

# My Station

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This presentation is simply a tour of one ham's station.  
The intent is to provide an example of how one can set  
up and arrange his or her ham shack.  
Take what you want, and leave the rest. :-)

## Content

- .VHF, UHF, and HF Antennas
- .Shack Interface and grounding
- .Shack contents and arrangement

**Let's go outside  
first!**

Dual Band  
VHF/UHF  
MFJ  
Base Antenna





Two ten  
foot sections

1-1/2" x 10'

Metal Emt Conduit



Copper flat  
straps to  
two 8'  
ground rods  
set 8' apart





D.I.Y.  
Station  
Interface  
and Grounding  
Box



Interface and grounding  
box under  
construction with  
 $\frac{1}{4}$ " copper plate  
for common  
ground



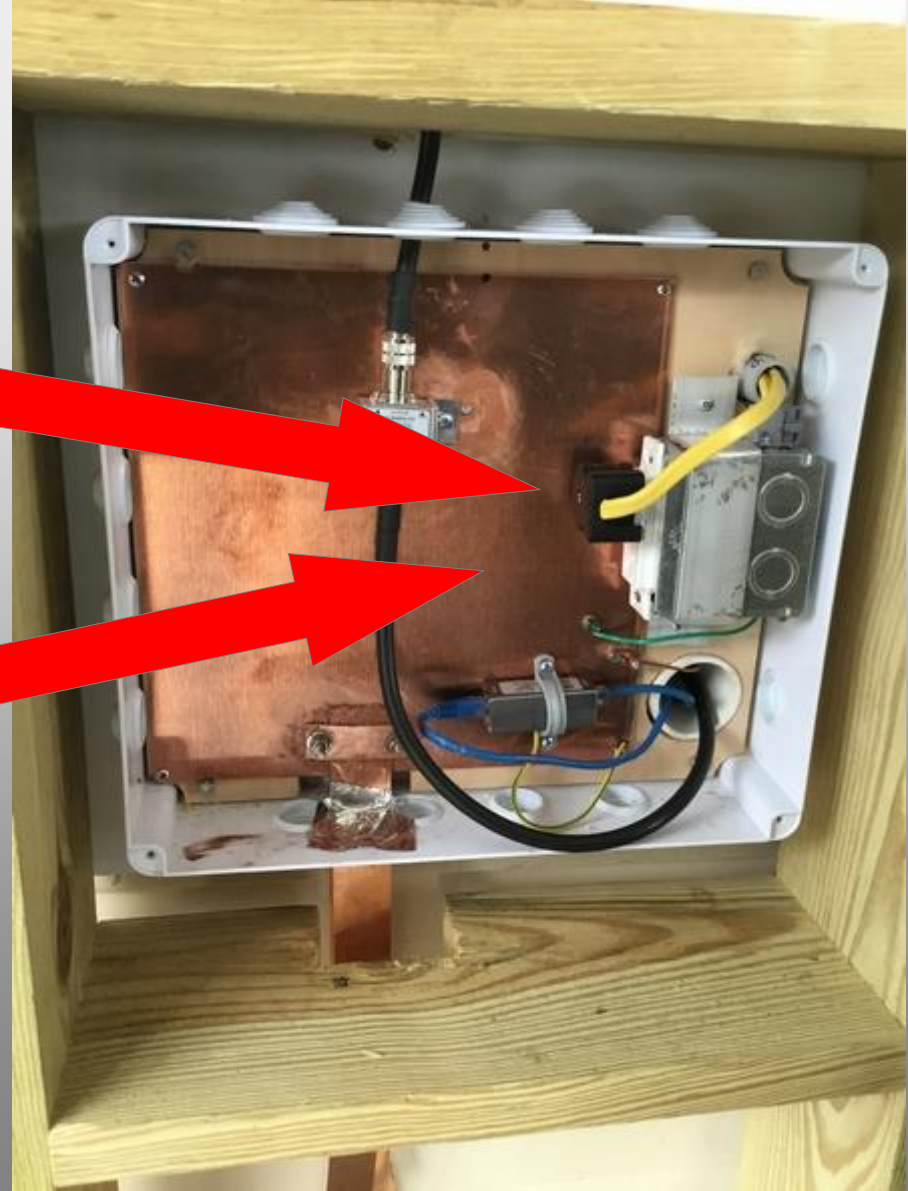
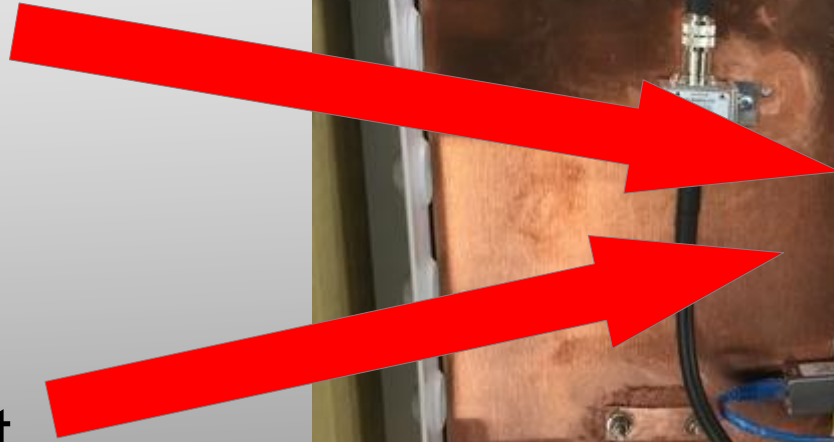
Dedicated 20A station

power circuit

Ethernet Breaker

protects all internet

connections



Conduit  
to  
shack



Flat copper  
strap to  
Ground rod  
connection







And now  
My HF antenna...  
Sorry.  
My wife says  
I have tower envy.





And now  
my actual HF  
antenna...

4:1 Current Balun



600 Ohm

TrueLadderLine.com

ladder line





Ladder Line is electrically separated from the metal ceiling by boards and suspended with plumbing pipe strap and zip ties



No.

It's not a  
squirrel  
ladder.

The use of  
Ladder line  
makes for a  
  
VERY  
  
low loss  
  
setup!







Two 1 ½" 10' sections of  
iron pipe topped with one  
1 ½" 10' section of PVC.

Top has cap and eye bolt  
to act as "pulley" for  
antenna maintenance

Only needs one guy  
rope. The antenna  
itself and the ladder  
line are the other  
anchors





A cheap ham's solution  
for an antenna base.

4x4's, 2x4's, and a  
barn door hinge.

So far, this base has  
stood for six years





The dipole is 264' long  
14 guage PVC coated  
wire. The center piece  
used to be one of my  
wife's cutting boards.





Each end of the dipole runs through a pulley in a tree, and the end is tied to a metal flower basket holding rocks. In the summer, the counterweight is set to be close to the ground.

This counterweight set up  
enables the antenna to  
sink under stress  
until the basket  
reaches the height of the  
pulley in the tree.





It's also  
a  
stealth  
antenna!







Yes.  
It is  
in this  
picture!





Why you  
use pulleys  
and  
counterweights  
on a  
Dipole





Note the PVC pipe section  
at the top of the mast!



N.V.I.S. mode!

Also great for ground  
wave propagation.

SWR may be a bit  
high, however.

:-)









Upon thawing,  
and a little beating  
with a stick,  
the antenna went  
right back up and  
was fully funtional.





Even  
Hoarfrost  
is  
heavy!





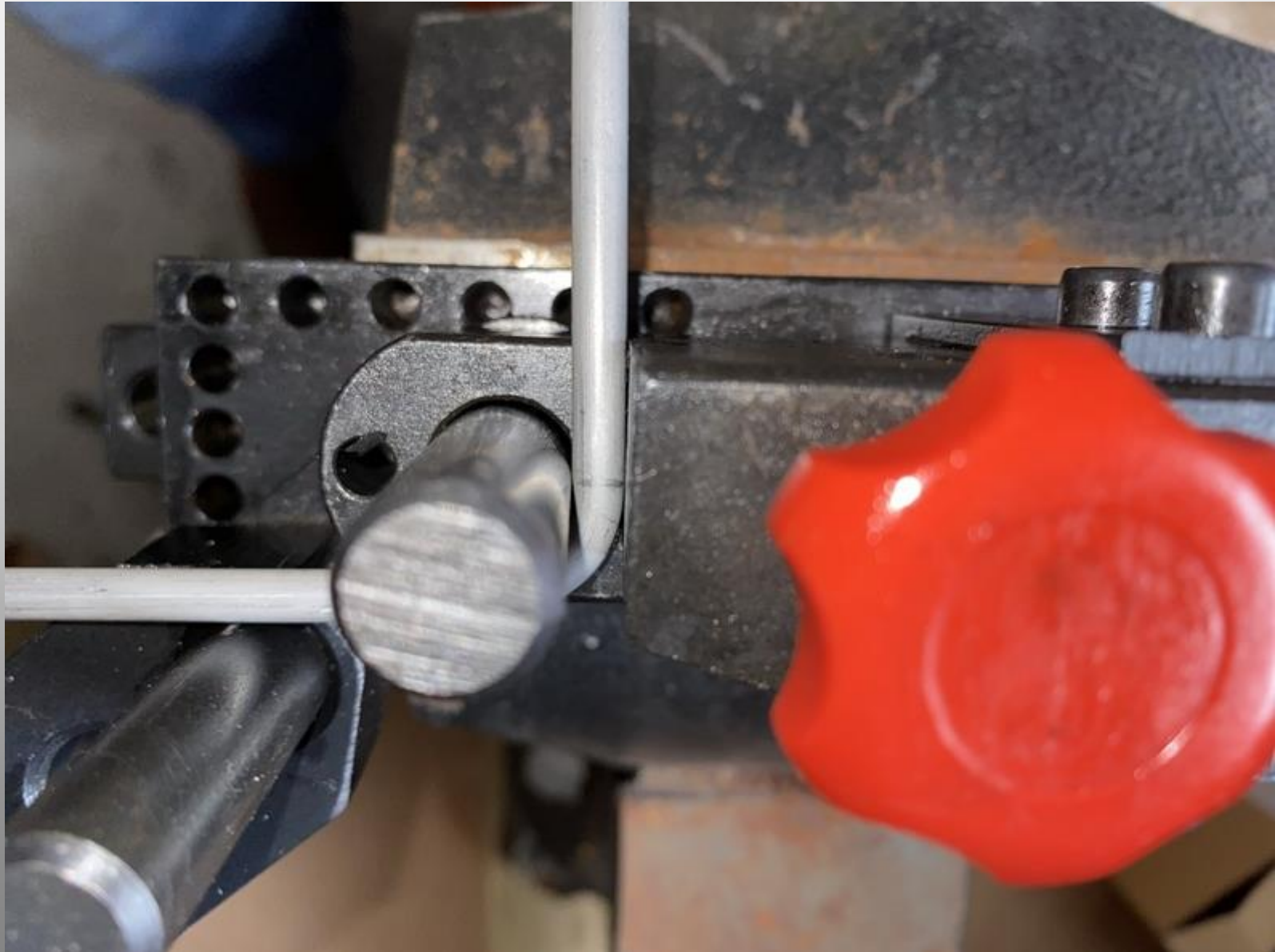
D.I.Y. Project

Dual Turnstile-type

Moxon

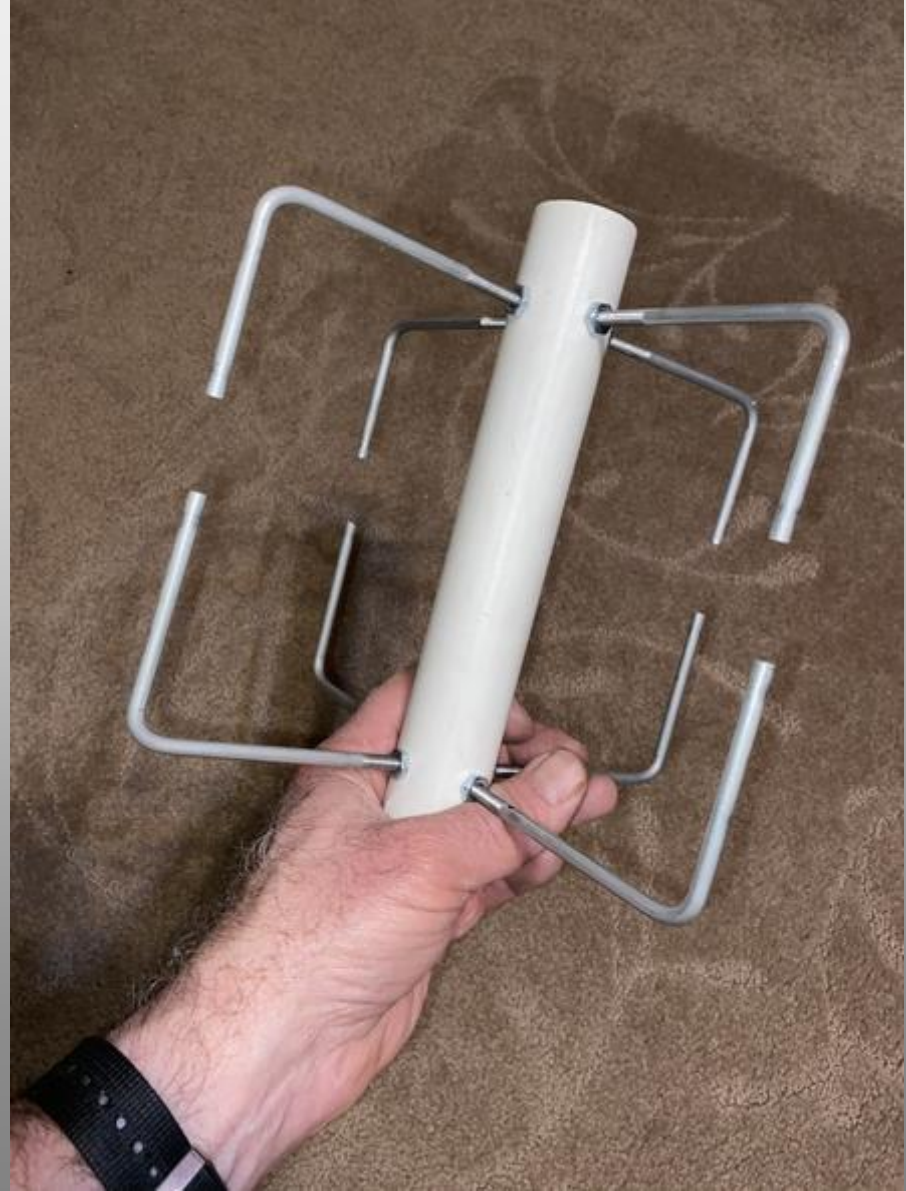
Satellite Antennas







70 cm  
Moxon  
Antenna





Reflectors  
waiting to be  
soldered.





Initial configuration that  
worked beautifully as a  
weather vane until it  
broke!

On to plan B...



**PVC  
conduit  
installation**





DX Engineering  
stainless steel  
hinge for  
verticals.  
Love it!





D.I Y.

box for duplexer.

More of my wife's  
stuff disappears.





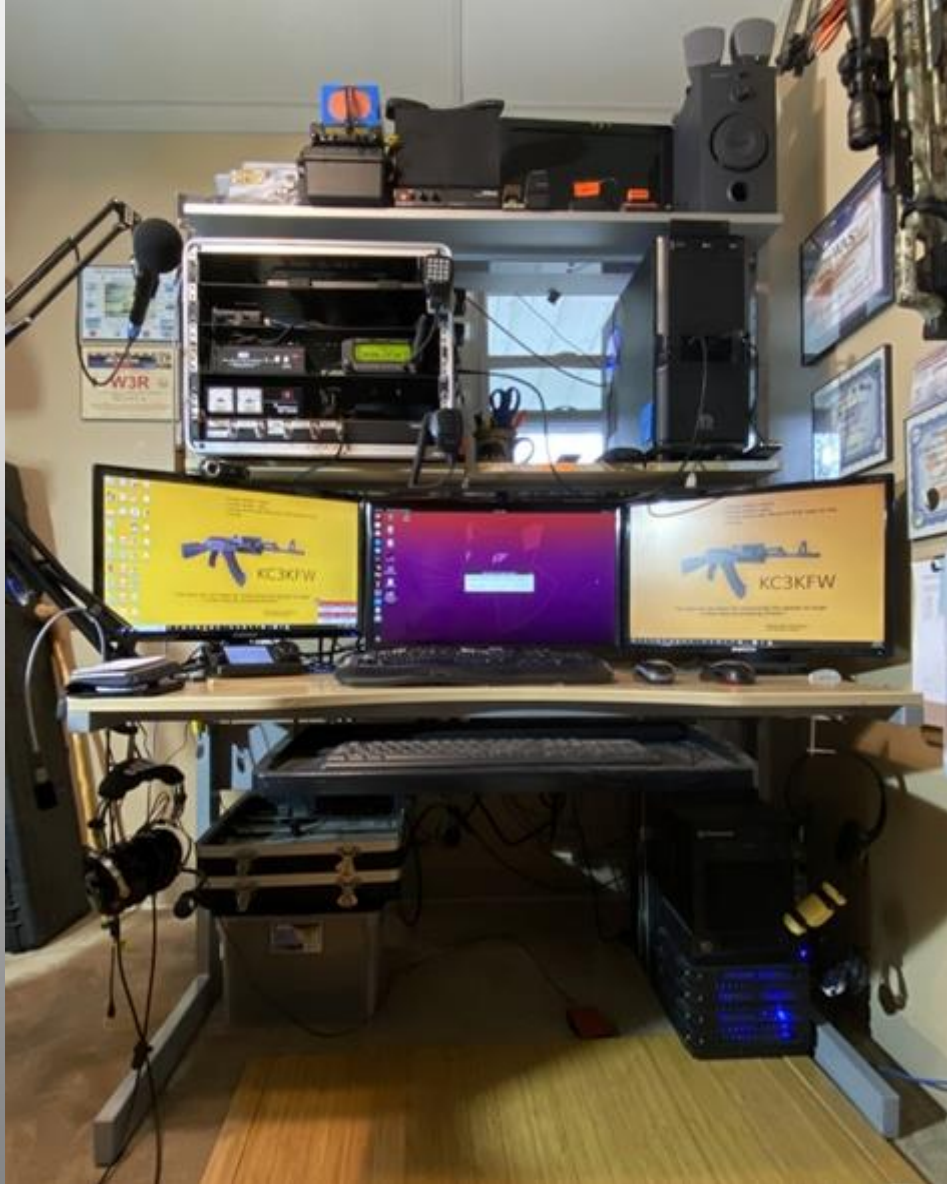




**Now, to the inside!**







The Shack!

All piled on  
a desk from IKEA

LifePo Battery

Shielded main speakers

Chargers for Handhelds

Shack/Go Box

Microphone

Windows monitor A

IC-7100 Head Unit

Main keyboard

Linux Keyboard





IC-7100 Head Unit





Linux box speakers

HDMI yard sale monitor  
soon to be Pi station!

Yes I have a Baofeng

Tower PC dual boot  
Windows/Linux

Linux Box Monitor

Windows monitor B

Clean and uncluttered  
desk

The  
junk  
that is  
usually on my  
clean and  
uncluttered desk.







Upside down  
C-Clamps are  
a great way  
to hang Items  
under a desk!





A copper ground bar connects all shack grounds to the copper plate and the ground rods outside.

# Shack Box

Elecrow 12v

Monitor/stand

RPi 3b+

Voltage control

Samlexpower

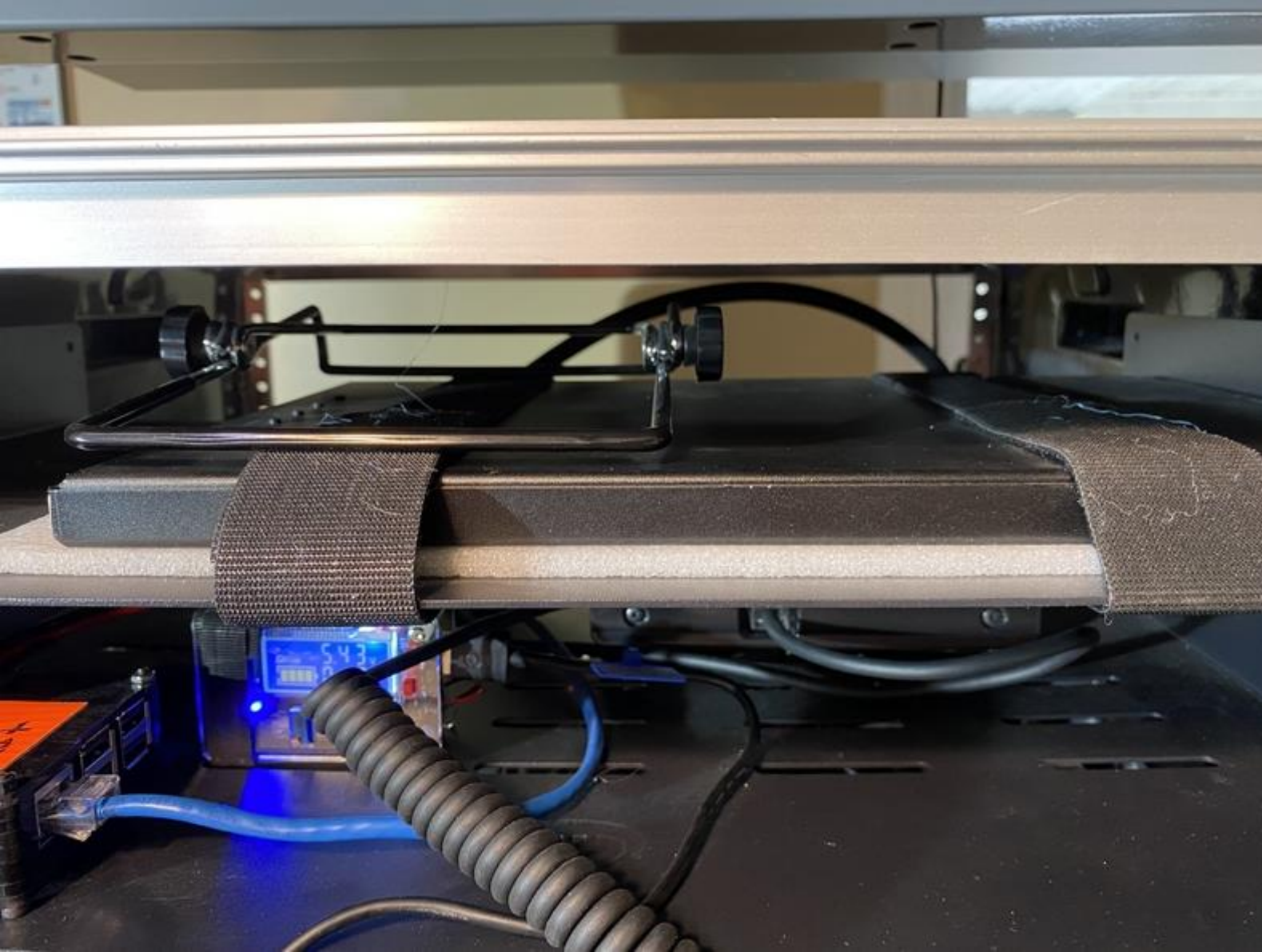
SEC1235M

power supply

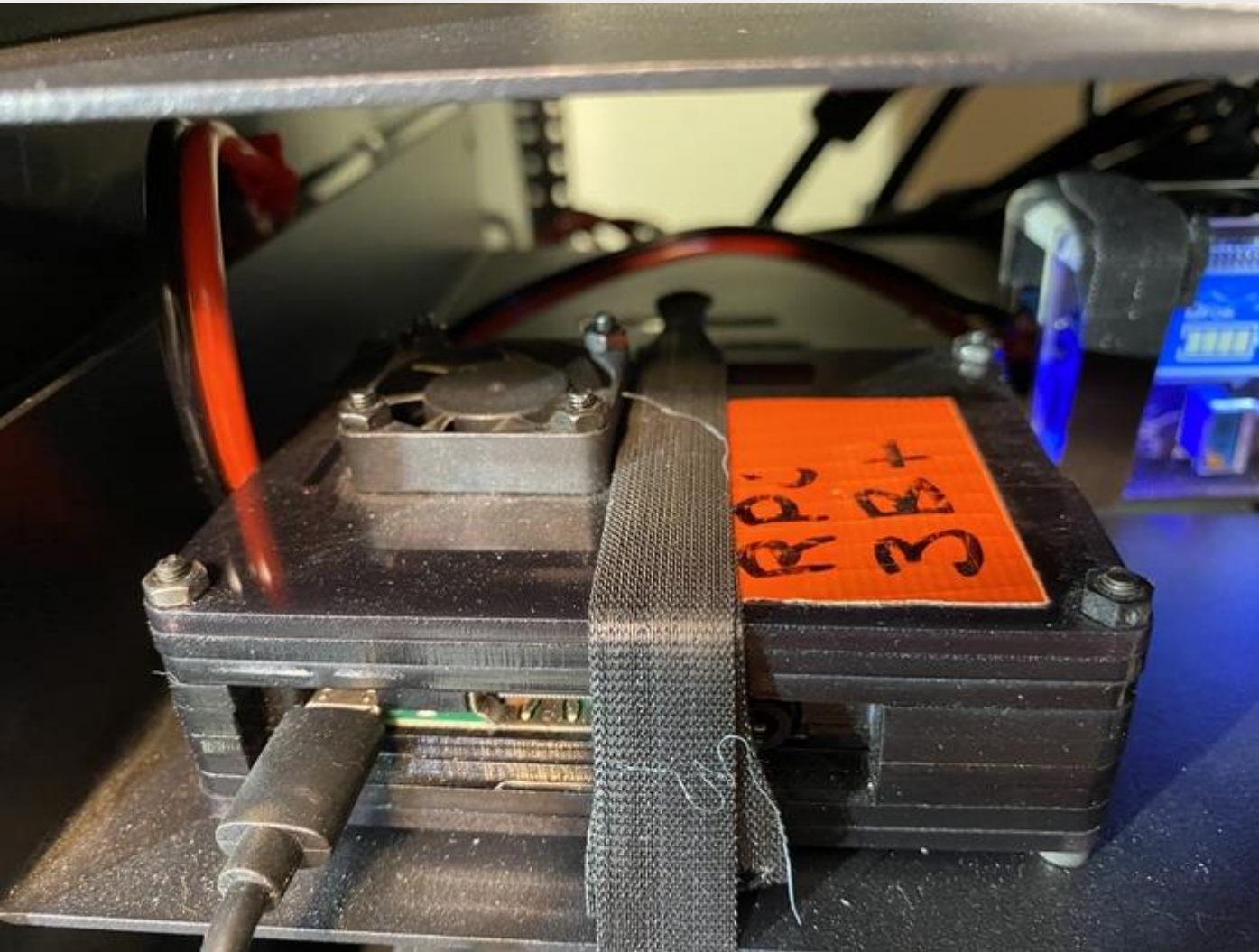
12v ext power





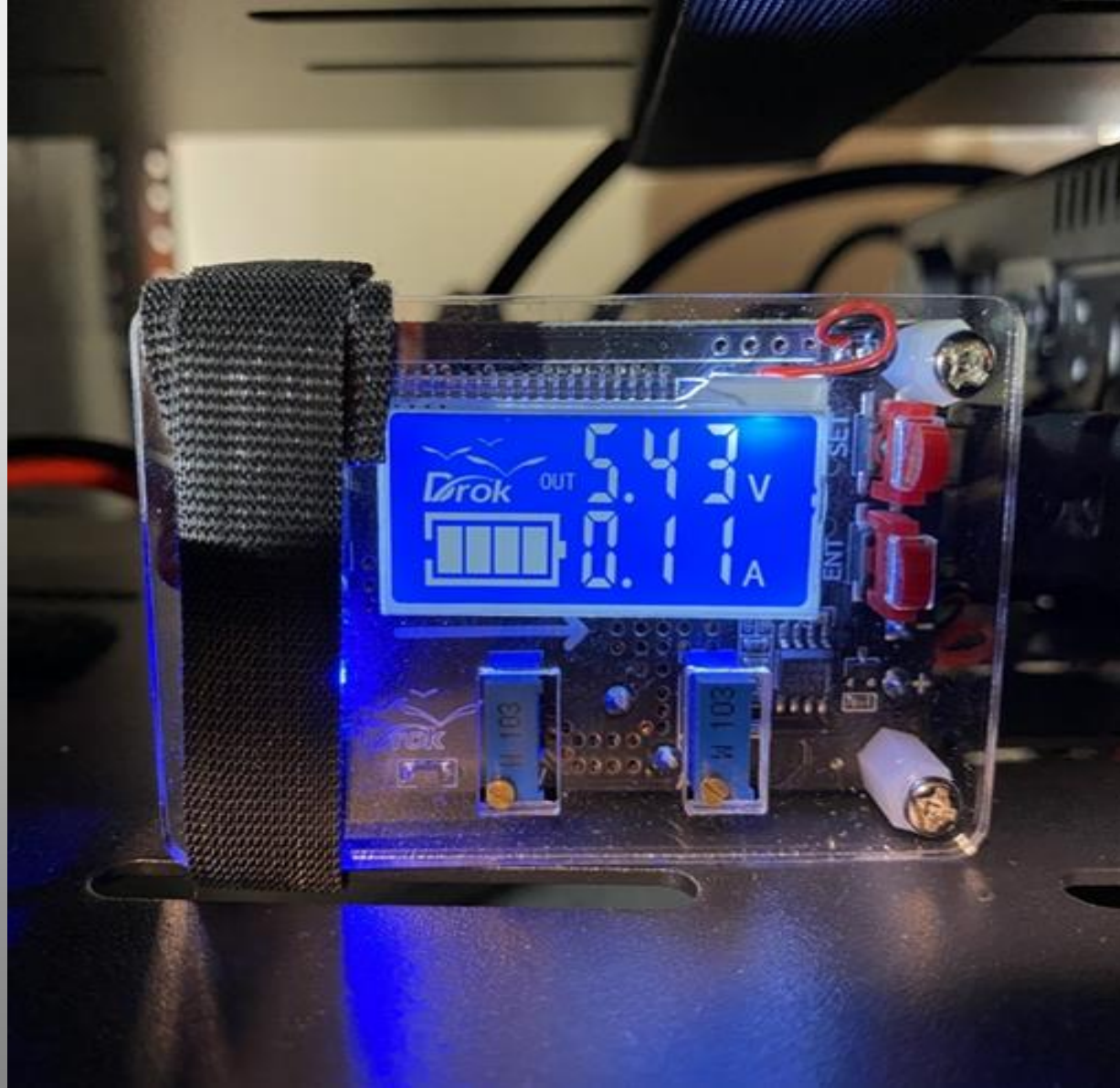


12v/AC  
monitor  
mounted  
for  
transport



A closer look  
at the Pi with  
external fan  
and HDMI for  
the 12v  
monitor





A Drok  
adjustable buck  
converter runs  
the Pi when not  
using AC



Also have a  
POE (Power  
Over Ethernet)  
power supply  
for RPi



Shack Box

MFJ-939-  
Intellituner

12v ext power  
Switches



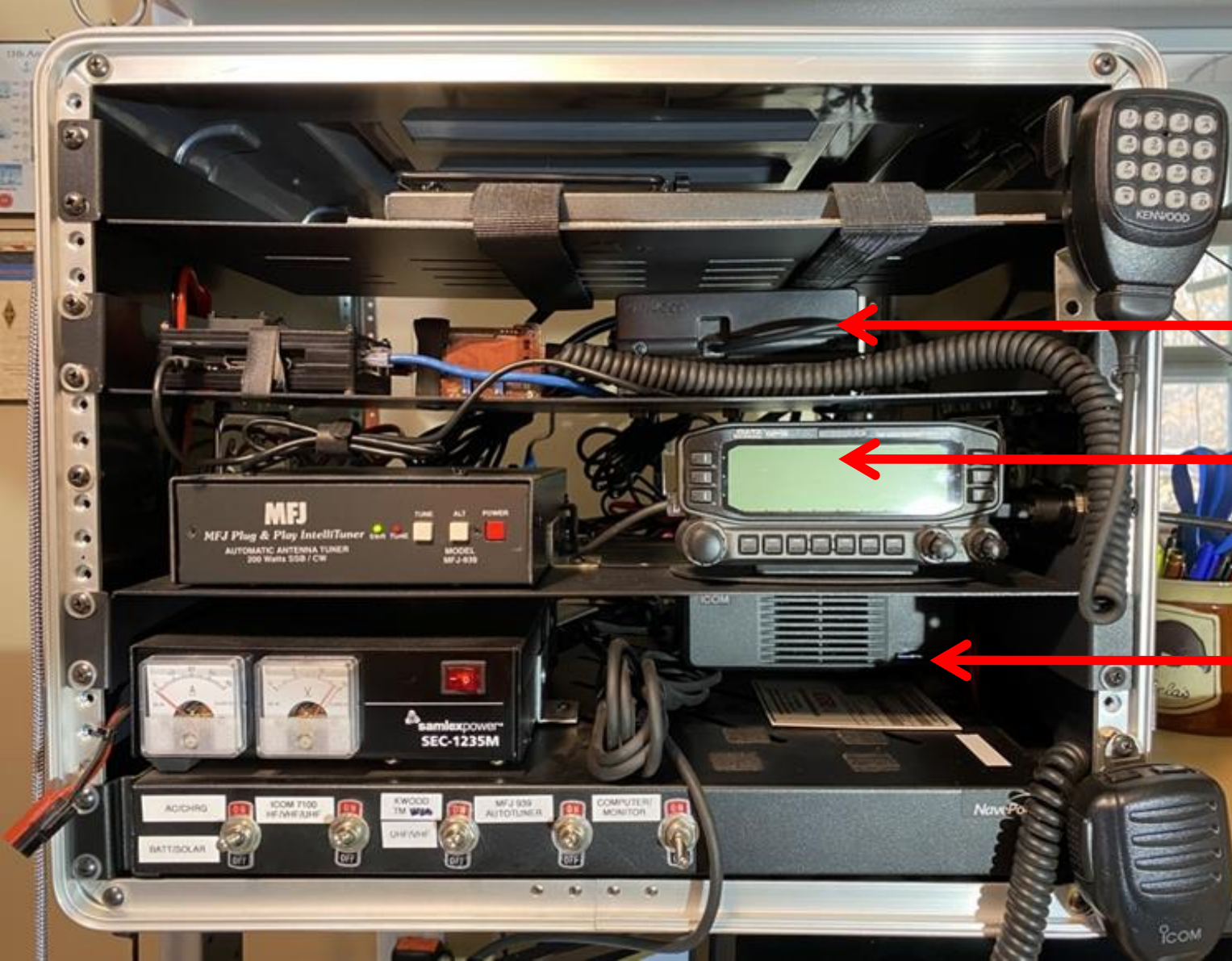


# Shack Box

Kenwood  
TM-D710G

TM-D710G  
Head

IC-7100  
Body



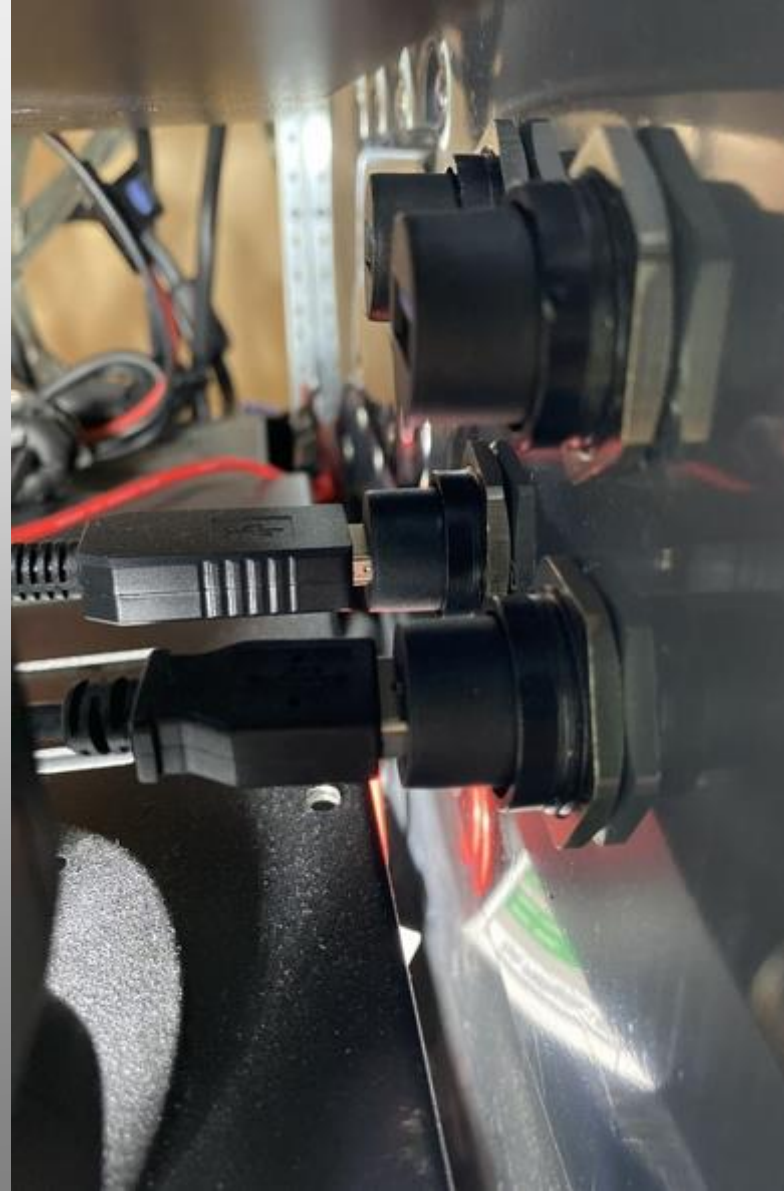




Velcro  
to hold  
IC-7100  
head unit  
during  
transport



USB 3.0  
pass through  
adapters  
on side of  
case

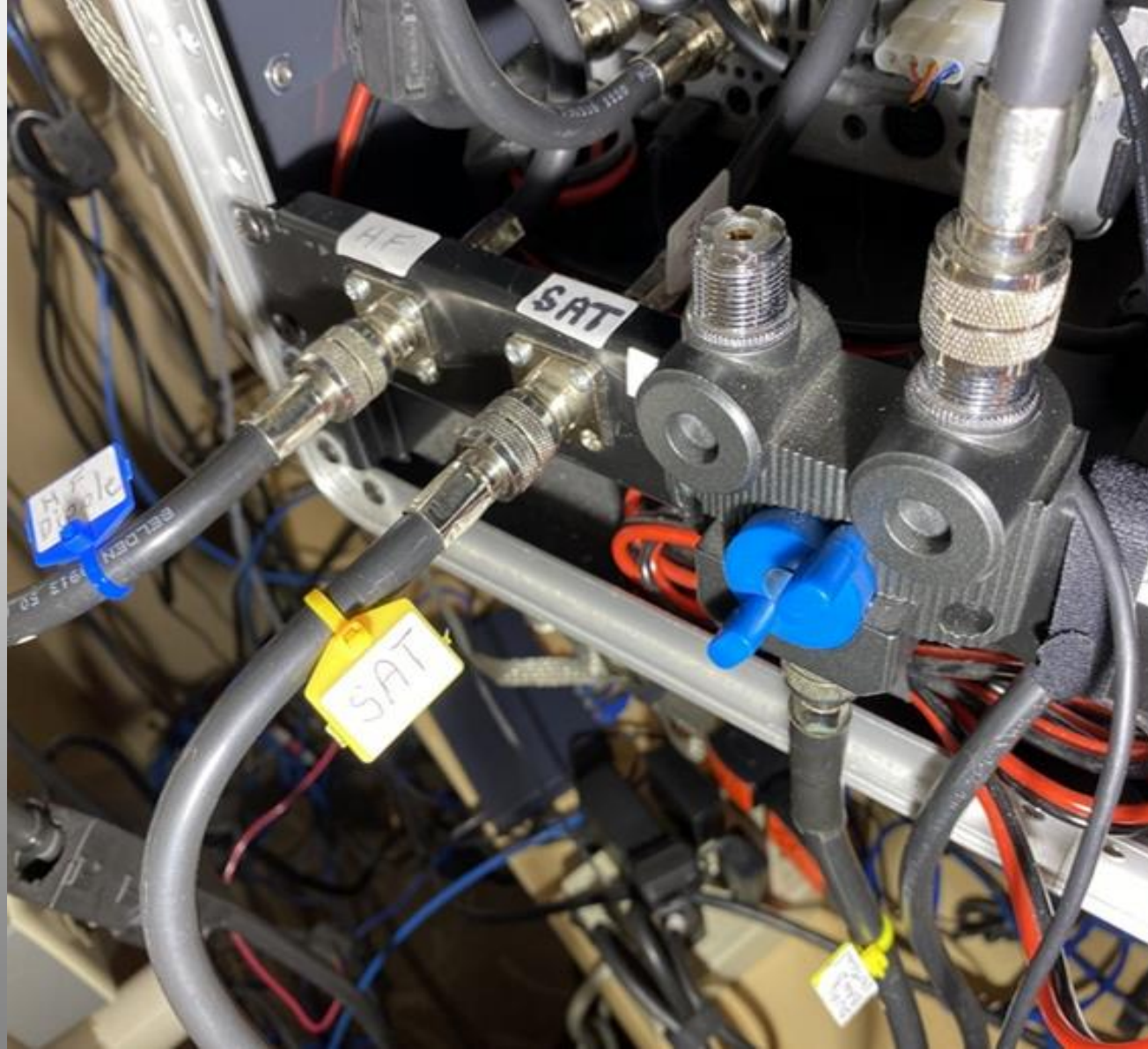




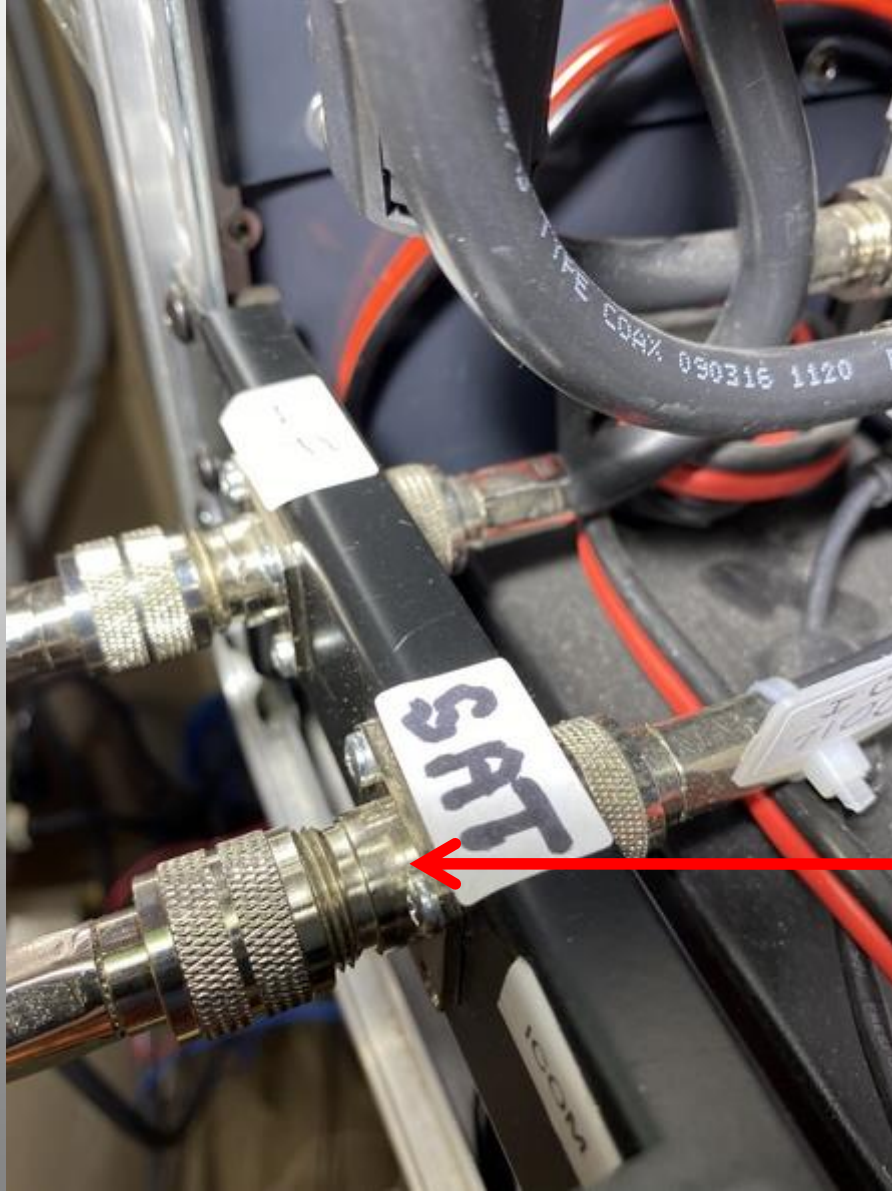


Common ground  
bar on rear of  
Shack box connected  
to copper plate and  
ground rods outside





Antenna  
connections



Note the use of easily-replaced pass through adapters to reduce connect/disconnect wear on radio connectors



12v Power  
distribution and  
fuse system -  
Comes with free dust





West Mountain Radio

Epic PWRgate

enables power source

switching including

solar

Also with free dust

Power and cable  
entrance from  
interface/grounding  
box  
outside





Single channel

MMDVM

DMR+

Hotspot



D.I.Y.  
Window  
Pass  
Through





There's  
always  
room for  
more  
stuff!

Thank You!

QUESTIONS?



# References

- <https://mfjenterprises.com/products/mfj-939i>
- <https://samlexamerica.com/products/30-amp-switching-power-supply-sec-1235m/#>
- <https://www.qsl.net/xe1cdx/Hamdocs/satellite/A%20Simple%20Fixed%20Antenna%20for%20VHF-UHF%20Satellite%20Work.pdf>
- <http://www.on5au.be/content/a10/vhf/ms2.html>
- <https://www.kenwood.com/usa/com/amateur/tm-d710ga/>
- <https://icomamerica.com/en/products/amateur/hf/7100/default.aspx>
- Elecrow 11.6 Inch 1920X1080 HDMI VGA Portable Monitor 1080P LED Display
- DC Buck Module, DROK Adjustable Buck Converter Step Down Voltage Regulator 6V-32V 30V 24V 12V to 1.5-32V 5V 5A LCD Power Supply Volt Reducer Transformer Module Board with USB Port Protective Case
- <https://www.westmountainradio.com/>