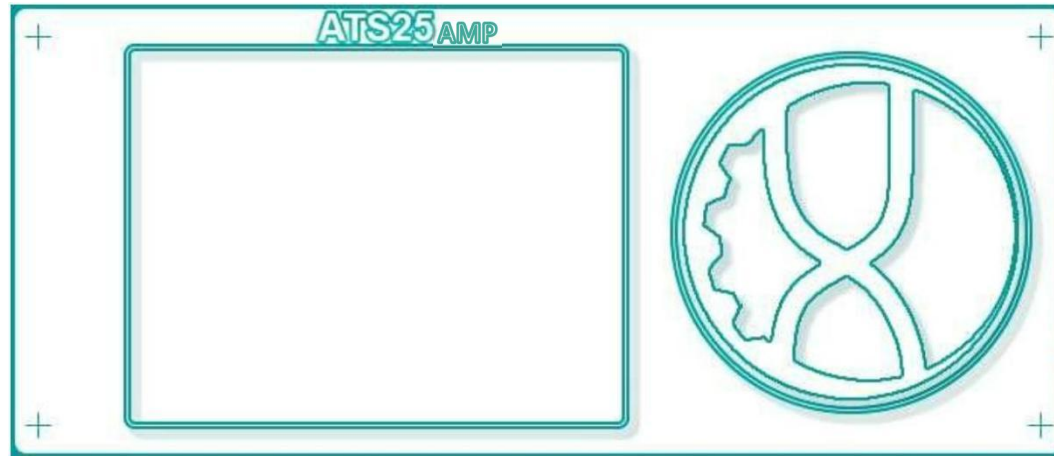
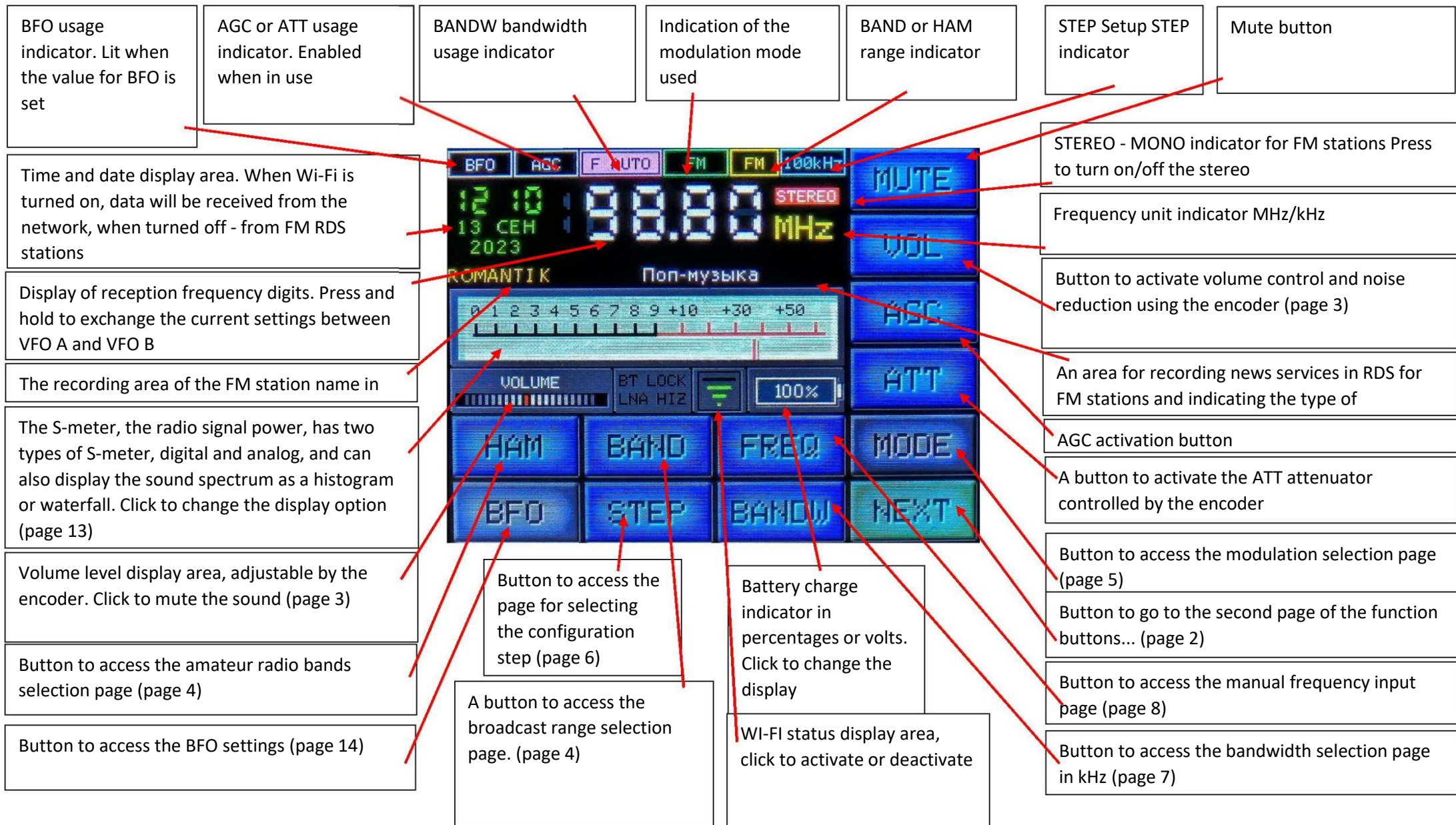


Receiver ATS25_{AMP}



USER MANUAL
H-RADIO v4.17 AIR

H-RADIO 4.17 Air Firmware User Manual for ATS25AMP Receiver



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Button to access the frequency scan page for the current range (page 10)

Button to activate automatic station search in ascending direction

Button to activate automatic station search in descending direction

Button to activate the screen brightness adjustment function using the encoder (page 13)

Bluetooth module status indicator for connecting a wireless speaker or headphones, built-in antenna amplifier (LNA) and antenna input impedance (Hi-Z or 50 ohms). As well as the lock screen and encoder indicator. Click to change the options.



On/off button for receiving RDS data broadcast
by FM stations

Button for viewing FM stations stored in memory (preset.csv file) (p. 12-13)

The button for enabling the "retro scale" display mode of tube radios (p. 17)

Button to select the station memory bank page
(page 12)

Button to access the CB band channel reception mode (from grid channel 1 –A [23.815 MHz] to grid channel 29 +D [29.995 MHz]) (page 9)

Button to return to the first page of the function
buttons (page 1)

A button to access the system functions settings page. (page 19)

A button for accessing pages of information about the status of various system settings and the propagation of HF radio waves in real time (data received from the Internet if Wi-Fi is enabled) (p. 21)

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The noise reduction indication band, adjustable by the encoder. Click to activate. Works only for FM and AM modulation

Graphical digital or analog indication of the volume level (press to mute/turn on the sound)

The display area of the attenuation value of the signal regulated by the encoder. The attenuator is active only for FM and AM modulation



The VOL button is active to change the volume. You can also change the volume by pressing the encoder

Volume level display area (from 0 to 63), adjustable by encoder

Visualization of the sound spectrum in the form of a histogram

The ATT button is active. You can change the attenuation value using the encoder

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A screen for selecting the broadcast range, with an indication at the top of the currently used frequency.

Click the button to use the range indicated on it.

Press the ANT FM switch to select the antenna input connection. If automatic antenna switching is enabled in the settings, then the switch is not active.

A screen for selecting an amateur radio band.

Click the button to use the range indicated on it.

To exit without changes, click on the frequency.

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A screen for selecting the types of modulation used only for amateur radio bands.

Press the button to use the mode indicated on it.

A screen for selecting the types of modulation used for broadcast bands, with the exception of the FM band.

Press the button to use the mode indicated on it.

The screen received after pressing the DIGI key to select the digital signal decoding modes.

Press the button to use the mode indicated on it.

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Setup step selection screens for FM - AM - SSB bands.
Click the button to use the configuration step indicated on it.

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Screens for selecting the bandwidth used (bandpass filter) for FM – AM – SSB with an indication of the current filter.

Click the button to use the filter specified on it.

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The screen is accessed using the FREQ key for direct manual frequency input.

Current frequency indication

Indication of the entered frequency. Use a dot to split MHz for the FM band

Numeric keypad for frequency input



Cancel button to save the current frequency

The button for completely deleting the entered frequency

Button to delete the last entered digit

The button for entering the entered frequency in the VFO

Megahertz dividing point in the FM band

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Citizen Band Reception - press the CB button

Indication of the modulation used. Press to switch between AM, USB or LSB. Press and hold to turn on the BFO adjustment mode.

Indication of the frequency of the tuned CB channel. Press to change the last digit of the frequency to 0 or 5 kHz.

An indicator of the sound spectrum in the form of a waterfall. Click to change the appearance.

Displaying the BFO value when activating the BFO setting.

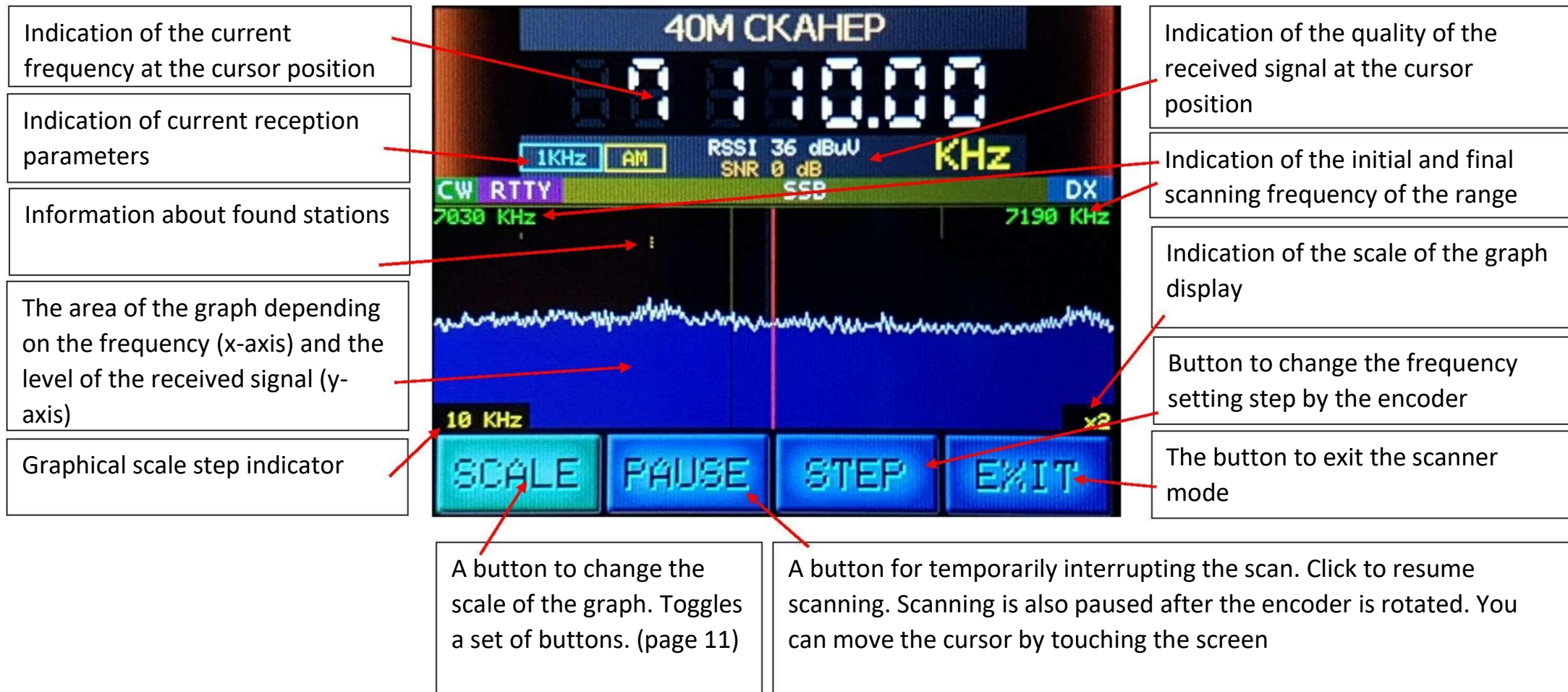
Digital indication of the tuned CB channel (from channel 1 to channel 40)

Indication of the channel range from range -A to range +D according to ITU. Click on it to switch between the available ranges

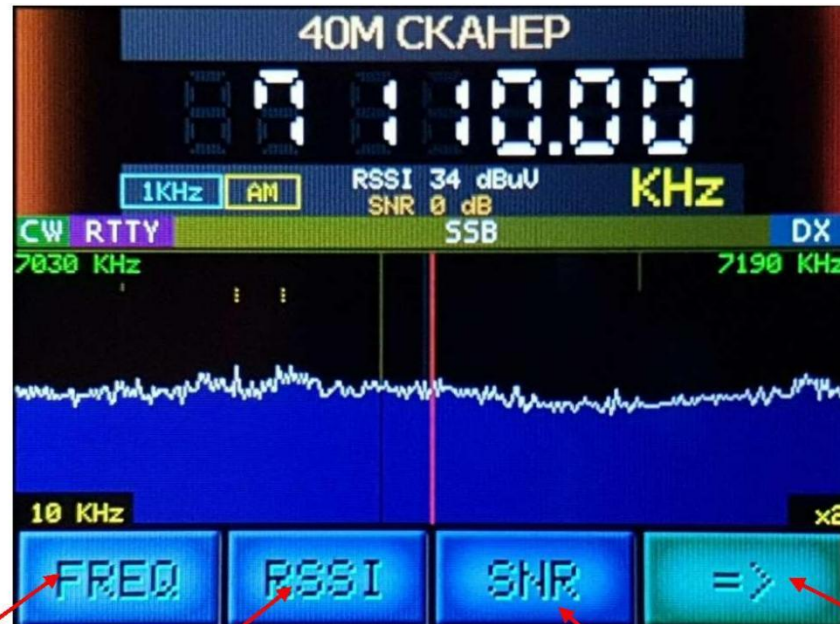
The CB button is activated

Displaying the volume indicator digitally

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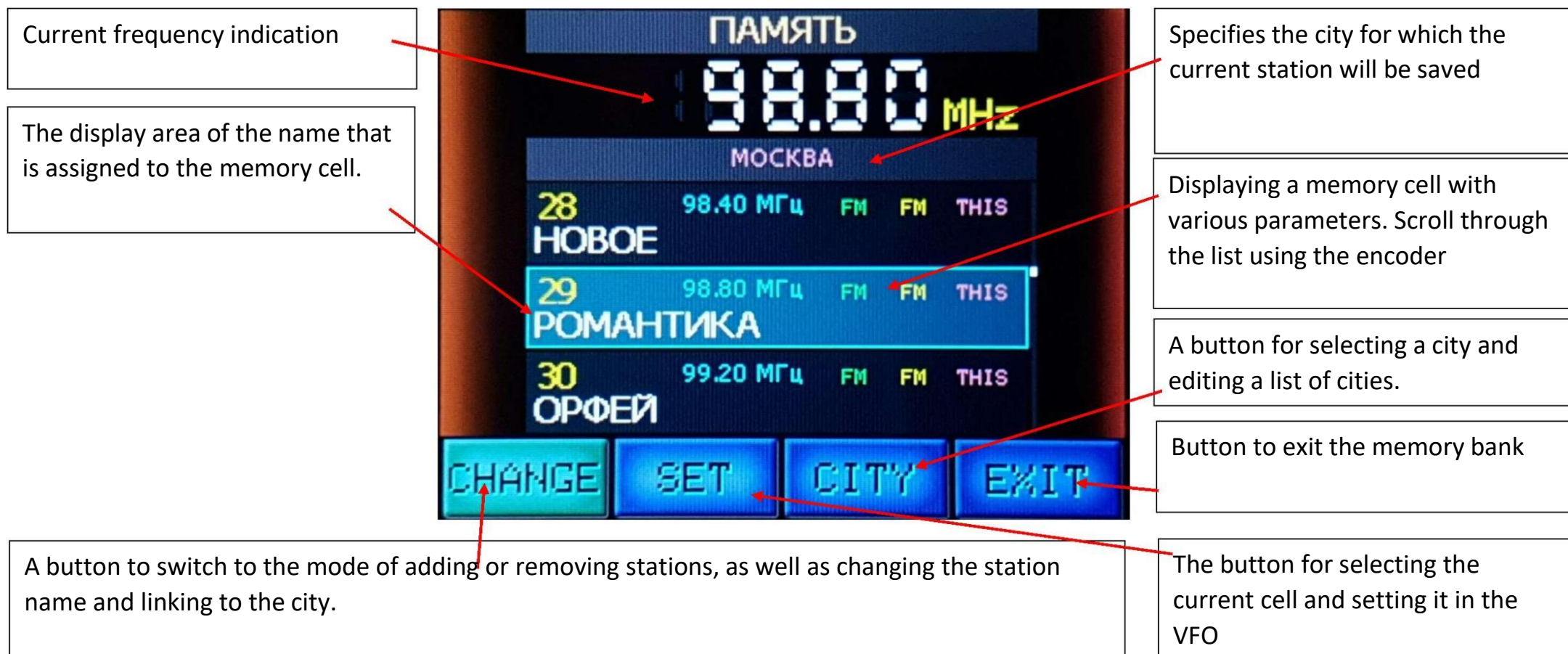
A button to change the scale of the graph in the frequency domain (X-axis). Adjustment using an encoder

A button to change the amplitude of the graph (Y axis). Adjustment using an encoder

A button to change the contrast of the received signals. Adjustment using an encoder

Click to return to the previous page

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The appearance of the screen with the FM button activated. You can switch the FM band stations stored in the memory bank for the current city with the encoder.

The on-screen encoder is activated by dragging from the bottom up at the bottom of the screen. To close, swipe down from the center of the screen. Available in all modes.

The appearance of the screen with the LIGHT button activated and the display brightness indication adjustable by the encoder.

Also shown here is the S-meter in digital display mode.

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Amateur radio reception screen

BFO Frequency Setting Screen



Indication of the types of communication CW-DIGI-SSB-DX on the sections of the used range from the label.csv file

The cursor indicates the setting step in SSB mode, when you click on the digits 1kHz, 100Hz, 10Hz, the cursor moves under the corresponding digit

The BFO button is activated

Button to change the BFO setting step (1 Hz, 10 Hz, 25 Hz)

Indication of the BFO setup step

BFO frequency indication

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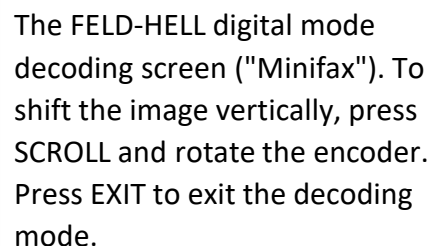


Reception in HF bands with a color indication of the conditions of propagation of radio waves in the range used:

- green - the range with open propagation;
- yellow is a range with a medium open spread;
- red color is a range with a closed propagation.

RF propagation data is obtained directly from the Internet, so they are displayed when a Wi-Fi connection is active.

Decoding of digital signals and Morse code



RTTY digital mode decoding screen. Choose RTTY-L or RTTY-U according to the transmitting station. Set one of the three decoding speeds 45.45 / 50 / 75 under by clicking on the speed indicator. The frequency adjustment should be performed on a low sound signal (left on the waterfall).

CW decoding screen. The decoding speed of CW signals is automatic. The intensity of the sound volume affects the correct decoding, adjust the volume according to the signal quality. Focus on the yellow flashing indicator for the correct setting.

FT8/FT4 decoding screen. Connect the receiver to the Internet to synchronize the exact time. Otherwise, decoding cannot be performed. The waterfall field displays the received signals in a fixed frequency band.

There is a red vertical line on the waterfall or histogram, which indicates the audio decoding frequency (800 Hz by default). This line must be aligned with the maximum of the signal. Adjust the frequency accordingly with a minimum step. One signal for CW and Feld-Hell transmissions or two signals for RTTY transmissions.

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Current frequency indicator

Display area of the current city, time and battery charge

The frequency scale for the selected range. The modulation is set automatically for the current range

Stations stored in the memory bank for the current range and city

A button for selecting settings. Displays CITY | STEP | BFO buttons

Press the retro volume indicator to mute the sound

Displaying the name of a range or sections of ranges from the label.csv file

Setting step selection button

A button for selecting a city or editing a list of cities

Receiver screen in the "retro" style

Volume button. Tap to change the volume

Scroll the scale left and right by swiping on the screen or using the encoder. A short movement on the scale activates automatic scrolling to the next saved station.

The button to exit the RETRO mode

Retro range indicator

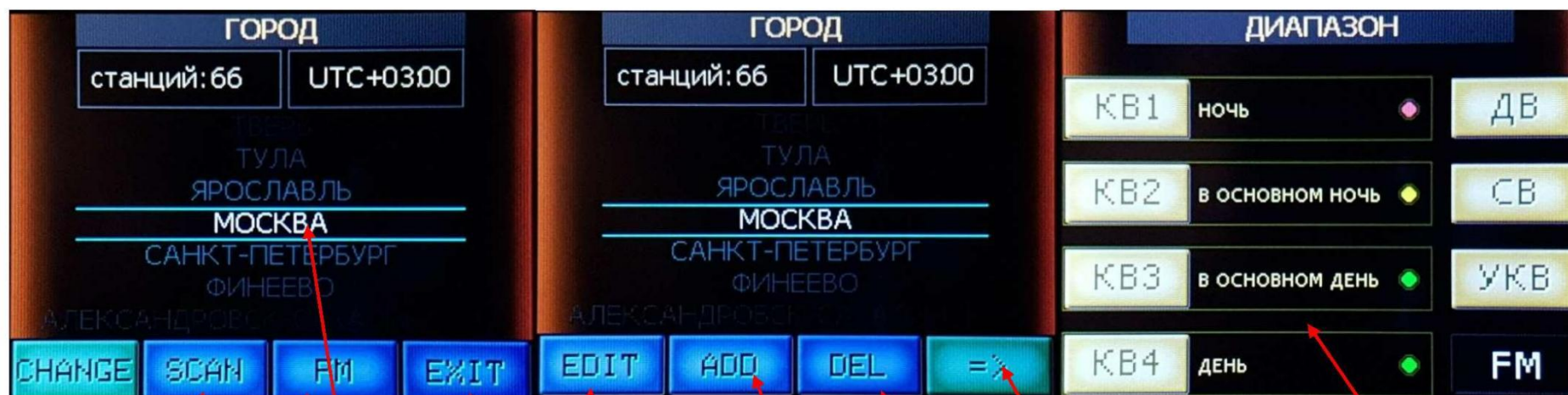
Stereo indicator for FM band

The scale indicator of the scale. Click and move the slider to change.

The BFO adjustment button is active for amateur radio bands. Set the required value using the encoder

Button to return to the previous screen

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A button for scanning and saving FM stations in the selected city

FM button to view the list of FM stations in the current city

Scroll through the list using the encoder and tap on the screen or the encoder to select a city.

Use the CHANGE key to go to the next screen to edit the list.

Button to exit CITY mode

A button for editing city names and setting the time zone of your region. To set the UTC time in an already saved city, rename the city, and then adjust the time. Saved in the city.csv file

Button to add a city to the list

The button to return to the previous page

Button to remove the selected city from the list

A range selection page displayed in RETRO mode, with buttons for retro ranges and a color indication of wave propagation conditions received via Wi-Fi

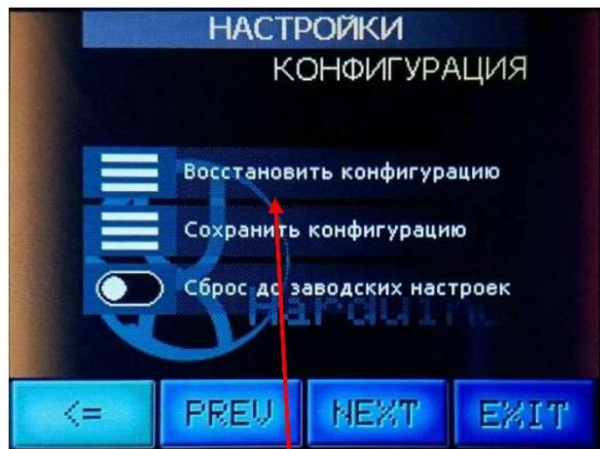
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Configuration screens available via the SETUP button

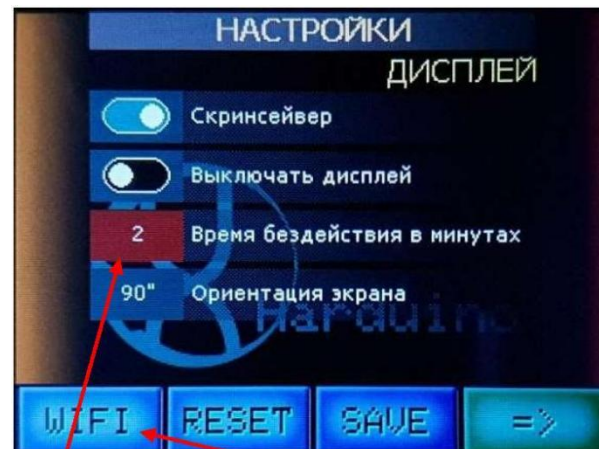
On these pages you set the parameters selected by the user according to your needs.

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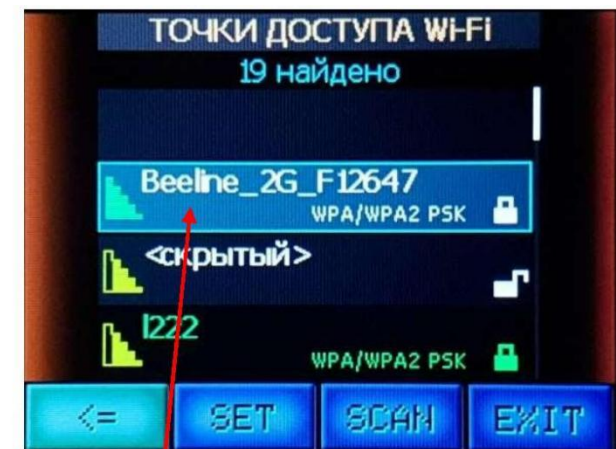


If your receiver does not work properly, you can restore the settings previously saved to the file using the appropriate item in the list, or by pressing the encoder button when the receiver is turned on to reset to factory settings.

If the parameters have been changed, when the EXIT button is pressed, the system will ask you to confirm saving the new settings.



Select, deselect or change the selection of the corresponding item by clicking on it or on the indicator to the left of the description. The changed elements are highlighted in red.



Enter the Wi-Fi settings and select the access point to connect to. Enter the password if you haven't used this access point yet. The list of saved access points is editable by clicking the SAVED button in the additional row of buttons. The information is saved to the ap.csv file. The current connection is displayed in green, the saved connection is blue, yellow — if there is a connection. Re-scan the list of networks using the SCAN button. Scroll through the list with the encoder.

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Information screens on the INFO button.

It shows the parameters used by the receiver, information about the firmware, about the Si473x chip, band boundaries, conditions of propagation of HF waves (received in real time via Wi-Fi) and developers.



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ON-SCREEN KEYBOARD.



This on-screen keyboard appears when it is necessary to enter characters and data on the receiver pages, the password of the Wi-Fi access point, the firmware activation key, editing the names of memory stations, cities... and much more. Use the "^" and "123" buttons to activate uppercase/lowercase/numeric/special characters. OK to confirm. ESC to cancel.

SCREENSAVER (delay of switching on and setting in SETUP).



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