

Possible Solution for Offshore Cruising 110-220V Electrical Setup
www.jacarandajourney.com "Other Good Stuff"

Planning on heading offshore and considering the electrical current issues in foreign countries? I offer some food for thought. First we are a very low electrical draw vessel. We have no AC or electric heating systems. This trip we have been cruising for more than 12 years.

Jack Tyler from Woosh wrote an excellent article about this 20 years ago that has some good points

<http://www.svsarah.com/Whoosh/WhooshPrepPower.htm>

It's rare to find boats setup with both 110-220V systems on board. It can be expensive to setup. Many folks end up buying a transformer to convert 110V -220V or vis versa. Again its not cheap and requires space to store it. We see others running there generator or engine while in a marina.

Before departing Mexico heading west we were in need of a new battery charger. Especially after planning on spending time on a mooring in Ecuador with little sun for solar and no wind for the wind generator. We knew we needed to buy a Honda 1000 and a charger.

We found a couple of chargers that would run off the little Honda and work with various voltages. Both Sterling and Promariner market identical chargers as they were developed jointly and now are marketed separately with different labels. What interested us is the ability of these chargers to recognize current changes and continue to produce 12V. Meaning no matter what country we were in we could plug them into the dock current and they would charge our batteries.

<https://sterling-power.com/>

<http://www.promariner.com/en/products/dry-mount-chargers>

Our solution was to clip the normal 110V wire before it entered the charger and install a 110V male plug on the charger side of the wire. On the wire that comes from the panel we added a 110V female plug.. Using our Honda or plugged into 110V dock sources we leave both plugs connected as the 110v feed comes into our AC ships plug.. But when we are in a non 110V country

we wire a 110V female plug into the end of an extension cord and then plug that directly into the charger. The dock end plug we have numerous 220-240V plugs that we can swap out as needed.

We then run everything off of the inverter we have mounted below decks. Computer, coffee grinder, heat gun, vacuum, etc etc.

So far this has been working out great, Yes we are aware that this probably does not meet code.