RF550Control
Version 1.2
(C) 2026 Giuseppe Perotti, I1EPJ

USER MANUAL

BEWARE

This program is designed to connect with the "I1EPJ RF550 Encoder".

Quick Start

Before launching the program for the first time, install in the system the digital-dream-fat.ttf font supplied in the fonts folder. Then launch the program, configure the serial port where the Encoder is connected to. The prefix /dev under Linux and \\.\ under Windows are optional; if not present them will be automatically added. Then go to the Encoder menu and select Connect. The program should connect to the Encoder and start to run. If You want to disconnect the program from the Encoder, then click on Encoder->Disconnect.

Menu items

File menu
- Backup encoder channels to file...: saves the encoder memories to a file.
- Restore encoder channels from file...: restores the memories saved in a file.
- Exit: Exits program.

Encoder menu.
- Connect: tries to connect to the encoder.
- Disconnect: if connected, disconnect from the Encoder.

Options menu
- Serial Port...: selects the serial port to use.
- TCP server address:port: set the hamlib server address and port.
- Poll encoder: reads encoder status every 300 ms.
- Use encoder configuration: program uses the VFO encoder configuration.
- Set programmable step value: selects the programmable step value.
- Numeric format: selects the USA or ITA format (xx,xxx.xxx or xx.xxx,xxx).
- Zero Suppression: sets not-significant zeros suppression ON/OFF.
- LCD Backlight: sets encoder LCD backlight if supported by the display.
- Blinking cursor: sets encoder cursor blinking.
- Save current options to encoder EEPROM: the name says all.
- Init EEPROM: writes in EEPROM an empty data structure.

Help menu
- Manual: shows the text you are reading.
- About: shows program info and license.

Using the program

On the FREQ: line:
- Click: selects VFO mode and goes to the VFO frequency.
- Double click: Copies current memory frequency to VFO and goes there.
- Mouse wheel on frequency digits: changes that frequency digit.
- Mouse wheel on space after ':': changes frequency by programmable step.

When the mouse pointer is in the programmable step area, a "Prog Step" annunciator is shown.

On the Mxxx: line:

Click: selects memory mode and goes to the memory frequency.
Double click: Stores VFO frequency in the current memory and goes there.
Mouse wheel on memory digits: changes memory number and goes there.

Notes

To modify the encoder options, first deselect "Use encoder options" in the Options menu, then configure the program according to the desired encoder behaviour, and finally select "Save current option to encoder EEPROM" in the "Options" menu.

The TCP server by default listens on localhost at port 4538. When some other application connects to the server a diamond-shaped indicator is shown and will be hidden again when all clients have disconnected.

At first start after an encoder power on/reset the program must wait the end of the encoder splash screen triggered by Arduino resetting when the serial port is opened for the first time. This will take about 1s, so a fixed delay of 1s is inserted before the program tries to communicate with the encoder.

If the encoder is in "Waiting remote enable" state, the serial interface is not yet active so no communication with the encoder is possible.