**Don't Spoil the Vintage Look with a Modern Fridge! Try an Energy Efficient Fridge Alternative**

We can think of about a million things that we love about vintage trailers, but the original "ice box" food storage solution in our [1957 Sportcraft](http://www.freedominacan.com/meet-hamlet.html), was not one of them. Designed for a simpler time, we appreciate both the minimalism and the sweet, mid-century hardware on this poorly insulated aluminum box. But, the original ice-to-food-storage ratio just wasn't going to cut it for longer than a weekend, let alone full-time living.

During our 2011-12 remodel we considered a modern replacement -- 3-way fridge, 12V cooler, etc. We just couldn't find anything that would fit the space while keeping the vintage look and budget, and provide us with enough cold food storage. With our launch date to full-time living approaching and with no viable solutions on the horizon, we settled on a hasty compromise.

We used the vintage ice box inside Hamlet as a dry-goods storage space and kept all of our cold food in a cooler out in our pick-up truck bed. This forced us to stick with the tried and true habit of picking up 10 lbs of ice every 3 to 4 days. Planning ahead to avoid being somewhere far off-the-grid with a melting bag of cold water instead of a robust block of ice, just became part of our routine.

Call it procrastination, call it just settling in to the way we did things, but the constant draining and cleaning, the sweaty cheeses, the partially liquified lettuces, the trips to the store -- it all finally got the better of us. We needed a different solution that would allow us to store enough food without having to compromise our inside space or vintage esthetic. We were not alone. With all the folks transitioning to life on the road in RVs, vans, and vintage rigs, the 12V product options just keep opening up!

We settled on the [ICECO VL45 Single Zone Portable Fridge Freezer](https://youtu.be/ur7gKRKp7aY), with its simple design, very reasonable price tag, efficient compressor, low-profile but durable handles, as the perfect solution for our situation. Many 12V fridge options were either too bulky, not powerful enough, too expensive, or simply too large for the allocated storage area. When your whole life fits into a 72 sq ft camper and the utility box of a truck, reallocating space is, well…complicated. Note: It's also perfect for those families who need extra fridge/freezer space *beyond* what they store inside their trailer.

We wanted to run our fridge off solar power to extend our boondocking adventures well beyond the lifespan of a block of ice. It also seemed like a wasted opportunity to not include an engine charging option into the mix, without draining the truck battery. The folks at Renogy thought so too, and created the [Dual Input DC to DC Charger](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=www%2Erenogy%2Ecom%2Fdcc30s%2D12v%2D30a%2Ddual%2Dinput%2Ddc%2Ddc%2Don%2Dboard%2Dbattery%2Dcharger%2Dwith%2Dmppt%2F&afftrack=). We became aware of this product while installing a [DC to DC charger between my parent's towing vehicle and RV](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=youtu%2Ebe%2F8%5FdrtItPiII&afftrack=) and it really got us thinking.

This ingenious device takes an engine charge input (via the starting battery) as well as a solar panel input. It allows us to run a 12V fridge off of our [12V-50Ah Lithium Iron Phosphate](https://shareasale.com/r.cfm?b=1582801&u=2489284&m=96785&urllink=&afftrack=) battery and be able to charge it while driving, or with our portable [100W Folding Solar Suitcase](https://shareasale.com/r.cfm?b=1582798&u=2489284&m=96785&urllink=&afftrack=) while camping off-grid.

One extra feature of the Dual Input charger is that when connected to solar and the service battery is full, the charger will trickle charge the starting battery in the engine. So, no matter how far out we might be, or for how long, we won't be stuck with a dead starting battery.

The installation was pretty straightforward and can be done with minimal tools, as you can see in our [step-by-step video](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=youtu%2Ebe%2Fur7gKRKp7aY&afftrack=). We had to design some vehicle specific solutions for mounting and securing components, but with the truck bed topper providing a water-resistant shelter much of the challenge for this installation was already solved.

As of December 2021, we've lived with this new arrangement for 8 months. Here are our overall thoughts about the performance of each component.

[**ICECO VL45 Single Zone Portable Fridge Freezer**](https://www-icecofreezer-com.myshopify.com/promo/canlife)

Simply put, we love this product. The novelty of being able to reach into the fridge and withdraw food or beverages that are at a uniform temperature has not worn off.

* The VL45 is robust, solid, and well-built. We travel down a lot of bumpy and dirty roads, and so far, the fridge stays in place, and performs well in all kinds of conditions.
* With the settings at 42° F, compressor at "minimum," and battery protection on "high," we have never seen the service battery dip below 13.0V.
* We've experienced a range of temperatures from highs in the mid 90's in the Arizona desert to lows in the 30's in the North Carolina mountains and the battery always reads between 13.2V to 13.4V -- ranging from 70-99% on the LFP battery.
* With the removable baskets, it's easy to clean. The two storage areas help keep things organized and easily accessible.

[**Dual Input DC to DC Charger**](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=www%2Erenogy%2Ecom%2Fdcc30s%2D12v%2D30a%2Ddual%2Dinput%2Ddc%2Ddc%2Don%2Dboard%2Dbattery%2Dcharger%2Dwith%2Dmppt%2F&afftrack=)

Simple, efficient, and well worth the price and effort to install it!

* Because this battery charger is so efficient and the fridge merely sips at the battery, we only need to attach the solar panel when we haven't driven the truck for 5+ days and the outside temps are over 85 degrees.
* The MPPT technology prioritizes the charge coming in from the solar panels, and makes the charging time super quick by converting the extra voltage into amperage. Since we don't have the panel connected while we drive, we take advantage of the full 30A coming from the starting battery -- just a 20 minute drive will easily top off the LFP battery.
* *Installation Note: Use "welding wire" (available at many specialty hardware stores) to hook up the positive and negative leads from the battery to the charger. The increased flexibility of this wire allowed us to make the tight bends and turns necessary for the long run between the starting battery in the front and along the truck chassis back into the truck bed. (See video for more description)*

[**50Ah Lithium Iron Phosphate Battery**](https://shareasale.com/r.cfm?b=1582801&u=2489284&m=96785&urllink=&afftrack=)

The [50Ah LiFePo battery](https://shareasale.com/r.cfm?b=1582801&u=2489284&m=96785&urllink=&afftrack=) is small, lightweight and provides plenty of watt hours to run the fridge and then some.

* We haven't seen the battery charge status dip below 13.0V even in warm temperatures.
* For the past couple of weeks, we've been experiencing sub-freezing overnight temperatures, but it hasn't affected the performance of the service battery or cooler.
* We are curious to see how well the LFP battery will perform in extended freezing temperatures. LFP batteries will not charge when the battery temperature is below 32° F but it will still discharge. What we'll probably do is simply turn off the fridge and battery charger altogether. The cooler won't need to run, but will still keep our food from freezing. This will also be the sign that we need to drive to warmer climates!

[**DC to DC Charger Monitoring Screen**](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=www%2Erenogy%2Ecom%2Fmonitoring%2Dscreen%2Dfor%2Ddc%2Ddc%2Dmppt%2Dbattery%2Dcharger%2Dseries%2F&afftrack=)

This remote monitoring system is a great addition to the [Dual Input DC to DC Charger](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=www%2Erenogy%2Ecom%2Fdcc30s%2D12v%2D30a%2Ddual%2Dinput%2Ddc%2Ddc%2Don%2Dboard%2Dbattery%2Dcharger%2Dwith%2Dmppt%2F&afftrack=) as it makes monitoring the charge of both batteries a cinch.

* It displays the following information for both the service and starting batteries: voltage, temperature, charging current, and kilowatts generated.
* Indicator icons show when the solar panels are connected and charging, or when the alternator is charging.
* The extra long cord makes locating it in an appropriate place a breeze; we've installed it right next to the cooler so it's easy to see.

[**100W Folding Solar Suitcase**](https://shareasale.com/r.cfm?b=1582798&u=2489284&m=96785&urllink=&afftrack=)

We've had this portable panel for nearly 3.5 years, and relied on this workhorse as our primary panel for most of that time.

* Hooking it up to the [Dual Input DC to DC Charger](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=www%2Erenogy%2Ecom%2Fdcc30s%2D12v%2D30a%2Ddual%2Dinput%2Ddc%2Ddc%2Don%2Dboard%2Dbattery%2Dcharger%2Dwith%2Dmppt%2F&afftrack=) is simply a matter of plugging it into some MC-4 connections which we have conveniently located at the back of the truck bed.
* Within a couple of hours of full sun, our [100W Folding Solar Suitcase](https://shareasale.com/r.cfm?b=1582798&u=2489284&m=96785&urllink=&afftrack=) quickly recharges our 50Ah battery without needing to start up the truck.

**It's All Very Cool!**

We needed a different solution than our old cooler and this one is awesome! While we have certainly saved money by not needing to purchase ice, it's going to be a while until this pays for itself outright. However, the joy of grabbing a cold beverage on a hot day and keeping food from spoiling is significant. With that alone, it's been worth its weight in gold.

This easy solution should be a part of every camper's plan, whether you drive a vintage rig like ours, or you're starting the van or bus build of your dreams.

If you would like to take advantage of our affiliate discount with [Renogy](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=&afftrack=) (10% off) or [ICECO](https://shareasale.com/r.cfm?b=1529919&u=2489284&m=96785&urllink=www%2Erenogy%2Ecom%2Fmonitoring%2Dscreen%2Dfor%2Ddc%2Ddc%2Dmppt%2Dbattery%2Dcharger%2Dseries%2F&afftrack=) (12% off), click on these links and use "CANLIFE" as your promo code at checkout.

In 2012, Shari Galiardi & David Hutchison left behind careers and a comfortable home in North Carolina to travel with the vintage camper trailer they lovingly restored, outfitted with solar, and named "Hamlet." What began as a short break from careers and responsibility quickly turned into a love affair with roadlife. They have parlayed their higher education backgrounds, desire for life-long learning, and thirst for adventure travel into writing, photography, video production, and public speaking gigs from coast to coast. Known to their friends as simply Shari & Hutch, you can learn more about their full-time, solar-powered adventures on their website at [freedominacan.com](http://www.freedominacan.com/home2.html). Or, follow them on [Facebook](https://www.facebook.com/freedom.in.a.can), [Instagram](https://www.instagram.com/freedom.in.a.can/), and [YouTube](https://www.youtube.com/channel/UCP_JWdMY0fGboev28XCUSxw?view_as=subscriber) as "Freedom in a Can, LLC."

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