

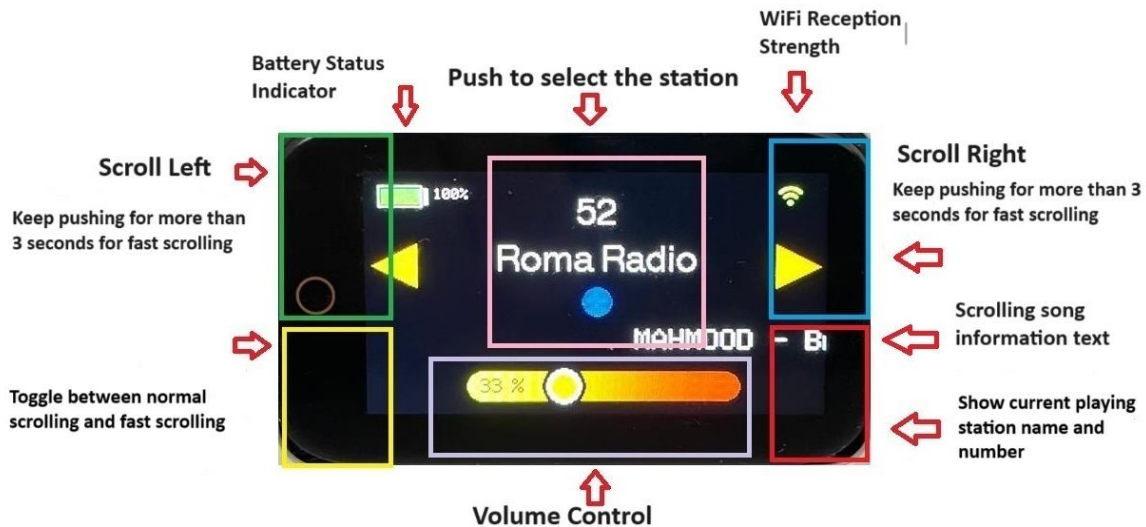
# Operation Instructions

Thank you for purchasing the Internet Radio.

Use the On/Off switch located on the left side for turning on/off the radio.

The radio is controlled using the touch screen. Following are the touch screen various functions:

## Touch Screen Functions



The radio is operated by one cell of 18650 3.7V Lithium- Ion rechargeable battery.

For charging the battery you can use a standard phone type USB2.0 (USB A-USB C) 5V charging cable & charger.

While charging the battery the On/Off switch should be in the **On** position. When the charger is connected a red LED on the left side of the radio (close to the on/off switch) will shine brightly. When the RED led turns off it means that the battery is fully charged.

While charging you can choose between two modes.

- Listening to the radio while charging the battery.
- Charging the radio silently.

You can choose the desired mode using the station manager webpage (see instruction below).

## Connecting your Radio To the Internet

Unlike a regular radios, the Internet Radio needs to be connected to the internet in order for it to play radio station streams.

When turning the internet radio for the first time you will need to go through the following short one time process, in order to connect it to your local wi-fi.

1. Turn on the radio,
2. Open the Wi-Fi settings in your phone or computer browser and search for My\_Radio network and connect to that wifi network.
3. Once connected, open your computer/phone browser and type the following address **192.168.4.1**.
4. You should get the following screen:

http://192.168.4.1

### **My\_Radio**

AsyncWiFiManager

Configure WiFi



Configure WiFi (No Scan)

Info

Reset

5. Press "Configure Wi-Fi", Find your network SSID name and connect to it using your internet password. Then press the "Save" button. This will connect the radio permanently to your home network.
6. Once completed restart the radio by turning it off and on again.

- a. While booting, look at the RADIO LCD, you should see the IP address that was assigned to your radio by your home router. Remember that number. This will be the internet address of your radio station manager webpage.
- b. Open your computer web browser and type that IP address.
- c. You should get to a webpage named Radio Station Manager

## Radio Station Manager

Here is how the radio station manager looks like and its various functions:

The screenshot displays the 'Radio Station Manager' interface with the following sections and callouts:

- Currently Playing**
  - Station Number: 96 (Callout: Shows the playing station number and name)
  - Station Name: 95.5FM
  - Input field: Enter Station Nur (Callout: Enter station number to play and press play to switch to that station)
  - Play button
- Station Control**
  - Buttons: Previous, Play, Next, Mute (Callout: Scroll back or forward and press play to play the desired station. You can also mute the radio)
- Volume Control**
  - Volume slider: 50 (Callout: Controlling the radio Volume from the webpage)
  - Volume Boost
- Audio Equalizer**
  - Sliders: Bass, Mid, Treble (all set to 0)
  - Apply button (Callout: Soune equalizer for adjusting the sound. You should press apply after each change in order for the change to be registered)

## Audio Mode

Mono  
 Stereo

Apply

Switching between stereo and mono mode (in case you connect additional speaker to the amplifier of the radio)

## Silent Charging Mode

Enable Silent Charging

Save

Toggle between silent charging to listening while charging the (see explanation below) radio

## Scrolling Text

Enable Scrolling Song Information

Save

Enabling/disabling scrolling song information info on the display while streaming

## Screen Saver

Enable Power Saving Mode

Save

Enabling/disabling screen saver.  
Enabling power saving will dramatically increase the battery working time

**Silent Charging Mode** - The radio automatically detects when a USB-C cable is connected.

- Unchecked Mode - you can listen to the radio while charging.
- Checked Mode - once you connect the USB-C cable the radio will go to sleep mode while keep charging. When you take out the USB cable the radio will wake up (requires a onetime radio restart (turning off and on again) after the first time checking this checkbox).

## Total Stations Stored: 400

Enter New Station Name:

For registering a new web station enter the station name as you want it to show on the radio display.

Enter New Station Address (URL):

Enter the URL of that radio station

Save

When you press the Save button that radio station will be added to the list below (you can add up to 400 stations)

Enter Station Number to Erase:

To erase a station just write the station number and press the erase button

Erase

Erase All Stations

To erase all the stored stations press Erase All Stations and they will all be permanently erased

Here is an example for stored station list:

## Stored Stations:

### Station 1

Station Name: Everlook Broadcast

Station Address: <http://radiodirect.turtle-music.org/stream>

### Station 2

Station Name: Turtle WoW Radio

Station Address: <http://radio.turtle-music.org:80/stream>

### Station 3

Station Name: Radio Ibiza

Station Address: <http://ibiza-smooth-jazz.vip-radios.fm:8033/stream-128kmp3-IbizaSmooth>

### Station 4

Station Name: Nostalgia Italia

Station Address: [https://scdn.nrjaudio.fm/adwz1/fr/30663/mp3\\_128.mp3](https://scdn.nrjaudio.fm/adwz1/fr/30663/mp3_128.mp3)

### Station 5

Station Name: Radio Italy

Station Address: [https://sphaera.fluidstream.eu/rpd\\_hita.mp3](https://sphaera.fluidstream.eu/rpd_hita.mp3)

### Station 6

Station Name: Otto Classical

Station Address: <http://www.1.fm/tunestream/classical/listen.pls>

### Station 7

Station Name: Radio NRW

Station Address: <https://stream.laut.fm/radio-nrw>

### Station 8

Station Name: Bayern 1

Station Address: <https://dispatcher.mdfnk.com/br/br1/schwaben/mp3/mid>

It is advise to manage your station list using a text file format backed up in your computer.

The format used should be: **Station name, Station URL** (a comma should separate between the station name and the URL)

Keep the station name short so it will fit the display limited space

Enter Station List (one entry per line in the format 'Station Name,Station Address'):

```
Everlook Broadcast, http://radiodirect.turtle-music.org/stream  
Turtle WoW Radio, http://radio.turtle-music.org:80/stream  
Radio Ibiza, http://ibiza-smooth-jazz.vip-radios.fm:8033/stream-128kmp3  
Nostalgia Italia, https://scdn.nrjaudio.fm/adwz1/fr/30663/mp3_128.mp3  
Radio Italy, https://sphaera.fluidstream.eu/rpd_hita.mp3  
Radio NRW, https://stream.laut.fm/radio-nrw  
Big FM. https://stream.bigfm.de/berlin/aac-128
```

Copy your station list and paste it in that window. Once done press the load station button.

**Important -always add the following line at the end of the list:**

**End of file, End of file**

Use the following format:

Station Name 1,Station Address 1  
Station Name 2,Station Address 2

Load Stations

**Your Internet Radio ID:**

127779234522952

Your unique radio id required for license key generation and identification

**Your License Key:**

36714fcc9be593

Your unique license key, shows only after a successful registration.

Here is an example of station list:

Everlook Broadcast, <http://radiodirect.turtle-music.org/stream>

Turtle WoW Radio, <http://radio.turtle-music.org:80/stream>

Radio Ibiza, <http://ibiza-smooth-jazz.vip-radios.fm:8033/stream-128kmp3-ibizaSmooth>

Nostalgia Italia, [https://scdn.nrjaudio.fm/adwz1/fr/30663/mp3\\_128.mp3](https://scdn.nrjaudio.fm/adwz1/fr/30663/mp3_128.mp3)

Radio Italy, [https://sphaera.fluidstream.eu/rpd\\_hita.mp3](https://sphaera.fluidstream.eu/rpd_hita.mp3)

Otto Classical, <http://www.1.fm/tunestream/classical/listen.pls>

Radio NRW, <https://stream.laut.fm/radio-nrw>

Bayern 1, <https://dispatcher.rndfnk.com/br/br1/schwaben/mp3/mid>

SWR 3, <https://liveradio.swr.de/sw282p3/swr3/play.mp3>

WDR 2, <https://wdr-wdr2-muensterland.icecast.wdr.de/wdr/wdr2/muensterland/mp3/128/stream.mp3>

Big FM, <https://stream.bigfm.de/berlin/aac-128>

End of File, End of File

## Finding New Stations URL's

You can find and copy station URL's using the following web sites:

- <https://streamurl.link/>
- <https://fmstream.org/> (search for the desired station, click on it to start playing and copy the link from the player located at the bottom of the page)
- <https://www.radio-browser.info/>

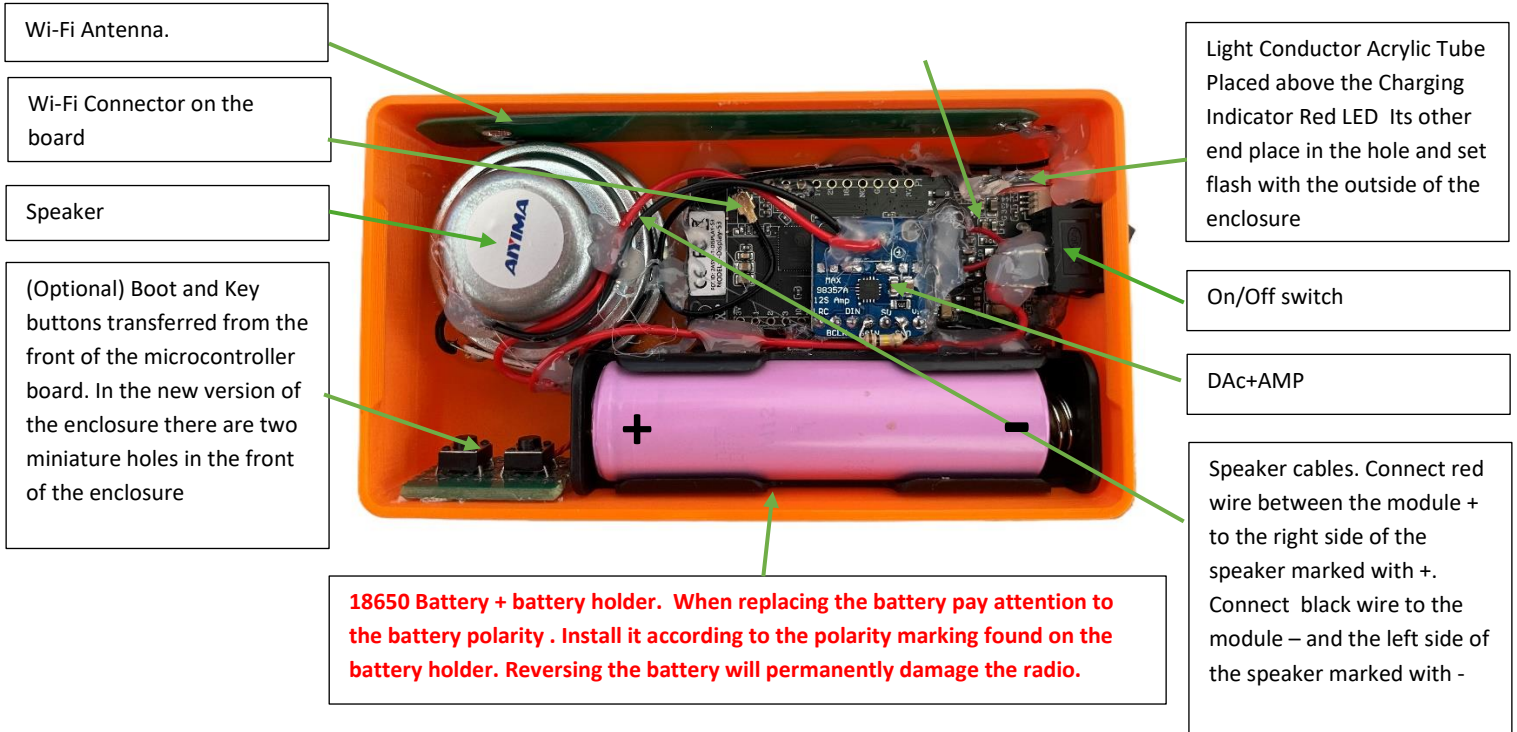
Alternatively, you can search YouTube for instruction videos on how to get live radio streaming URLs using your webpage editing tools.

For some stations that don't play or don't play well, and their URL starts with <https://> try replacing the URL to <http://> and check if it is working.



## Inside The Radio - Replacing The Battery

The back lid is held in place by two grooves on the left and right sides of the enclosure. To open the enclosure, simply pull up the back lid from the middle and pry it until the lid comes off. To close the enclosure, insert one side first and then push in the second side.



## Enclosure Hidden Buttons

Two miniature holes in the front of the enclosure **Key** and **Boot** buttons.



Once the old Wi-Fi network is not found the radio will automatically look for a new network. Just open your computer/phone Wi-Fi setting and connect to the desired new network the same way it was described at the beginning of this document.

The following two processes will rarely be required, please don't use them unless there is no other solution. It is better to ask for support before proceeding. Please email [themicromaker@outlook.com](mailto:themicromaker@outlook.com) for consultation.

To perform this operation you will need a thin phone Sim card extractor or a thin needle.

In case you still want to erase Wi-Fi settings manually: Turn off the radio, using the sim card extractor press the Key button while keep pressing that button turn on the radio. You should get a message on the LCD that Wi-Fi setting has been erased. Now, open your computer/phone Wi-Fi setting and connect to the desired new network the same way it was described at the beginning of this document.

In case the Radio got stacked during firmware upgrade (very rare):

Going into boot mode – Turn off the radio. Press the boot button while turning on the radio. The radio is now in boot mode. You can now try to upgrade the firmware again.

## Upgrading the firmware:

You can download new firmware versions, once available, from here:

[https://1drv.ms/f/s!AtdSBdR1Gbo4emcDm8-6\\_pUZIXc?e=i8rn3N](https://1drv.ms/f/s!AtdSBdR1Gbo4emcDm8-6_pUZIXc?e=i8rn3N)

Important: Before erasing your current firmware save your license key number as it shows in the bottom of the station manager web page. You will need to enter that number in order to reactivate your radio after the new firmware has been uploaded.

### To upload the firmware please follow these steps:

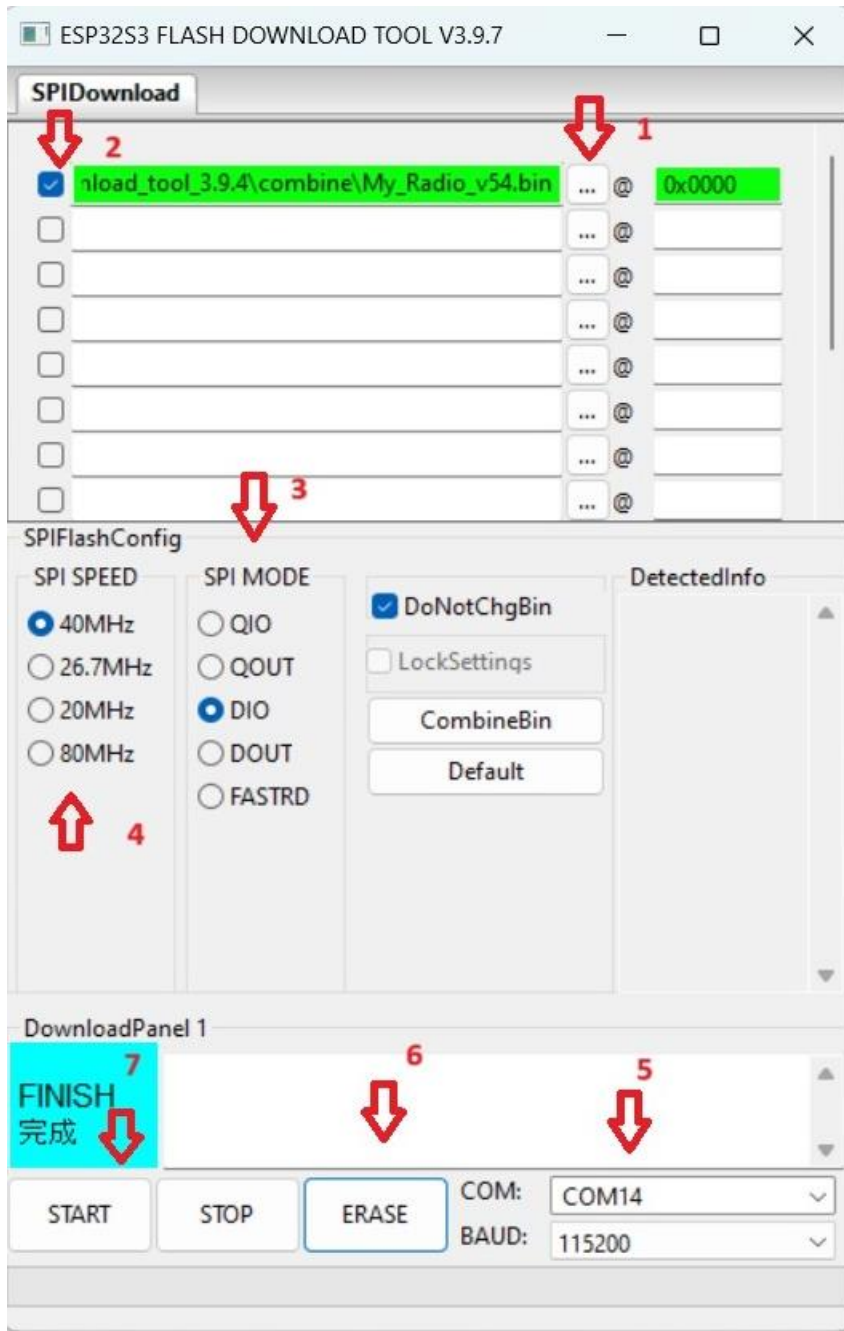
1. Download the Espressif Flash Tool or alternatively use the online tool  
<https://espressif.github.io/esptool-js/>
2. Choose Chip Type: ESP32-S3, WorkMode Develop and LoadMode USB
3. Press the tree dots to select the files as follows:

**My\_Radio.bin 0x0000**

Make sure that the lines are marked green. If not green use the check mark on the left side.

Here is a screenshot of the flash tool:

Make sure to select your designated com port (located at the right bottom side)



It is recommended to press first on Erase to clean the memory.

To upload the firmware, press the start button.

After the new firmware has been uploaded - Open the web page. At the bottom left corner of the page, you will see the following.

Enter the license key you save before erasing the previous firmware.

**Your Internet Radio ID:**

153963357526764

**License Key**

Enter your key Here:

The Station management system was tested and debugged only with Google chrome browser.

If you have any questions please send contact me via email [themicromaker@outlook.com](mailto:themicromaker@outlook.com)