

# INTRODUCTION

The Heathkit Model SB-301 Receiver is capable of receiving SSB, AM, CW, and RTTY signals on all amateur bands from 3.5 to 30 megahertz\*. Separate AM and CW crystal filters can be obtained. These crystal filters are switch selected from the front panel for these modes of operation to assure optimum selectivity and performance. If these optional filters are not obtained, AM signals are received using the exalted carrier method, and CW may be received in either SSB mode.

The preassembled, prealigned LMO (linear master oscillator) and crystal-controlled heterodyne oscillators assure highly accurate and stable operation. The use of circuit boards and a wiring harness provide a clean chassis layout.

Other features of this Receiver are special antenna and power connections for VHF converters, a 100 kilohertz crystal calibrator, provisions for 15 MHz WWV reception, for transceiver operation with the SB-401 companion Transmitter, and a smooth, virtually backlash-free, dial tuning mechanism. The transformer-operated silicon diode power supply is a long-life, low-heat power source.

\*This Manual uses the new IEEE (Institute of Electrical and Electronic Engineers) international standard term "hertz" as the basic unit of frequency. The terms are used as follows:

Hz (hertz) = cps (cycles per second).  
kHz (kilohertz) = kc (kilocycles per second).  
MHz (megahertz) = mc (megacycles per second).

BAND	HETERODYNE OSCILLATOR FREQUENCY (CRYSTAL FIXED)	RECEIVED SIGNAL FREQUENCY	PASSBAND SIGNAL FREQUENCY (BETWEEN 8.395 AND 8.895)	LMO MIXER OUTPUT CRYSTAL FILTERS AND IF (FIXED)	LMO (BETWEEN 5 AND 5.5 MC)
3.5 to 4	12.395	3.895	8.5	3.395	5.105
7 to 7.5	15.895	7.2	8.695	3.395	5.3
14 to 14.5	22.895	14.2	8.695	3.395	5.3
15.0 to 15.5	23.895	15.2	8.695	3.395	5.3
21 to 21.5	29.895	21.3	8.595	3.395	5.2
28 to 28.5	36.895	28.1	8.795	3.395	5.4
28.5 to 29	37.395	28.7	8.695	3.395	5.3
29 to 29.5	37.895	29.2	8.695	3.395	5.3
29.5 to 30	38.395	29.6	8.795	3.395	5.4

Frequencies In Megahertz