# SG-235 500 watt Smartuner 

## Automatic Antenna Coupler for all HF-SSB Bands

- Microprocessor Controlled, Precision, Automatic Antenna Tuning
- Non-Volatile Memory
- Waterproof for All Weather Conditions
- B.I.T.E. (Built-in Test Equipment) indicator
- 1.8 to 30 MHz Range
- 3 to 500 watts Input Power
- 10- ms Retuning Time
- Tunes from 23 ft. Antennas at Full Power
- For Marine, Aviation, Ham, and ParaMilitary Applications


## and Modes

Smart Tuning-Now at 500 watts.
Now you can achieve perfect coupling of your 500-watt HF-SSB to your antenna.

Now you can go mobile at 500 watts.
The SG-235 Smartuner forms the perfect link with any 500 -watt amplifier for high power performance.

The SG-235 Smartuner" "intelligently" tunes any length antenna from 23 feet! No preliminary tuning or adjustment is required, and the SG-235
will operate with any HF transceiver in the 1.8 to 30 MHz range and with output power from 3 to 500 watts.

SG-235 Smartuner" automatically evaluates and switches 64 input and 32 output capacitance combinations, plus 256 inductance combinations in a "pi" network-over a half-million precision matches. SG-235 Smartuner" then remembers the chosen frequency and tuning values and automatically reselects those values-in less than 10 ms , each time you select that frequency.

Flexibility is a key feature. It is available with a number of attractive options, including a shock mount for military and extreme applications, plus a 24 VDC option.

For maximum range, clarity, and flexibility, with just about any HF-SSB, the SG-235 Smartunerw is your smartest choice.
Cat. No. 54-15


The SGC Building 13737 S.E. 26th Street, Bellevue, WA 98005 USA Box 3526, Bellevue, WA 98009 USA 425-746-6310 or 1-800-259-7331 FAX: 425-746-6384 E-mail: SGCMKTG @aol.com Web site: http://www.sgcworld.com

Intelligent Tuning


The SG-235 is designed for maximum flexibility. RF "pi" network has over a half million microprocessor combinations

Intelligent Installation Enhancements


QMS Automatic Antenna Coupler System.
Special external mounting system for SG-235. Gives an incredible boost in receiving and transmitting rangebetween 3 and 20 dB gain! (Cat. No. 55-47)

## SmartLock Option.

Provides two external controls for the SG-235: Locking function prevents re-tuning despite changing antenna loads (e.g., from passing trucks or from driving beneath an overpass); Reset function forces the SG-235 into the retune cycle until the signal is transmitted again or allows receiver/scan operation in a broadband antenna mode. (Catalog No. 54-63)

## Typical SG-303 Mobile Antenna Installations



Correct Top Mount Antenna Location


Correct Workboat (Metal Bridge) Location


No Compromise Communications

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## SG-235 Specifications

HF Frequency<br>Ranges<br>1.8 to 30 MHz

## Power

Input Range: 3 to 500 watts (PEP)
Input Impedance
Range:
45 to 55 ohms
VSWR: Typical—less than 2:1
DC Input
Requirement:
$+13.6 \mathrm{VDC}$
DC Operating
Range:
+10.5 to 15 VDC
Input Current: Average-. 9 amps
Random Set
Times:
Typical-less than 2 seconds
Recurrent Set
Times:
Typical— less than 10 milliseconds

## Non-volatile

Memory
Addresses: 500
Antenna
Length:
Min. length 23 ft .,
3.5 to 30 MHz

Min. length 50 ft .,
1.8 to 30 MHz

Installation: Any position
Operating
Temperature: $\quad-35^{\circ}$ to $+70^{\circ} \mathrm{C}$
Environmental: Waterproof at
immersion of half meter, half hour
Size Overall: $\quad 16 \mathrm{D} \times 12 \mathrm{~W} \times 3$ Hinches 40.6DS x $30.5 \mathrm{~W} \times 7.6 \mathrm{H}$ centimeters

Weight: $\quad 8$ pounds ( 3.5 kilos)
Case
Construction: Plastic ABS weatherproof case

## Cable:



SGC special cable, 9 feet coaxial and two power wire input wires, RMT tune and Smartlock wire

