Jasonkits Software Defined Radio Board

Software Guide Installation

In order to complete your setup you need to purchase an RTL-SDR dongle with the R820T/R820T2 chip.

Computer Requirements:

At least a dual core processor is required to run most SDR software smoothly. Some command line software and ADS-B decoders may work on less powerful hardware.

To get the most enjoyment out of RTL-SDR you will need a decent antenna. Make sure to get them up high and outside (during good weather only) for best results. The most recommended outdoor antenna for general scanning is a discone due to their wide band receiving properties.
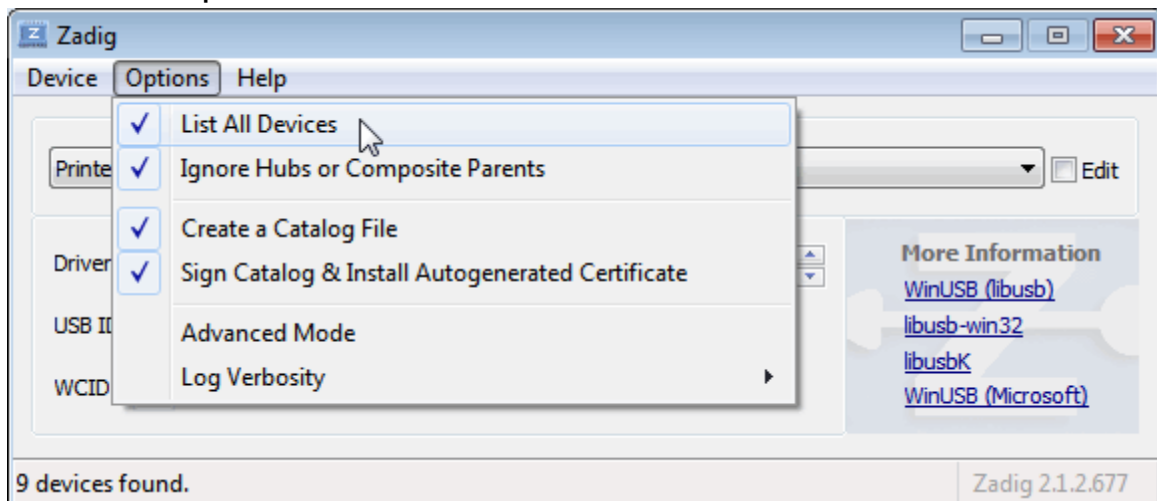
SDR# (SDRSharp) Set Up Guide (Tested on Windows 10/8/7 32/64 Bit) (XP/Vista Incompatible)

SDR# is the most commonly used SDR program on Windows. We recommend it as one of the easiest to setup and use with the RTL-SDR.
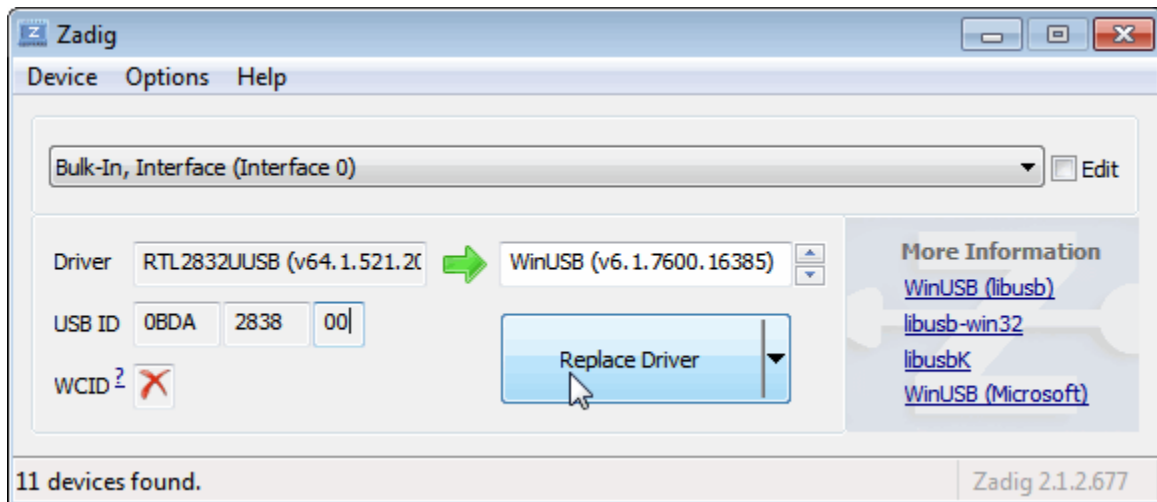
1. Purchase an RTL-SDR dongle. The cheapest and best for most applications is the R820T/R820T2 dongle. Look at eBay or Bang good or Deal extreme
2. You must have the Microsoft .NET 4.6 or newer redistributable installed to use SDRSharp. Most Windows 10 PCs should already have this installed by default; on older operating systems needs to be installed in order to run SDR#. Note that .NET 4.6 is not compatible with Windows XP. If you are running XP please scroll down on this page and look for the HDSDR or SDR-Console install guides. In addition, you will need to install the Visual C++ Runtime if not installed.
3. Visit these Urls to download the software.

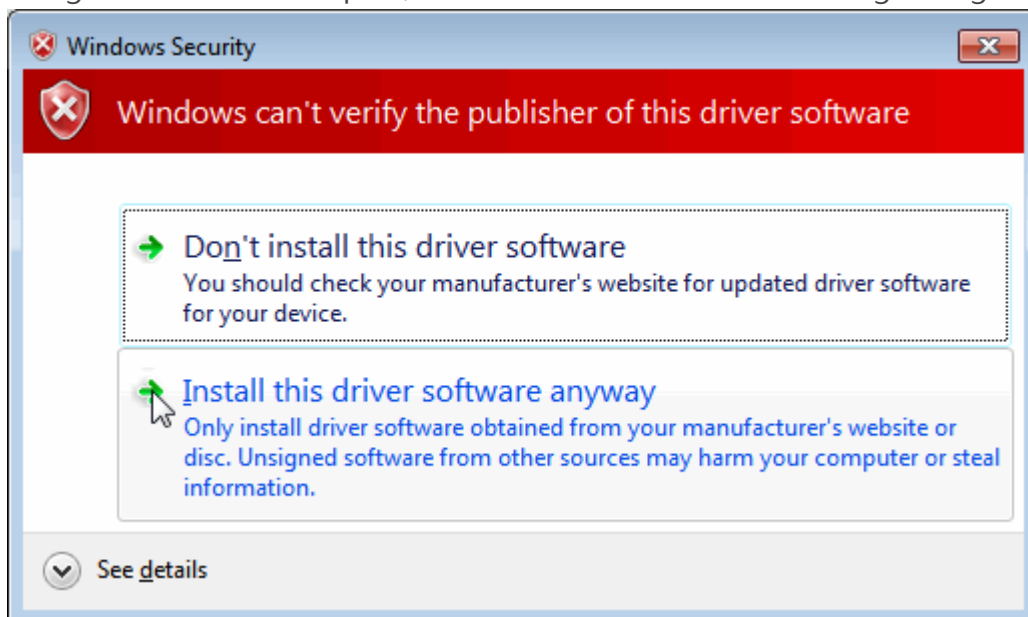| Link1	Https://www.rtl-sdr.com/big-list-rtl-sdr-supported-software/
Link2	http://adafruit-download.s3.amazonaws.com/sdrsharp-5-19-2014.zip

5. **Extract (unzip) sdrsharp.zip** to a folder on your PC

6. **Plug in your dongle**. Do not install any of the software that it came with (if any), and ensure that you wait a few seconds for plug and play to finish *attempting* to install the dongle (it will either fail or install Windows DVB-T drivers). If you have already installed the DVB-T drivers that came on the CD bundled with some dongles, uninstall them first.

7. In the folder where you extracted the sdrsharp files find the file called **zadig.exe**. Right click this file and select "Run as administrator".

8. In Zadig, go to "**Options->List All Devices**" and make sure this option is checked. If you are using Windows 10, in some cases you may need also to **uncheck "Ignore Hubs or Composite Parents"**.

9. **Select** "**Bulk-In, Interface (Interface 0)**" from the drop down list. Note on some PCs you may see something like RTL2832UHIDIR or RTL2832U instead of the bulk in interface. This is also a valid selection. Do not select "USB Receiver (Interface 0) or Interface 1" or *anything else* or you will overwrite that driver! Double check that USB ID shows "0BDA 2838 00" as this indicates that the dongle is selected.

10. We need to install the WinUSB driver, so also **ensure that WinUSB is selected** in the box after the arrow next to where it says Driver (this is the default selection). - Note that there has been some confusion for a few people over this step. The goal is to install the WinUSB driver. So to be clear, the box to the left of the arrow shows the currently installed driver, whereas the box to the right of the arrow shows the driver that will be installed in the next step. The first time you open zadig the box on the left will show either 'None', or the default DVB-T drivers installed by Windows (RTL2832UUSB), depending on your Windows configuration and version.

11. **Click Replace Driver**. On some PC's you might get a warning that the publisher cannot be verified, but just accept it by clicking on "Install this driver software anyway". This will install the drivers necessary to run the dongle as a software defined radio. Note that you may need to run zadig.exe again if you move the dongle to another USB port, or want to use two or more dongles together.
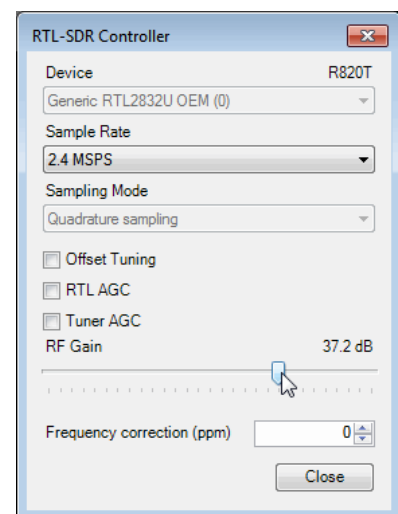

12. **Open SDRSharp.exe and set the "Source" drop down Combo box to** 'RTL-SDR **(USB)**'. This "Source" tab is on the top left.(Note that the first time you do this you may get a smart screen message indicating that Windows has protected your PC, this is a false alarm. Simply click on "more info" and then "run anyway").
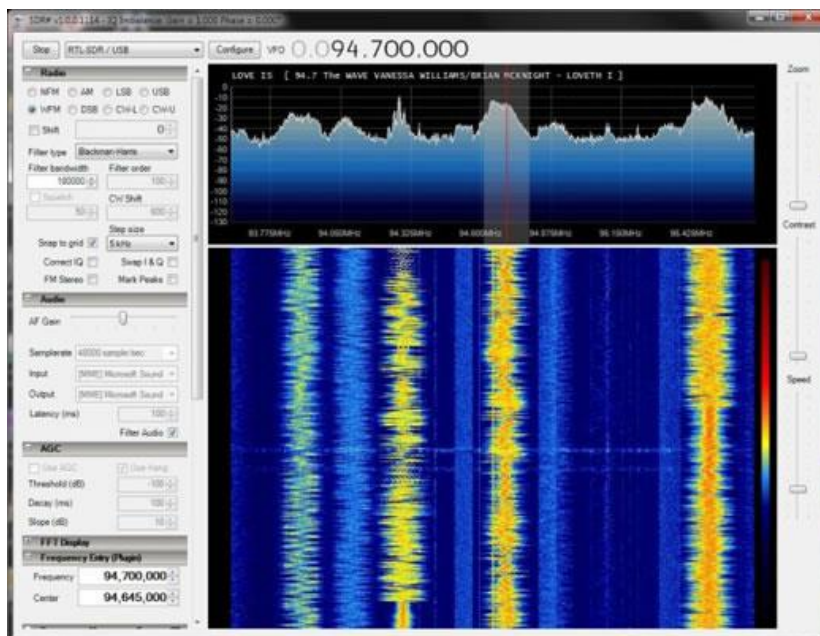
13. **Press the Play button** (the right facing triangle). Your RTL-SDR software radio should now be set up and ready to use! If everything has worked, you should be able to start tuning to frequencies.

14. **Important!** Do not forget to **adjust the RF gain settings** by pressing the Configure button (looks like a cog) up the top next to the Play button. By default, the RF gain is at zero. A gain of zero will probably receive nothing but very strong broadcast FM - increase the gain until you start seeing other signals.

Typical you should see this screen

Troubleshooting: If you have a problem with your SDR radio, you can look at this URL page: https://www.rtl-sdr.com/rtl-sdr-quick-start-guide/