



Technical Data

TYPE 351 VLF RECEIVER



The CEI Type 351 Receiver is a newly-developed unit which contains features and engineering refinements not normally found in receivers tuning in the VLF range. The 351 Receiver has an unusually wide tuning range, variable IF bandwidths, and high tuning accuracy. It tunes from 1 kc to 600 kc in a single band, thus spanning the ELF band through the VLF and LF bands into the MF band. A front-panel switch allows the selection of a 150 cps, 1 kc, 3 kc, or 6 kc IF bandwidth. The accuracy of the receiver is such that the indicated frequency is within 10 cps of the received frequency throughout the tuning range. To obtain this accuracy, and provide a convenient readout, a digital counter has been included in the design. The Nixie display presents the receiver frequency with no visible flicker.

The low incidental FM of the local oscillator and BFO makes the 351 Receiver suitable for FSK as well as CW and AM reception. This versatile device has been designed using solid-state devices exclusively except for the Nixie tubes. The receiver therefore exhibits high reliability and low power requirements.

SPECIFICATIONS

Frequency Range	1 kc to 600 kc (Lower Band limit 500 cps)
Type of Reception	AM, SSB, CW, MCW, and FSK
Noise Figure	Less than 5 db
Sensitivity (at 50-ohm input impedance and 1-kc IF bandwidth)	CW and FSK, 1 kc to 10 kc: 5 microvolts for 20 db (s plus n) /n CW and FSK, 10 kc to 600 kc: 0.5 microvolt for 20 db (s plus n) /n MCW and AM, 50 kc to 600 kc: 1 microvolt for 10 db (s plus n) /n
Input Impedance	50 ohms or 1000 ohms, selectable by rear-panel switch
Input Attenuator	0 db, -20 db, -40 db, or -60 db, selectable by front-panel switch
Maximum Input Level	1 volt, rms, with input attenuator in -60 db position

COMMUNICATION ELECTRONICS INCORPORATED

IF Bandwidths	150 cps, 1 kc, 3 kc, or 6 kc selectable by front-panel switch
Image Rejection	70 db, minimum
IF Rejection	60 db, minimum
Dynamic Range	AGC or Manual: 55 db, minimum
BFO	Adjustable ± 3 kc by front-panel control
Incidental FM	Less than 10 cps peak deviation
Outputs	Two: front-panel phone jack (2000 ohms nominal); and rear apron audio, 6 milliwatts (600 ohms ungrounded)
Audio Bandwidths	Normal (100 cps to 3 kc) or narrow (825 cps to 1175 cps), selectable by front-panel switch
Power	115/230 vac, 50-400 cps, approximately 25 watts
Size	19-inches wide, 3.5-inches high, and 19.5-inches deep
Weight	20 lbs., approximately

PRICE: \$4,000.00

FOB Rockville, Maryland. Taxes extra where applicable. Price and specifications subject to change without notice.

6/1/65