

sunair



ACU-150A

automatic hf antenna coupler



2 TO 30 MHz
AUTOMATIC TUNING
AM OR SSB OPERATION
130 WATTS PEP CAPABILITY
WIDE RANGE OF ANTENNA TYPES
COMPACT SIZE

versatility

Self contained unit tunes a wide variety of antennas at any frequency in HF band of 2 to 30 MHz without the necessity of adding external components. Small size permits mounting in variety of locations.

dependability

Automatically tunes antenna for best performance of transmitter and receiver. Indication is provided to operator when tune cycle is required and when antenna is tuned.

reliability

All solid-state, field proven and tested plug-in modules provide trouble-free service. Designed to operate in severe environmental conditions.

simplicity

No critical field adjustments, alignment or tuning required.
Rapid installation.

The ACU-150A Automatic HF Antenna Coupler is a small, light weight unit designed to be installed in aircraft, vehicles, base stations or any location protected from direct exposure to the elements. It is compatible with all Sunair airborne HF/SSB transmitters (except the ASB 850 which contains an integral coupler). It will tune a wide variety of commonly used antennas over the frequency range of 2 to 30 MHz without the necessity of adding external reactive components (inductors or capacitors) to the antenna.

All circuitry is fully transistorized and mounted on plug-in printed circuit boards for ease of maintenance and repair. The tunable reactive components are driven by reliable d-c servo motors controlled by solid-state power-driven servo amplifiers to insure high reliability.

No frequency or band information from the transmitter is required as the coupler tunes solely from information contained in the rf input signal. The tuning cycle is fast, averaging 3 seconds, and the transmitter output is fully protected during tuning by a 3 dB 50 ohm resistive load.

Operation of the ACU-150A Coupler requires only the initiation of a "Tune" command. When tuning has been completed (minimum VSWR of the antenna at the selected frequency), the Green light on the panel indicates the transmitter is ready for use. The ACU-150A continuously monitors the antenna VSWR when transmitting. If the antenna becomes untuned during operation (VSWR exceeds 1.5:1), a Red fault indication will light on the panel and the operator repeats the tune cycle.

The ACU-150A coupler will tune a wide variety of antennas. The resulting communications capability is dependent upon several factors; frequency, antenna Ω , antenna radiation efficiency and coupler efficiency. These factors must all be considered when installing the system, particularly the antenna. For a detailed discussion of antenna installations, refer to the ACU-150A handbook.



sunair electronics, inc.