

# *Alternative to Solar Scope*

- Not everyone has a Dedicated Solar Scope
- Always lots of White Light Filter Scopes Set Up
- What can I do that's **“ DIFFERENT ”**?



A full-aperture solar filter.



# *Build an Itty Bitty Radio Telescope*



# Old Satellite Dish



Any Dish will Work



# *Dual LNB (A low-noise block downconverter)*



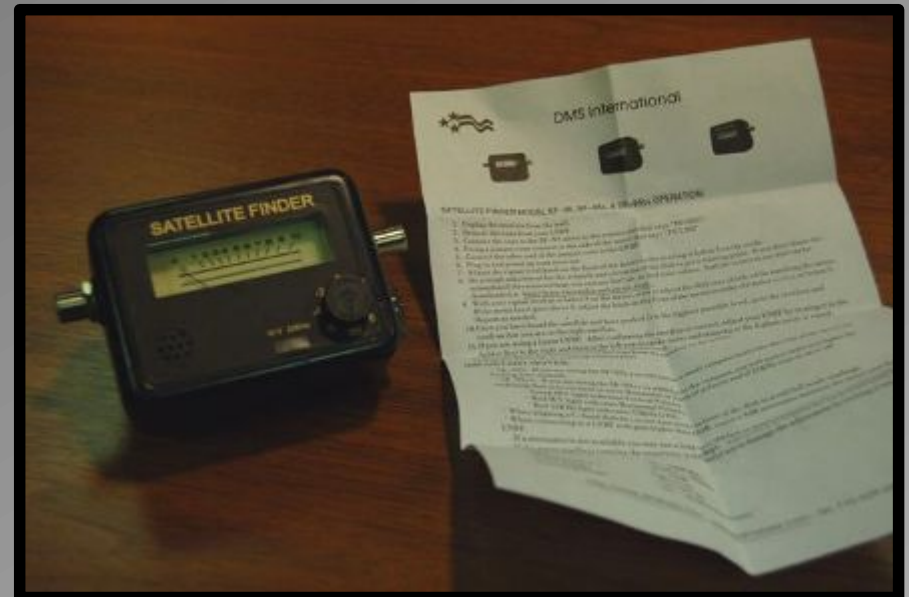
- LNB Should have at least 2 Connections
- 1 for Connecting to Detector
- 1 for Later Use



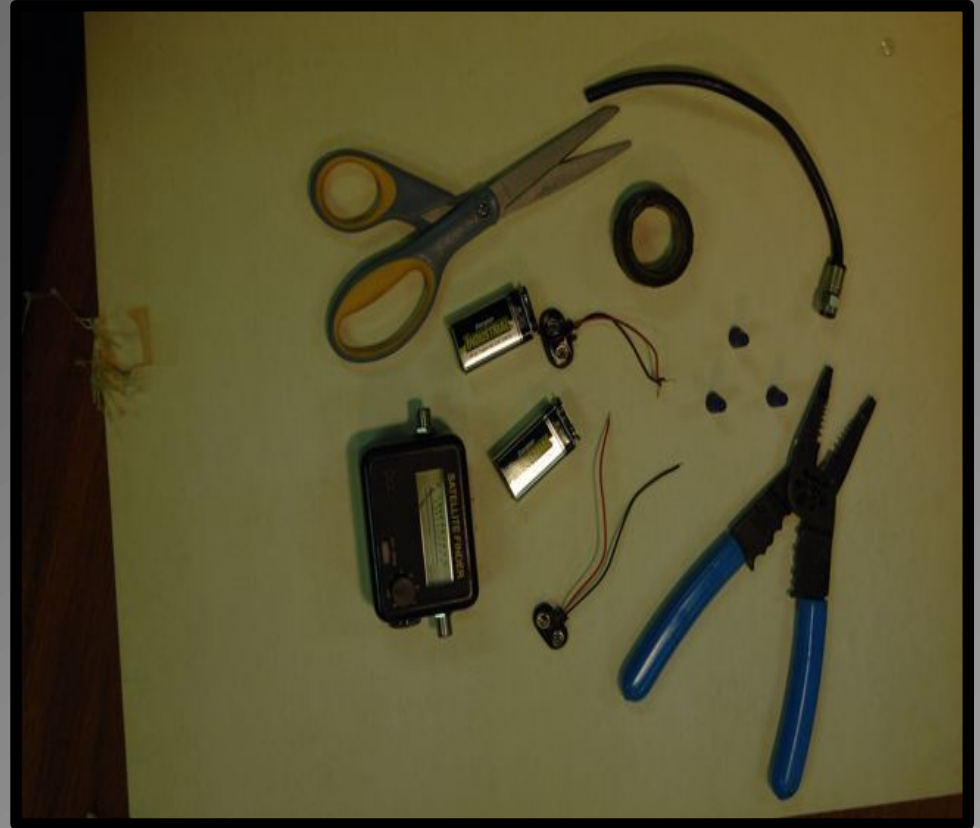
# *Coax Cable*



# Detectors or Finders



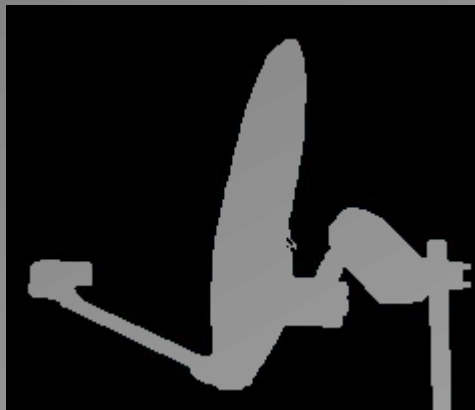
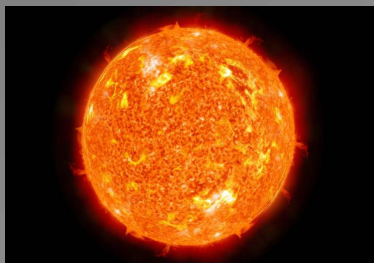
# 18V Power Source



- 2 x 9 volt Batteries
- Some Wire
- 2 x 9 volt Battery Connectors
- Coax Cable with ends

# *The Simple Build*

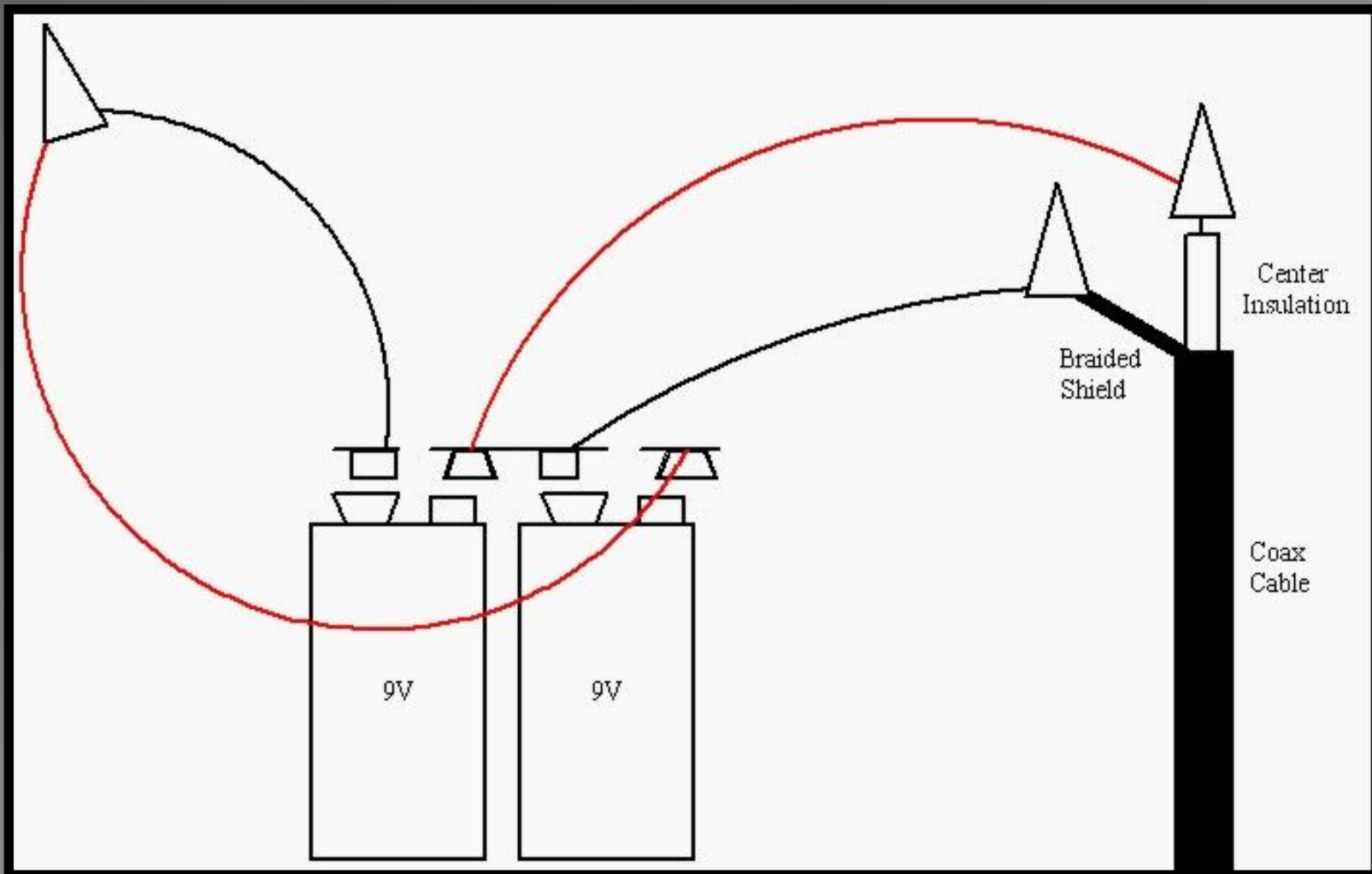
- Make your 18 Volt Power Supply
- Connect to Satellite Detector
- Connect Detector to Satellite Dish
- Point at the SUN





# Battery Pack Schematic

**Red** – Positive  
**Black** - Negative



# Connect Battery to Finder



- Connect 18v Battery to Satellite Receiver side of Satellite Finder
- Connect Satellite Dish LNB to Satellite side of Satellite Finder

# *How to mount*

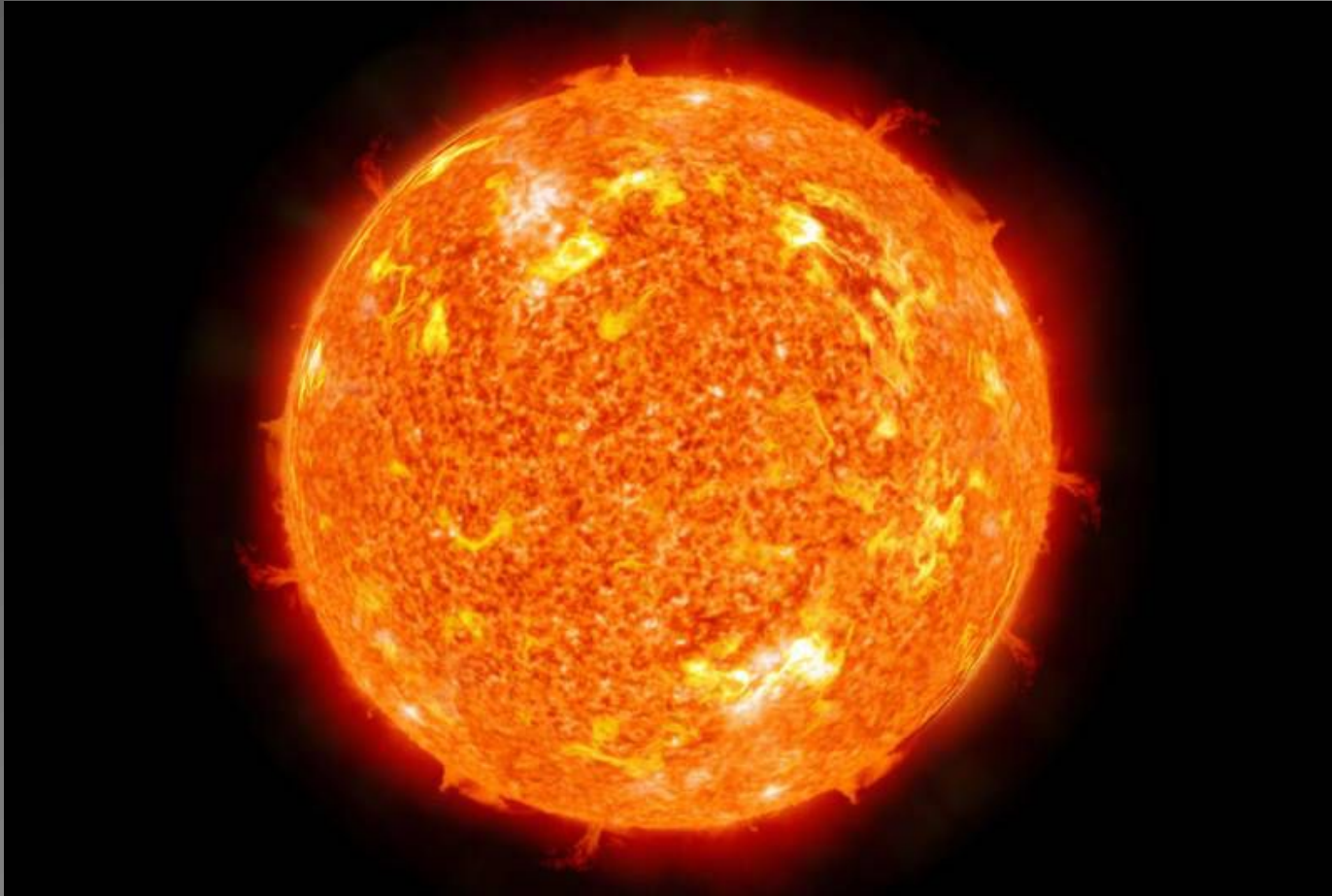
- Adding a Vixen Dovetail Bar
- 2 X  $\frac{1}{4}$  x 20 Bolts
- Drill holes and bolt to Dish Arm
- Allows for mounting on EQ Mount



# Mount Satellite Dish to EQ Mount



# *Point Satellite Dish at the Sun*



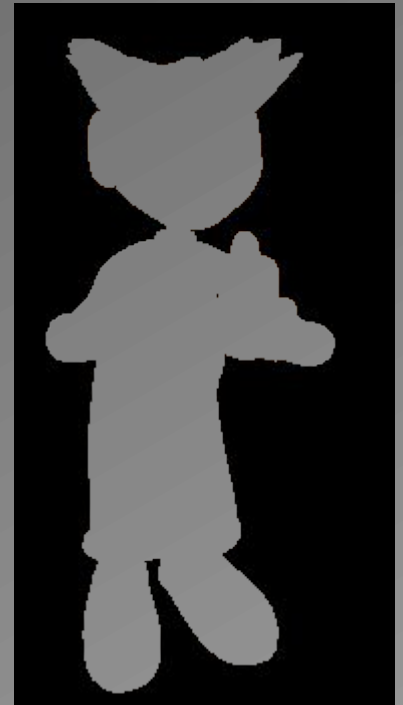
# Watch for the Sun

- Point Dish Toward Sun and Watch for Change to the Satellite Finder.
- Needle will move
- Graphic Slide will Increase



# *Going 1 Step Further*

- Add an SDR Dongle to the Second LNB Connection
- Modify coax cable to connect to Dongle Antenna
- Connect SDR Dongle to Laptop or PC
- Run Software Defined Radio Software
- Watch the Waterfall for changes.

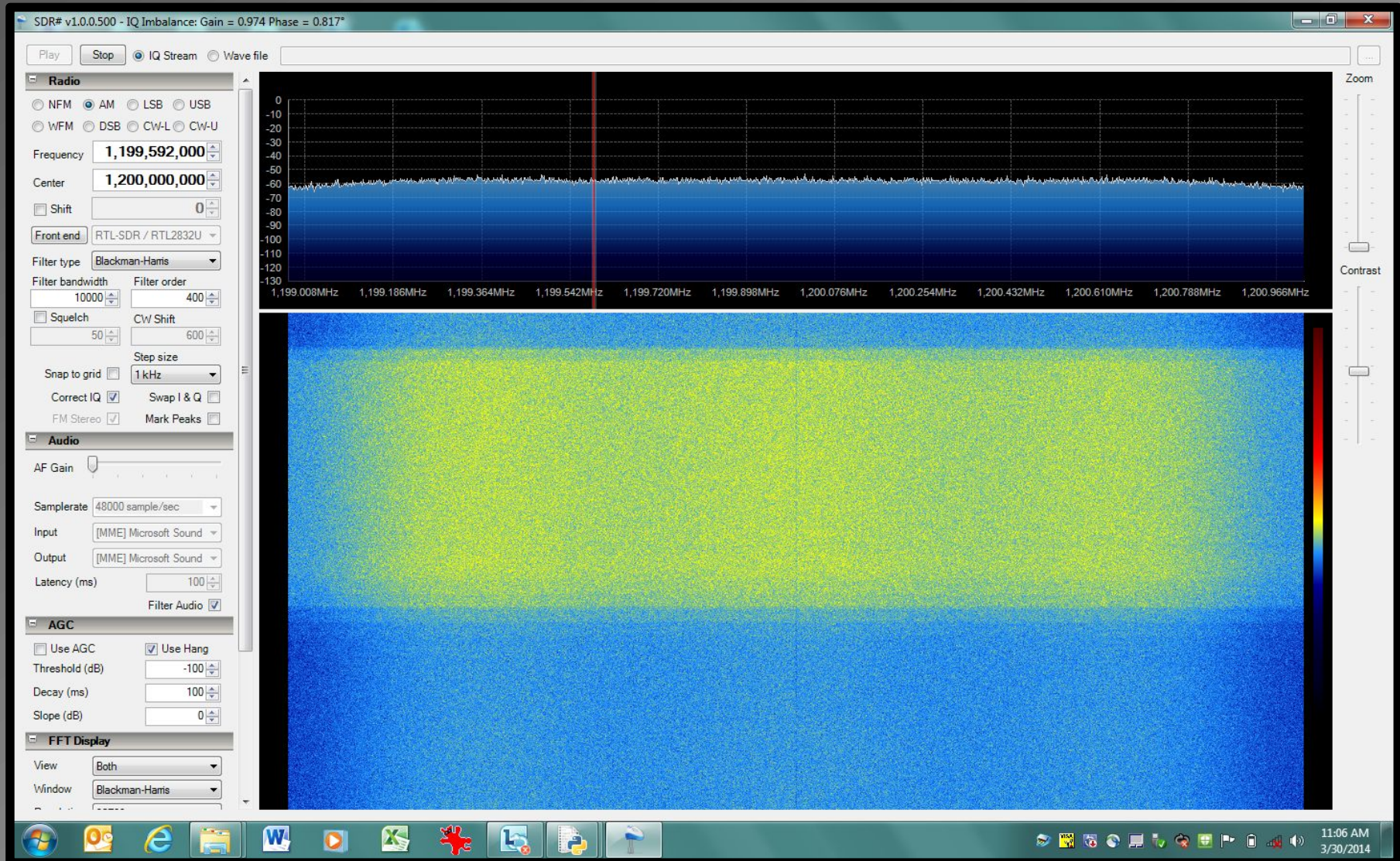


# *Add SDR Radio Dongle*





# Software Defined Radio Software



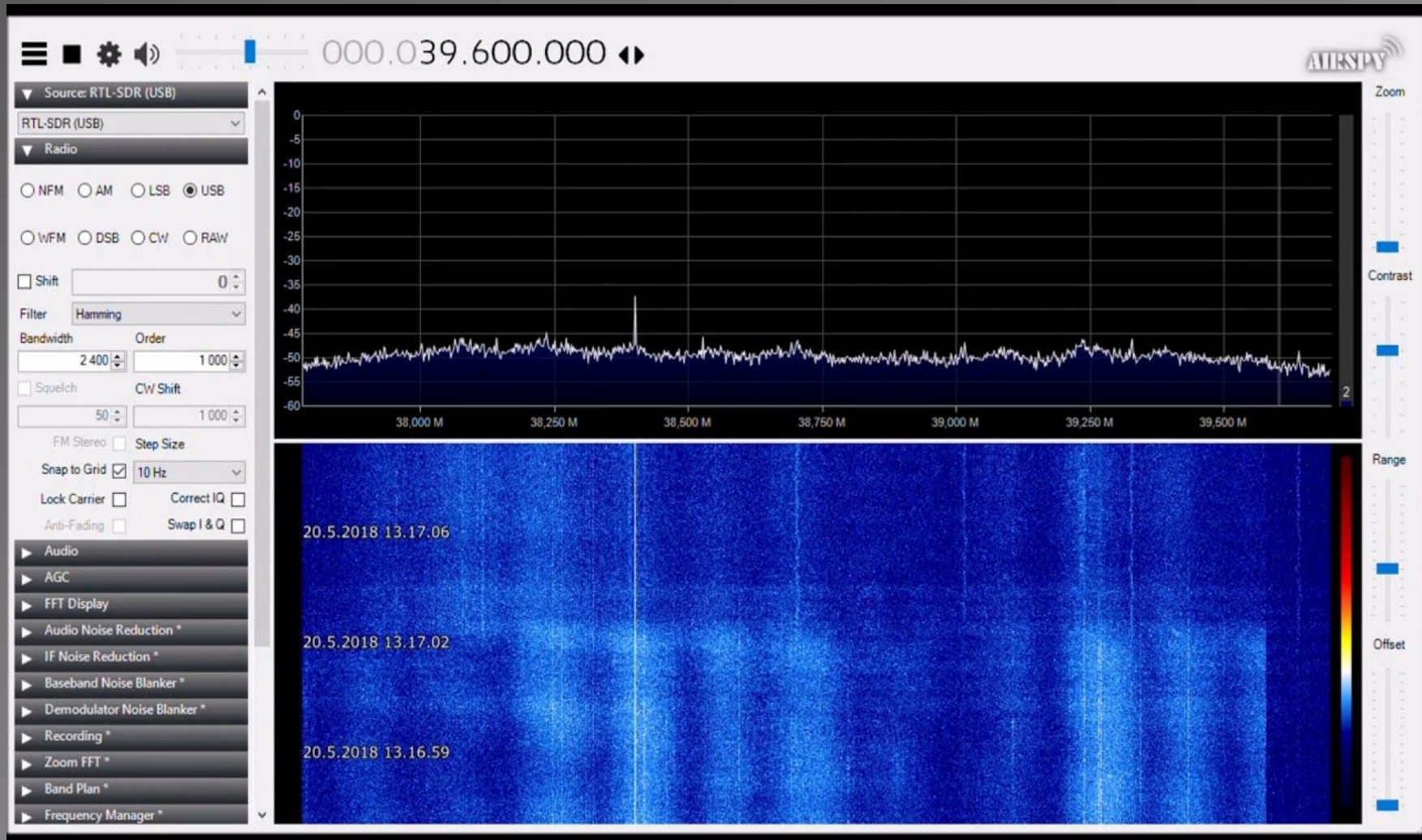
Free Software

# *Example of Connection*



SDR Dongle plugs into Laptop or Computer. Other end plugs into the second Connector on the LNB.

# Sun at 39.6MHz with rtl-sdr usb dongle



***ENJOY the Sun***

