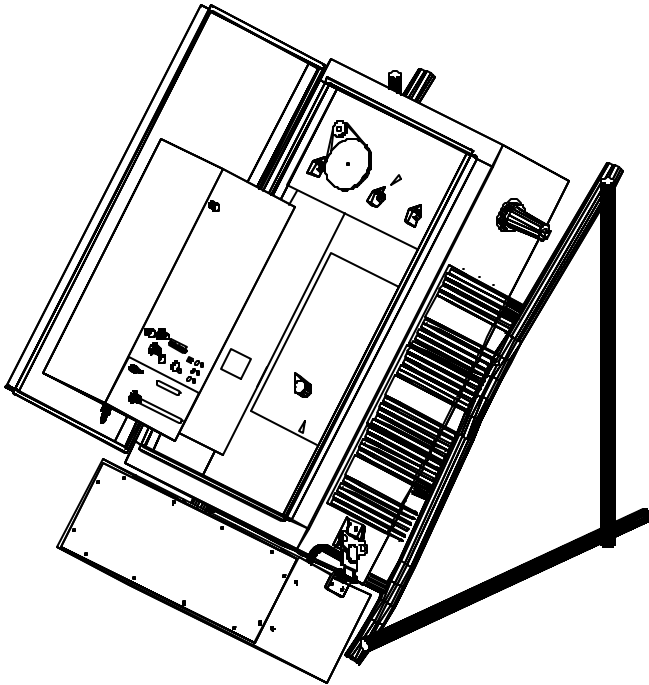


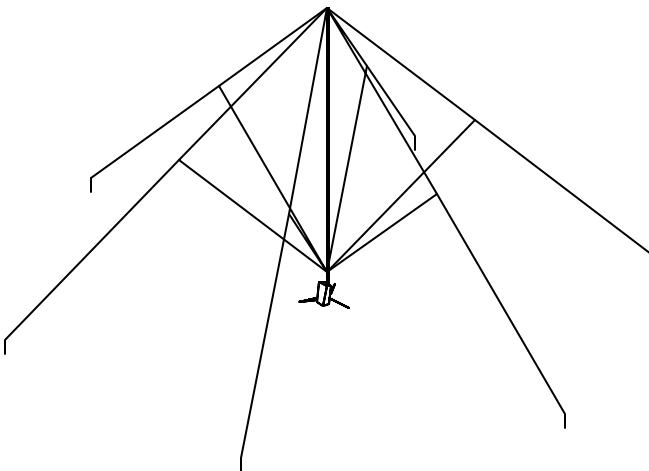


Southern Avionics^â

**Company's Portable Self
Contained Autotuning
RadioBeacon (SCARAB).**



SCARAB Portable Transmitter



Diamond Portable Antenna (DPA)

The DPA is a portable, full range, low/medium frequency guyed monopole mast antenna. This design enables one person to assemble and erect this antenna with minimal effort.

Frequency: 190 - 1250 kHz.

Capacitance: 330 pF.

Resistance: 10 ohm.

Height: 36 feet (11M).

Input Power: 400 watts (PEP).

Weight: 42 pounds.

SCARAB Transmitter System:

Qualifications: Meets applicable requirements of ICAO.

Frequency Range: 190 - 1250 kHz. Synthesized (field programmable), no parts needed.

Power Output: 10 to 100 watts.

Type of Emission: A0/A2, A3, AO/A2/A3.

Modulation: Keyed 400 or 1020 Hz tone, Morse Code of four or more letters or numerals, and or voice modulation 0 - 100%.

Bandwidth: 800 or 2040 Hz depending on tone frequency. Up to 6000 Hz for voice.

Harmonic Distortion: Harmonics from 190 kHz to 700 kHz carrier frequency are better than -50 dB. Harmonics from 700 kHz to 1250 kHz carrier frequency are better than -40 dB.

Input Power: 12VDC or optionally 115/230V \pm 20%, single phase 50 - 60 Hz or both with switch over to batteries. 375 watts maximum.

Metering: Output watts, antenna RF current, tuning, emitter current in final stage.

Working Conditions: Continuous unattended operation, -50° to +70°C, 0-100% noncondensing humidity. Dimensions 26"H, 19"W and 10"D.

Circuit Protection: Zener protection on final amplifier transistors, fuses for each final, fuses in low and high voltage DC lines, circuit breaker in DC line, low voltage cutout, lightning protection in antenna coupler.

Automatic Shutdown: Transmitter shuts down with loss of tone or continuous tone, extreme signal distortion, or when power falls below a user preset value.

Self Contained Operation: The SCARAB operates autonomously with the optional battery pack. Operating time will be in excess of one hour at 100 watts, two hours at 50 watts and four hours at 25 watts on a single battery pack. The battery pack attaches to the bottom of the transmitter enclosure.

Built in Antenna Coupler

Input Impedance: Determined by antenna impedance.

Load Impedance: 7.5 to 50 ohms resistance, 350 pF capacitance.

Frequency: 190 to 1250 kHz with a 350 pF load.

Power Input: Up to 100 watts carrier.

Tuning: Large coil with high taps, low taps, fine taps and a rotating shorted ring for trimming. The autotune system drives the shorted ring for exact tuning.

Optional Accessories for SCARAB

Extender Coil: For operation in the 190-320 kHz band.

12VDC Portable Battery Pack: Will power SCARAB for over one hour at 100 watts.

115/230VAC Portable Power Supply: With automatic battery charger and switch over system to optional battery pack in the event of mains failure.

Transit Case: Soft sided, padded, zip-up carrying case provides basic transit protection.