







Turning on the analyzer.


The **Stick Pro** analyzer can be turned on in several ways: - by pressing the  key. - when connecting the analyzer to a PC via a USB cable (the analyzer will turn on automatically). - by long-pressing one of the keys :     **Important! At the same time, the analyzer will turn on and activate the measurement mode to which the pressed key corresponds.**

You can turn off the analyzer from any mode by long pressing the  key.

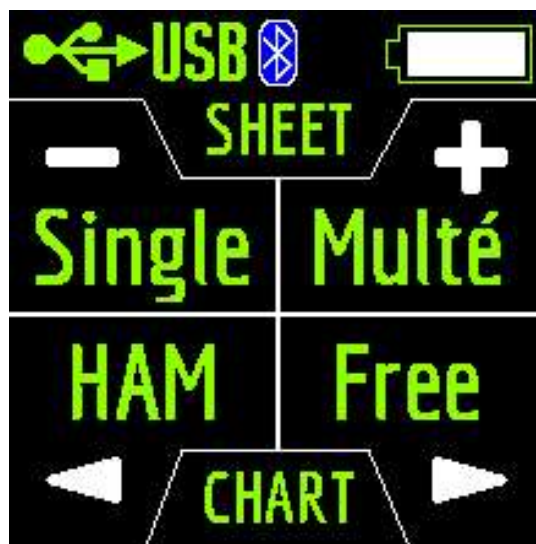
Main menu.

After turning on the analyzer, using the  key a screen with the main menu of the analyzer is available for the user.

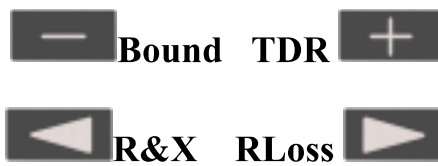
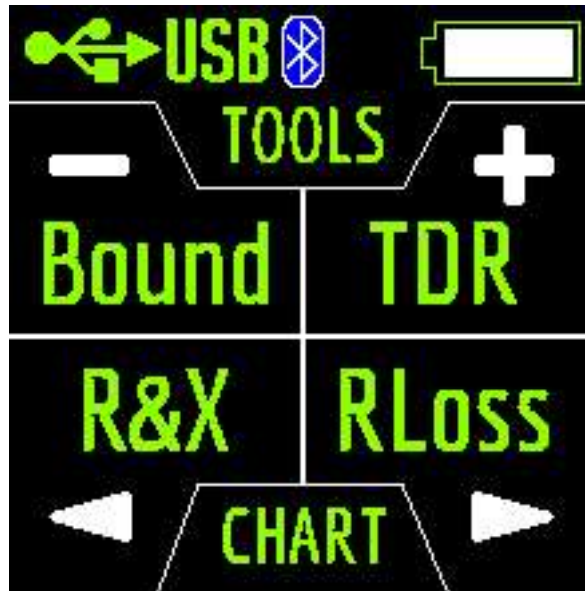
Important! Unlike the Stick Pro analyzer, the Stick Pro analyzer has three main screens with menus.

Screen switching is carried out by short pressing of  key.

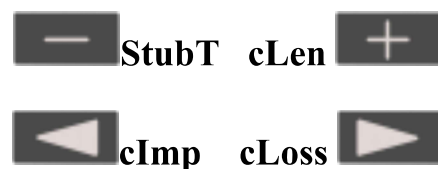
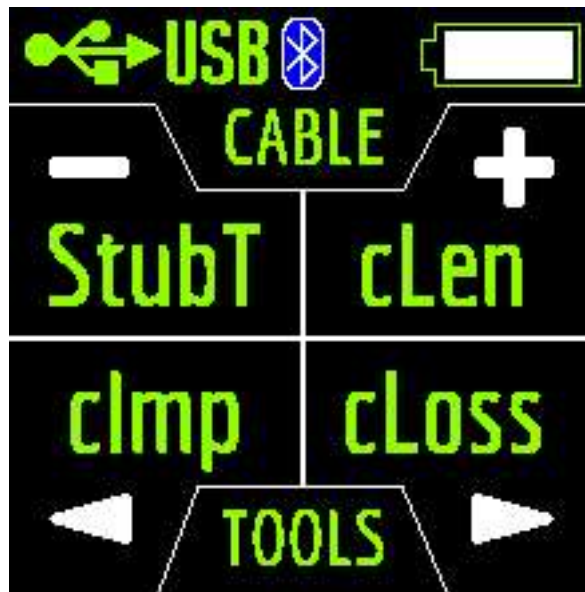
In addition to service information, at the top of the screen (battery charge, the indication of connection to a PC, charger, Bluetooth connection), the screen displays 4 main measuring functions of the analyzer:




The **Singe** and **Multé** modes display the measurement result as numbers, while the **HAM** and **Free** modes display the measurement results as numbers and charts.




The **TDR**, **R&X** and **RLoss** modes display the result in the form of charts and numbers, and the **Bound** mode in the form of numbers and color indication.

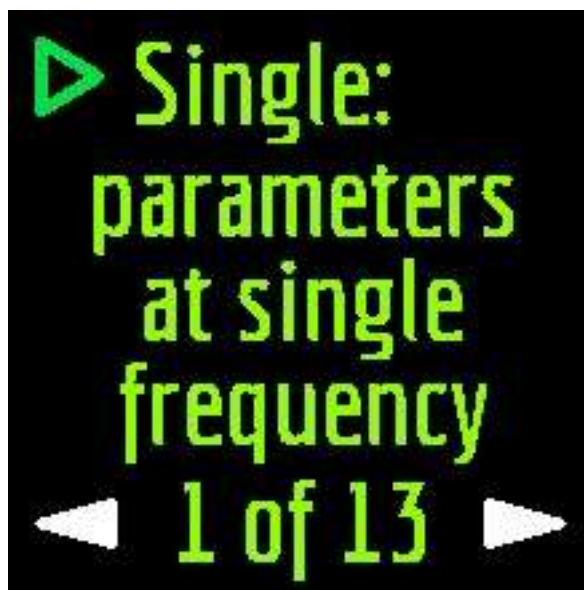


The **cImp** and **cLoss** modes display the result in the form of charts and numbers, and **StubT** and **cLen** mode in the form of numbers and color indication.




When you press  in the **Main Menu**, 13 information screens will be available. The first 12 screens will briefly talk about the main measuring functions of the analyzer

(**Single**, **Multé**, **HAM**, **Free** and others). By pressing the  key, you can switch to the corresponding measurement mode.

On the thirteenth screen when you press the  key, you will enter the **Settings menu**.



Single mode.

Single is a measurement of all parameters. The mode is started by pressing the  key. After pressing the key, the measurement will start automatically. This is indicated by a flashing antenna icon located at the top of the screen. You can stop the measurement by pressing  once. You can resume the measurement by pressing  once.

In **Single mode**, the analyzer has 5 screens with information. The first screen displays:

- working frequency
- **SWR** value
- return loss value

The second screen displays:

- working frequency
- $|Z|$ value
- value of active (**R**) and reactive (**X**) resistance (taking into account the sign) for the series mode

The third screen displays:

- working frequency
- $|Z|$ value
- inductance (**L**) and capacitance (**C**) value for series mode



Important! Sometimes inductance or capacitance values are displayed with a minus sign. It would seem to be contrary to the laws of physics. But no, in RigExpert analyzers, the minus sign next to the value indicates how much inductance or capacitance you need to add to the circuit in order to compensate for the reactive component of the impedance.

On the fourth screen are displayed:





- working frequency
- magnitude
- value of active (**R**) and reactive (**X**) resistance (taking into account the sign) for parallel mode





The fifth screen displays:


- working frequency
- phase value
- inductance (**L**) and capacitance (**C**) value for parallel mode


Screens switch among themselves by pressing   keys.




There are two ways to change the value of the operating frequency:

- keystrokes  and . A single press changes the frequency value minimally. If you press and hold the keys, the frequency will change continuously with an accelerated step.
- pressing and holding the  key for 2 seconds. After that, an information window will appear on the analyzer screen. Press  key again. A window will appear on the analyzer screen with the setting of the operating frequency.

The   keys select the cursor position to change units, tens, hundreds, thousands of kHz, and the   keys change the value.

A single press of the  key saves the change and returns to **Single mode**.

A single press of the  key returns to **Single mode** without saving changes.

The help menu is accessible by pressing and holding the  key and then selecting the **Help mode** with the   keys.

Multé mode.

Multé is a new mode, in which you can quickly assess how well your antenna works on different HAM bands. The result is displayed as stars. The smaller the **SWR** of the antenna in the range, the more stars.

Table of the dependence of the number of stars on the SWR:

5★ - SWR from 1.0 to 1.1

4★ - SWR from 1.1 to 1.15

3★ - SWR from 1.15 to 1.3


2★ - SWR from 1.3 to 1.7

1★ - SWR from 1.7 to 3.0

The SWR over 3 analyzer in **Multé mode** ignores.


If, after scanning, the analyzer didn't find a single resonance, then this means that either your antenna has a minimum SWR of more than 3, or the antenna or coaxial cable is damaged.





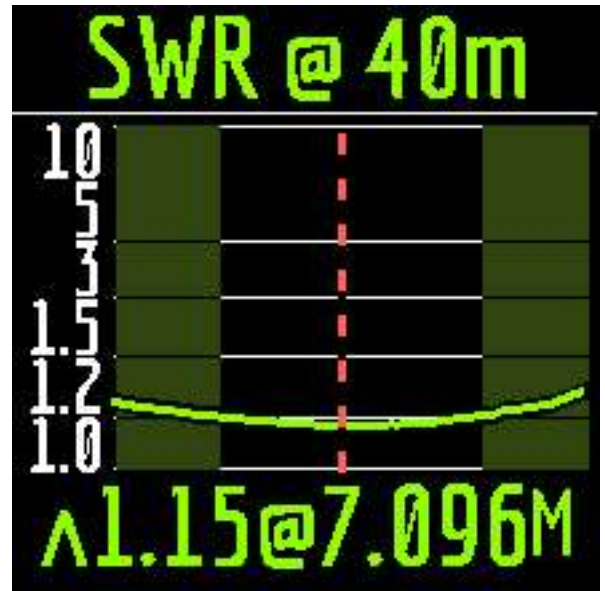
Restarting this mode is possible by pressing any key except  key.


After successful measurement in **Multé mode**, the following information will be displayed on the analyzer screen:

- band
- number of stars (out of 5)
- minimum value of SWR and the frequency at which this value was found

If there are more than one results detected by the analyzer, then the screens are switched using the   keys.

When you press the   keys on one of the results screens, the analyzer switches to **HAM mode** on the same band.







A long press of the  key will bring up the **Help menu**.

HAM mode.

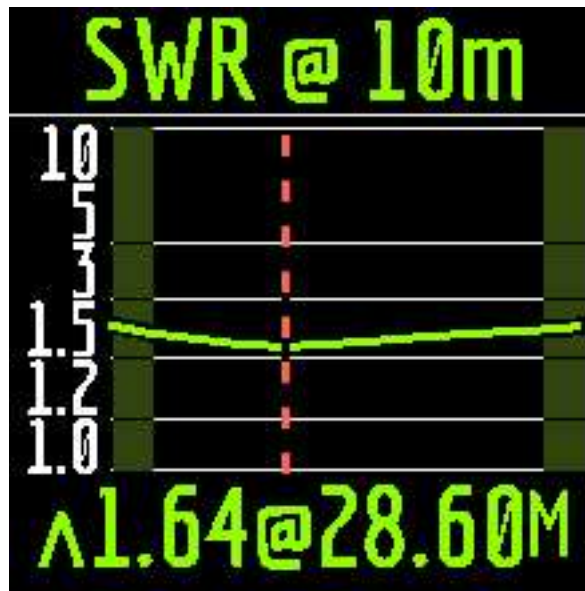
This mode allows you to measure and display the SWR antenna chart on the analyzer screen on one of the fixed HAM radio bands such as:

2.2 km, 630 m, 160 m, 80 m, 60 m, 40 m, 30 m, 20 m, 17 m, 15 m, 12 m, 11 m, 10 m, 6 m, 2 m, 70 cm.

Enabling this mode is possible either from the main menu by pressing the  key or when the analyzer is off by a long press of the same key. The measurement will be performed automatically in the range that was used in the previous measurement.

To repeat the measurement, press  once. To measure in a cycle, press the  key two times at short intervals. A long press of the  key will bring up the **Help window**.

You can change the measuring range using the   keys.





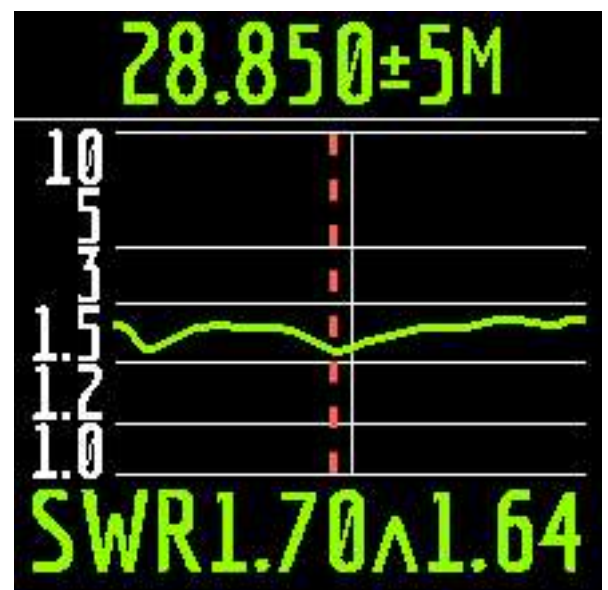
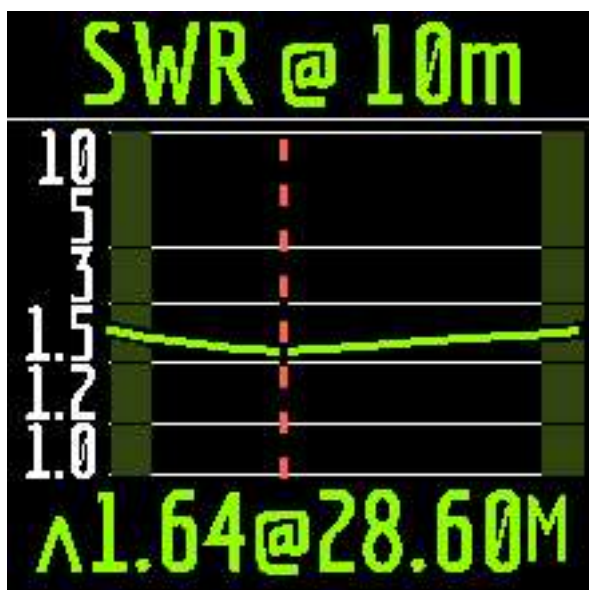
In **HAM mode**, the SWR icon and the range over which the measurement is carried out are displayed at the top of the screen.

In the center of the screen, a chart of the **SWR** values for the range is displayed.

The value of the minimum **SWR** found and the **frequency** at which this value was found are displayed at the bottom of the screen.

Important! To the left and right of the graph are two vertical stripes. They indicate going out of range. Sometimes the resonance of the antenna may be out of range, but very close to the beginning or end. In such cases, the analyzer will determine the resonance beyond the limits of the ranges.

When you press the  or  keys the analyzer switches to **Free mode** with the center frequency of measurement corresponding to the center frequency of the selected range:



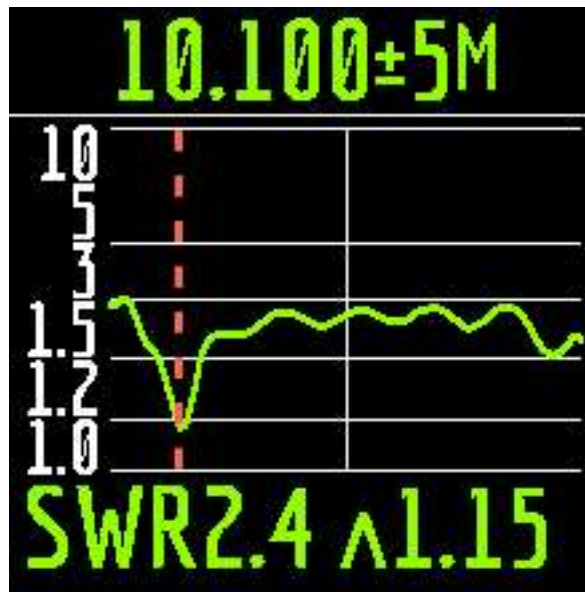
You can exit the mode in the main menu by briefly pressing the  key.

Free mode.

This is a classic **SWR** measurement mode with plotting in a user-defined frequency band.





This mode is useful for survey measurement of the antenna in a wide frequency range or for measuring the **SWR** in a very narrow predetermined area.

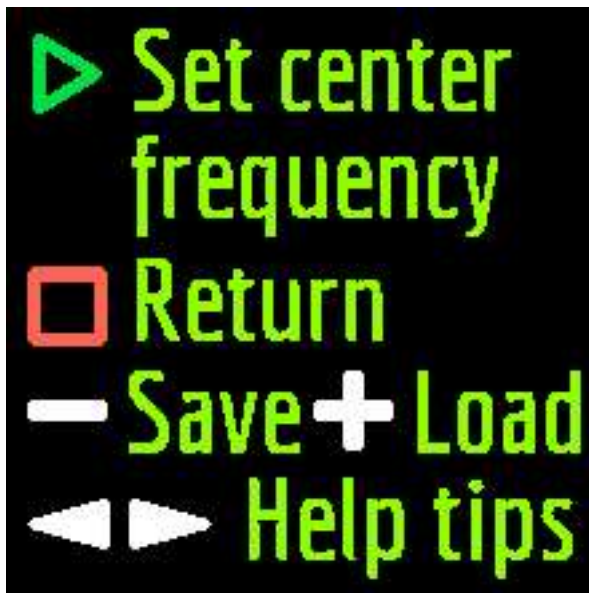
In **Free mode**, the following is displayed on the analyzer screen:









- at the top of the screen: the value of the center frequency of the measurement and the width of the measurement band.
- in the middle of the screen: SWR chart
- at the bottom of the screen: the SWR value under the marker (solid vertical line) and the minimum of the SWR found (dashed vertical line).



There are two ways to set the center of the measurement frequency:


-   keys. Pressing the key once will change the frequency discretely to a certain value. Pressing and holding the key will cause an accelerated continuous change in frequency.
- long press  After press, a window will be available with a choice of setting the center frequency, exit or calling **Help**. Press  briefly and enter the frequency setting menu.



The   keys select the cursor position to change units, tens, hundreds, thousands of kilohertz, and the   keys change the value.

Setting the measurement bandwidth by pressing the   keys. The minimum bandwidth is 10 kHz.

A quick double press of the  key will cause a measurement in a loop. To stop click  key.

To exit the mode, briefly press  key.