



DATA
SHEET

R-390A/URR

May, 1970

Technical Data

RADIO RECEIVER



For Commercial / Military applications

Featuring accuracy to within 300 Hertz, the R-390A/URR is a 25 tube, multiple frequency conversion superheterodyne receiver tuning 500 Hz to 32 MHz in 32 one MHz steps without hiatus.

Manufactured in accordance with U. S. Government specifications, the R-390A is a stable, sensitive and selective general purpose receiver. Overall frequency stability is in the order of 300 Hz or better over a 24 hour period; a line voltage change from 105 to 125 VAC introduces a frequency shift of less than 30 Hz. Image rejection at the 455 KC IF is not less than 100 db; sensitivity is in the order of 0.5 microvolts from 0.5 KHz to 32.0 M Hz for a 10 db signal + noise to noise ratio for CW and 2.0 microvolts for AM throughout the frequency range of the receiver. Frequency accuracy is 300 Hz or better after indexing. Mechanical Filter selectivity is switch selectable in discrete steps from 100 Hz to 16 KHz; audio response is shaped by an 800 Hz filter in the "sharp" switch position for CW and is broadened to pleasant AM audio quality in the "wide" switch position.

DIVERSITY RECEPTION - The R390A is designed also for use in a diversity reception system designed to enhance the quality of the communication link whenever the receiving conditions cause signal fade. In this case two or more of the receivers are used in close proximity to each other. The spatial separation of the receiving antennas provides a higher probability of a usable signal from at least one receiver at a given time. Space diversity receiving systems provide distinct improvements of high-frequency radio transmissions. Each receiver has a cable connector to provide the received signal as IF output for space diversity system use. Radio transmissions as CW and single-tone modulation are used for Morse code operation while two-tone and frequency-shift modulation are used especially for tele-typewriter operation.

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