

You Gotta Live in There Baby

The top things that improve the livability of your coach

Jerry & Sharon Work

78 Royale rear lounge

Come see us in the 1907 Masonic Temple building
in historic Kerby, OR, on the Redwood Highway between
Grants Pass, OR, and Crescent City, CA

First, the context

— [In this session we will focus only on things that improve livability

— [Not performance, not reliability, not mechanicals, just livability

— [Sharon will pass out 3 x 5 cards, in the next five minutes write down your “top 3” list. She will compile your lists into a consensus while we talk.

— [At the end we will compare “our” list to your composite list.

— [Should be fun.....

Context, continued

— [Also write down on your 3 x 5 card one or two things you think would really enhance livability but have not been able to do or find.

— [We will compile those into our consensus “wish list”. Who knows, maybe we can get someone to bring these to our community.

Context, continued

Four years of full timing in a large diesel pusher (our rolling condo) taught us that anything is possible, but not everything is practical.

So, for each item we will place it on four scales representing the limiting factors for our coaches

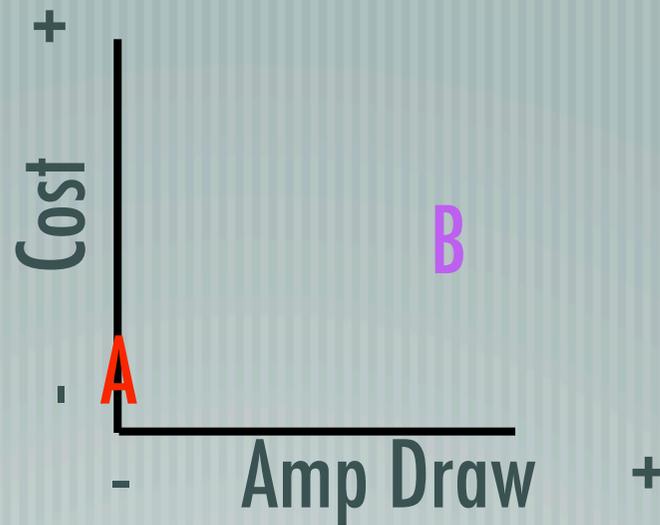
Size - small is good, big is bad

Weight - light is good, heavy is bad

Cost - inexpensive is good, expensive is bad

Power required (amps) - low current draw is good, high is bad

Here are examples



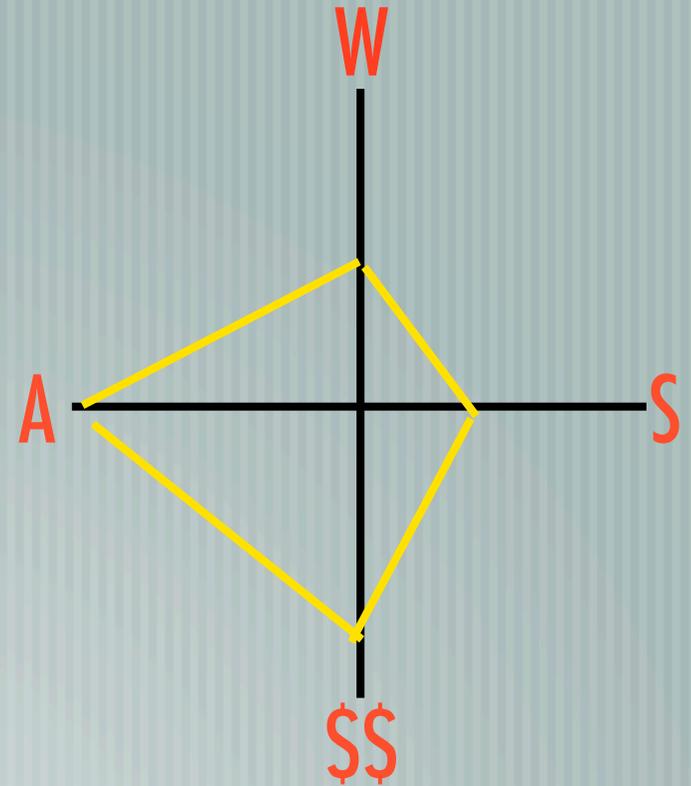
A is a mid sized thing that doesn't weigh much, costs very little and requires little to no amperage to operate (like an ice chest)

B is a mid sized thing that weighs a bit, is mid range in cost and takes a lot of amperage to operate (think microwave)

We will use this symbol

In this session we will use this symbol to show all four dimensions at once.

Object B in the previous example would be plotted like the yellow line shown here.



The good, the bad and the ugly

The best of all worlds would be something that really improves livability weighs virtually nothing, is small, takes no power to operate and is free. It would plot as a yellow dot in the middle.

W

A

S

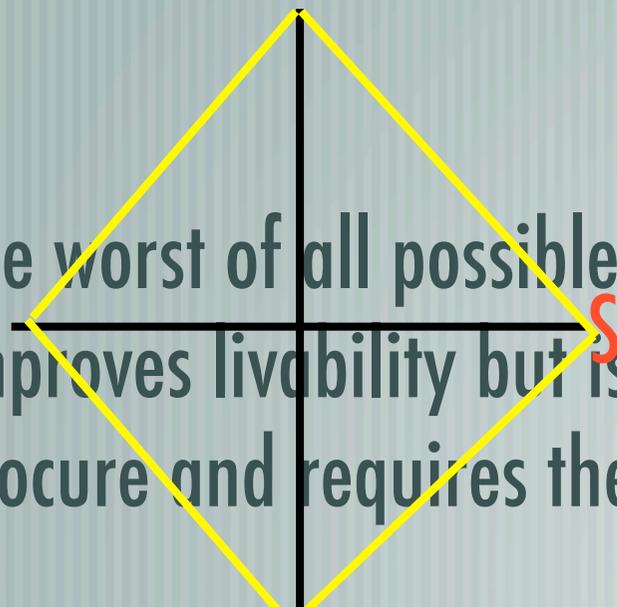
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The worst of all possible worlds would be something that really improves livability but is huge, weighs a ton, takes beaucoup bucks to procure and requires the power output of Grand Coulee dam to operate.

A

S

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So, here we go.....

— [Pass your cards to the ends of the aisles so Sharon can pick them up and collate them for us

1. Macerator

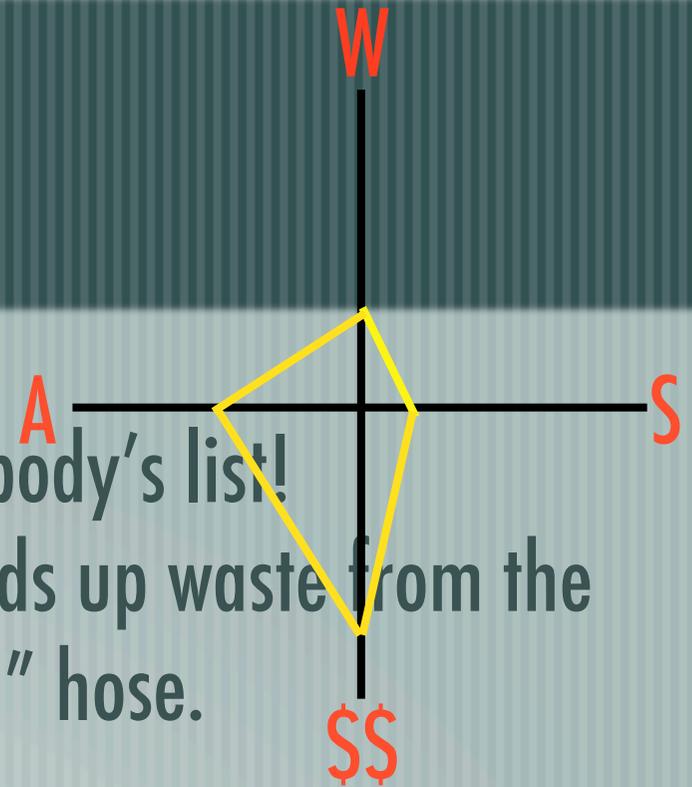
[Should be number one on nearly everybody's list!

[A macerator is a simple device that grinds up waste from the holding tanks and pumps it through a 1" hose.

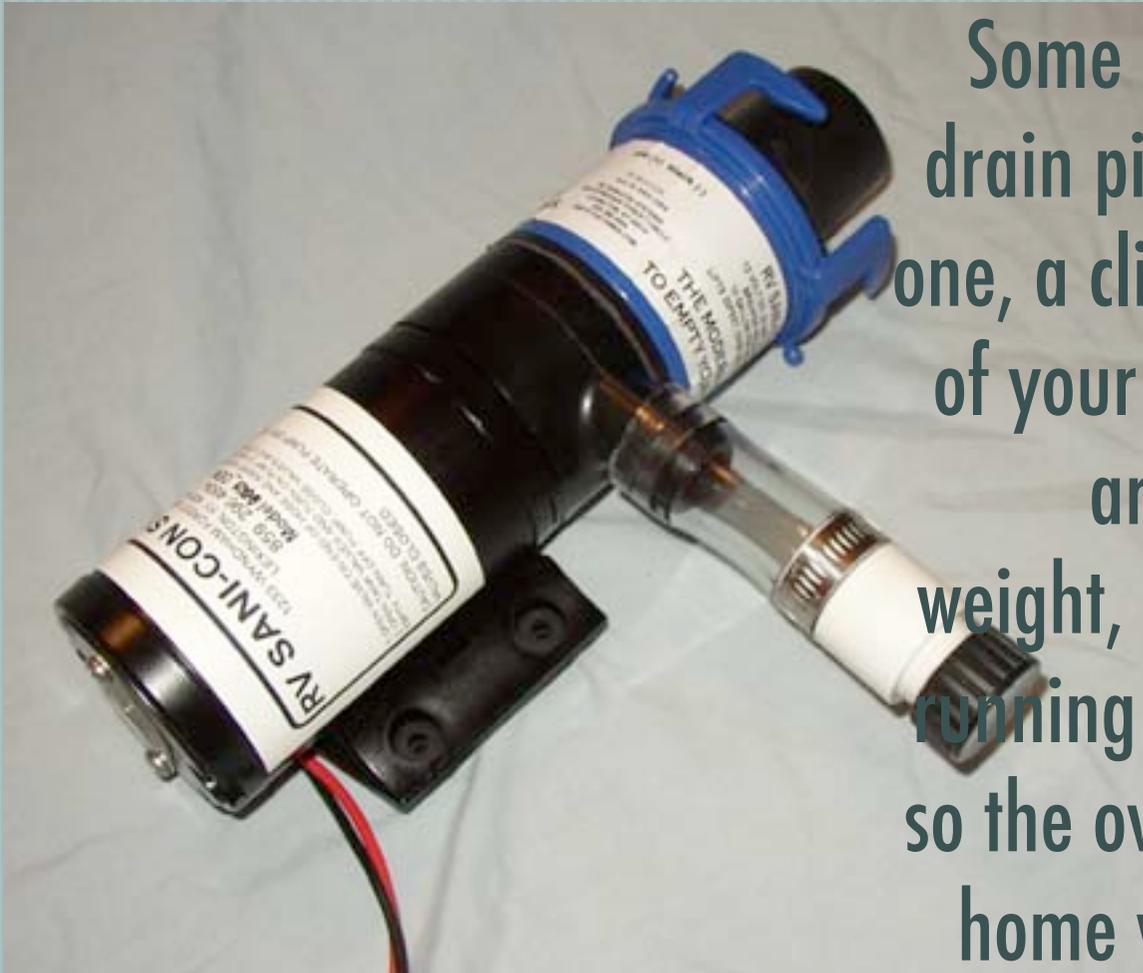
[You can pump as far as 30 to 40 feet and as much as 3 or so feet above the tank level in your coach.

[Makes emptying the holding tank a trivial and not so ugly task.

[+

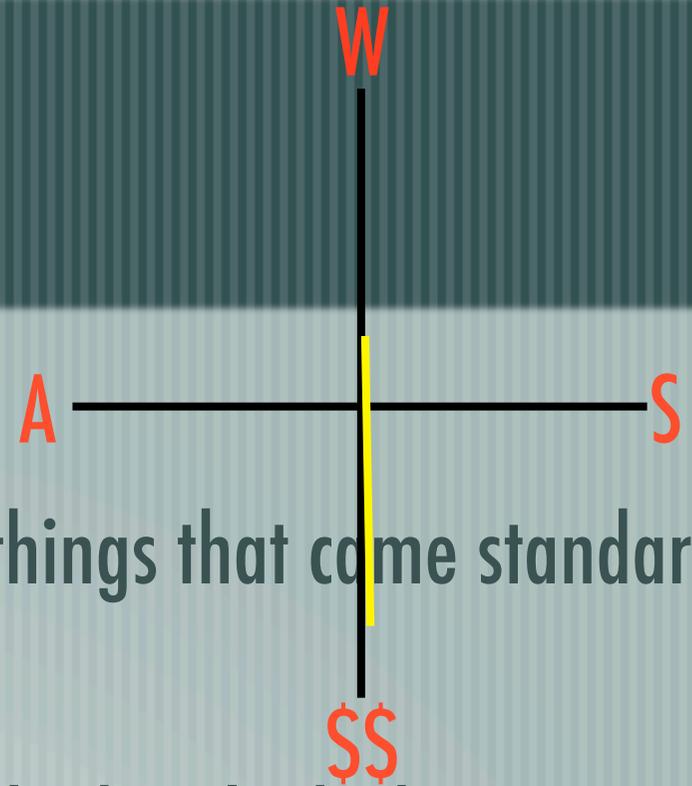


Here is what they look like



Some require cutting of the plastic drain pipe to install. Others, like this one, a clip on type, fits right on the end of your existing dump valve. It costs around \$200-300, is light weight, draws quite a few amps when running but only runs for a short time so the overall draw is low. Don't leave home without one! Available from several of our vendors or from RV stores.

2. China Toilet



[A vast improvement over the plastic things that come standard on our coaches.

[Easy to clean, far more sanitary, sits higher, looks better

[An easy install that you will thank yourself for doing every time you open the bathroom door

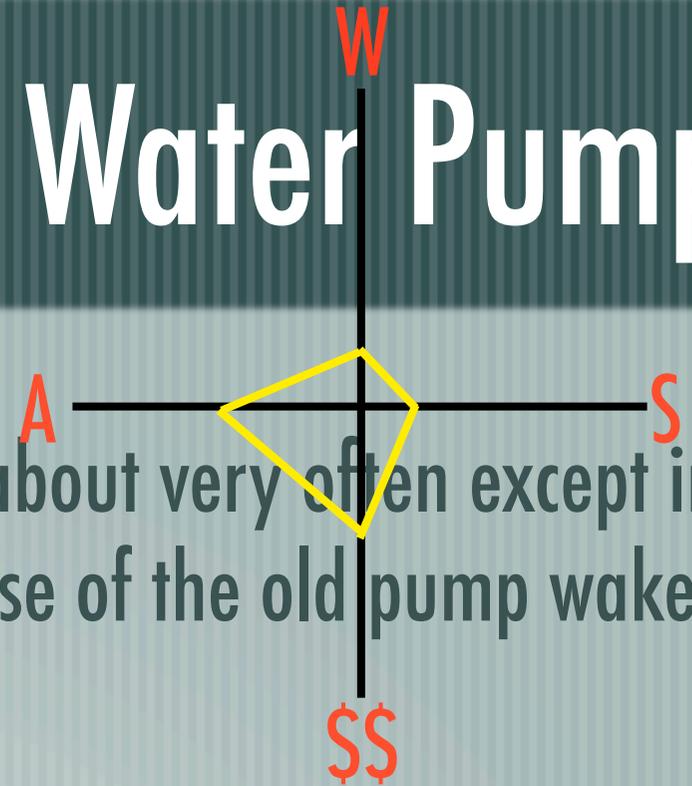
[+

They come in many styles



Cost is around \$200 to \$400, it takes about an hour to install yourself and you will wonder why you ever put up with that old plastic thing for so long. A must do for any coach.

3. Variable Speed Water Pump



— [One of those things you don't think about very often except in the middle of the night when the noise of the old pump wakes up a very cranky partner!

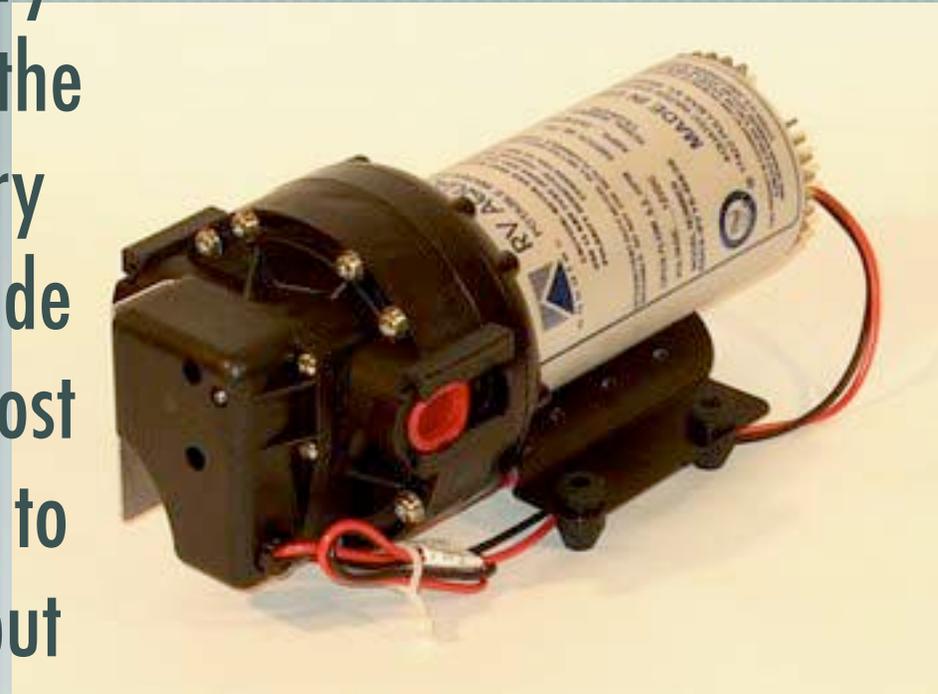
— [The new variable speed pumps are very quiet, only run as fast as they need to and can supply several faucets at the same time.

— [They draw less current than your original pump and are definitely cleaner than that old thing that is in there now.

— [If the old one has not yet failed, just wait..... +

Available from Several Mfgs

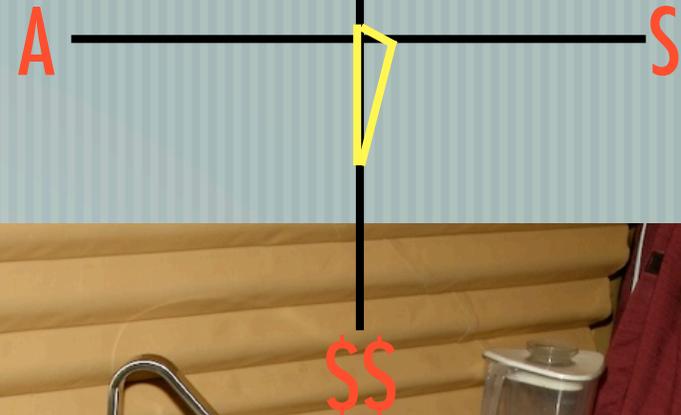
Conventional water pumps run at full speed no matter what the demand. These vary the speed to match the demand. Open the faucet only a little bit and they run very slowly. Run the shower and the sink wide open and they run faster to keep up. Cost is around \$150. Takes about 1/2 hour to install. Just take out the old one and put the new one in the same place with the same fittings (usually).



3a, Upgraded faucets/sinks^w



They don't weigh much or cost all that much but they really do improve livability



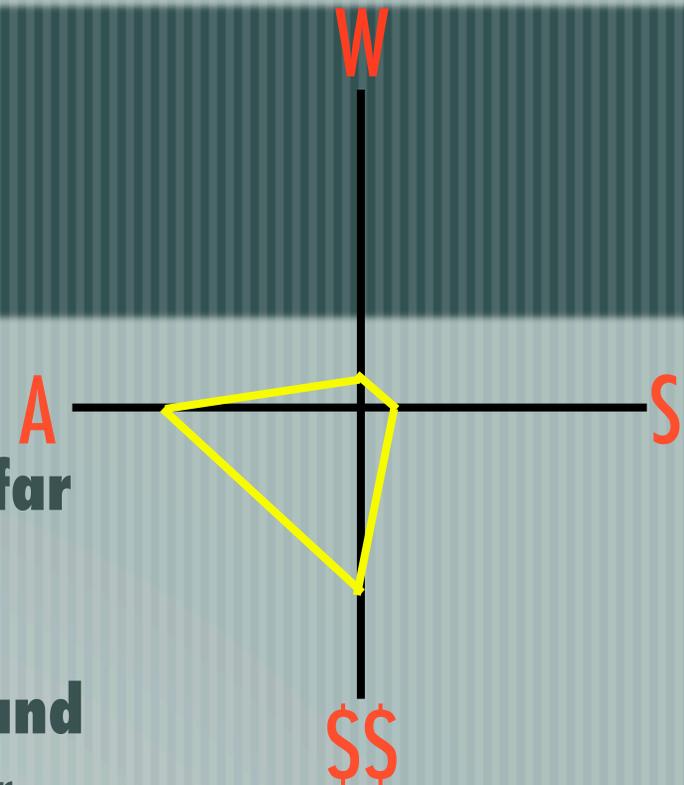
4. Fantastic Fan

No matter how you use your coach, a Fantastic fan can make life in the coach far more enjoyable. Cost is \$200 to \$300.

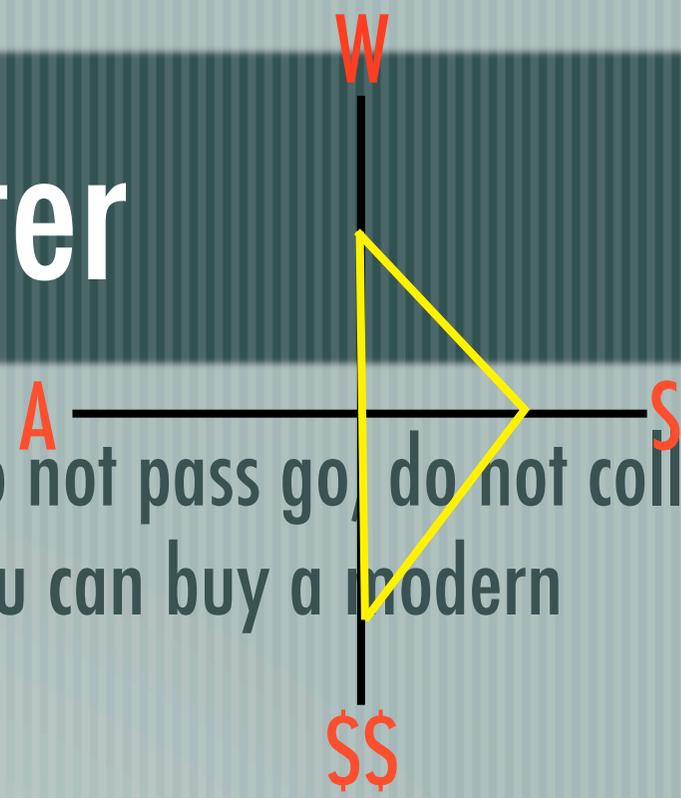
They can be fully automatic to come on and go off as needed to keep the interior air fresh and at the temp you set.

The newest ones feature variable speed so they only blow as much as they need to so they are ultra quiet.

You can even get rf remote control so you can set the operation from anywhere inside or even outside your coach.



5. Modern Converter



[If you still have the old “buzz box” do not pass go, do not collect \$200, just run to the nearest place you can buy a modern converter and toss that old thing.

[The old converter will eventually ruin your batteries if you leave your coach plugged in while parked and they make an awful racket in the process.

[The 12vdc power they produce is at best hard on any 12vdc appliance in your coach and may actually ruin some modern electronic devices. +

What does a converter do?

— [A converter takes 110vac power from your shore power plug or from your generator and outputs 12vdc to power all your 12vdc lights and appliances and also to recharge your batteries.

— [New ones use “smart” charging that will go into a float mode when your batteries are fully charged.

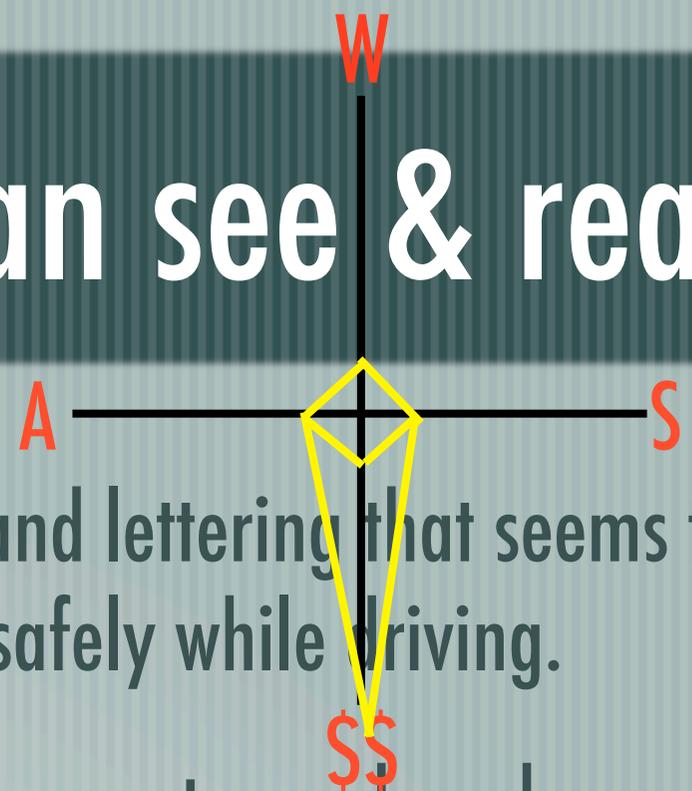
— [New ones also produce cleaner 12vdc power so they rarely cause any issues with modern electronic devices like computers, sensitive AV components and flat panel TVs. +

Again, many mgfs to choose from

This one is from Progressive Dynamics and costs about \$200. It is fairly easy to install if you are comfortable around electricity. If not, have it installed professionally. They come in different amperage outputs. For our coaches 45 or 55 amp units are plenty. You will enjoy clean, quiet 12vdc power whenever you are plugged in and your batteries will be properly and fully charged to make dry camping all the more enjoyable.



6. A dash radio you can see & read



Most dash radios have small buttons and lettering that seems to be black on black. Impossible to use safely while driving.

Search for one that has knobs that are easy to reach and lettering that you can read without standing on your head

A front panel aux. in is really nice so you can easily use your iPod, sat. radio or other hand held devices as audio inputs

They weigh little, take very little power, fit into the existing dash hole. Good ones are around \$100 but the sky is the limit here. +

This one is made by Sony



It only costs \$100, has plenty of power so no need for add'l amps, and it has a large knob for controlling most everything. Note the aux in port on the right side. Easy for the navigator to plug in other devices. It also comes with a remote control so you can control the unit from the dinette or even the bedroom if you like.

Obviously, spend as much as you like, but I really don't see much need to go "higher" than this one given the small and odd sized speakers in our coaches. If you want really good audio, add a quality 120vac unit and run it off an inverter.

7. Modern microwave



This one is made by Panasonic and came from Costco for \$100. Fits right into where our old, original, low power microwave used to be. Great improvement!

The new ones are better than the old ones in all ways. No need to forego the convenience of a microwave in your coach as they are now small, light weight, cost only about \$100 and have plenty of power for all your cooking needs. +

Old were ~ 500 watts,
new are around 1000+
watts

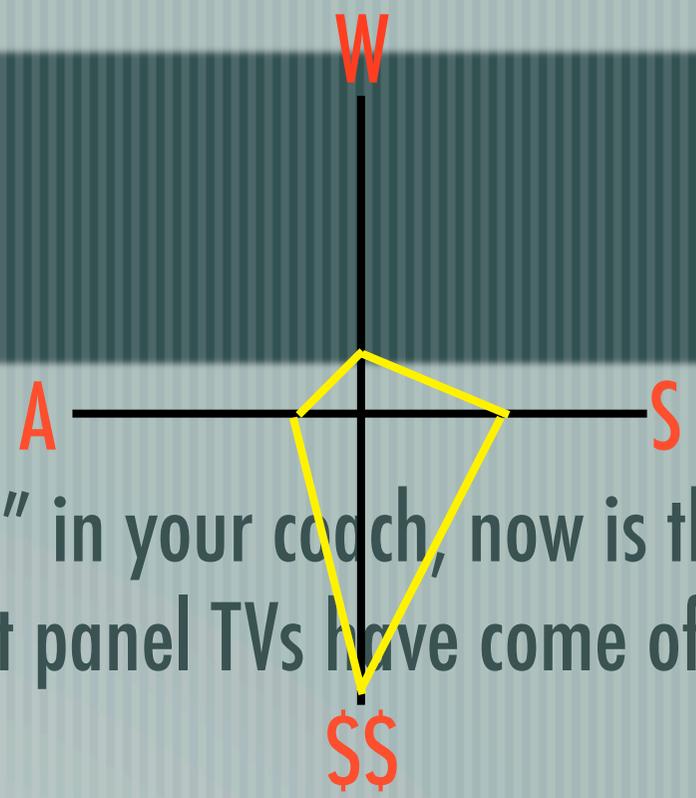
They do take lots of power

— [Microwaves take lots of 110vac power

— [You can run them off of shore power when plugged in, or while your generator is running or through a large inverter if you have enough battery capacity.

— [Be sure the inverter is rated at more watts of continuous output than the microwave requires (usually 1000 or more watts). For reasons we will discuss in a minute, use an inverter rated at 1500 watts or so.

8. Flat panel TV



If you still have a CRT based TV “brick” in your couch, now is the time to make the change. Modern flat panel TVs have come of age.

They are not all that expensive, take up far less room, consume far less power and have a much better picture.

You can even show pics from your digital camera, or on some use it as a computer monitor if you wish.

DVDs look just like the movies - sharp, clear and really enjoyable

Two technologies to choose from

LCD is best in small sizes as it consumes less power.

Plasma (actually a bunch of florescent tubes) is cheaper and brighter in larger (above 42 inches) sizes.

DLP (Digital light processor) devices are not suited for our coaches so avoid those.

This one is about 4 years old and made by Sharp. It hangs in the BR (shown here) or sits on the counter in the kitchen.



9. An iPod for AV input

I don't intend to start the Mac vs Windows debate here, but there is simply no better AV input device available today than an iPod.

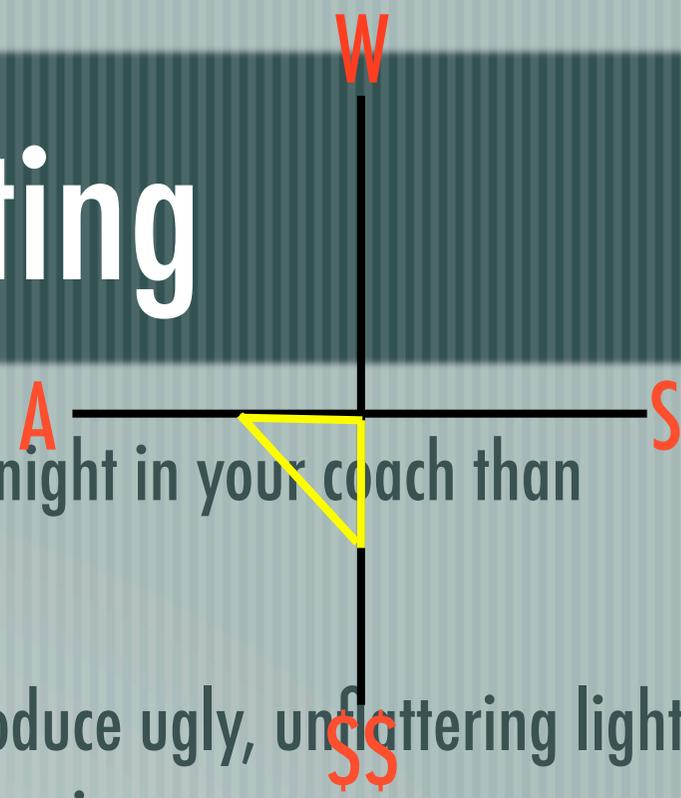
You can buy, download, save and play music, audio books, travelogs, TV shows, and movies on one very small gizmo. It is close to our "ideal" device.

It is just as much at home on the road as in your home plugged into your audio system, TV (flat panel, of course), or on your body while walking, jogging or touring.

Cost is \$50 to \$400 depending on capacity & features

And, your grandkids will think you are really "cool", too.

10. Flattering lighting



[Nothing will make your life more enjoyable at night in your coach than flattering lighting.

[The old 12vdc tungsten & florescent fixtures produce ugly, unflattering light that is more irritating to you than you might imagine.

[12vdc halogen or xenon puck lights are far better, produce more light output per watt consumed and will make you look and feel better inside your coach.

[LED lights hold lots of promise but have not yet fully come of age.

[There is a reason that lighting designers are the first on the scene for new construction in commercial buildings - good light REALLY matters.

A couple of examples.....

Here 12vdc halogen puck lights (~\$6 each) replace the old tungsten fixtures under the overhead bins above the dinette. The near switch turns on the outer two while the far switch turns on only the center one so you can tailor the light to fit your mood.



Another example



Here a simple 12vdc tungsten bulb just like the one in the old original fixture but now housed in a modern fixture produces very nice light in a bathroom. Cost was less than \$10 an an RV outlet store.

Two final examples



Below, flattering under cabinet puck lights transform the kitchen lighting from ugh! to wow! all for less than \$25.

Above a simple ceiling fixture made from a hunk of walnut, two \$6 puck lights and a switch replaced an ugly original tungsten fixture.



120vac rope lights also look good but take a lot of amps through an inverter on 12vdc so best to use them only on shore power

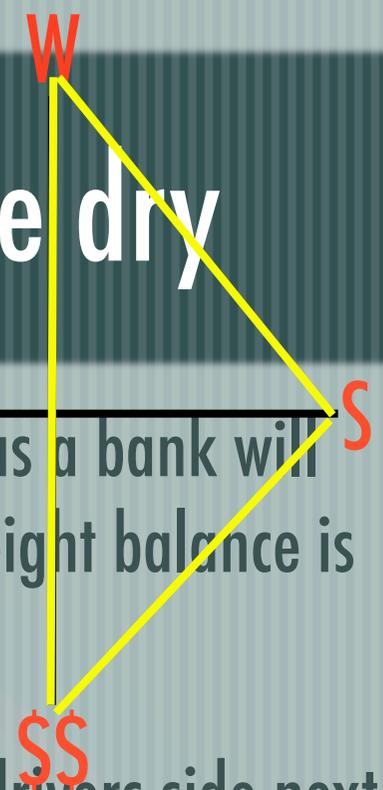
11. Larger batteries & inverters make dry

Four 110 to 125 amp hour 6vdc golf cart batteries wired as a bank will keep you going for a long time, but they are heavy so weight balance is important. So is proper wiring. Cost is about \$70 each.

Put two on the front passenger side and two on the rear drivers side next to the Onan wired in series to produce 12vdc each set and then wire the two sets in parallel - move the chassis battery(s) to the drivers side up front.

Use at least 4ga wire to connect both + & - front to back on the two banks. Be sure to protect the wire anywhere it touches metal.

Battery jumper cables are inexpensive and work well if passed through old hose at abrasion areas +



What is an inverter?

- [Inverters take 12vdc from your house batteries and outputs 120vac to power 120vac appliances like your microwave or flat panel TV.
- [Beware of the cheap ones that claim lots of output wattage. Most of those are junk.
- [Buy a good brand that is over rated for the intended use.
- [Be aware that they consume about 1 to 3 amps dc without any load so they can consume your batteries if left on even without any AC load.

Watch out for inverter claims

— [Most inverters can only handle about half their touted wattage.

— [Terms like “peak output” are red flags.

— [Select an inverter from a known name (Xantrex, etc.) or one that is twice the wattage you think you need.

— [Turn the inverter off when not in use. +

One co. owns most quality inverter names



The most common large (1000-3000 watt) quality inverters are from one company. The name may be Xantrex, Heart, Prosign or something else but they are all owned by one company. All are good.

There are a ton of imported inverters sold by big box stores under US sounding names like Coleman, Remington, etc. Watch out for those.

Some are good and some are way, way over rated.

Inverters are not very efficient

— [But, they are really handy and nice to have available

— [Battery banks are electron buckets with capacity measured in amp hours. Once you use up the amps available the battery is discharged and needs to be recharged (via shore power or generator power through your converter/charger, or via the alternator when the engine is running).

— [Inverters producing 120vac power take 10x the amps out of your battery bank than a 12vdc device would so use them wisely.

— [Use inverters to power anything **OTHER THAN** resistance heaters.

12. Auto generator starter

— [Oops, this one is on my “wish list” as I don’t know anyone making such a device for our old Onan 120vac generators.

— [These are now common on the big coaches and really handy

— [They sense the level of the battery charge and when the level is low (battery is discharged) they automatically start the generator, charge the batteries and then turn off the generator whether you are there or not.

A bit about batteries.....

— [Battery capacity is really important to living well in your coach

— [A battery is a little like an electron bucket. As you use power you are draining electrons out of the bucket. As you recharge you are adding electrons to the bucket.

— [The number of electrons your battery can put out is called the amp-hour capacity of the battery. If you have 100 amp-hours available and you run a device that consumes 20 amps each hour you could power that device for about 5 hours.

— [A 100 watt light bulb consumes about 8 amps of 12vdc power each hour it is on (running through an inverter). A 1000 watt microwave consumes about 80 amps of 12vdc power each hour it is on (again running through an inverter).

— [Two six volt golf cart batteries wired in series (to get 12vdc) contain about 200 to 250 amp-hours of capacity. So, you could run the 100 watt light bulb for around 25 hours, but the microwave for only two to three hours or so. Four of them double those times.

— [Additional battery capacity will allow you more freedom and more time between recharge cycles

13. Windows that can be easily opened & closed

— [Most of our old coach windows are stiff and hard to open and close.

— [Newer windows are available which feature easy to open panels

— [It is also possible to renew the rubber and tracks on your existing windows to make them easier to operate.

— [Once you have windows that operate easily you will wonder why you took so long getting there.

14. Full extension drawer slides



What a joy to have drawers that open out all the way so you can easily get to the items in the back of the drawer.

Our coaches came with only 3/4 extension slides and those can be replaced with full extension slides.

15. Holding tank chemicals that work!

— [The chemicals that don't are a real bummer in terms of livability issues.

— [They come in basically two types - those that nuke everything with chemical poisons (think formaldehyde) and those that introduce enzymes to "consume" the waste in situ (think your GI track).

— [I like the latter, but only found one in 4 years of full timing that really works. Goes by the bad name of "5 Star Happy Camper"

So, that's my top 15.....

— [Now let's have Sharon bring up the results of your collective wisdom