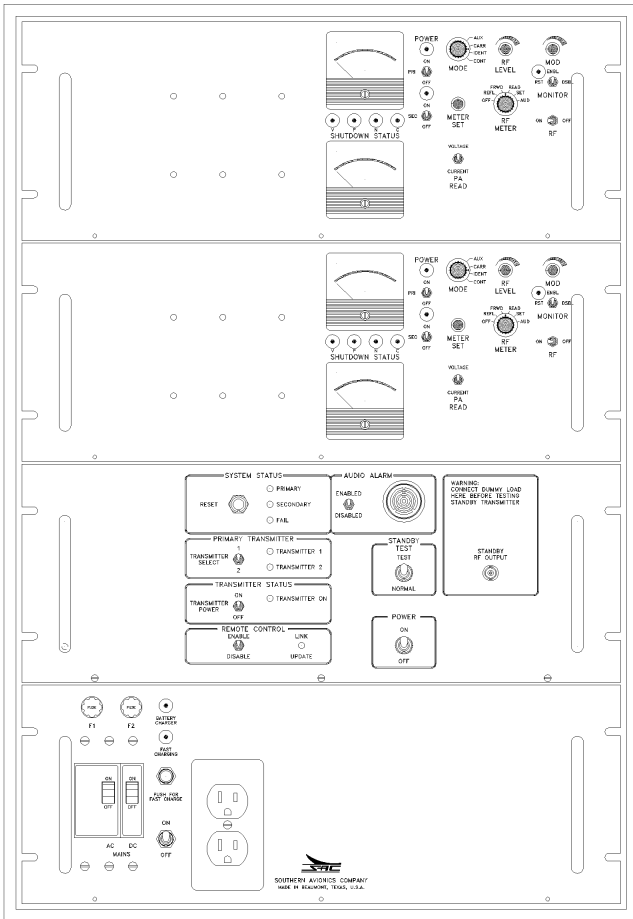
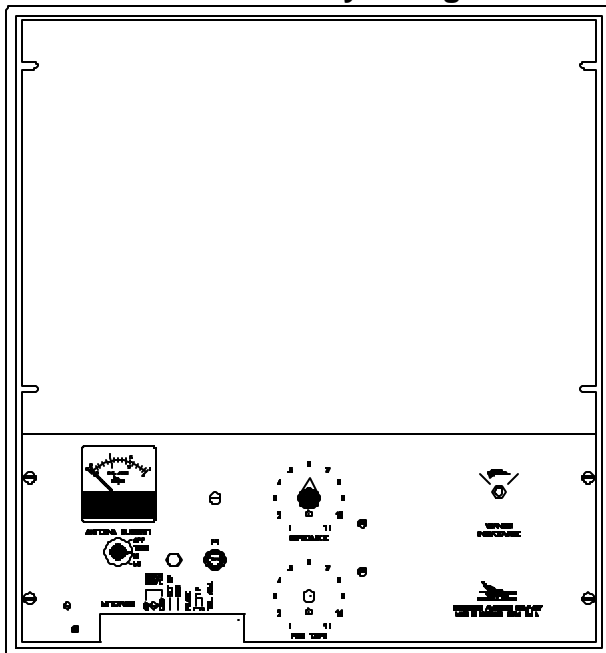




**Southern Avionics^â
Company's 100-Watt Dual Remote Capable
Non-Directional Radiobeacon.**



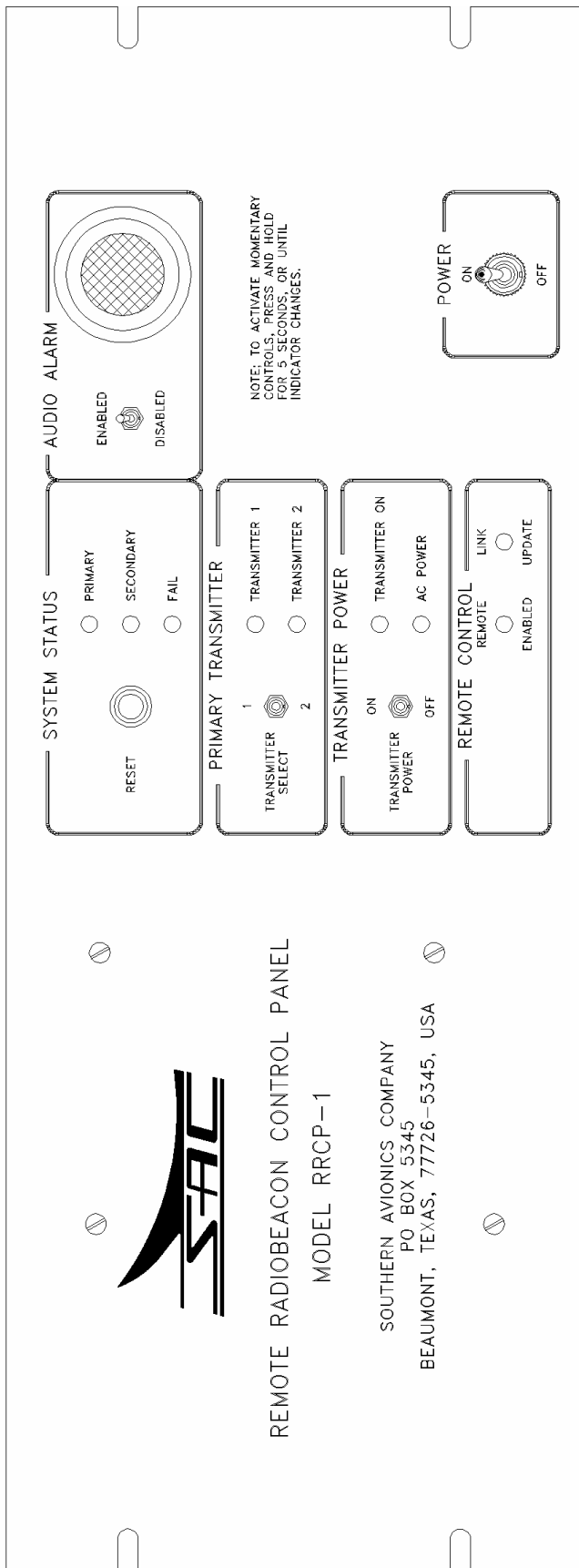
**SA100 Dual Transmitter with Optional Load
Center / Battery Charger**



PC1000C Autotuning Antenna Coupler

Qualifications: Meets applicable requirements of ICAO, FCC and FAA.
Frequency Range: 190-535 kHz, (optionally 190 to 625 kHz). Synthesized (field programmable), no parts needed.
Power Output: 25 to 100 watts.
Spurious Emission: Radiated harmonics are better than 63dB below carrier.
Type of Emission: NON, A2A, A3E (Optional), (GID with optional GPS beacon modulator), or any combination.
Modulation: Switching modulator / regulator, 0-95%, internal 400 or 1020 Hz, eight baud Keyer, 7 WPM.
Noise and Hum Level: Better than 40dB below 100 watt carrier.
Input Power: 115/230V ±15%, single phase 50 - 60 Hz. or optional 24VDC or both with switch over to batteries. Nominal input power is 180W at 100W carrier and keying at 95% modulation.
Metering: Power output, reflected power, PA voltage, PA current, percent modulation, audio input level.
Working Conditions: Continuous unattended operation, - 50° to +70°C, 0-100% noncondensing humidity. Dimensions 32"H, 21"W and 15"D.
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.
Monitoring: Automatic shutdown if tone, modulation, power or VSWR drift beyond an adjustable level. With a dual system, a shutdown signal initiates a transfer from the primary transmitter to the secondary transmitter.

Input Impedance: 50 ohms.
Load Impedance: 2 to 25 ohms resistance, 200 to 1500 pF capacitance.
Frequency: 190 to 625 kHz (up to 1800 kHz depending on model), with a 200 to 1500 pF load.
Power Input: Up to 500 watts peak, 200 watts continuous.
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 lightning 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.



REMOTE RADIOBEACON CONTROL PANEL

MODEL RRCP-1

SOUTHERN AVIONICS COMPANY
 P.O. BOX 5345
 BEAUMONT, TEXAS, 77726-5345, USA

Automatic Transfer Unit

Local Radiobeacon Control Panel

CONTROL FUNCTIONS: TRANSMITTER ON/OFF, PRIMARY TRANSMITTER SELECT, RESET TO PRIMARY, NORMAL/TEST, REMOTE DISABLE, AUDIO ALARM ENABLE/DISABLE, POWER.

INDICATORS: TRANSMITTER ON, PRIMARY TRANSMITTER (TRANSMITTER 1/TRANSMITTER 2), SYSTEM STATUS (PRIMARY: Selected primary transmitter operating, SECONDARY: Selected primary transmitter failed and secondary transmitter operating, FAIL: Both transmitters failed). AUDIO ALARM (Alarms whenever system status is FAIL). REMOTE CONTROL LINK UPDATE (Flashes whenever the optional REMOTE RADIOBEACON CONTROL PANEL supplies a control update).

POWER: With "TRANSMITTER ON" selected: AC power 115/230 VAC $\pm 20\%$ 50/60 Hz, 12 VA maximum or 24 VDC, 700 mA maximum. With "TRANSMITTER OFF" selected: DC power requirements 24 VDC, 40 mA maximum.

CIRCUIT PROTECTION: Fuses are furnished in AC and DC power lines. Control link is transformer isolated by signal transformer meeting MIL-T-27D specifications and 1000 VRMS insulation test voltage. Logic line inputs are isolated by series impedances and diode clamps.

WORKING CONDITIONS: Continuous unattended operation in the following environments: ambient temperature -50°C to 70°C , relative humidity 0 to 100% without condensing moisture.

INSTALLATION REQUIREMENTS: The LOCAL RADIOBEACON CONTROL PANEL, model LRCU-SA, is designed for indoor mounting in a standard 19 inch cabinet. Front panel height is 10 3/8 inches. Rear relay assembly panel height is 10 3/8 inches.

REMOTE CONTROL: Remote operation can be achieved by installation of a SERIAL INTERFACE PWB and MODEM PWB within the LOCAL RADIOBEACON CONTROL PANEL, installation of a REMOTE RADIOBEACON CONTROL PANEL at the remote control site, and installation of a suitable remote control datalink. Loss of signal from the control link or REMOTE RADIOBEACON CONTROL PANEL will not affect radiobeacon transmission.

Remote Radiobeacon Control Panel

CONTROL FUNCTIONS: TRANSMITTER ON/OFF, PRIMARY TRANSMITTER SELECT, RESET TO PRIMARY, AUDIO ALARM ENABLE/DISABLE, POWER.

INDICATORS: TRANSMITTER ON, AC POWER present (at transmitter site), PRIMARY

TRANSMITTER (TRANSMITTER 1/TRANSMITTER 2)

SYSTEM STATUS (PRIMARY, SECONDARY, FAIL), REMOTE CONTROL ENABLE, REMOTE

CONTROL LINK UPDATE. VOICE indicates handset activated. DATA indicates handset switched off.

POWER: 115/230 VAC $\pm 20\%$ 50/60 Hz 5VA.

CIRCUIT PROTECTION: AC line fuse. Control link is transformer isolated by signal transformer meeting MIL-T-27D specifications and 1000 V RMS insulation test voltage. Logic line inputs are isolated by series impedances and diode clamps.

WORKING CONDITIONS: Continuous unattended operation in the following environment: ambient temperature -50°C to 70°C, relative humidity 0 to 100% without condensing moisture.

INSTALLATION REQUIREMENTS: The REMOTE RADIOBEACON CONTROL PANEL, is designed for indoor mounting in a standard 19 inch cabinet. Panel height is 7 inches, required panel depth is 5 inches.

Control Link Specifications:

TYPE: Full duplex, balanced, 2 wire, AUDIO ONLY.

INPUT TO LINE FROM LOCAL OR REMOTE

RADIOBEACON CONTROL PANEL: Balanced, two wire, 600 ohm, 0.18 VRMS average signal level, frequency 1070-2025 Hz.

OUTPUT SIGNAL FROM LINE TO LOCAL OR REMOTE RADIOBEACON CONTROL PANEL WITH LINE

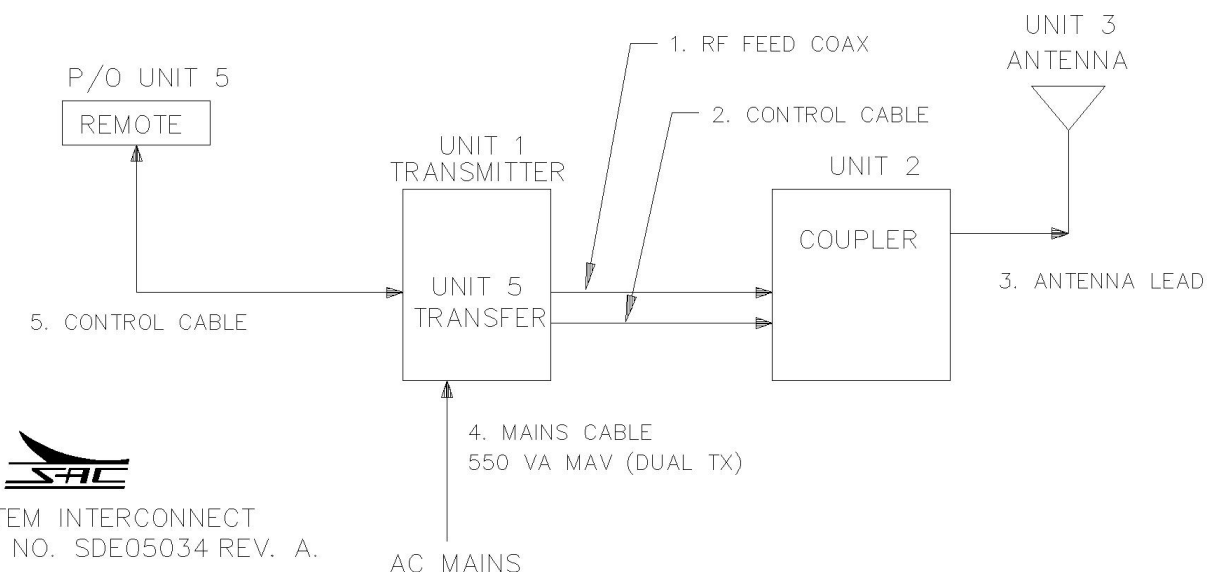
TERMINATED TO PANELS: 40 mV RMS minimum. DC line current shall not exceed 3mA.

NOTE: Measurement made with panel power OFF at end to be measured, to disable modem carrier.

LINE IMPEDANCE: 600 ohm, balanced, (300 ohm minimum, 900 ohm maximum).

NOTE

IF MODEM IS NOT USED, SERIAL DATA LINK WIRE WILL BE 2 CONDUCTOR 22 AWG SHIELDED.



SYSTEM INTERCONNECT
 DWG NO. SDE05034 REV. A.

CABLING LIST

NO.	LOCATION	CONNECTOR	WIRE DESCRIPTION	CONNECTOR	LOCATION
1	1TB2-3	#6 TERMINAL	RG8/U 7.33 feet supplied	#6 TERMINAL	2TB1-4
	1TB2-4	#6 TERMINAL		#6 TERMINAL	2TB1-3
2	5A2TB1-1	#6 TERMINAL	2 CONDUCTOR, 18 AWG 7.33 feet supplied	#6 TERMINAL	2TB1-1
	5A2TB1-3	#6 TERMINAL		#6 TERMINAL	2TB1-3
3	2RFOUT	1/4 LUG	1/4 INCH SOFT COPPER TUBING 54 inches supplied	1/4 LUG	3 ANT FEED
4	AC	as required	2 CONDUCTOR, WITH GROUND. as required	#8 TERMINAL	5A2TB2-1
	AC RETURN	as required		#8 TERMINAL	5A2TB2-2
	GROUND	as required		#8 TERMINAL	5A2TB2-3
5	5A3A1TB3-2	STRIP 3/8"	2 CONDUCTOR, TWISTED PAIR, WITH SHIELD. 18 AWG MAX LENGTH 1000 FEET. required	#6 TERMINAL	5A2TB3-4
	5A3A1TB3-1	STRIP 3/8"		#6 TERMINAL	5A2TB3-5
	5A3A1TB3-3	STRIP 3/8"		#6 TERMINAL	5A2TB3-3