power output on strong signals with current production 6B8G valves the following circuit components have been changed-

A. Circuit No. 24, a 3 Megohm resistor changed to a 1.5 Megohm carbon resistor, tol. $\pm 10\%$, $\frac{1}{2}$ Watt, Part No. PR388, new circuit No. 57.

B. Circuit No. 27, a 1.5 Megohm resistor changed to a 1 Megohm carbon resistor, tol. $\pm 10\%$, $\frac{1}{2}$ Watt, Part No. PR246, new circuit No. 58.

CIRCUIT MODIFICATION

The end of the 1.75 Megohm AVC bias filter resistor circuit No. 25 which is connected to the 6B8G valve diode (pin No. 5) and the junction of the .00005 MFD. condenser Circuit No. 18 and the 1.75 Megohm filter resistor circuit No. 26 has been changed from this position and is connected to the junction of the volume control and the 100,000 Ohm. resistor circuit No. 31.

This change applies simple AVC to the converter valve instead of delayed AVC bias.

DIAL-KNOB ASSEMBLY

Early production of the Model "HQ" receiver had the dial reading and the tuning knob as a complete moulding and which was a push-on fitting to the varb. cond. drive shaft. Part numbers for these dials are listed in Service Bulletin HQ-1.

This moulding has been changed so that the dial reading and the push-on tuning knob are separate parts. From the outside of the cabinet the dial reading position before being tightened to the bush on the drive spindle with screws can be varied for more accurate logging. Wobble when the dial reading is turned has been eliminated.

NEW COMPONENTS USED WITH THE NEW DIAL ASSEMBLY

Part No.

Variable condenser with different drive assembly	PC853
Drive spindle bush	29/755
Drive spindle bush grub screw (2) $\frac{1}{4}$ " x $5/32$ " Whit.	30/560-7
Dial reading N.S.W.	26/755-2
" " Vic. - Tas.	26/755-3
" " Q'land	26/755-4
" " S.A. - W.A.	26/755-5
Dial locating washer	30/755
Dial locating washer fastening screws (3) $\frac{1}{4}$ " x $3/32$ " Csk. Hd. Whit.	5/560-4
Paper washer-behind knob	6/449-4
Felt washer-between knob and paper washer	79/300-1
Knob circlip	22/755
Knob	27/755



TECHNICAL BULLETIN

6AD8 VALVE SUBSTITUTE FOR 6B8G VALVE

The next production run of the Model "HQ" Receiver will use a 6AD8 valve in place of the 6B8G valve. The change is due to 6B8G valves being in short supply. Modifications to the circuit and circuit components are as follows-

1. The diode end of the 1.75 Megohm A.V.C. bias filter resistor circuit No. 25 is connected to the junction of the 100,000 Ohm. resistor circuit No. 31, the .00025 MFD. Cond. and the 2nd I. F. Transformer, circuit No. 44.
2. Circuit No.31. a 100,000 Ohm. resistor is changed to a 50,000 Ohm. carbon resistor, tol. $\pm 10\%$ $\frac{1}{2}$ watt, Part No. PR160, new circuit No. 59.

VALVE SOCKET CONNECTIONS

	6B8G	6AD8
Pin No. 1	Chassis	Screen Grid
" " 2	Heater-	Signal Grid
" " 3	Plate	Cathode-Chassis
" " 4	Diode	Heater+
" " 5	AVC Diode	Heater-
" " 6	Screen	Plate
" " 7	Heater+	AVC Diode
" " 8	Cathode-Chassis	Diode
" " 9		Suppressor Grid-Chassis

NEW PARTS REQUIRED:

	PART NO.
9-Pin Valve Socket	279/250
Valve Socket Adaptor Plate	33/698
6AD8 Valve	6AD8
50,000 Ohm., $\frac{1}{2}$ Watt Resistor	PR160

A new circuit diagram which shows a 6AD8 valve is on page 2.

6BE6

6AD8

6V6GT

170V.

65V.

155V.

170V

6X5GT -9V

50~AC INPUT

IF. - 455 Kc/s.
1000Ω/V. VOLTMETER

6-3V.AC.

6-8V.0.3A.LAMP

TO HEATERS PB 644

