

## GoVintage Tips & Tricks

Most of the following have been learned the hard way – not the best way to learn but the best way to remember. Some have been borrowed from the internet. All are words of wisdom.

### Let's Go Camping!

#### Hook Up to Tow Vehicle Checklist

- Back to Hitch
- Retract Jack
- Secure Hitch & Pin
- Connect Lights & Test
- Attach Safety Chains
- Remove & Stow Chocks & Block
- Turn Off Water Heater
- Valve Off Propane Tank Valve
- Valve Off & Detach City Water Line
- Coil & Stow Fresh Water Line
- Open Grey Water Valve & Drain Tank/Close Valve
- Open Black Water Valve & Drain Tank/Close Valve
- Fill Black Tank From Inside
- Perform Final Black Water Dump/Close Valve
- Remove & Stow Sewer Hose
- Cap Dump Valve Outlet
- Sanitize Hands
- Turn Off All Inside Electrical
- Detach Shore Power – Power First, Trailer Last
- Detach Video Cable
- Do 360-deg Double-Check Walk-Around Inspection

DRIVE SAFELY!

#### Hook-Up to Site Checklist

- Position Trailer So All Connections Can Be Made
- Put Chocks in Place
- Place Block Under Jack
- Drop Jack Until Pressure Is Off Vehicle
- Remove Hitch Pin
- Open Hitch Connector
- Drop Jack Until Hitch Will Clear Ball
- Detach Safety Chains
- Detach Light Plug
- Move Vehicle Forward

- Level Trailer with Jack
- Put Step in Place
- Connect Shore Power – Trailer First/Power Last
- Connect Video Cable
- Connect & Test Fresh Water Line Connection
- Attach Sewer Hose to Trailer & Site
- Open Grey Water Valve
- Leave Black Water Valve CLOSED
- Sanitize Hands
- Attach & Open Propane Valve
- Turn On Water Heater/ Flush Hot Water At Faucet

## **Leveling**

Besides being uncomfortable, an un-level trailer will affect water drain lines and holding tanks that depend on gravity to work properly.

Find a suitable site as close to level as possible in the side-to-side (S2S) plane and reasonably level in the front-to-back (F2B) plane. You can level F2B by un-hitching and adjusting with the tongue jack. Blocks are available at Walmart etc that can be placed under low side wheels in extreme conditions.

Some trailers come with stabilizing legs at each corner of the belly- these keep the trailer from excessive movement and do little to help leveling.

## **Trailer Trash**

There's nothing worse than living with trash. Especially in the close confines of a trailer. Any slight odor is multiplied many times over. Two of our favorite fixes for this are inexpensive and readily available at your local Container Store. Both are compact and can be mounted out-of-the-way inside a cabinet in the galley area. One is a small rack that holds all your free plastic grocery bags and the other is a rack that holds one for trash. A bag doesn't hold a lot which forces you to discard rubbish before it becomes unpleasant and disposes of the bag at the same time.

## **Walmart Camping**

All Walmart Stores I have encountered allow free, overnight parking. Be respectful, park out of the way and buy something. Don't put up awnings and no curbside setups or outdoor cooking. Their restrooms are usually spotless and they stock trailer items near the auto supply department. In addition, there is parking lot surveillance and this should be a safe place to spend the night on long hauls.

## **Dispersed Camping**

National Parks often have areas for free "Dispersed Camping". Check with local Ranger Stations for maps and advice on these locations. Campsites are usually fairly flat and designated. There are no facilities so you will go into "boondocking" mode. They are remote, often near water and beautiful. A must if you want to enjoy nature unbothered by neighbors other than wildlife and the lullaby of nearby streams.

Let's keep this one a secret.

## **Boondocking**

For me, by far the most enjoyable camping is deep in a National Park with no one else around: I've found the perfect site – near a tumbling, snowmelt-fed stream, grazing elk in a forest clearing and the mountains towering in the background, framed by incredibly blue skies.

The price for all this natural beauty and solitude is there are no external links to what normally fuels creature comforts – water, electricity and sewer. You are off the grid and boondocking.

Water: precious and limited. Conserve is the byword. Be aware of what the on-board capacities are and monitor tanks constantly. If it's cool, maybe you can do without that daily shower. Use as little water as possible when washing pots and pans. Dump all liquids not harmful to the environment outside. Use disposable cups, plates etc. Take along extra 5-gal water containers and bottled water for drinking. If there are nearby primitive showers/bathrooms, use them. Only use and flush the on-board toilet when absolutely necessary. When the black tank is full its "Out of Service". When you are out of water, you are out of business. See the section on "Water Conservation" for more tips.

Electricity: Honda generators are boondockers' best friend- quiet and efficient. Use only when necessary to keep fridge cool or for necessary lighting. If you require air conditioning, they will usually run all night on eco setting without refilling with fuel. Candles add wonderful ambience and work well. Give everyone a flashlight. Only open the fridge when absolutely necessary – in temporal climes it will stay cool all night if not opened.

With thoughtful conservation, you can be self-sufficient for days.

## **Getting Tanked**

Water, that life giving liquid that we take for granted. When you are comfortable with this aspect of trailer travel, your water appreciation will be put back into proper perspective. It must be stockpiled in the fresh water tank, separated after use and then stored in the grey tank (sinks, showers) and black (toilet) tank. Finally, it must be disposed of properly. Not really that complicated, but a part of life in a trailer. Just remember, it weighs 8.34 pounds per gallon so don't store and haul any more than you need and dump the grey and black tanks when necessary and before hitting the road. The following are pointers to help you along. They won't all apply when you are hooked up to city water and sewer connections.

### **Fresh Water Conservation**

You quickly learn to appreciate the value of water when the supply is limited. If you are off the grid and relying on your fresh water tank only, keep this in mind: most water pumps dispense 3 gallons/minute of unrestricted water flow. If your tank holds 30 gallons - with a valve open, it will be empty in 10 minutes. (You can do the math for other capacities). This equivocates to two long showers or ten short ones. Get the picture? (You aren't at the Omni Toto). If you want to wash dishes or flush the toilet in addition, you will need to conserve. Showers are the Water Hogs. Get a shower wand that uses 2 gpm

with an on/off switch (Oxygenics “Water Spa” \$32 online) and only use water when wetting or rinsing. The other option is to use public shower facilities when available. Keep toilet flushes short and sweet. A good rule of thumb is 5 gal of water usage per day per person- total for everything (if everyone is on the team). Plan ahead and take along extra water containers or plan to refill the holding tank periodically for long stays.

If you have a fresh water source (city pressurized connection) disregard the above and enjoy that long relaxing shower, but without an on-demand water heater you will only have 6 gallons of really hot water to mix with the cold at the shower head. Don't forget to open the propane tank and activate the water heater upon arrival – conventional water heaters will take around 30 minutes to generate hot water.

### **Hook Up Sanitation**

Always follow this guideline when hooking up or disconnecting cables, hoses and flexible sewer line: Connect or disconnect black water valve and hose last and then sanitize your hands. Never touch fresh water fill hose or any other connection after black water contamination.

### **Fresh Water Tank Maintenance**

(From Airstream's spring checklist on their website:  
*1/4 cup of bleach for each 15 gallons of fresh water.*  
<https://www.airstream.com/wp-content...reparation.pdf>)

Connect all fresh water hoses together, then connect them to water source to flush water through them to remove any water left from prior use. (not into the fresh water tank)

Turn off water, drain hoses. Insert male hose end into the fresh water tank fill opening. Pour about DOUBLE the recommended quantity of bleach into the female end of the hose, using a funnel.

Reconnect female end of the hose to water source to fill empty fresh tank. Bleach/water mixture flows through the hoses into the water tank. (this helps sanitize the hoses)

When the tank is 90%+ full, turn on the pump (not with city water pressure) and run water through each faucet, shower, and toilet, until you smell the chlorine, so that all fresh water pipes are sanitized in the process. Then fill the fresh water tank completely. Leave this overnight, but Airstream says 4 hours.

To clear bleach solution from the fresh tank, turn on galley or bath faucet with grey tank valve in the closed position until this tank fills. Leave bleach solution in tank 4 hours or overnight to sanitize the grey tank and then dump.

You may need to cycle another full tank to clear chlorine from fresh tank.

When white hoses start looking nasty, fill the hose with water and connect the ends together, while coiled inside a 5 gal bucket filled with water/chlorine bleach. Filling the hoses with water keeps them from floating. Soak them overnight or longer. This helps keep them white.

### **Black Water Tank Maintenance**

When your black water tank is full or it's time to move on, perform the following to get this essential receptacle back to good health and smelling fresh:

1. Dump tank
2. Close valve, then fill and dump 2 cycles with fresh water
3. Close valve and add 8# ice and bleach and/or Thetford solution

Ready to go. Ice will help cleanse the tank with abrasive action on the road. If you are dumping the tank only, omit the ice.

### **Black Water Tank Treatment**

We can't take credit for this one but it is good advice and it works:

“USE WATER SOFTENER, DETERGENT, and CHLORINE BLEACH This stuff is amazing and it works. Buy a couple of boxes of powdered water softener at the grocery store. You'll find it located with or near the laundry detergent products. I prefer Calgon Water Softener because it dissolves quickly in water. Cheaper water softeners work just as well but dissolve more slowly. Dissolve two (2) cups of the water softener in a gallon of hot water. Then, pour the solution down the drain into the empty tank. Use two cups of softener for each wastewater tank in your RV. The tank's drain valve should be closed otherwise the softened water will just drain out. Then use the tank(s) normally until it is full and drain it normally. Add a cup of laundry detergent to the black (commode) water tank at the same time you add water softener. This will help clean the tank. The gray water tanks should already contain soap through normal use. Water softener makes the solid waste let go from the sides of the tanks. If you've ever taken a shower in softened water you know that after rinsing the soap from your body your skin will feel slick. That's because all the soap rinses away with soft water. Softened water also prevents soap scum from sticking in the tub. Get the connection? With softened water gunk washes away instead of sticking. The same thing applies to your RV's wastewater tanks. I use a clear plastic elbow connector to attach my sewer drain line to the wastewater outlet on my RV. It allows me to see how well things are progressing during a wastewater dump. Before I began using water softener regularly the black water tank's water was brown, the galley tank's water was brownish, and the bathroom tank's water was white. The first time I added water softener to the tanks the water coming from the black water tank was actually black (not brown) and the kitchen tank's water was also black (not brownish). The bathroom tank's water remained white. That told me that the water softener had actually done what I had intended for it to do and made solid waste, which had been stuck to the interior of the tanks, let go and drain away. I added water softener (and laundry detergent to the black tank) to all the wastewater tanks for the next few dumps to be certain all the solid waste possible had been cleaned away. The wastewater only appeared black on the initial treatment. I now add water softener and detergent to each tank once after every few dumps to maintain the system. Too little water softener may not be of sufficient concentration to work effectively. Too much water softener will NOT hurt the tanks. So, if the amount you used didn't quite do the job, then use more the next time. Don't forget the laundry detergent. Occasionally, I pour a half gallon of liquid bleach into each tank to deodorize, sanitize and disinfect them. I add the bleach when the tank is about half full, and then continue to use the tank normally until it is full and ready to dump. I no longer use the blue toilet chemical because it isn't necessary. I have no odors coming from my black water tank. The chlorine bleach kills the bacteria, which is primarily responsible for waste water tank odor. Generic brand liquid bleach is cheap and very effective.”

### **Ascending the Throne**

Show your guest how to make a “sign of the cross” before sitting down. No, that doesn't mean you'll need to pray. Just place a “T” shape of toilet paper into the bowl before sitting down. The paper allows

the solid matter to more easily slide down into the black water holding tank without sticking to the bowl.

This will make for a better trip for all and confirm your royalty.

### **Dump Stations on the Road**

Download the free "Sanidumps" App for locations and details of dump stations anywhere in the US. Many NPS Ranger Stations have dump facilities.

### **When All Else Fails....**

There comes a time in this imperfect world when even good preventive maintenance practices fail. Symptoms are sluggish draining of holding tanks or blade valves that fail to close properly. These set backs don't get better by themselves and if ignored will put you in deep doo-doo (pardon the pun). Before you call the local (expensive) RV plumber or dump caustic chemicals into your precious plumbing system, try our simple back flush trick. You can make the fitting you will need cheaply and easily and blast out the muck with little muss or fuss. Contact us for details.

### **Composting Toilets**

Don't even consider it! If you need graphic reasons go to YouTube.

### **What's That Behind Me?**

#### **Sway Control Systems**

To each his own on this issue. I have pulled many vintage Airstreams, Spartans and canned hams in the mountains and all over Colorado to California and beyond without anything and never had any kind of problem. Major crosswinds were blowing headed south on I25 to Texas. The rigs are heavy and a pain to attach and store in addition. Old Airstreams especially are usually rock solid. I see no need but you should research and make your own decision.

### **Watch the Weather**

#### **Hurricane and Tornado Warnings**

Move to a safe location. Most vintage trailers fare much better than cheaply-built box units in high winds but are usually damaged by other trailers or objects that blow into them. I saw this first-hand in the aftermath of Hurricane Harvey.

#### **Hail Storms**

Vintage trailers with aircraft -grade aluminum and rivets are more resilient to hail bombardment than thin-skinned box trailers but should be moved to safer locations whenever possible. After a major hailstorm in San Antonio my 1973 Streamline was undamaged while my F-150 had more pockmarks than Manual Noreaga.

## **Sub-Freezing Weather**

This was a completely foreign experience for me, a hot weather south Texas boy. Negative 5 degrees in Denver in a 1951 Spartan renovated trailer: Water supply lines, drain lines, holding tanks, sink traps, water hose and me – all frozen solid. Added wall and ceiling insulation did keep the interior relatively easy to warm but made other living conditions unbearable. It is easy to take water for granted in the liquid state.

What do you do?

1. Interior ½” water supply lines- insulate all you can access with foam insulation along wall-exposed areas.
2. Exterior exposed piping (supply and drain) – apply electrical heating wire with zip ties to underside and insulate. Inexpensive and effective. Requires 120V power source. If they are insulated in the belly pan, they may not freeze.
3. Water hose- this will freeze quickly in sub-freezing temps. You must completely drain after each use.
4. Drain traps (sinks, tub or shower)- when these freeze nothing drains. After each use fill with a cup of rubbing alcohol (-128.2 deg freezing point).
5. Holding tanks- not much you can do about these but keep them empty. If fresh water tank is in heated space and in use, it shouldn't freeze.
6. Dump valves- these freeze and become inoperable if exposed to frozen water. You can thaw with a hair dryer. Again, keep tanks empty when not in use.
7. Flexible sewer hose- keep empty when not in use.
8. Interior living space- small, portable, electric, ceramic heaters work well. Just keep in mind they each require around 10 amps. On really cold mornings, temporarily fire up the propane stovetop and/or the oven and leave the oven door open. At night, I use plenty of blankets and put Callie (beloved dog) in bed with me. Our body heat keeps the closed bedroom warm.
9. If you plan on leaving your trailer unattended in freezing temps, follow other blogs to protect tanks, traps and piping from freezing, expanding and bursting - all expensive to repair.

## **Electrons Are Our Best Friend**

### **What Is Too Much?**

I know the last thing clients want to hear is a technical dissertation on electrical theory, so this will be limited to imparting enough information to avoid tripping breakers at hook-up locations or overloading generators. This segment is limited to the 120-volt (line voltage, alternating current) system only – not 12-volt, direct current systems. You must be aware of your trailers electrical capacity which determines the cumulative number of electrical devices that can be activated at any one time. Most modern trailers have either 30-amp or 50-amp capacities (these are determined by the wire size to the on-board load center). The easy way to determine what you have is by the external plug – if it has three standard prongs, it is only 20 amps (only true antiques); if it has three unusual prongs – 30-amp; four prongs – 50 amp. Obviously, the higher the service amperage, the more devices that can be used. When this

maximum amount is exceeded, breakers trip and generators go off on overload protection. Be advised that exceeding designed capacities start fires.

Now comes the power source part. If your coach is designed for 50 amps but you only have 30 amps available at your hook-up site or a 3,000-watt generator (more to come on watts/amps later), this limits the “trip point” to this lower available amount and is the figure you must use to configure devices. Consult generator nameplate or on-site host for this information. If you have 50 available amps, you’re good to go at 50.

Still with me? Now we know what our maximum design capacity is. Say, 30 amps, 50 amps or a 3,000-watt generator. Each electrical device has a rated electrical requirement (usually on the nameplate). Most appliances are rated in watts – convert to amps by dividing watts by 120 (the voltage). A 650-watt hair dryer equivocates to 5.4 amps. Our 3,000-watt generator produces 25 available amps. Most AC units require 15 amps, microwaves around 10 amps. Power hogs are AC, hair dryers and microwaves – you may not be able to use these simultaneously. We incorporate LED lighting in our designs which add almost nothing to the load. Incandescent bulbs should be converted to LED.

Now, make a list of what you have, assign amperage values to each, add them up and see where you are – don’t forget the refrigerator. Keep total usage below the trip point.

## **12 Volt Explained**

If you want to go totally disconnected, you will have to operate with a 12V battery system and a “Power Converter”; this will charge batteries while connected to the tow vehicle. With 12V battery and off the grid, you will temporarily have 12V lights, water pump, water heater and propane-fired furnace/fan at least for a few hours. You will not be able to use line voltage (120V AC) items. If you lose battery power due to usage, you must plug back in to the tow vehicle with engine running until the battery charges.

Another option is solar panels to charge the battery bank. Line voltage operates from a “Power Inverter” in the solar system. You will NOT be able to use air conditioner or other power-hungry appliances under solar power.

By far the simplest and our recommendation is a generator/12V transformer system which requires no battery or converter. You will be able to power up everything with a properly sized generator. The down side is keeping the generator fueled and some noise. You can use this in conjunction with a battery system.

## **Generator 101**

Our mantra at GoVintage is keeping everything simple. We all know when the worst problems seem to happen... Electrical glitches are the camper’s bane and the hardest to troubleshoot and remedy when you are in the middle of nowhere. They will shut down a beautiful trip. Honda EU1 generators fit right in with this in mind - dependable, quiet and fuel-efficient, but not cheap. You definitely get what you pay for here. Many of our designs incorporate trailer power plugs in the front easily attached to the generator that lives chained in the back of a truck. An on-board power switch senses generator vs shore power and automatically switches back and forth. We like to convert light fixtures to LED. Contact us for more details



## **Solar or Not to Solar**

My opinion on this topic: solar sounds like a good option for lots of environmental reasons, but at this point in its evolution is expensive, trouble prone, complicated and impractical in the real world. There are better options. We have and will install solar systems but advise clients to move forward with open eyes.

## **Propane**

The best way to conserve on electrical usage is to use propane-fired appliances anywhere possible: on-demand water heaters, furnaces, stovetops and ovens. You can go for long periods on a single 20# bottle. If using a propane fired generator, our experience is they will run 6 hours for each 10 pounds of propane. The most common cylinders are 20, 30 and 40 pound: 12, 18 and 24 hours running one air conditioner in Texas in August. Most trailers have front racks that hold two. Best rule of thumb is to refill the tank when it goes empty – that way you will always have a backup. Any electric versions of the above appliances would quickly overload 30-amp hook-ups and generators. Most U-Haul Stores have propane refill stations and are inexpensive.

### **Small Propane Bottle Refilling**

These small, green bottles are usually used with propane grills and heaters. If you are in cold weather or do a lot of grilling, you will go through enough to justify refilling them yourself. Buy a “Propane Refill Adapter” (around \$10) online or at your local Harbor Freight store (\$20).

1. Place the empty cylinder in the coldest place available (snowdrift, on ice or in the freezer). They fill fuller cold
2. Attach adapter to 20# cylinder (standard on most trailers)
3. Attach empty, cold cylinder to adapter
4. Invert the whole assembly
5. While in the upside-down position, open the gas valve on the larger cylinder
6. Leave in this position 10 minutes to fill
7. Close gas valve and disconnect everything
8. All done and get grillin’

**HAPPY CAMPING FROM GO VINTAGE!**