



**INVELCO S.A.**  
**INVESTIGACIONES ELECTRONICAS Y COMUNICACIONES**

QUICK, INTELIGENT AND  
PRECISE AUTOMATIC  
ANTENNA TUNING UNIT

OPERATES WITH ANY TYPE  
OF TRANSMITTER



## 150W HF AUTOMATIC TUNING UNIT US-101-C

This automatic tuning unit antenna allows to adapt the antenna to any type of transmitter or transceiver in the hf band in a quick, intelligent and precise way. It has high performances with a tuning memory **WITHOUT REFRESH BATTERY** that allows to guarantee its maintenance during long periods of time not being used and failures in the power supply.

### **IMPORTANT SPECIFICATIONS:**

- CONTROLLED THROUGH MICROPROCESSOR.
- NON VOLATILE MEMORY (500 ADDRESSES).
- RESISTANCE TO WATER AND OUTDOORS.
- FREQUENCIES RANGE OF 1,6 TO 30 MHZ.
- INPUT POWER FROM 10 TO 150 WATTS.
- TUNING TIME: 10 MSEG.
- ANTENNA TUNING FROM 2,7 TO 60 METROS.



## AUTOMATIC ANTENNA TUNING UNIT TECHNICAL CHARACTERISTICS

### MODEL -US-101-C

Frequencies range ..... 1,6 a 30 MHz.

Antenna types usable:

Short antennas 2.7 to 6m. ... 2. 5 - 30 Mhz.

Whip antennas 5 to 12m ..... 1.6 - 30 Mhz

Wire antennas 20 to 60m .... 1.6 - 30 Mhz

Tuning time:

First tuning ..... <20seg.

Tuning made as

second time ..... 20ms approx.

Tuning mode ..... automatic

Power needed:

Working maximum ..... 150W.

For tuning ..... 10W

Radiated during the tuning ... 8W

Impedance of Rf tuning ..... 50OHm.

R.O. E. after tuning:

Typical ..... 1,5:1

Maximum ..... 3:1

Efficiency ..... 50 a 90%

Power supply ..... 13,5Vcc ±20%

Consumption ..... 2 Amp max.

Distance of radio to the unit ..... 100 m max.

Resistance to detection and goniometry due to:

Low radiation power when tuning.

Tuning times of 20 ms.

Measurements:

Width ..... 127mm

Height ..... 76mm

Depth ..... 279mm

Weight ..... 3,2Kg.

Environmentals:

Working temperature ..... -35 +70C

MIL-STD-610C

Storage temperature ..... -40 + 90C

MIL-STD-810C

Humidity ..... MIL-STD-810C

Rain fall ..... MIL-STD-108E

BOARD II

Saline fog ..... MIL-STD-810C

Mechanical efforts (with stand SP-101-C):

Crash ..... MIL-STD-610C

method 516.2

Vibration ..... MIL-STD-810C

method 514.2