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#48_2024_April_Newsletter

1 message

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Thu, Apr 4, 2024 at 2:41 PM





Thank you for signing up to receive my newsletters. I hope you've found the previous editions informative and helpful for your vehicle-supported adventures. I trust you will enjoy this month's newsletter. If you have comments, please email me: Bob.Wohlens@discoveroffroading.com. You can access, download, and read previous newsletters on my website by clicking [HERE](#). Look through the Newsletter Reference for a topic that may interest you, or download them all!

Bob Does Starlink Mobile (You Knew This Was Coming)



In today's world, how does this sound to you:

Eighty eight dollars a month for a maximum of
5 mbs download and 1.2 upload?

That's been the story of my digital life on our very rural ranch for over 13 years using a local radio signal-based internet provider. Cable or fiber optic internet is not available in our area. I can get a few bars of 5G data via a hotspot from my phone to my desktop computer, but for several reasons this method of access to internet is less than ideal.

Ugh. Internet on the ranch was awful, especially for someone that runs his entire business online. For example, sending my book photos to my desktop designer for layout use to take all night. I tried Hughes Net when I lived in Running Springs

California. That outing was even worse.

Three years ago Starlink came to my attention. I watched the reviews for a while to see if the delivery matched the hype. If anything, the delivery was underrated - I should have purchased SpaceX stock. I applied for their hardware and service in my area when Starlink was slowly rolling out their system across my local area. Once I received my Gen 2 hardware and service, I easily mounted it on my roof. Yikes. Overnight I had over 100-plus mbs second download and 15 upload. This changed my life. Now I could organize Zoom calls, pop up websites in milliseconds, modify my website in minutes, create timely newsletters, quickly update the firmware/software on my equipment, and easily send files around the world.

Enter Starlink's Gen 3 Dish System

After this new system's release, I again watched the reviews from mobile overlanders I follow. Then, last month I invited a few friends and loyal customers to join me on a Baja reconnoitering adventure. Two of my friends on this adventure had Starlink Gen 2 hardware on a mobile subscription plan. Every evening in camp one of them set up their system to do work from our remote locations in Baja (and I mean remote) or simply communicate with friends and family. Practically none of our camping locations had even a hint of cell service.

During this Baja adventure, I think I used my Garmin inReach once to text my wife back home and check in. Further, I never used my SatPhone on this trip to hear her wonderful voice. Instead I used my Apple iPhone to call her over the Starlink system even though I had no bars of service. I didn't know that my cell phone could make calls through the Starlink system without a cell tower in sight. Shame on me, but amazing. I also tested my friend's system on my phone and laptop to watch YouTube videos, answer emails from the field, and so forth. Everything I tried worked as good in the field as my internet on the ranch. Okay, I was sold.

Here's an Important Consideration

Let's say your vehicle throws you a "check engine" warning. Okay, you have an inexpensive OBD II code reader. It provides you with the code number, and perhaps even designates the problem. Unless you are a certified ASE repair mechanic, you probably don't know how to repair the problem or even decipher if the problem can be fixed in the field. Ah, that's where Starlink comes in. Set up your internet system, open YouTube, type in the check engine light code and ta-

da, there's a video on repairing the problem. Knowledge is power.

Basic Install Considerations

There are lots of YouTube videos showing people using the Starlink Gen 3 system in the field and how to set the system up. Just do a search and watch as many as you can. For clarity, in this newsletter I'm only focusing on the new Starlink Gen 3 system. The Gen 2 system does work in the field, but I believe the newer system (which is the same price) works more conveniently for mobile overlanders.

Here's what I discovered during my research on setting up a mobile Starlink system:

* There are three basic approaches of powering your Starlink hardware from your vehicle. 1) Use a 120V AC inverter, 2) Configure a 12 volt DC to DC power supply, or 3) Use a portable power supply. More on each of these power set-ups in a bit.

* There are two basic approaches to deploying your Starlink dish. 1) Deploy the dish when camped, or 2) Permanently mount the dish on your vehicle.

For my business, I am fortunate to have multiple off-road vehicles: 1) Jeep TJ rock crawler, 2) Jeep JK overlander, and 3) RAM Powerwagon/Camper overlander. It would be foolish to purchase three Starlink Gen 3 units, one for each vehicle. So, I've built a system that will allow me to easily move it from one vehicle to the next. This means that permanent mounting of the dish on the vehicles is out. I share these three types of power solutions with you as I believe these are the most common I've seen in the field, not to brag that I have three different types of off-road vehicles.



Truck/Camper Install - Inverter

I've always wanted a better 12 volt DC to 120 volt AC inverter in my Powerwagon, so now is my opportunity. I'll power my Starlink Gen 3 system from the truck with an inverter. This is exactly the same way you'd use the Starlink hardware at home.



You don't need a large wattage inverter to run the Starlink system, but it does need to be a "pure" sine wave inverter. I purchased a MorningStar SureSine-300 for my camper and permanently mounted behind a cabinet door. I have a 380ah LiPO4 battery in the camper and multiple methods of recharging, so running out of juice to run the Starlink for the time I plan to use it in camp is next to nil.

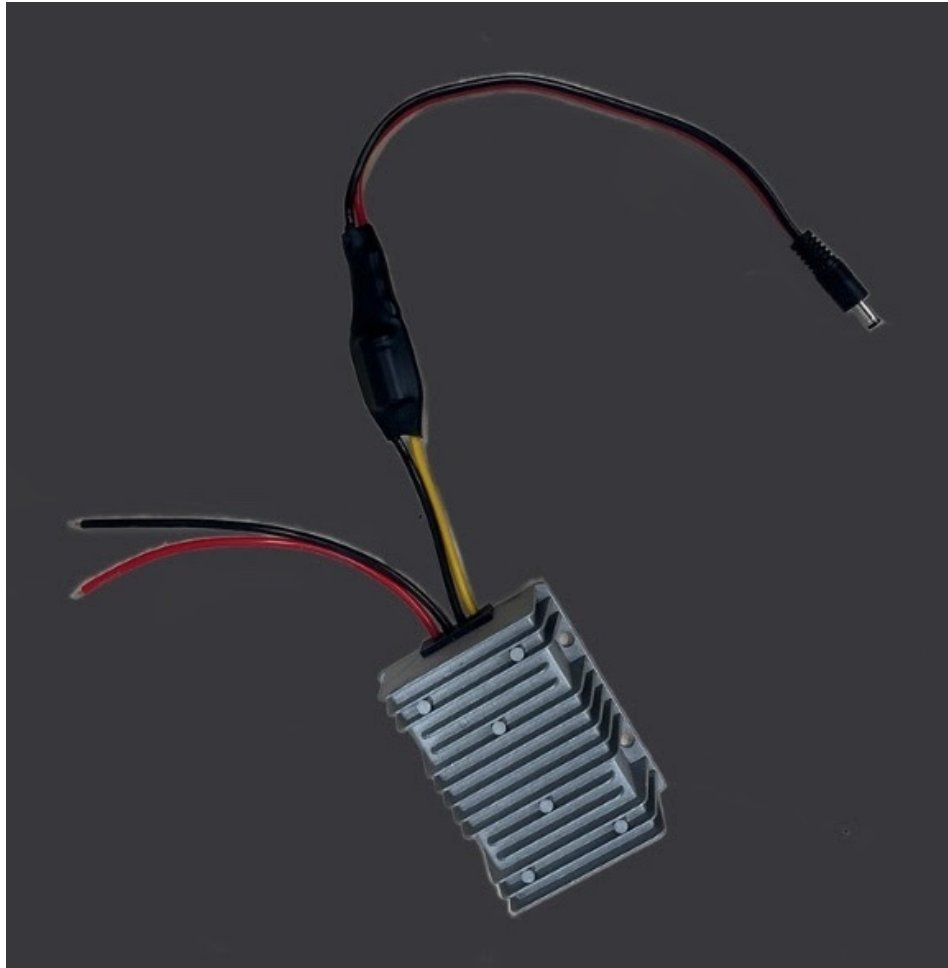


I finished off my camper's inverter install by plumbing it's own 120 volt AC outlet. I also utilized the MorningStar's feature to add a simple "on/off" switch. The switch next to the outlet in this photo allows me to turn off the inverter when driving or when not in use. This keeps battery power use to a minimum.



Jeep JK Install - Trio Power Supply

I took a different approach to powering my Gen 3 Starlink system in this jeep. Since this vehicle only has a 100ah LiPO4 battery, I decided to wire in a 12 volt DC to DC converter to power the Starlink's router. No need for a 12 volt inverter or the Starlink power brick.



From Trio, a Canadian company owned by vehicle-supported adventurers Tim and Katie, I purchased their simple to install Gen 3 12 volt power supply. This converter takes the 12 volt battery supply and ups it to the required 56 volts DC needed to run the Gen 3 Starlink.

Trio also has well-built dish mounts for a Gen 2 and 3 system. Go to their website to see all their products [HERE](#).



To be fair, I've not fully installed the Trio power converter in the Jeep yet, but this will be easy. I have tested the power converter and it works wonderfully without getting hot.



The Trio Power Supply is simply attached to your house battery on its “plus” and “negative” posts and then the unit’s barrel connector seamlessly plugs into the Starlink’s router.

Like my camper install, this set up will not permanently mount the dish on the Jeep’s roof. I’ll deploy the dish only when in camp. There are advantages of permanently mounting the dish on a vehicle’s roof, such as using internet while driving and saving set-up time in camp. But, remember I want to move one

Starlink dish between two vehicles. If I only had one vehicle and/or I was planning to be a “lifestyle” overlander (selling my ranch and living on the road), I’d mount it permanently on the vehicle’s roof. One day, but not today.



Jeep TJ Install

At this point, installing my Starlink to run from my Jeep TJ is only a consideration. I’m not really sure I will ever need to take my Starlink with me on day-long excursions in this Jeep. More often than not, I tow this Jeep to locations using my Powerwagon. So, each evening I’ll have access to the internet by returning back to my truck camper. However, “never say never.”

Here’s my thinking for this vehicle - I’ll use a portable power solution from a company like Jackery or Goal Zero (example shown here). I’ll choose a model that has a 120 AC inverter built in to run the Starlink system. Based on some research, I would probably only purchase a 500W portable power supply for the TJ. This size would run the Starlink system for over seven hours without solar charging. I could also use the portable power supply to run other equipment in the field.



Protect Your Starlink Hardware

To finish this project, I've ordered from Starlink Cases their custom designed Gen 3 enclosure to protect my investment. Click [HERE](#) to see their products. I'm hard on equipment so I wanted the best.

I researched other cases and cheaper enclosures, but none had the custom cut foam nor the right sized case. I wanted a slim case that would easily fit in the smallest space possible. Starlink Cases have what I needed.

Off-Road Safety Academy's

Upcoming 2024 Adventure Tours - Only a Couple of Spots Left



Death Valley Overland Adventure Tour

Death Valley is iconic, fabulously scenic and remote. Three days and three nights of overlanding exploring the largest National Park in the lower 48 States. Over 80-percent of this beautiful park can't be seen from the pavement – you have to venture off-road. Off-Road Safety Academy takes you to the best sights. Sand dunes, canyons, hot springs, playas, craters, mines, and high-altitude trails are all part of this adventure tour. This tour visits Saline Valley, Hunter Mountain, Hidden Valley, Tea Kettle Junction, Racetrack, and Ubehebe Crater.

This is an overlanding-style tour for 4WD vehicles only. You must be self-contained and self-reliant as we camp at a different remote location each night. Come along and be part of a community! The campfires on my tours are epic.

Cost: \$650.00 per vehicle. Bring as many passengers as you have legal seat belts.



Death Valley Miner's Cabin Tour - A Basecamp Adventure

This Death Valley adventure is for those who either: 1) Tow their 4WD behind a motorhome or truck, 2) Like to basecamp (meaning camp in the same location each night), and/or 3) Like the challenge of a more difficult off-road trail.

Unlike Off-Road Safety Academy's overlanding-style adventure tours, the trails traveled on this tour are a bit more challenging. There will be some rock crawling on this tour.

The tour route includes visiting several remote backcountry miner's cabins, including a visit to Barker Ranch where Charles Manson was apprehended by law enforcement. History at its best!

Cost: \$650.00 per vehicle. Bring as many passengers as you have legal seat belts.



Baja's Hidden Heart Adventure Tour

This tour sold out in just 3-days! You won't want to miss this new adventure route through the heart of the peninsula, also visiting Sea of Cortez and Pacific Ocean beaches.

There's a waitlist for this December tour. To be placed on this list, email me at: bob.wohlers@discoveroffroading.com

Stay tuned... I may add another Hidden Heart tour to the schedule.

Off-Road Safety Academy's 2024 4WD Adventure Courses



Education is Adventure's First Acquisition!

Want to learn more about your 4WD vehicle? Want to improve your off-road driving skills? Interested in keeping you and your loved ones safe while off roading? Do you know how to safely drive your vehicle over all types of terrain? Compression terrain (sand, snow, mud), hills, side slopes, rocks? Want to have a ton of fun learning the art of safe off-roading? Off-Road Safety Academy will safely teach you in one weekend what it takes most people years to learn on their own.

Off-Road Safety Academy's courses are for beginners as well as experienced off-roaders. Take the Discovery and Recovery Courses from Off-Road Safety Academy at NO RISK to you. If after completing these courses you do not feel more confident and relaxed with your off-road driving ability, your total course fee will be refunded.

Your safety through professional services is the only goal. Completing these courses will help you with the three P's:
Protect People. Protect the Environment. Protect Vehicles.

Consumer 4WD Courses

As of now, there are only two scheduled consumer 4WD Adventure Courses in 2024. There are only a couple of spots still open in both of these courses. Once the spots are gone, they're gone. No more consumer courses this year. I'm way too busy with other projects and corporate/government courses.

Discovery Course – Introduction to 4WD

June 15-16

Cost: \$720

Where: Prairie City State Vehicular Recreational Area (Near Sacramento California)

The Total Approach to Getting Unstuck Off-Road – Recovery Course

June 22-23

Cost: \$720

Prerequisite: Read and Complete Quizzes in the book: The Total Approach to Getting Unstuck Off Road (Click [HERE](#) to purchase on Amazon)

Where: Prairie City State Vehicular Recreational Area (Near Sacramento California)

For more information, details, and to purchase your spot in one of these two courses, click [HERE](#).

Off-Road Training Association
Professional 4WD Courses – New for 2024

More on These Courses in the Next Newsletter

Trail Guide Outfitter Course (TGOC)

Interested in becoming a professional trail guide, capable of leading remote backcountry adventure tours for pay? This is your first step in becoming a professional off-road 4WD leader. During this course you will learn the many responsibilities of a 4WD outfitter.

Prerequisites: Completion of Discovery Course and Recovery Course.

Post Course Requisites: Certified as a Wilderness First Aid Responder. Assist with an actual off-road tour.

November 11-12

Cost: \$1000

Where: Prairie City State Vehicular Recreational Area (Near Sacramento California)

4WD Instructor Development Course (IDC)

Upon successful completion of the Trail Guide Outfitter course, you may enroll in the 4WD Instructor Development Course. This three day course will teach you how to become a professional 4WD educator. During the IDC there are no knowledge exams or skill evaluations – only developmental learning. This training methodology is substantiated by professional instructional design and proven by adult educational principles. The pressure of "testing" should not be a part of developmental learning. This course is crafted using the tenets of objective-based learning.

Once you complete the IDC, you may enroll in the 4WD Instructor Examination (IE). The 4WD IE is a two-day evaluation of your educator abilities. You must pass a lengthy written exam and off-road skill evaluations. During the IE you will be assigned several speaking presentations on various topics to demonstrate your teaching ability both in the classroom and in the field.

Prerequisite: Completion of Trail Guide & Outfitter Course.

Post Course Requisites: Assist with one Discovery or Recovery Course. Wilderness

First Aid Instructor Certification

November 13-15

Cost: \$2000

Where: Prairie City State Vehicular Recreational Area (Near Sacramento California)

Do you have questions about the Trail Guide Outfitter Course and 4WD Instructor Development Course? Happy to answer them. Feel free to call or email:

909.844.2583

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