Starlink Deep Dive

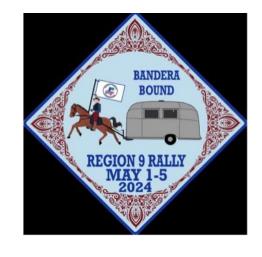
May 2024
Region 9 Rally, Bandera, TX
Eric McHenry // BRN #153





Agenda

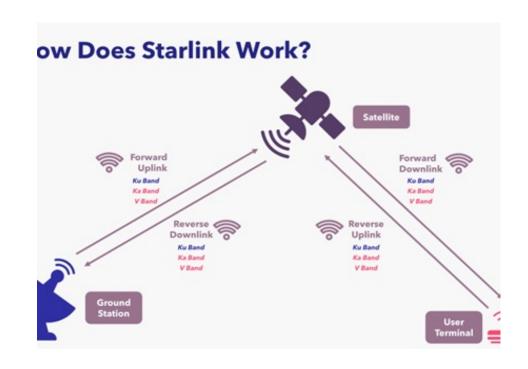
- Starlink overview
- Who's it for, and what problem does it solve?
- Information Resources
- Service plans
- Integrating into your Airstream
- Q&A







- Initial service offering: 2019 (60 satellites)
- ~5,900 satellites (May 2024)
- ~12,000 planned, potentially more
- ~2.6M subscribers (May 2024)



Starlink Availability (May 2024)





Who is it for?

REGION 9 RALLY MAY 1-5 2024

Yes

- Working and often not in areas lacking reliable cellular.
- Need relative certainty of communication ("chasing the signal").
- Desire redundancy (cellular + Starlink)

No

- Typically camp in heavily wooded areas.
- Are ok with cellular (native and hotspots) and/or public WiFi

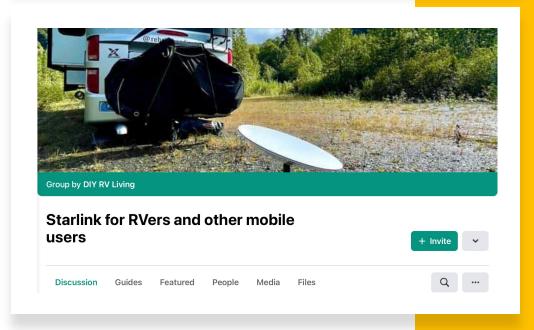
Maybe

- Desire to reduce individual cellular plans (tablets, laptops).
- True "off-the-grid" boondocking or non-Airstream camping

Informational Resources

- RV Mobile Internet
 - rvmobileinternet.com/guides/starlink-rv-boa.,
- Facebook Starlink for RV
 - facebook.com/groups/starlinkrv
- YouTube
- Poles & Holders
 - polesandholders.com/collections/mounts
- Starlink with Peplink





Starlink Service Plans (May 2024)

ORDER STARLINK

High-speed, low-latency broadband internet in remote and rural locations across the

- Residential (\$599 + \$120/month)
- Business (\$2,500 + \$250/month)
- Roam/Mobile (\$599 + \$150/month)
- Boats (\$2,500 + \$250/month)
- Aviation (???)



Starlink Hardware

- Rev 1 (2020)
- Rev 2 (2021)
- Rev 3 (2022)
- High Performance (2022)
- Rev 4 (2023)

Starlink User Terminal models and hardware revisions

January 2024



REV1 - Original Starlink "Dishy"

rev1_pre_production rev1_production rev_rev1_proto3

Years in production: 2020 - 2021



High Performance

rev_hp1_proto0 rev_hp1_proto1

Years in production: 2022 -



REV2 - Mass production "Dishy"

rev2_proto1 rev2_proto2 rev2_proto3 rev2_proto4

Years in production: 2021 - 2022



Flat High Performance

rev_hp1_proto0 rev_hp1_proto1

Years in production: 2022 -



REV3 - Standard Actuated

rev3_proto0 rev3_proto1 rev3_proto2

Years in production: 2022 -



REV4 - Standard

rev4_proto3 rev4_proto4 rev4_prod1

Years in production: Q4 2023 -







Starlink Dish Mount

- Tall mast is usually NOT needed.
- Usually only need to "see over" Airstream.
- But bring the standard base for options
 - Clearings in heavy tree cover areas.
 - Truck bed or roof
- Can make a pole with adapter

Integrating into your Airstream

Phase #1 (27' Globetrotter)







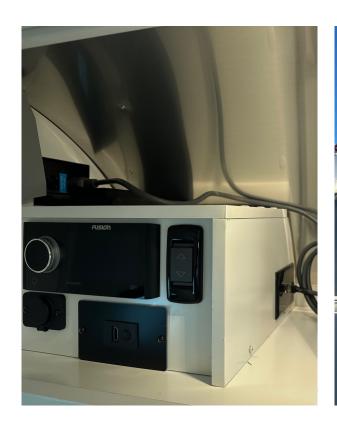


Integrating into your Airstream Phase #1 (27' Globetrotter)





Integrating into your Airstream Phase #2 (30' Classic)









Integrating into your Airstream Phase #2 (30' Classic)







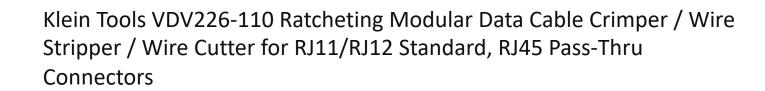


Cutting the Cable...

- Necessary if using "SmartPlug" penetration
- Truly, it isn't hard
 - Simple RJ45 crimp
 - Buy your IT friend a beer will take ½ hour.
 - Or, have an Airstream dealer do it (and maybe route the cable)
 - But keep a spare cable (starlink.com)!









Integrating into your Airstream (Rugged RJ45 Connector Configuration)









Placing the Router Factors



- Access to Starlink cable (router end).
- Access to inverter outlet
- Proximity to Airstream Connect
- WiFi radiation (bedstand)
- Ideally, not in a closed cabinet (but not critical)
- Aesthetics (!!)

Routing the Cable

- Airstream-dependent
- Antenna mast-dependent
- Aesthetics-dependent
- Other factors
 - Desire to open the front window (or not)
 - Permanent or temporary
 - Typical weather conditions
 - Use with ACI/WBCCI flags
- DYI or Dealer: time/experience/\$\$





Starlink and Pepwave (Airstream Connect)



Other Considerations



- Boondocking (power usage)
- Desire to use in multiple places
 - Home, Airstream, vacation home, non-Airstream camping, etc
- Infrequent use
- Theft (campground)

Q&A

Thank You!

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