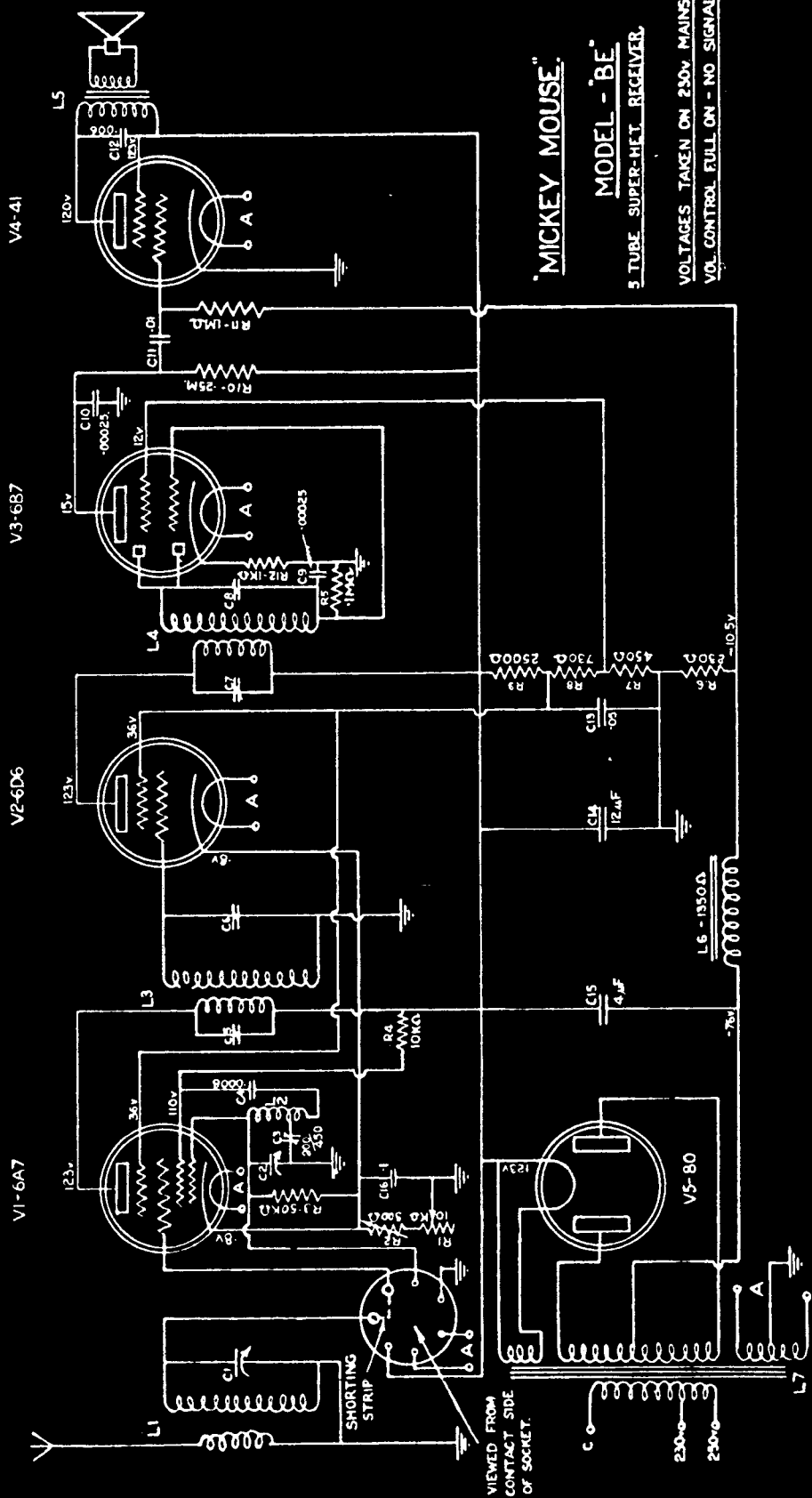


# "Astor" Mickey Mouse—Chassis type BE



Astor "Mickey Mouse," chassis type "BE," is a five-valve receiver designed for broadcast coverage and operation from 200-260 volts A.C. mains. This receiver is of the compact "midget" type and is fitted with two controls — volume (R1—10,000 ohms) and tuning. The loudspeaker fitted is a 5 inch unit with a field coil resistance of 1,350 ohms. A feature of this receiver is found in the provision of a 7-pin socket for connection of a short-wave converter unit—the "Oversea-er"—which enables the receiver to be operated on the 16-51 metres short-wave band. The connections to this socket are such that the valve (type 6A7) used in the "Oversea-er" receives all of its power supply from the "Mickey Mouse" pack. Inspection of the "Oversea-er" socket wiring will also reveal that the receiver 6A7 operates purely as an I.F. amplifier when the "Oversea-er" is connected; this means that the usual "short-wave adaptor" faults due to oscillator harmonics, etc., are eliminated.

Inspection of the general circuit arrangement of this receiver will show that the wiring is quite straightforward. No A.V.C. of the ordinary type is provided, but it will be found that the diode-biasing system employed for the type 6B7 second detector has quite an appreciable "levelling" effect on signals. Other points of interest in the circuit are the simplified oscillator circuit, and the low voltages which apply throughout the receiver. In connection with the latter, it should be noted that the total voltage developed between rectifier filament and H. T. secondary C.T. is almost exactly 200 volts. About 65 volts of this is dropped across the speaker field (in the negative return), another 10 volts or so is dropped across the bleed type power valve bias resistor, while the remaining 120 volts serves as high-tension.

Final points to note are that the two main filter condensers (C14 and C15) are both electrolytic units and are made up in one block; that R2 (300 ohms) is made adjustable so that the maximum sensitivity can be set by the installer; and that the I.F. used is exactly 456 KC.