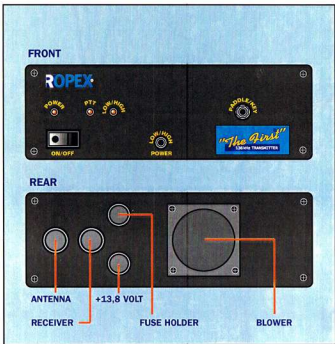


CONGRATULATIONS ON YOUR NEW LF TRANSMITTER, "THE FIRST"

"The First" is crystal controlled with a Class-D PA as the final. "The First" is very stable because the crystal control frequency is divided by a factor of 48, which diminishes any possible drift. The Class-D PA keeps the unit compact, needs no external heatsinks and will run more efficiently than any other conventional PA. By using 5 stage filtering, the first passed ETS 300 684 for CE with ease:



USE:

- 1) Connect power supply.
- 2) Connect antenna.
- 3) Connect the key or keyer and follow the next **IMPORTANT** steps.
- 4) Switch unit on.
- 5) Switch to **LOW** power - **NEVER** switch from high to low power or vice versa **DURING** transmit.
- 6) Check your SWR (Still on low power)
- 7) Check for lowest SWR by finding the best **TAP** on your (presumably homemade) coil and watch your **CURRENT** meter on your power supply. It should say 3 Amps now. At that moment, switch one **TAP** higher on your coil and the **CURRENT** should drop and your SWR will show **NO** change.

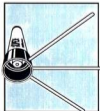
By following these steps you will avoid the possibility that the **FIRST** will switch down in output or will start to consume more than 16 Amps.

Do understand that these steps are necessary, because there are **NO** commercial off-the-shelf antennas, which are directly matched to 50 Ohms.

- 8) After transmission there is a delay of about 2 seconds before the **FIRST** will switch to the receiver, if you have connected your receiver to the **FIRST**.
- 9) The blower will run continuously.

RECOMMENDATIONS:

- A) Use on receive, if possible, an active antenna **DX-200** or a loop to eliminate interference.
- B) Use a bandpass filter on receive, to eliminate as much as possible interference from close high powered signals.
- C) Be careful when using very long antennas. This could mean a build-up of high static levels.
- D) Enjoy this new challenging allocation.



DX 200

Active shortwave antenna 20 kHz-160 mHz. Gain 5 dB. Noise-figure $\pm 1,5$ dB, 2nd IMD ± 48 dBm, 3rd IMD ± 30 dBm, max current ± 50 mA. Voltage 11-15 Volt (13,5 V nom) via supplied interface. Connector PL 259. Maximum mast diameter \varnothing 3,5 cm.



BPF 136

Bandpassfilter for 136 kHz. 30 dB down at 110 and 170 kHz.

"The First"
136 kHz TRANSMITTER

