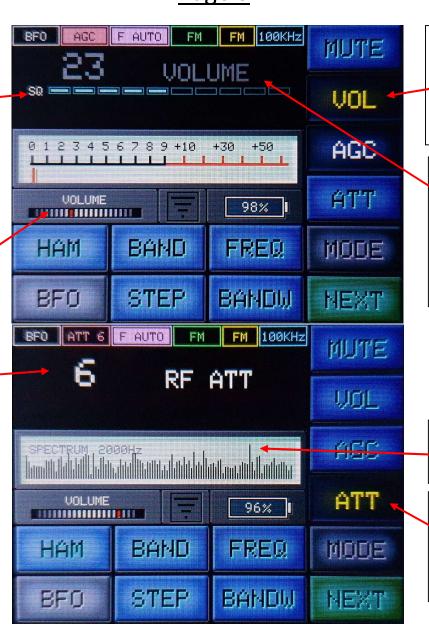
AGC or ATT usage STEP Setup STEP BFO usage BANDW bandwidth Indication of the BAND or HAM Mute button indicator. Lit when indicator. Enabled usage indicator modulation mode range indicator indicator the value for BFO is when in use used set STEREO - MONO indicator for FM stations Press AGC FM FM 100KY to turn on/off the stereo MUTE Time and date display area. When Wi-Fi is turned on, data will be received from the Frequency unit indicator MHz/kHz network, when turned off - from FM RDS 12 MAP 2023 stations RO. 8 FM Поп-музыка Button to activate volume control and noise Display of reception frequency digits. Press and reduction using the encoder (page 3) 2 3 4 5 6 7 8 9 +10 +30 +50 HSC hold to exchange the current settings between VFO A and VFO B An area for recording news services in RDS for ATT The recording area of the FM station name in VOLUME 100% FM stations and indicating the type of The S-meter, the radio signal power, has two AGC activation button BAND FREQ MODE types of S-meter, digital and analog, and can A button to activate the ATT attenuator also display the sound spectrum as a histogram controlled by the encoder or waterfall. Click to change the display option BANDU BFO (page 13) Button to access the modulation selection page Volume level display area, adjustable by the Button to access the (page 5) Battery charge encoder. Click to mute the sound (page 3) page for selecting indicator in Button to go to the second page of the function the configuration percentages or volts. buttons... (page 2) step (page 6) Click to change the Button to access the amateur radio bands Button to access the manual frequency input display selection page (page 4) A button to access the page (page 8) broadcast range selection WI-FI status display area, Button to access the BFO settings (page 14) page. (page 4) Button to access the bandwidth selection page click to activate or deactivate in kHz (page 7)

On/off button for receiving RDS data broadcast Button to access the frequency scan page for by FM stations the current range (page 10) FM 100KHz RDS Button for viewing FM stations stored in memory (preset.csv file) (p. 12-13) FM Button to activate automatic station search in 2023 ascending direction ROMANTIK ROMANTIKA: CROOKES The button for enabling the "retro scale" display 0 1 2 3 4 5 6 7 8 9 +10 +30 +50 RETRO mode of tube radios (p. 17) MEMOL VOLUME 100% Button to activate automatic station search in NIIIIIIIIIIIII Button to select the station memory bank page descending direction (page 12) SCAN SETUP ШP CE Button to activate the screen brightness Button to access the CB band channel reception DH LIGHT INFO BACK adjustment function using the encoder (page mode (from grid channel 1 -A [23.815 MHz] to 13) grid channel 29 +D [29.995 MHz]) (page 9) A button for accessing pages of information about the status of various system A button to access the system Button to return to the first page of the function settings and the propagation of HF radio waves in real time (data received from the functions settings page. (page buttons (page 1) Internet if Wi-Fi is enabled) (p. 21) 19)

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

Page 4



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.



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.



Setup step selection screens for FM - AM - SSB bands.

Click the button to use the configuration step indicated on it.



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.

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

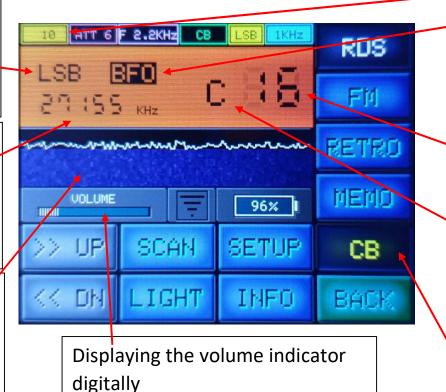
Megahertz dividing point in the FM band

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.

Citizen Band Reception - press the CB button



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

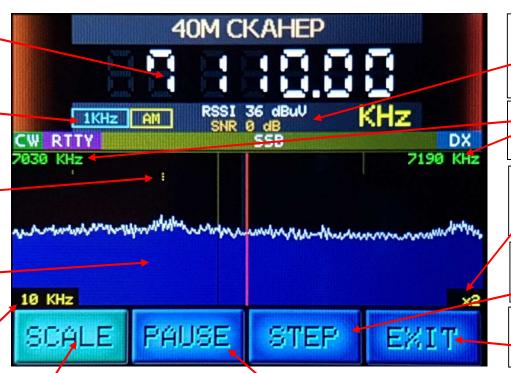
Indication of the current frequency at the cursor position

Indication of current reception parameters

Information about found stations

The area of the graph depending on the frequency (x-axis) and the level of the received signal (yaxis)

Graphical scale step indicator



Indication of the quality of the received signal at the cursor position

Indication of the initial and final scanning frequency of the range

Indication of the scale of the graph display

Button to change the frequency setting step by the encoder

The button to exit the scanner mode

A button to change the scale of the graph. Toggles a set of buttons. (page 11)

A button for temporarily interrupting the scan. Click to resume scanning. Scanning is also paused after the encoder is rotated. You can move the cursor by touching the screen



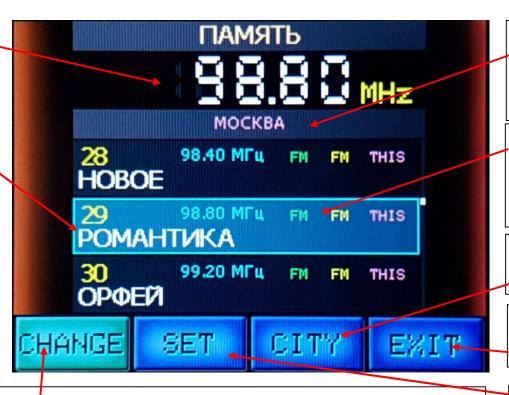
A button to change the scale of the graph in the frequency domain (X-axis). Adjustment using an encoder

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

Current frequency indication

The display area of the name that is assigned to the memory cell.



Specifies the city for which the current station will be saved

Displaying a memory cell with various parameters. Scroll through the list using the encoder

A button for selecting a city and editing a list of cities.

Button to exit the memory bank

A button to switch to the mode of adding or removing stations, as well as changing the station name and linking to the city.

The button for selecting the current cell and setting it in the VFO



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.

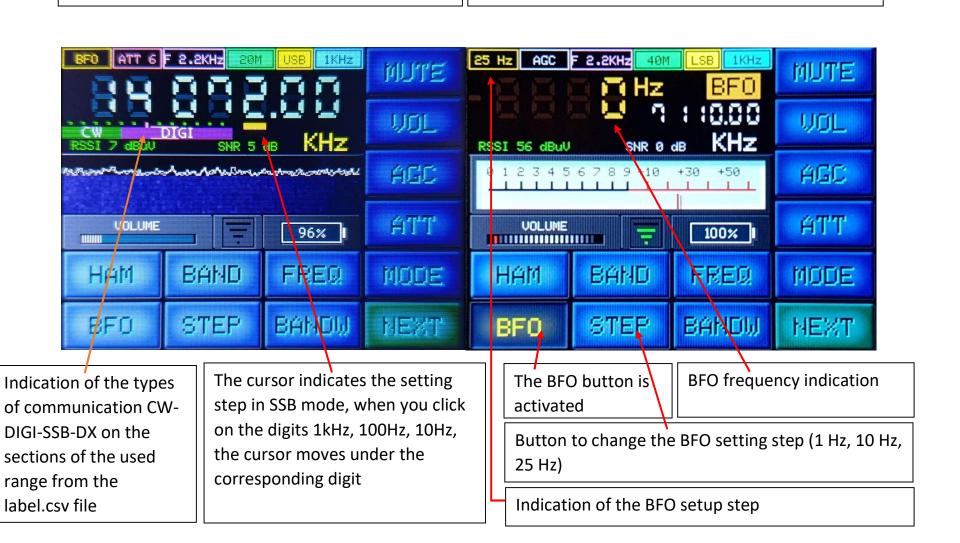
The on-screen encoder is activated by dragging from the bottom up at the bottom of the screen. To close, swipe down from the center of the screen. Available in all modes.

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.

Amateur radio reception screen

BFO Frequency Setting Screen





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



FELD-HELL digital mode decoding screen (also called "Minifax"). To center the label, press and hold on the message reception display, the label will turn yellow, then use the encoder to adjust; press again to return.

RTTY digital mode decoding screen. You can set one of three decoding speeds 45.45 / 50 / 75 baud by clicking on the speed indicator (frequency adjustment should be made to a lower sound signal (left on the waterfall). Correct for correctly selected RTTY-L or RTTY-U

CW decoding screen. The decoding speed of CW signals is automatic. The intensity of the sound volume affects the correct decoding, so adjust the volume according to the signal quality. The yellow circle flashes during decoding. Focus on it as well for the correct setup.

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.

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

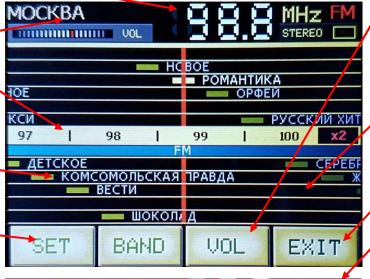
Press the retro volume indicator to mute the sound

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



 МОСКВА
 МНZ FM

 ОРФЕЙ
 STEREO

 РУССТИЙ ХИТ
 DI

 ВЕСТИ
 СЕРЕБРЯНЫЙ ДОЖДЬ

 ШОКОЛАД
 99

 НОВОЕ
 ЖАРА

 НОВОЕ
 НАК

 РОМАНТИКА
 ВЕРА

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

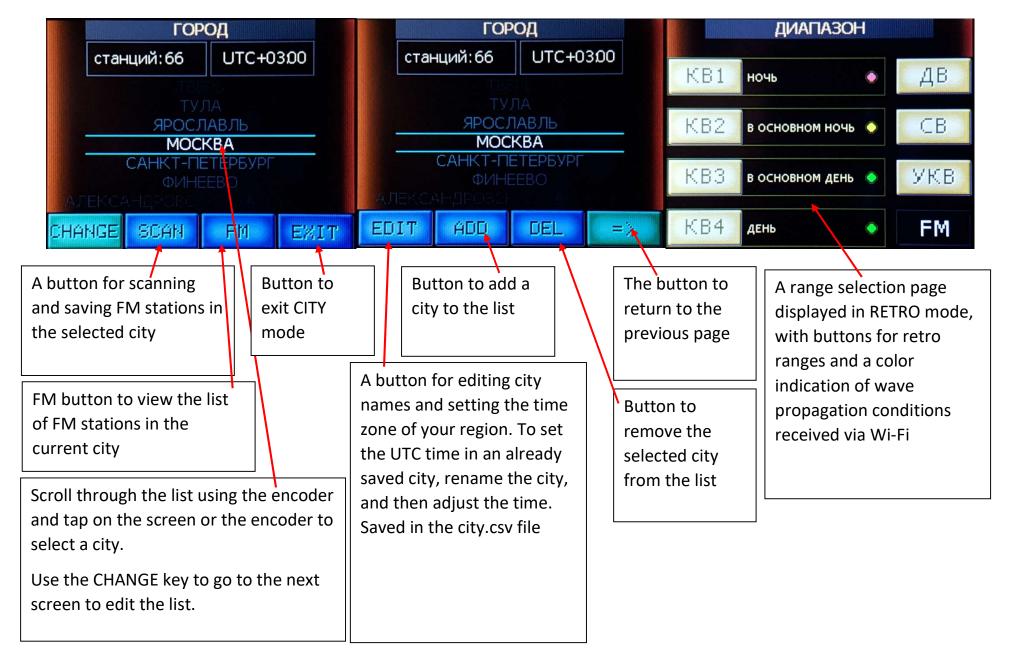
Retro range indicator

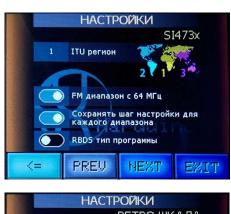
Stereo indicator for FM band

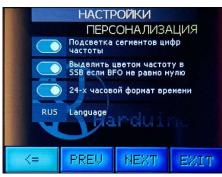
The scale indicator of the scale. Click and move the slider to change.

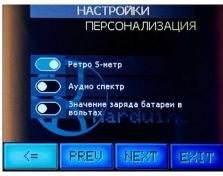
The BFO adjustment button is active for amateur radio bands. Set the required value using the encoder

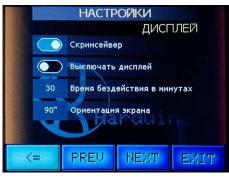
Button to return to the previous screen

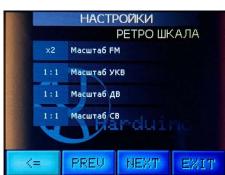


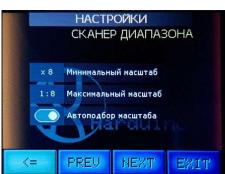


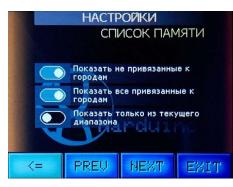


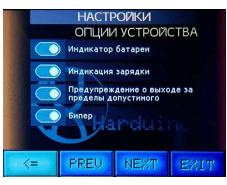


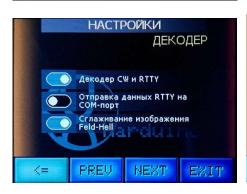


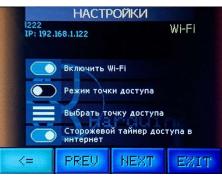








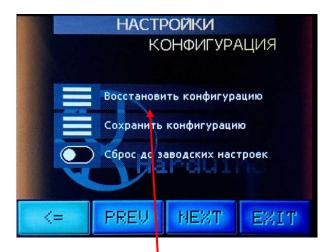


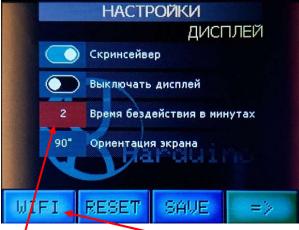


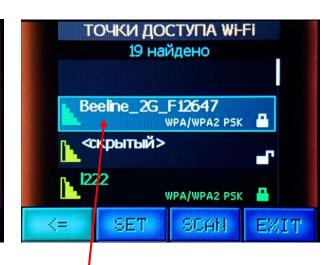


Configuration screens available via the SETUP button

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







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.

Information screens on the INFO button.

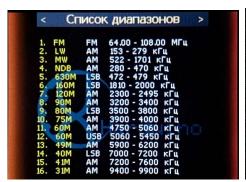
It shows the parameters used by the receiver, information about the firmware, about the Si473x chip, band boundaries, conditions of propagation of HF waves (received in real time via Wi-Fi) and developers.

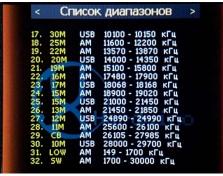
















ON-SCREEN KEYBOARD.



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).



For updates and additional materials, visit http://harduino.ru