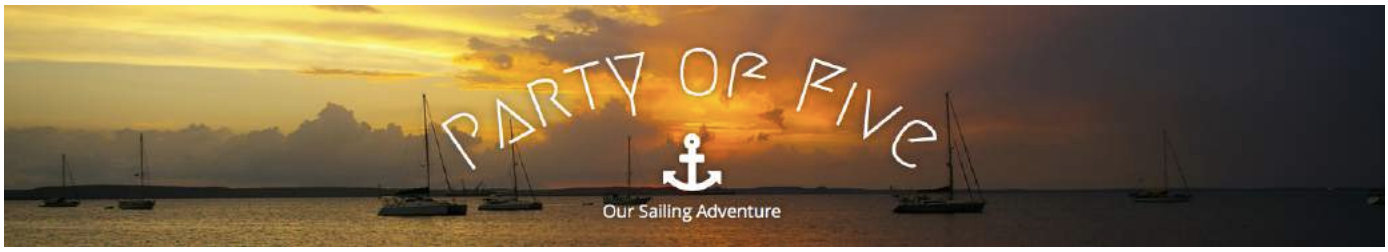


Water water everywhere! More money to spend.

by travis on March 10, 2016 in Uncategorized • 28 Comments

One of the first things humans discovered upon sailing the ocean is that drinking saltwater is deadly. Not only is drinking saltwater deadly, but bathing and washing in it can lead to an unpleasant lifestyle. You see, the high salt content in seawater means that anything soaked by seawater will dry leaving behind that salt. Since salt is hygroscopic, that item will never completely dry as the salt will hold some moisture even if the item is heated. This is why its essential to wash everything in fresh water (including yourself) so it will completely dry and you don't live in clammy sheets, clothes, ect. Clammy stuff is not only unpleasant but can encourage bacteria growth and lead to nasty skin infections.

So on a cruising boat, fresh water is one of the most important provisions we carry. However, like everything on a boat, its a trade off. Since boats are weight sensitive (especially Cats), carrying a large amount of water can massively impact sailing performance. Not only does it impact sailing performance, but how do you actually get fresh water on your boat when you anchor most of the time. Traditionally, boats had HUGE water tanks and carried water from shore on their dinghy. It was a weekly ritual to run 10s of gallons of water from shore to ship in containers carried by the dinghy. Doesn't sound like fun, does it? Thankfully some smart people realized that we have the technology to turn seawater into drinking water and began selling desalination plants (wistfully known as "Watermakers"). That, my dear reader brings us to Party of Five most recent dilemma.

When I bought this boat in Cuba, I knew it had a watermaker installed, but in unknown condition. Upon possession, I asked the Cubans if the watermaker worked and received the response of "Dunno, we have never turned it on". I feared the worst, but hoped for the best. I hoped that I could simply power the unit back up, replace the membranes, and have a functional watermaker. Alas, that is not the case. Although I have been able to get the unit powered up, I have not be successful at making water. Furthermore, its very clear that some parts will be required to bring it back to full operation (some non-essential parts fell apart in my hands). So I'm now faced with the following options:

1. Repair the current watermaker at an unknown cost. I estimate between $1000-$2000 to bring the current maker back into full production. Unfortunately it could take a month or more as parts are only available in Italy and shipping is very slow. It will be very hard to get parts once we are in the water. Definitely a risk that will delay our departure from the USA.
2. Purchase an "exact" replacement watermaker from an American company (Spectra). Cost $7500USD. Easy install as all the existing wiring and plumbing should work with the Spectra system. Support is good worldwide and they make a quality product. Just hard not to choke on the roll of 100s needed to purchase.
3. Purchase a 110V watermaker from a USA company (Cruise RO), add a 2kw Honda generator. Total cost about $6500USD. This watermaker offers 2 advantages. One its very fast and only requires an hour or two of operation every 3 days to provide enough water for our family. Short run times mean I don't have to be on the boat babysitting the

watermaker. Second, the Honda 2kw generator will provide backup power to charge our batteries. Unfortunately install of this watermaker will be complex and require new plumbing and wiring (my boat is 220V) to be run. Probably take 2-3, 8 hour days to get it installed.

4. Purchase a 110V watermaker from an Australian company (Rainman), add a 2kw Honda generator. Total cost $5600USD. This unit comes complete and is modular so it doesn't require installation. You simply set the components on deck, throw a hose in the water and make water. It offers the same advantages as the Cruise RO unit but without the complex install. The downside is I would have to find places to store all the components and would need to haul them out every time I use them. However, I could install it semi-permanantly at a later date (using the same locations as our original maker). Rainman is also very new to the market, but gets great reviews! A Florida company has stock so shipping would be as quick as option 2 or 3!
5. Purchase a 110V watermaker from China, add a 2kw Honda generator. Total cost $3400-$3600. This is a complete wildcard as I have heard reviews both ways for these units. One person in the yard praises them and says he has bought a bunch and they are flawless after some mods (the downside). Other users on the Internet claim that they are pure crap. They offer the same specifications as both the Rainman and the Cruise RO. Delivery would also be very close to launch and could delay us. It would also require a complex install the same as a Cruise RO. Is it worth the $2000 gamble?

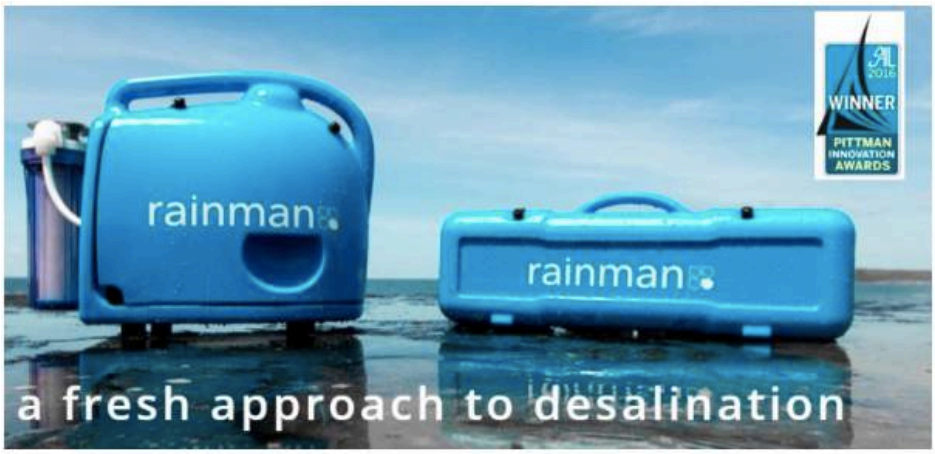
So what to pick! Lets play a fun game. Please leave a comment as to which option you would lean towards. After a couple of days, I will post what we picked!

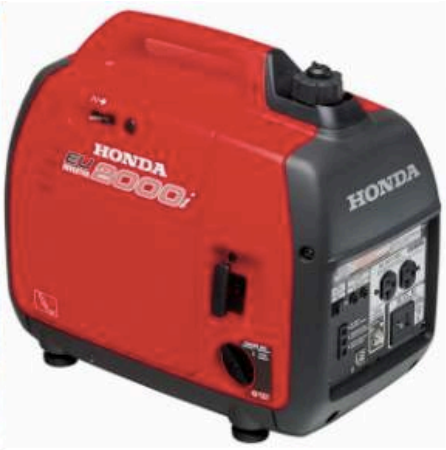
P.S. Stay tuned as reveal day is fast approaching. Pics and video will be posted once the "Splash" job are complete!

The Answer to Unlimited Water

by travis on March 16, 2016 in Uncategorized • 12 Comments

Here is the answer to the previous post!





I found the previous post to be a really neat exercise. The comments and picks from other people were very interesting to me. Especially since I gave the exact options (without telling her my opinion) to Rhonda and she picked the above in 30 seconds. Both of us thought this decision was a “No Brainer”! Yet, 90% of the comments did not agree with our pick. Makes you go Hmmmm…

In any event, here are the reasons why we went down the “Rainman” path.

1. It provided an efficient backup source for charging our batteries. Since pretty much everything on our boat runs on 12V (even our laptops_, having a way to charge the batteries when the sun is scarce is critical. Sure we already have a 3KW diesel generator but its old, stinky and VERY loud. A smaller option that can be used while making water will be fantastic.
2. This option did not require an install at all. Sure the Spectra option would have been a fairly easy install “IF” all the wiring and plumbing worked out (never does on a boat). However this option didn’t require any install at all. I just had to find some space to throw the components when they are not in use. Best of all, when I have time, I can install this unit in the same locations as the original.
3. Support. As Mark pointed out in the comments, once you get out there, you are pretty much on your own until you hit the first world again. For us, that might not happen till New Zealand or Australia (where Rainman head office is). So support was a not really a consideration. Any option I choose would require me to support it, with the help of Fedex!
4. Delivery time. Cruise RO, Spectra and Rainman all had quick delivery times (3-4 days). The Chinese option would require weeks and if something was missing, then I would be shit out of luck. Bye Bye Chinese option.

5. Speed.. Although Spectra makes great watermakers and they can be run off solar, they are not anywhere as fast as the 120V ones. I want to be out enjoying the day, not babysitting the watermaker. The Rainman puts out 32 gallons per hour and I'm budgeting 25 gallons a day for my family. That means I can run the Rainman for 3 hours every 3 days and cover our water needs. (Sorry Frank, my friends are telling me they get 30GPH in the Caribbean with the Rainman!)
6. COST…. I amazed that no one commented on this.. Not only did the Rainman save me $2K (over the Spectra) but it provided me the Honda generator at that price. This is also where the Cruise RO lost out. Although they make a fantastic product with great support, they were a full $500 over the Rainman and did not provide a package with a Honda. One stop shopping is king!
7.

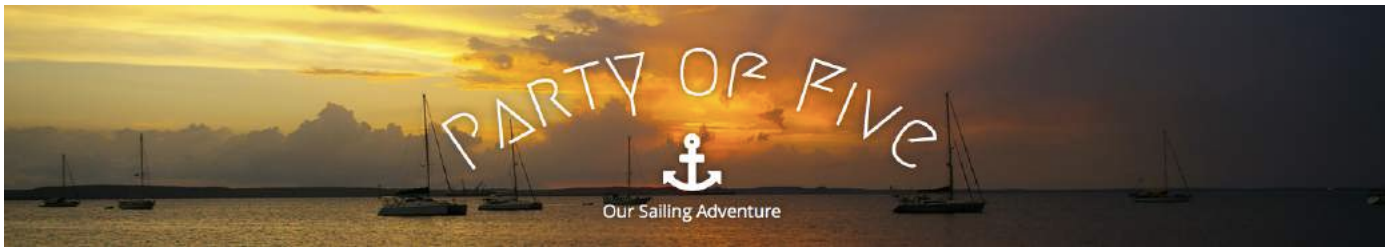
WAIT.. Stop yelling at the computer screen. Yes I know some of you are shocked that I would buy a Honda generator considering I made a living selling direct competition. Why not have my dad send me one of our generators (Boliy). Well my dear readers, this is the one time I will say the Honda is better than the Boliy. Honda generators are made with fasteners and switches that are marine rated. They have been used by at least 10 cruisers I know and have stood the test of time on a boat. I'm out here to cruise, not try and turn a Boliy generator into a marine rated device. If is was an RV, then I wouldn't even hesitate to have a Boliy, but a boat is not an RV. As my dad will attest to, things rust here in a matter of 1-2 days if not stainless or protected (painted, powder coated, ect). Hell, even 316 stainless will develop surface rust if left without polishing (what most Canadians know as Stainless Steel is actually 18.8 or 304 stainless and NOT marine rated. Although 304/18.4 can be used inside the cabin, it will rust in a matter of weeks outside exposed to salt air). So, Honda it is.

Finally, I would like to throw my opinion out on the comments. I was actually floored that almost all the comments picked the Spectra unit. It was the slowest maker, that cost the most money, but had an easy install. Here is my theory on why so many people picked that option.
First, I think many believed that the Spectra would be the "path of least resistance". Since it was a "direct" replacement, it should be the easiest/best option. This may have been true if the boat was 5 years newer, but at 11 years old, most of that stuff can no longer be trusted. I'm willing to bet that 1/2 the wiring and ALL the plumbing would not pass a detailed inspection. I would end up doing a complex install for a super expensive slow watermaker.

Second, there seems to be a general accepted rule that you spend more money and you get a better product. Debatable, but this rule is probably 50% true in land based life. However, on a boat, this rule is usually 0% true. In fact, if you are looking at 2 items with the same specs and you buy the more expensive one, then you can be assured you just took a broom handle up the butt without spit. Spectra watermakers are a prime example of this. Their products are overpriced due to a patent they had that allowed them to corner the market on 12V efficient watermakers for the last 15 years. That patent expired a year ago, so hopefully we will see an adjustment in that market soon (gotta love capitalism…. or cheap Chinese copies)!

Anyway.. My new toys arrive tomorrow, but I'm so damn busy I won't get to play with them until the family arrives (T minus 6 days)!

P.S. One cruiser told me that having unlimited fresh water will ensure I have a "Healthy" marriage on the boat.. IFYOUKNOWWHATIMSAYIN.. Wink wink, nudge nudge!



Rainman Watermaker (Seatask)

I had planned to write this review a while ago but the lightening strike seriously delayed it. On the upside, I'm able to speak with more experience with the product. For some background on the Rainman and why I picked it, please read the following post.

http://www.svpartyoffive.com/2016/03/16/the-answer-to-unlimited-water/

Before reviewing the actual watermaker I want to comment on Seatask (http://www.seataskgroup.com/rainman), the dealer I ordered it from. They are truly one of the best companies I have dealt with, EVER. Their pre, during and follow up service is absolutely fantastic. In the above post, I commented that I would be on my own once I purchased. I no longer feel that is true. Seatask has e-mailed me every month to ensure I'm still happy with the product and that I'm not having any issues. I'm absolutely sure that if I had issues and needed parts, they would go out of their way to ensure I got them anywhere! An honest to goodness first class company.

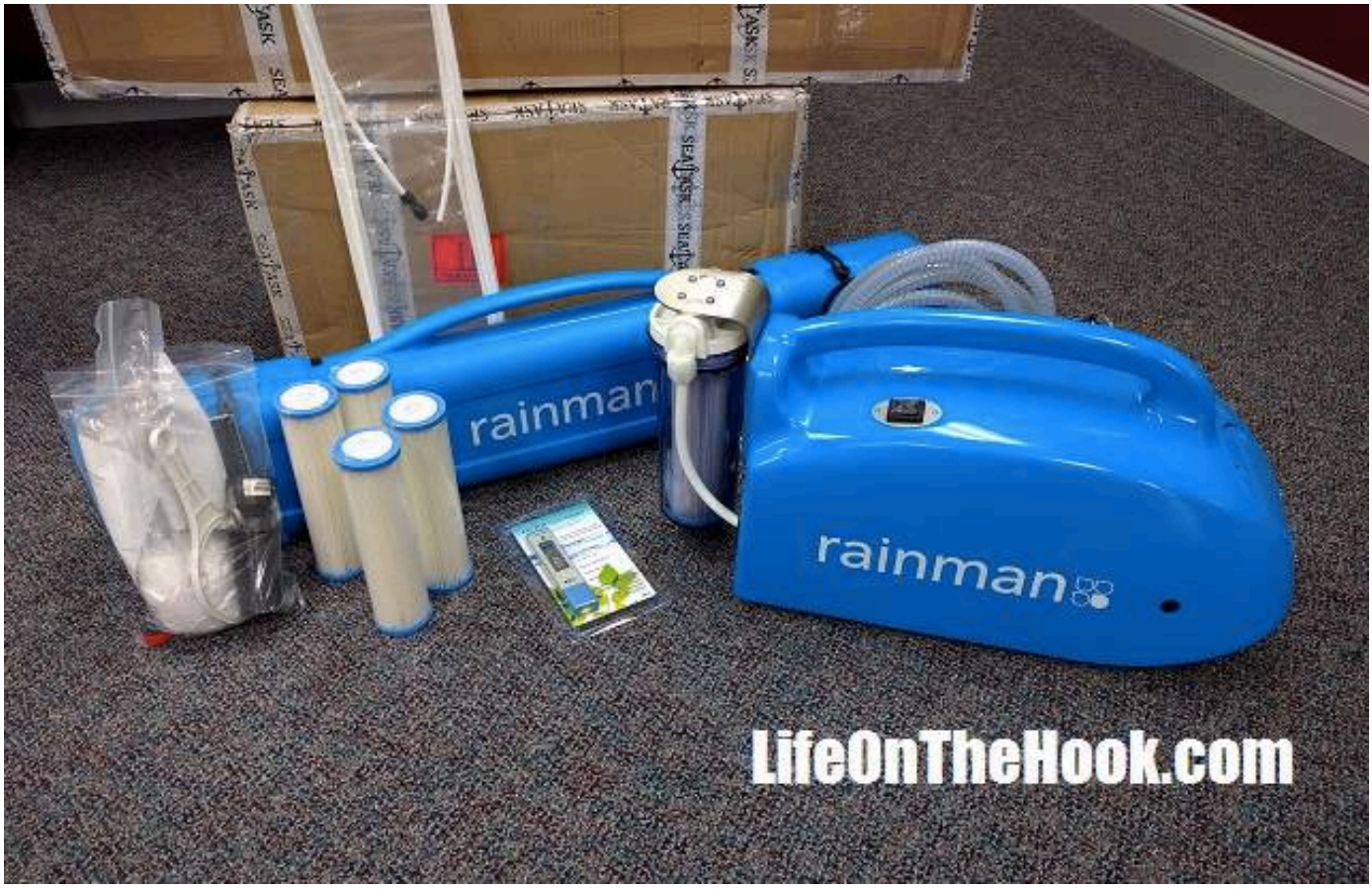
Now on to the watermaker itself. As I mentioned in the previous post we originally intended to use the watermaker in its portable configuration. While the maker performed flawlessly in this configuration, we quickly realized it wouldn't work long term on our boat. The compartments/lockers on our boat were too small to store the power unit and the locker that could store the membranes was very awkward to access. Add the fact that the components are quite heavy so Rhonda was not able to get them out of the compartments and it just didn't work. This is not a fault of the watermaker itself, but it was something I wanted to write about in case another cruiser is thinking the same as I was. You really need to plan and ensure you have the compartments to store the components. Its best if the components don't need to be removed from the compartments and you can simply pull the hoses out any plug things in.

So we bit the bullet and installed the components in permanent locations using some of the original (to our boat) watermaker's components (delivery hoses, sea strainer, ect). It has almost been 6 months since we completed that install. I'm very happy to report that the watermaker has EXCEEDED our expectations in every way. Its simple to operate/maintain and puts out huge volumes of water. We average between 30-32 gal/hour depending on where we are and the salinity of the water. This equates to us running the maker 4-5 hours/week to make enough water for our needs. Best of all, it takes just over a gallon of petrol in our Honda 2000 to produce that amount of water. Based on the petrol prices in Grenada, its costs about $4.65USD to make water per week. Cheaper than the local delivery service here, by far!

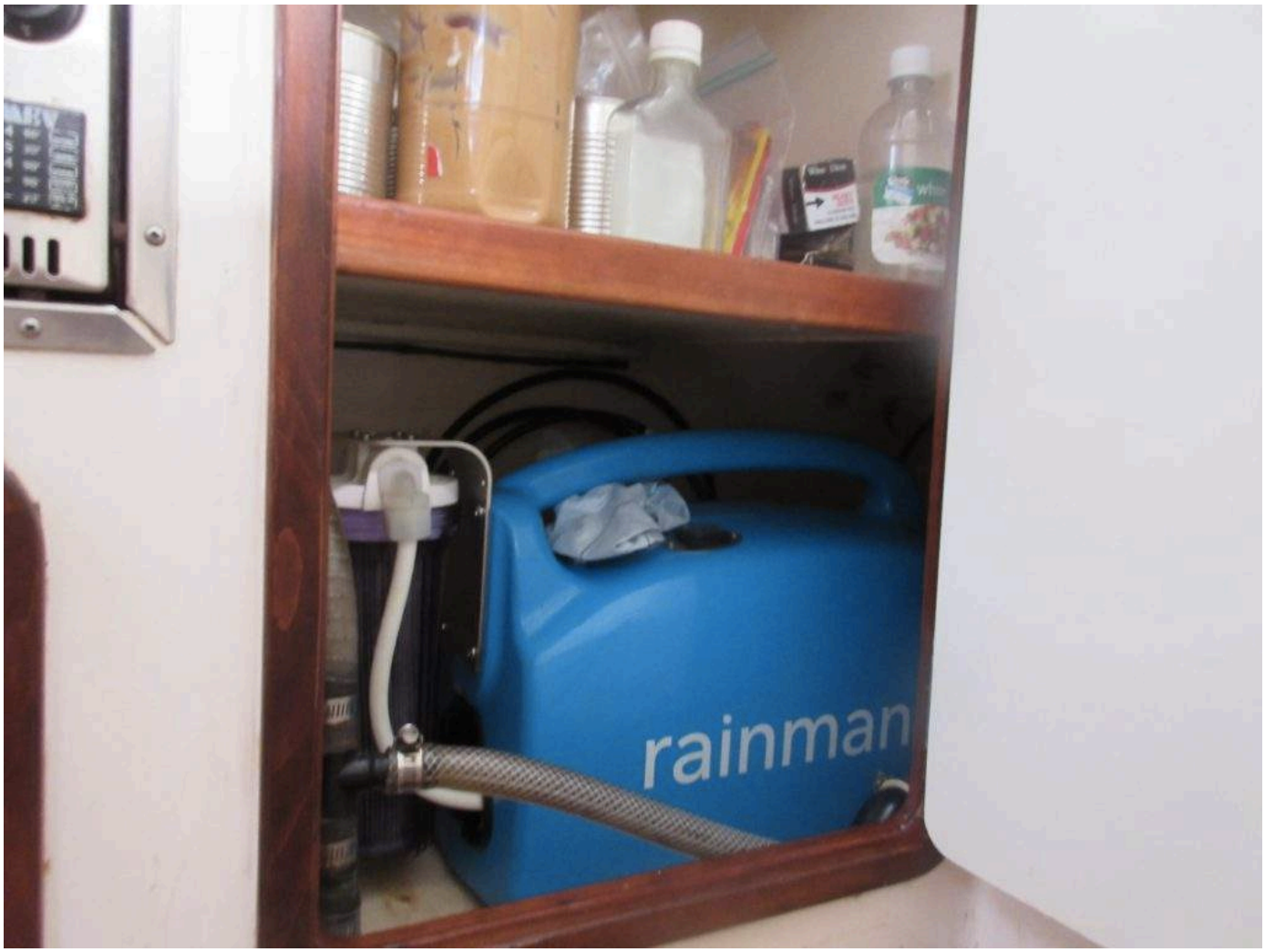
I mentioned maintenance above so I thought I would expand on that. The first bit of maintenance we do is to "back flush" the unit every time we make water. This simply means turning one valve on, then one valve off and waiting 3 minutes, then reverse the valves. The next bit of maintenance is to change the pre-filter "when needed". "When needed" is the tough part as its very dependent on the quality of the input water. Since the Rainman has a clear filter housing

located at the back of the unit, its very easy to see when the filter becomes discolored and should be changed. The final bit of maintenance was to change the oil in the pressure pump after the prescribed number of hours. This job is a bit more involved but not terribly difficult. Rainman has done a good job of providing access to the drain bolt and oil fill location and the job is not done very often!

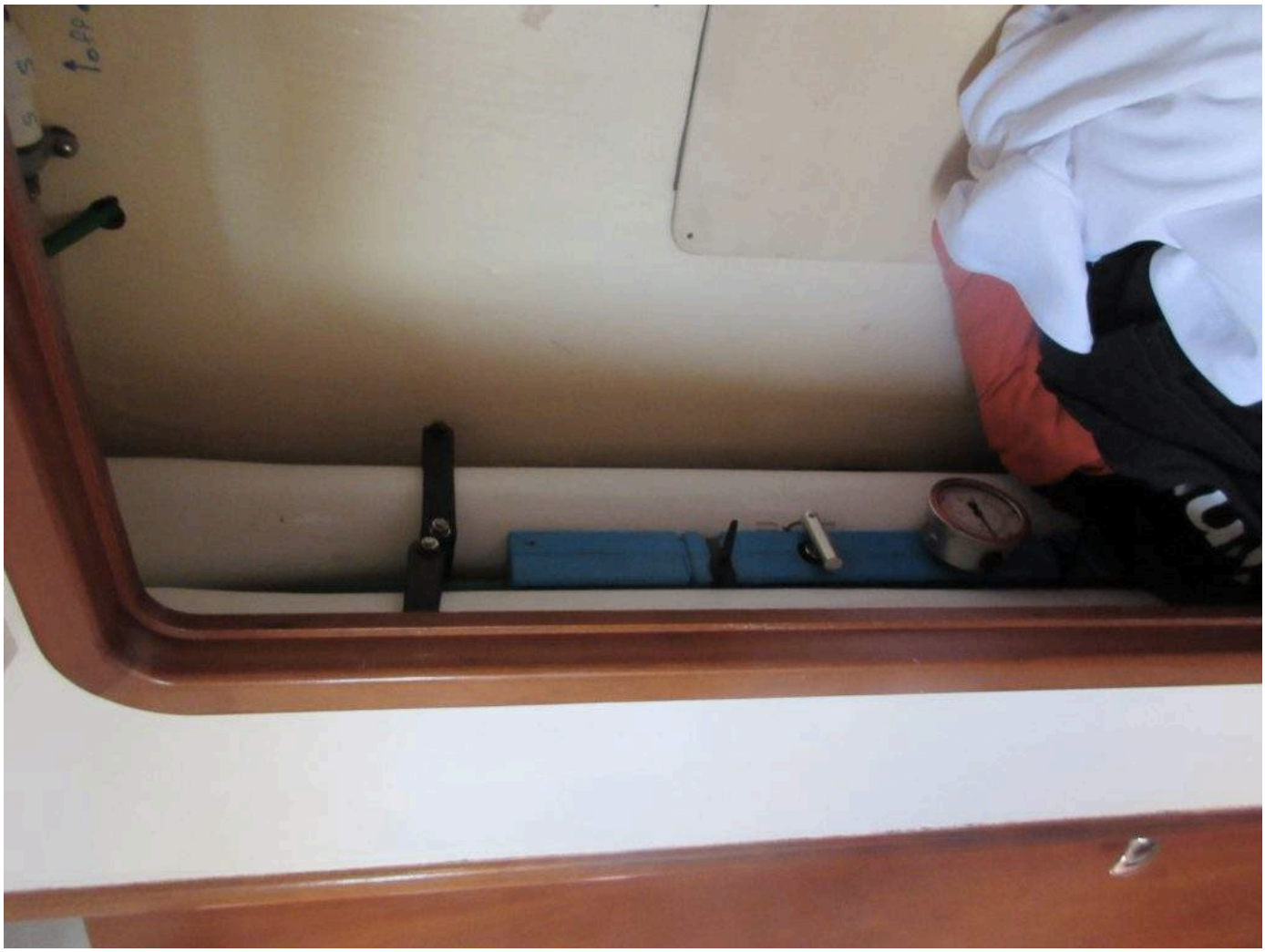
So I can now say with %100 certainty that we made the right choice for a watermaker. The Rainman saved us money initially and continues to save us money every time we fill our tanks. I would not hesitate to recommend the Rainman to any cruiser as we are completely satisfied. If you are in the market for a watermaker, I encourage you to contact Chris Burton over at Seatask and see what they have to offer.



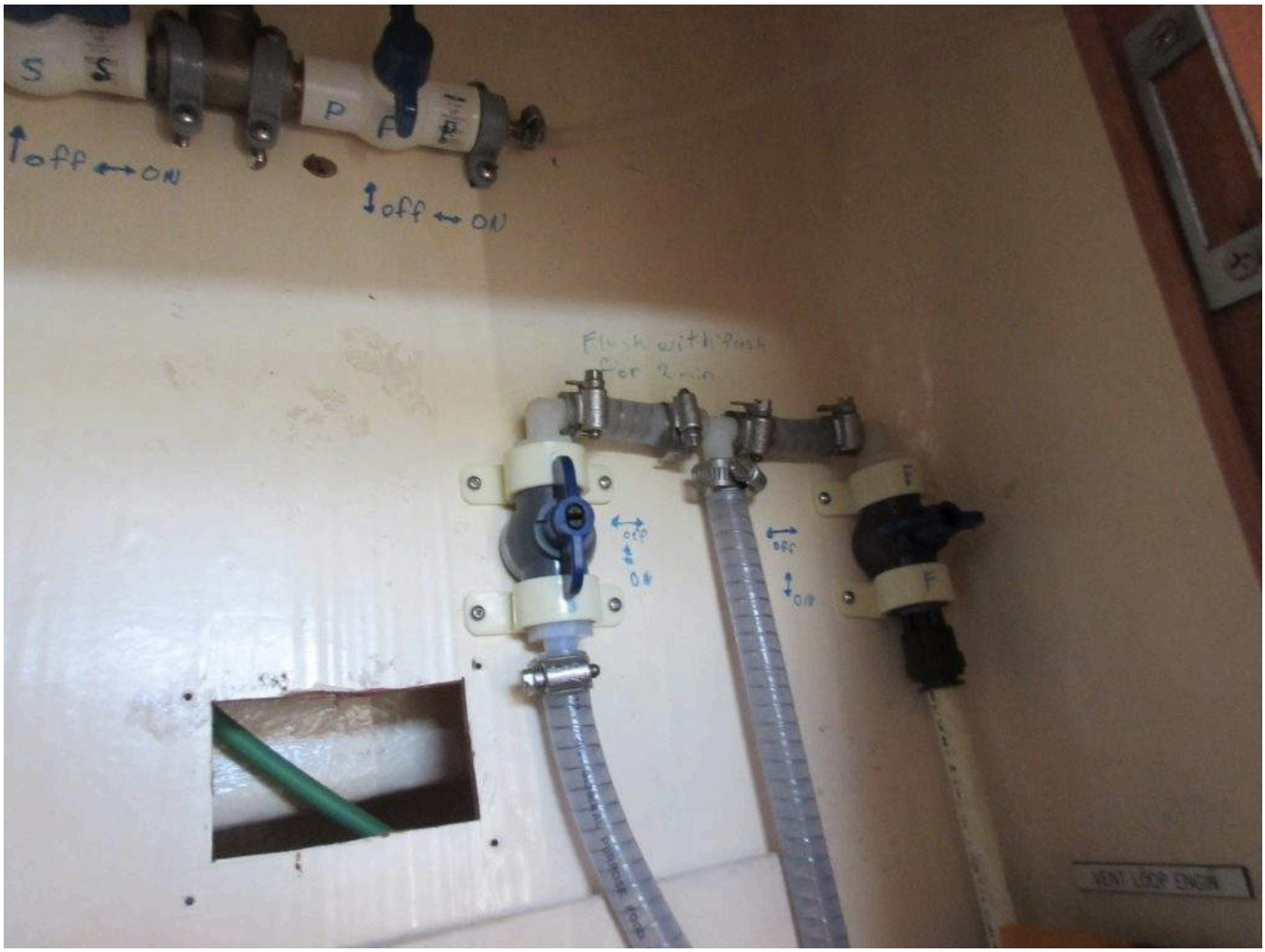
I didn't take a picture when I received the unit so I'm borrowing one from another cruising blog (thanks, http://www.lifeonthehook.com). Notice that you don't just get a maker, you get a complete starter kit that should keep you going the first 6 months.



The pump unit fit perfectly in the location of the old watermaker membranes. All the hoses and cables were left long enough to allow us to pull it out for servicing the oil (there is a service hatch behind the unit and it pulls out in the closet).



I had to give up a little closet space for the membranes. No big deal



Although this looks confusing, it really isn't. The 2 lower valves are used for flushing and the 2 upper valves let me put water in starboard, port or both tanks. I really need to find a label maker and make it more professional!