

ANTENNA TUNING UNITS

These units ensure the automatic tuning of the antennas associated to the NDB's:

- UAA 9400 I for Daisy antenna,
- DAA 9400 I for Umbrella antenna,
- DAA 9400 TI for "T" antenna or radiating mast.

They are presented in the form of a waterproof cabinet (IP66) for an outside fixing.

The automatic tuning unit is located inside the casing. It provides the antenna with its tuning position (resonance) despite the possible tuning capacitor variations caused by meteorological and climatic fluctuations at the installation site.

The functioning of the equipment is based on the antenna reactance cancellation principle. A RF phase comparator (voltage/intensity) generates a voltage which helps to maintain the variometer on the tuning position.



UAA 9400 I ON THE FOOT MAST OF THE
DAISY ANTENNA



DAA 9400 I ON THE FOOT MAST OF THE
UMBRELLA ANTENNA

A measuring device allows to visualize the direct power, the reflected power and the antenna intensity.

In "manual" setting, 50-ohm can be achieved by utilizing the transformer jumper switch.

A microcontroller on the PCB allows to select automatically the 50-ohm impedance adaptation with the minimum reflected power.

The stop tuning information can be operated by the serial data link of the radiobeacon switching unit.

The whole equipment is designed for a permanent operation.

In areas with harsh climatic conditions (high rate of relative humidity), the automatic tuning device can be installed inside the shelter as long as it is located less than 1.50m away from the antenna.

UAA-DAA 9400 I
DAA 9400 TI / ATU

AUTOMATIC TUNING DEVICE DAA 9400 I / TI

- **Power supply:**
48 V (typical)
- **Consumption:**
< 200 mA
- **RF carrier power:**
100W NON/A1A-NON/A2A
- **Antenna impedance:**
50 ohms
- **Frequency range:**
200-700 kHz
- **Adjustable impedance:**
2.5-5-7.5-10-15-20 ohms
- **Measures on 50 ohms:**
Direct power, reflected power, antenna intensity
- **Visual signalings:**
Power supply, carrier, modulation, limit stop, tuning localization, selected impedance
- **Limit stop signalling:**
by series link of the change-over unit
- **Lightning protection:**
spheres discharger located on the cabinet



A microcontroller on the control PCB allows to automatically select the impedance which gives the minimum reflected power.



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AUTOMATIC TUNING UNIT UAA 9400 I

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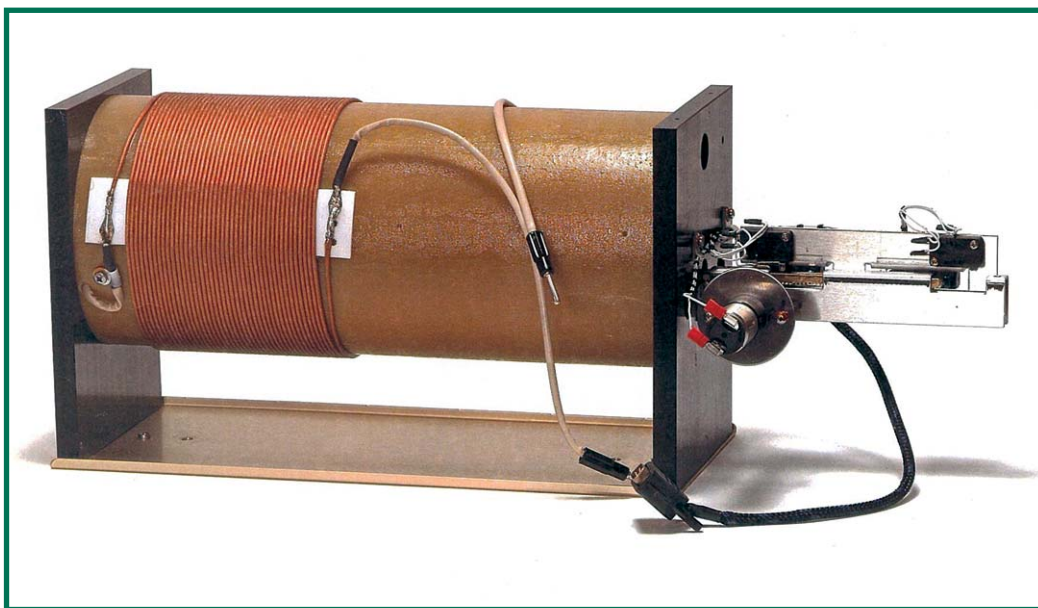
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UAA-DAA 9400 I
DAA 9400 TI / ATU



DAA 9400 I / DAA 9400 TI - INSTALLATION IN SHELTER



TUNING VARIOMETER

TELERAD

2, avenue de la Butte aux Cailles - BP 302 - 64603 ANGET Cédex - FRANCE - Tel. 05 59 58 55 00 - Fax 05 59 58 55 01 - Tel. international +33 5 59 58 55 00
Fax international +33 5 59 58 55 01 - s.a. au capital de 1 500 000 Euros - r.c.s. bayonne b 341 143 915 - siret 341 143 91500013 - ape 332A - N° T.V.A./V.A.T. N° FR. 83 341 143 915