

## Datong AD170 Active Aerial

by Keith Lacy G3ZON

The package consists of:

1. MPU AC ADAPTOR. The label indicates 11 volt at 200 ma output. Terminated with a 3.5 mm plug.

Note - the same unit BUT with a co-axial power plug is used for my Auto Notch Filter Unit (Datong ANF)

2. Interface/Preamp Model IB5. This appears to be the same unit as used for the AD270 and AD370 units. 10dB pre-amp gain switch.

3. Active Antenna AD170. This is for not suitable for external use.

The specification for the unit is from Practical Wireless "Out of thin Air", 1987

Frequency Range: 60KHZ to 70 Mhz

Output Impedance: 50 ohms

Recommended Dipole Length: 3 meters overall.

3<sup>rd</sup> order intermodulation products: typically -90dB relative to two output signals of 100mv emf (equivalent to 100mv at the differential inputs).

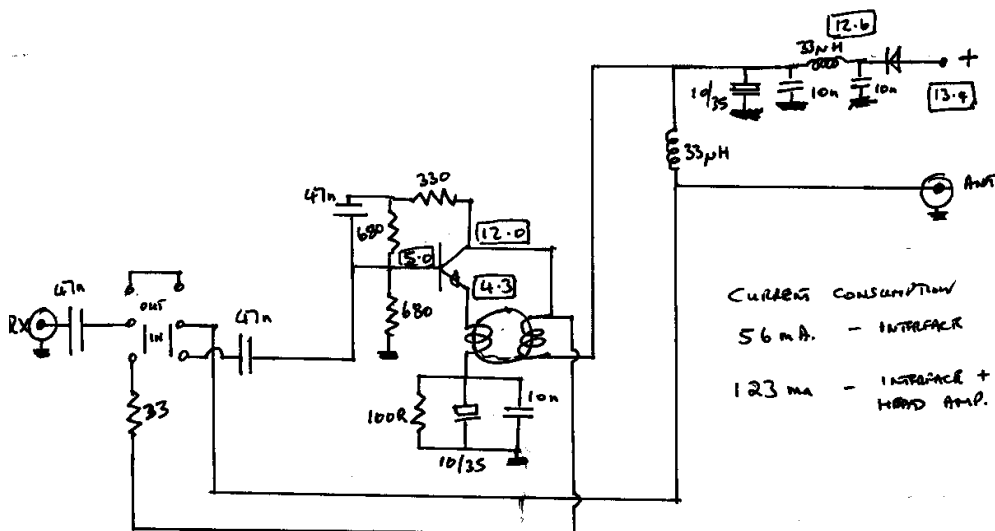
Current Consumption: 80 ma

Supply Voltage: 12 d.c.nominal. Pin is positive.

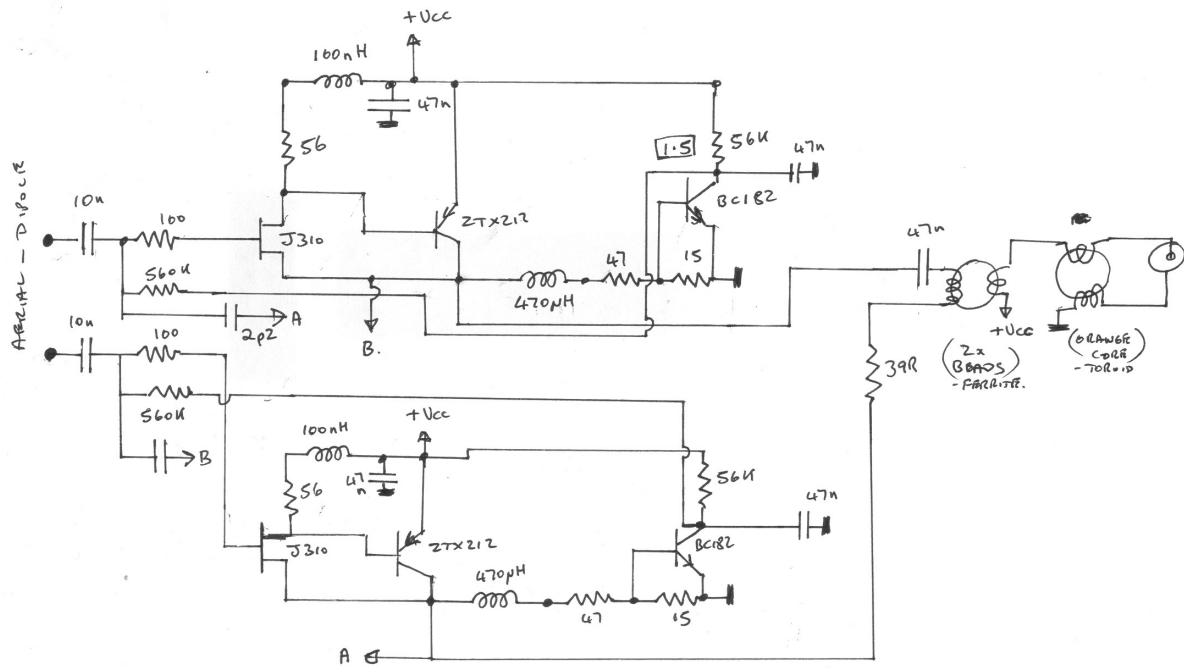
The Datong AD170 package contains the active aerial unit, the interface unit, 2 x 1.5 meters antenna wires, 1 x 4 meters jumper cable and a 3.5 mm jack plug. The mains power unit is an optional extra.

This is the circuit diagram of the Interface/Preamp unit. Voltages are in a square box, and the switch is to switch the pre-amp in or out of circuit.

A co-axial cable is connected to the receiver and another to the Active Aerial Unit.



Note - get the cables the right way round as there is 12 volts present on the "antenna" socket.



The AD170 Masthead Unit.

This appears to be similar to the 270 and 370 versions, but the circuit is more complex, with cross coupled capacitors at the input, presumably for stability reasons.

