



BUS CHAT



Rehash: 120 Volts or 240 Volts for 12.5 KW Generator

Post by: belfert

I got my 12.5 KW generator installed a few months ago and it was wired for 240 Volts. I had always intended to set it up at 120 Volts at a later date. What are the thoughts on 240 Volts vs. 120 Volts? In my mind 120 Volts gives me more flexibility so I don't end up with one leg overloaded and tripping a breaker.

I have it wired right now with two A/C units on one leg and the other leg with an A/C unit, 30 Amps for inverter circuits, and water heater. Every circuit inside the bus except A/C and water heater goes through a separate inverter panel. I have no plans at this time to ever use anything is 240 Volts. A friend of mine said I shouldn't have unbalanced legs, but that is almost impossible with a bunch of 120 Volt appliances.

Post by: richard5933

Nearly every one I've seen, both DIY and commercial motorhomes, have the generator wired as 240V with two 50 Amp legs of 120V, not one. If you ever plug into a pedestal, that's exactly what you'll have. Same balancing problems will exist there, so you might as well get things balanced as well as you can. At least in my opinion.

Post by: sledhead

I always try to make both legs close but sometimes it just does not work. I use the two A/C meters to see what is going on on both legs.

Post by: 6805eagleGuy

As far as I know, I have the same exact genset as you do, I ordered it as a 120V genset and I have two 120V legs. Curious how you would get one

leg of 120V.

ost by: belfert

My previous Powertech generator also had two 120 Volts legs when in 120 Volts mode, but Powertech had you connect the two legs together. I talked with Justin at Wrico who suggested combining the two 50 Amp legs into a single 100 Amp leg in a junction box outside the generator. What I hope to avoid is to have say 10 Amps remaining on each leg and need 15 more Amps and overload a leg, or have one leg running a bunch of stuff and the other leg with minimal load.

I am pretty sure I will just leave it on 240 Volts for this year and see how things go. It certainly will provide at least as much power as the 8KW even if the legs are not balanced. It is already wired 240 Volts so nothing would have change right now.

List of what I might have running at the same time:

1. Four 15,000 BTU air conditioners (one in enclosed trailer)
2. Water heater with 700 Watt element
3. Microwave
4. Refrigerator
5. 30 Cup Coffee Pot
6. 700 Watt Food Warmer
7. 15 Cubic Foot Chest Freezer
8. Battery Charger in Inverter
9. Three to four Laptops
10. Various Power Tools outside plugged into bus

I had been running all this stuff off of my previous 8KW generator and realistically it isn't all drawing power at once. Now, with my old generator I could only run one or two A/C units at a time. I tripped the 35 Amp generator breaker a few times only because the Voltage was getting very low which increased the Amp draw.

I went with a 12.5KW generator so hopefully I could run at least three A/C units at a time. I ran three A/C units plus refrigerator, water heater, and occasionally the microwave on my drive from Las Vegas to Phoenix in May with no issues.

Post by: thomasinnv

If Wrico says all you have to do to convert from 240V to 120V is connect the two legs together,

