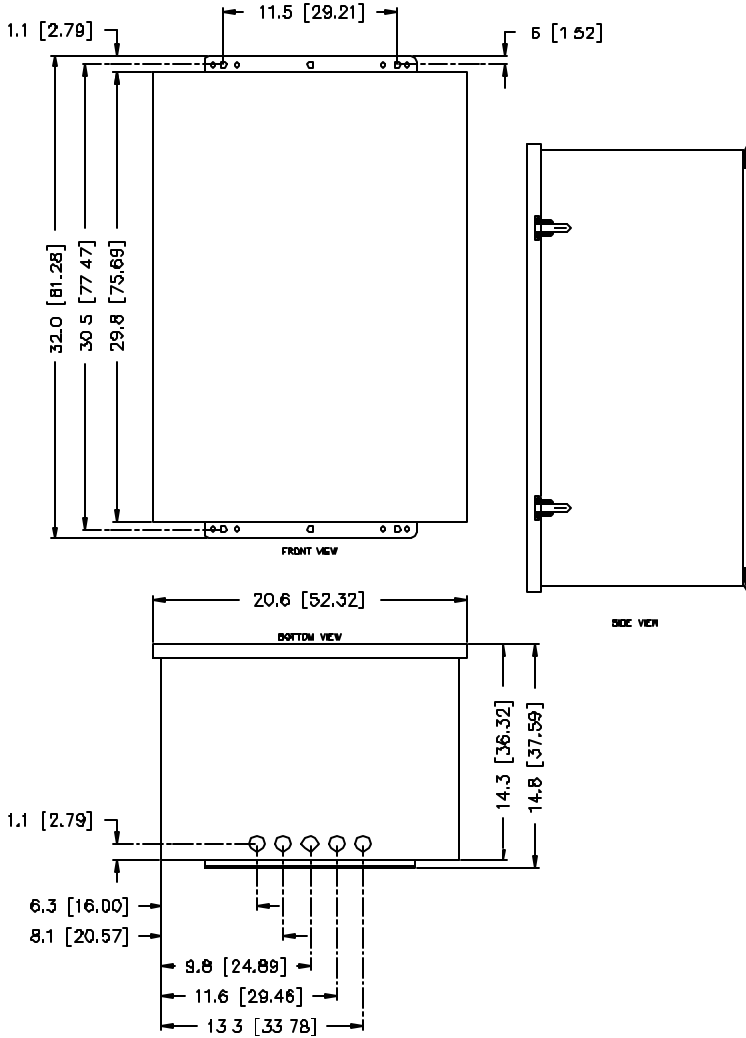




SOUTHERN AVIONICS[®]

COMPANY'S 100-Watt Dual Non-Directional Radiobeacon



SA100 Dual Transmitter Enclosure Dimensions

SA100 Specifications:

Qualifications: Meets applicable requirements of ICAO, FCC, and FAA.

Frequency Range: 190-535 kHz, (optionally 190 to 625 kHz) or (250 to 1250 kHz for offshore installation using the 222 whip antenna), crystal controlled synthesizer, switch selectable in 500 Hz increments, stability better than .005% (-40°C to +70°C).

Power Output: Carrier power into 50 ohms continuously adjustable 25 to 100 watts, (100-400 W PEP).

Spurious Emission: Radiated harmonics (measured at a dummy antenna) are better than 63 dB below the 100 watt carrier.

Type of Emission: NON, A2A, A3E (Optional), GID (with optional GPS beacon modulator, or any combination).

Modulation: Switching modulator/regulator provides high level modulation 0-95 percent. Internal 400 Hz and 1020 Hz tone is selectable. Internal keyer normally operates at eight baud (approximately 7 WPM) and is adjustable from 5 to 16 baud. In normal operation, carrier is on continuously with keyed tone modulation.

Noise and Hum Level: Better than 40 dB below the carrier level.

Input Power: 115/230V ±15%, single phase 50-60 Hz. 24 VDC. Nominal input power is 180W at 100W carrier and tone keying at 95% modulation.

Metering: Power output, reflected power, PA voltage, PA current, percent modulation, audio input level.

Keyer: The solid state keyer provides 95 DIP switch programmable dot spaces. A dot space is adjustable from 63 to 166 ms. Special coding is available.

Circuit Protection: Individual fuses are used to protect the AC and DC circuits. VSWR circuit that shuts down the transmitter if VSWR exceeds an adjustable value.

Working Conditions: Continuous unattended operation in the following environments: ambient temperature, -50°C to +70°C; relative humidity, 0-100% noncondensing; high salinity as encountered in offshore conditions.

Monitoring: Transmitter shuts down with loss of tone, drop in modulation below an adjustable value, or continuous tone, or when power falls below an adjustable value, or when VSWR rises above an adjustable value. With a dual system, a shutdown signal initiates a transfer from the primary transmitter to the secondary transmitter.

Automatic Transfer Unit:

CONTROL FUNCTIONS: TRANSMITTER ON/OFF, PRIMARY TRANSMITTER SELECT, RESET TO

PRIMARY, NORMAL/TEST, POWER.

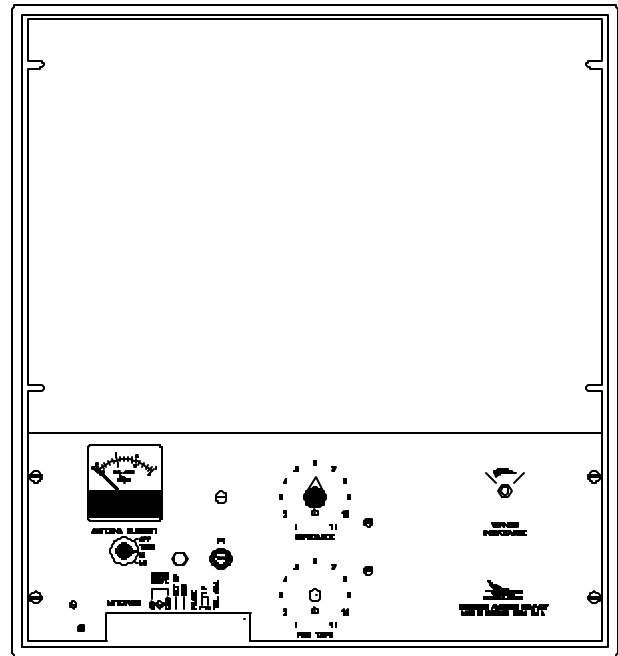
INDICATORS: SYSTEM STATUS - PRIMARY:

Selected primary transmitter operating,

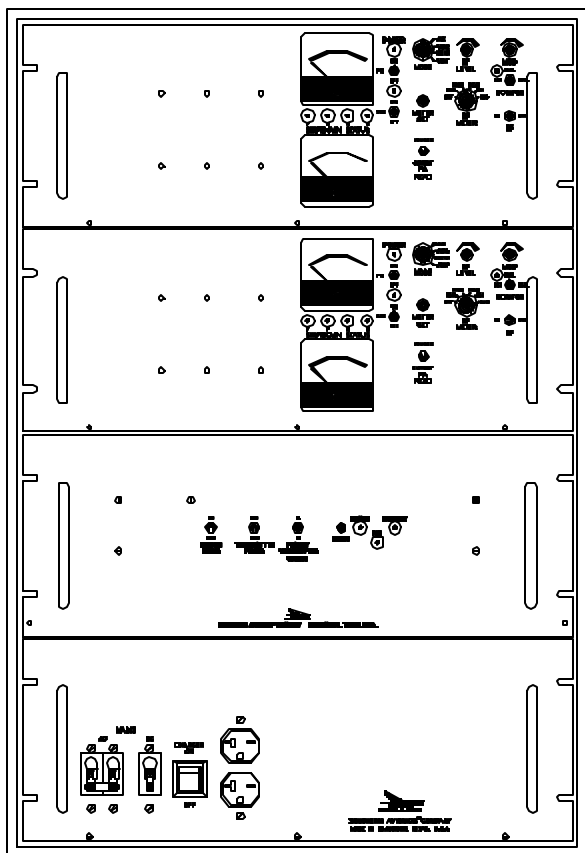
SECONDARY: Selected primary transmitter failed and secondary transmitter operating, **FAIL:** Both transmitters failed.

WORKING CONDITIONS: Continuous unattended operation in the following environments: ambient temperature -40°C to 70°C, relative humidity 0 to 100%.

CIRCUIT PROTECTION: Fuses are furnished in AC and DC power lines. Logic line inputs are isolated by series impedances and diode clamps.



PC1000C Autotuning Antenna Coupler



**SA100 Dual Transmitter with
Optional Load Center / Battery
Charger**

PC1000C Specifications:

Input Impedance: 50 ohms.

Load Impedance: 2 to 25 ohms resistance, 200 to 1500 pF capacitance.

Frequency: 190 to 625 kHz or (250 to 1250 kHz for offshore installation using the 222 whip antenna), with a 200 to 1500 pF load.

Power Input:

RF: Up to 500 watts peak, 200 watts continuous.

DC: 12VDC control from transmitter.

Metering: Antenna current and tuning. Single meter with a four position switch for OFF, TUNE, HIGH and LOW tuning.

Tuning: Large coil with coarse taps, fine tapes and a rotating shorted ring controlled by the autotune system.

Lightning Protection: Lightning gap at the antenna terminal. Special passive circuit that protects the transmitter final amplifier from lighting transients.

Working Conditions: Continuous unattended operation, -50° to +70°C, 0-100% noncondensing humidity. Designed for outdoor mounting. Dimensions 25"H, 21"W and 16"D.