



TECHNICAL DATA SHEET No.

48

Date

26/8/54

Issued by Engineering Division,
E.M.I. (Aust.) Pty.Ltd.,
2 Parramatta Road,
HOMEBUSH, N.S.W.

MODEL B61D

A further circuit change has been made in this model to provide greater sensitivity. The change commenced with Serial Number 15751, although some earlier chassis held in stock at the above date were modified before shipping. This Technical Data Sheet should be read in conjunction with Technical Data Sheet No. 47. Details of the change are as follows.

Half the original amount of feedback from the output transformer is now fed to the screen of the 1S5 demodulator and the diode of the demodulator is now connected to the top of secondary of the second I.F. transformer instead of the top as previously. Wiring details are shown below.

1. Remove the diode lead from pin 5 of the second I.F. transformer and resolder to pin 6.
2. Connect a lead to the tap on the secondary of the output transformer (tap connection in the form of a twisted lead brought out on the top of the winding on the output transformer) and wire to the vacant lug on the 5 tag panel located in the centre of the chassis. Disconnect the earthy end of the .1mf condenser C21 and rewire to the lug on the 5 tag panel which terminates the lead from the transformer tap.
3. On those receivers employing output transformers without a tapped secondary, the following modifications apply.
4. Disconnect the earthy end of the .1 mf condenser C21. Join two 50 ohm $\frac{1}{4}$ watt resistors in series and connect one end to the lug of the 3 tag panel where the earthy end of C21 was recently connected and the other end of the resistors should be connected to the earth lug of the 5 tag panel. Connect the earthy end of the .1 mf (C21) to the junction of the two 50 ohm resistors.
5. After the above modifications have been made, it will be necessary to realign the receiver following the instructions outlined in the B61D Service Manual. It will be found that the sensitivity has increased approximately by a ratio of 2 : 1

The schematic diagram illustrates a vacuum tube radio receiver circuit. It begins with an input transformer (IFT2) connected to a variable capacitor. The secondary winding of IFT2 is connected to the grid of the first vacuum tube, a 12X6 (labeled 126). The 12X6 tube's plate is connected to a 150V B+ supply through a 150K resistor (R12). The 12X6 tube's screen grid is connected to the B+ supply through a 100K resistor (R13). The 12X6 tube's control grid is connected to ground through a 100K resistor (R14). The 12X6 tube's cathode is connected to ground through a 100K resistor (R10) and a 100K resistor (R10). The 12X6 tube's heater is connected to a 6.3V AC source through a 100K resistor (R10) and a 100K resistor (R10). The 12X6 tube's plate is connected to the grid of the second vacuum tube, a 6X4 (labeled 6V4). The 6X4 tube's plate is connected to a 300V B+ supply through a 150K resistor (R12). The 6X4 tube's screen grid is connected to the B+ supply through a 100K resistor (R13). The 6X4 tube's control grid is connected to ground through a 100K resistor (R14). The 6X4 tube's cathode is connected to ground through a 100K resistor (R10) and a 100K resistor (R10). The 6X4 tube's heater is connected to a 6.3V AC source through a 100K resistor (R10) and a 100K resistor (R10). The 6X4 tube's plate is connected to the primary of a power transformer (T1). The secondary of T1 is connected to a 300V B+ supply through a 150K resistor (R12). The 300V B+ supply is connected to the 6X4 tube's plate through a 150K resistor (R12). The 300V B+ supply is connected to the 6X4 tube's screen grid through a 100K resistor (R13). The 300V B+ supply is connected to the 6X4 tube's control grid through a 100K resistor (R14). The 300V B+ supply is connected to the 6X4 tube's cathode through a 100K resistor (R10) and a 100K resistor (R10). The 300V B+ supply is connected to the 6X4 tube's heater through a 100K resistor (R10) and a 100K resistor (R10). The 300V B+ supply is connected to the 6X4 tube's plate through a 150K resistor (R12). The 300V B+ supply is connected to the 6X4 tube's screen grid through a 100K resistor (R13). The 300V B+ supply is connected to the 6X4 tube's control grid through a 100K resistor (R14). The 300V B+ supply is connected to the 6X4 tube's cathode through a 100K resistor (R10) and a 100K resistor (R10). The 300V B+ supply is connected to the 6X4 tube's heater through a 100K resistor (R10) and a 100K resistor (R10).

Hand-drawn schematic diagram of a vacuum tube circuit. The circuit includes a 3V4 vacuum tube, a transformer, and two 50 ohm resistors. A capacitor labeled 'c21' is connected to the top rail. The transformer has a primary winding connected to the tube and a secondary winding connected to the resistors. A ground symbol is shown at the bottom.

Alternative as in
paragraphs 4 and
5