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4/15/68

# Technical Data

## TYPE 371A RECEIVER



The CEI Type 371A Receiver is a wideband HF receiver covering 500 kHz to 10 MHz in one band. It is an all solid-state receiver designed for FM, AM, or CW reception over its entire tuning range. The receiver is particularly suitable for RFI detection and predetection recording. A bandwidth of 2 MHz is maintained through the RF tuner and is available for viewing at a signal monitor output jack. The RF tuner and IF amplifiers utilize dual gate MOS field effect transistors in all critical stages for maximum sensitivity and dynamic range. The dynamic range is further expanded by use of a front-panel controlled five-position input attenuator which provides a maximum of 40-dB signal attenuation.

Four front-panel selectable IF bandwidths are provided: 6, 20, 100, and 400 kHz. The 100-kHz bandwidth is usable above 550 kHz, and the 400-kHz bandwidth is usable above 700 kHz. The 100-kHz and 400-kHz bandwidths were previously unavailable in HF receivers. A 455-kHz IF is used when the 6-kHz or the 20-kHz bandwidth is selected. A 21.4-MHz IF is used when the 100-kHz or the 400-kHz bandwidth is selected. Rear-panel predetection outputs of both intermediate frequencies are provided.

The tuned frequency is indicated on an illuminated 26-inch steel tape dial for maximum readability and reseatability.

### SPECIFICATIONS

Tuning Range . . . . .	500 kHz to 10 MHz in one band
Types of Reception . . . . .	AM, FM, and CW
Noise Figure . . . . .	7 dB, maximum

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## SPECIFICATIONS (Cont'd)

## Sensitivity:

6-kHz Bandwidth . . . . .	AM: 0.5- $\mu$ V input, modulated 50% at 1-kHz rate, produces 10 dB (s plus n)/n, minimum FM: 0.8- $\mu$ V input, modulated at 400-Hz rate with 2-kHz deviation, produces 20 dB (s plus n)/n, minimum
20 -kHz Bandwidth . . . . .	AM: 0.8- $\mu$ V input, modulated 50% at 1-kHz rate, produces 10 dB (s plus n)/n, minimum FM: 1.5- $\mu$ V input, modulated at 1-kHz rate with 7-kHz deviation, produces 20 dB (s plus n)/n, minimum
100 -kHz Bandwidth . . . . .	AM: 2.5- $\mu$ V input, modulated 50% at 1-kHz rate, produces 10 dB (s plus n)/n, minimum FM: 1.7- $\mu$ V input, modulated at 1-kHz rate with 35-kHz deviation produces 20 dB (s plus n)/n, minimum
400 -kHz Bandwidth . . . . .	AM: 7.0- $\mu$ V input, modulated 50% at 1-kHz rate, produces 10 dB (s plus n)/n, minimum FM: 2.0- $\mu$ V input, modulated at 1-kHz rate with 150-kHz deviation, produces 20 dB (s plus n)/n, minimum
Input Impedance . . . . .	50 ohms, nominal
Input Attenuator . . . . .	0 dB, 10 dB, 20 dB, 30 dB and 40 dB
IF Bandwidths . . . . .	6 kHz, 20 kHz, 100 kHz, or 400 kHz, selectable by front-panel switch. 100-kHz IF bandwidth usable over tuning range of 550 kHz to 10 MHz. 400-kHz IF band- width usable over tuning range of 700 kHz to 10 MHz.
Image Rejection . . . . .	80 dB, minimum
IF Rejection . . . . .	65 dB, minimum
IF Frequencies . . . . .	21.4 MHz and 455 kHz
Local Oscillator Output . . . . .	50 mV, minimum, into 50-ohm load
Audio Outputs . . . . .	Two: front-panel phone jack (2000 ohms, nominal) and rear-apron audio, 100 milliwatts (600 ohms, balanced or unbalanced)
Predetection Outputs . . . . .	21.4 MHz and 455 kHz
Predetection Output Level . . . . .	25 mV, minimum, into 50-ohm load for input signals above AGC threshold
Signal Monitor Output Frequency . . . . .	21.4 MHz
Video Output Level . . . . .	5 volts peak-to-peak into 91-ohm load
Video Amplifier Response . . . . .	Within 3 dB from 20 Hz to 400 kHz
Input Power . . . . .	115/230 Vac, 50-400 Hz
Power Consumption . . . . .	12 watts
Dimensions . . . . .	19 inches wide, 3.5 inches high, and 18 inches deep
Weight . . . . .	25 lbs., approximately

PRICE: \$3,000.00

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