

Refrigeration

from old forums

1.

If it works, don't fix it!!!! Now, that said, yes, I am changing mine. My boat had a single 110VAC compressor (an add on that was there when I bought the boat) that serviced two areas. One was aft beginning just at the aft bulkhead of the cabin and the second was forward of the range in the same area as where the sink is installed. I am converting the aft area (the slightly larger of the two) to a 12VDC operated freezer (adding a compressor, thermostat and changing the cold plate) and am leaving the smaller, forward area as a 110VAC refrigerator. My thinking is that I will need a freezer much more than I will need a refrigerator for cruising. I have a Coleman insulated cooler on the deck just to the port side of the hatchway (makes a great seat too) and I am going to (try) to use that as my "cruising refrigerator" I will keep the 110VAC compressor etc. for use at the dock. It is surprising how many things that we refrigerate that don't really need to. Just one more thing. The forward area needs some special attention. It is the reason that I added the insulation (R-25 for one inch thickness), no it was not cheap, but it will be worth it in the long run. In the forward freezer/refrigerator area described above there is almost no insulation built into the bulkhead between the refrigerated area and the settee. This condition allows the fiberglass behind the settee cushion to "sweat", that is, water will condense on it. This causes the back of the settee cushion to rot, turn black, mold, etc. This can get expensive in a hurry! It is nearly impossible to add insulation to the existing structure because of the lack of space, so I added it internally using the VERY EXPENSIVE add on insulation on the inside of the compartment. It doesn't take up too much freezer room but I have a lot more room in my wallet now that all that money has gone. Good luck with your project. Let us know how it is going.

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2.

Nothing is simple. Here is my experience.

I had the same original layout for Ice Boxes as Jim C., and no refrigeration. So, I bought and installed an Adler Barbor "cold machine" system. After measuring the bulk head box and determining that I needed the smaller version, I obtained the unit and found it relatively simple to install. The refrigeration unit itself was installed in the engine compartment immediately behind the ice box. It probably should be somewhere other than the engine room for temperature reasons, but the unit works fine.

But, my 2 banks of 12 volt cranking batteries were too lite in the amp department and so, I purchased and installed four 90 amp 6 volt batteries under the chart table seat.

Also, I thought it advisable to replace my 65 amp alternator with 130 amp unit. Bought a rebuilt one for far less than the cost of a new one and installed it.

The entire installation was relatively simple, but like most other projects it left my wallet like Jim C's.

Refrigeration unit just under \$650.
Batteries approx: \$800
Alternator approx: \$330

Oh well, "It's for the boat."

3.
I installed a Norcold system in the forward (and smaller) ice box on the DE32 Misty Dawn about 12 years ago. The compressor is installed on a shelf in the engine room with the lines running alongside the engine, under the cabin sole, and then under the sink to connect with the cold plate in the ice box.

The refrigeration is 120VAC when present (at the dock) or 12VDC otherwise. It has run without any problems since installed; it draws about 40AH for a 24-hour period at anchor, although that varies between 30-some and as high as, maybe, 48AH depending on the outside temperature.

4.