#### User manual Vers. 5.2a for receiver SI4735/32 \_ ESP32\_2.8 inch Display Page 1

BFO use indicator. Usage indicator for Bandwidth in use Indicator of the band Indicator of the Tuning step indicator MUTE button AGC and ATT. It is on modulation mode in use Lit when a value indicator BANDW in use BAND - HAM **STEP** Audio silencer for the BFO is set when in use MODE MHz / kHz frequency unit indicator BFO AGC FM 100KHz Time display area; obtained by the Services of STEREO - MONO indicator for FM stations **RDS FM stations** WILL. STEREO SIRIKINA VOL button to activate the Volume adjustment Receiving frequency digits display via the encoder (pag.3) HIJU News writing area in RDS for FM stations VOLUME Writing area Name FM station in RDS 100% 0% AGC activator button BAND FRED MODE ATT button to activate the attenuator S-meter, radio signal strength, display is in digital/ adjustable by encoder BFN STEP BAHIOLIK mode MODE button to access the page for selecting Key STEP to access the the type of mode / Modulation (Pag. 4) selection page for the tuning Volume bar level display area, adjustable by step (Pag. 4) encoder. Press to mute the sound (pag. 3) NEXT button to switch to the second page of function buttons .... (pag. 2) BAND button to access the Battery level / percentage page for selecting the indicator, click it to change HAM Button to access the page for selecting the FREQ button for accessing the manual **Broadcasting Bands** the view Amateur Bands HAM (Pag. 5) frequency entry page (Pag...6) ( Pag...5 ) BFO Button to access the BFO adjustment page BANDW button to access the page for choosing the bandwidth in Khz (Pag..5)

( Pag... 10 )

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>> UP button to activate the automatic scan of the frequency in use in increasing sense (the scan stops at every signal of good intensity)

>> DN button to activate the automatic scan of the frequency in use in descending direction (the scan stops at every signal of good intensity)

SCAN button to open the frequency scan page for the current band (pag. 7)



LIGHT button to activate the adjustable brightness function of the screen by means of the encoder (Pag..9)

CHIP button to access page that show informations on chip in use.

INFO button to access the page that show the status of the system settings ( Pag... 13 )

RDS Button to activate / deactivate the reception of RDS services broadcast by FM stations

FM button to view the FM stations stored in the preset.h file and in the Memory Bank (pag. 9)

RETRO Button to activate the "retro scale" display mode of old tube radios (pag. 11)

MEMO Button to select the memory bank record page of the received stations ( Pag. 8)

SETUP button to access the setting page of the various system functions ( Pag.. 12 )

BACK button to return to the first page of function buttons ( Pag... 1 )

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Volume level indication area (from 0 to 63) adjustable with the encoder

Digital bar graphic indication of the volume level



Volume button active. You can also activate the volume function by pressing the encoder



Screen for selecting the modulation modes / types to be used, with the frequency used at the top.

Press the button to use the mode indicated on it.

Screen for selecting the tuning step to use, with indication of the current frequency at the top.

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



Screen for selecting the broadcasting band to use, with the current frequency in use indicated at the top.

Press the button to use the band indicated on it.

Screen for selecting the HAM amateur band to use, with indication at the top of the current frequency in use.

Press the button to use the band indicated on it.

Screen for choosing the Bandwidth to use, with the current frequency in use indicated at the top.

Press the button to use the filter indicated on it.

Screen accessed with the FREQ key for direct manual entry of a frequency.

Indication of the current frequency

Indication of the inserted frequency; (use dot to separate MHz for FM band)

Numeric keypad for entering the frequency



EXit button to not select the entered frequency, remaining on the current one

CLS button for the total cancellation of the entered frequency

DEL button to delete the last digit entered

OK button to insert the entered frequency to the VFO

Button point separator of the Megahertz in the FM band

Indication of the current frequency at the cursor position

Indication of the current reception parameters

Report on the workstations found

Displays the graph area based on the frequency (x-axis) and the strength of the received signal (y-axis). After completing a full scan cycle, by clicking on the graph, the height scale is adjusted.

Graphic scale step indicator



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

Indication of the start and end frequency of the band scan

Indication of the display scale of the graph

STEP button to change the scanning step

BACK button to exit the graphic scanner function.

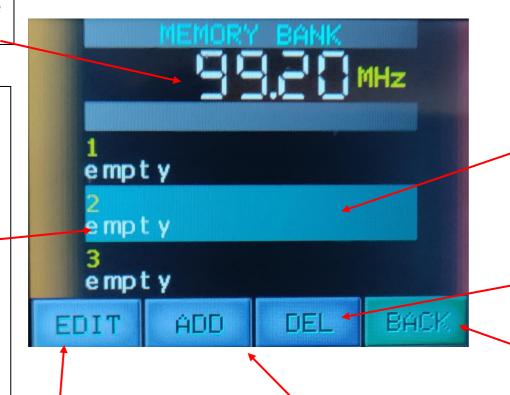
SCALE zoom button

PAUSE button to temporarily stop the scan in progress; click to resume scanning. Scanning is also suspended after the encoder has rotated. In pause mode, you can move the cursor by touching the screen

Indication of the frequency in use to be stored

The display area of the name we have given to the memory cell;

To insert a new one, after pressing the ADD button, a black bar will appear in this area, where you can change the name—of the station using the encoder and confirm each character entered by pressing the encoder or the screen. If you made a typo, press DEL, the character will be deleted. To clear all text, press and hold the encoder or screen until the text is cleared



Display of the memory location with various parameters and a name to be assigned to the memory using the EDIT button

DEL button to delete the selected memory location and then confirm or cancel

BACK button to exit the memory bank

EDIT Button to change the name of the station

ADD button to add a new memory location which will store the frequency and parameters specified above.



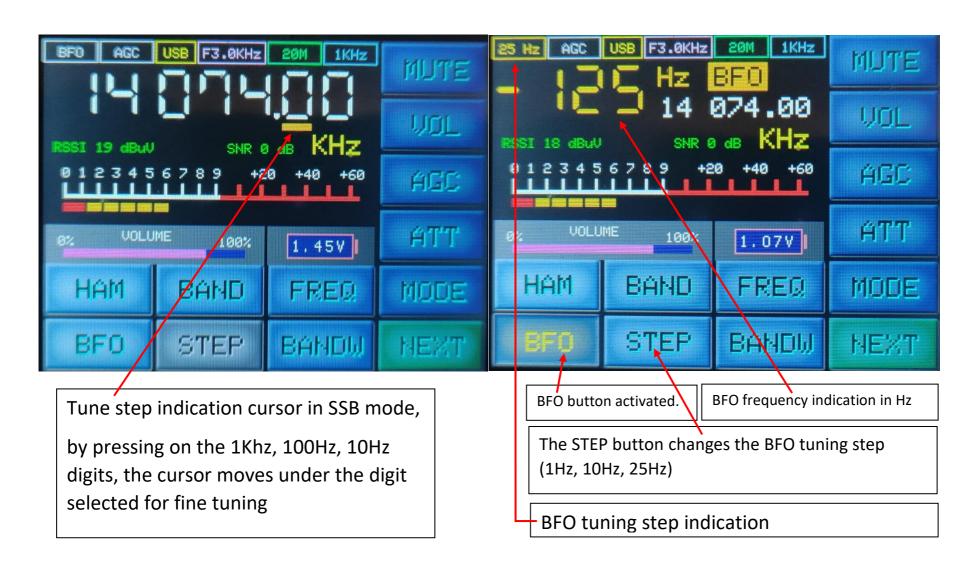
Appearance of the screen with the FM button activated. You can switch the encoder to FM stations on the band stored in the memory bank for the current city.

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

Also in this photo there is the S-Meter in digital display mode

Layout screen of the reception of a HAM amateur band

BFO frequency setting screen via encoder



### "Retro" style receiver screen.

A long pressure on the scale switches the modulation from AM to SSB and vice versa (the function is not active in FM), in SSB a short pressure switches to fine tuning in SSB. This changes the color of the scale. A short press on the encoder button activates the volume control, a long press switches from AM to SSB and vice versa. Rotate the encoder to move along the scale



Volume button.

Press to change the volume. Or press the encoder button, adjust by encoder

Scroll the scale from left to right or vice versa to activate scrolling to the next stored station

EXIT Button to exit the mode RETRO

Click to select a city on the screen. Or scroll through the list with the encoder.

Cities are entered in the file "preset.h"



Band selection page displayed in RETRO mode, with buttons for retro bands.



### Setup screens accessible via the SETUP button

Select, deselect or change the selection of the respective element by clicking on it. The RESET button while holding down the button resets all settings to their default values. If your receiver is not working properly, you can reset the encoder settings while turning on the receiver. The modified parameters are highlighted in red and when you press the EXIT button the system will ask you to confirm the saving of the new settings

Info screens on the INFO button.

It shows the parameters used by the receiver, information about the firmware, Si473x chip

```
Software version U5.2a 15-05-2022 IU4ALH Mod
Mode : FN
Freq. : 99.2 MHz
RSSI : 18dBuU
SNR : 17uU
: STEREO
LNA GAIN index: 0/1
Uolume : )49
AGC OFF
BFD OFF
AUC max GAIN : 36
Ant. Cap = 1
Band : 0 FM
Bandwidth SSB : 3.0 KHz
Bandwidth AM : 4.0 KHz
Bandwidth FM : AUTO KHz
Stepsize MW : 9 KHz
Stepsize AM : 5 KHz
Stepsize SSB : 1 KHz fixed
Stepsize SSB : 1 KHz fixed
Stepsize FM : 100 KHz
Power Supply : 0.30 V
EEPROM SIZE : 2048 byte | FREE: 32 byte
EEPROM MemoBank: 1800 byte. Offset: 248
```

```
Part Number (HEX)...... 23
Firmware Major Revision... 54
Firmware Minor Revision... 48
Patch ID ...... 80
Component Major Revision... 55
Component Minor Revision... 48
Chip Revision... 68
```

### <u>Screensaver</u>

The activation time can be set in the SETUP menu

