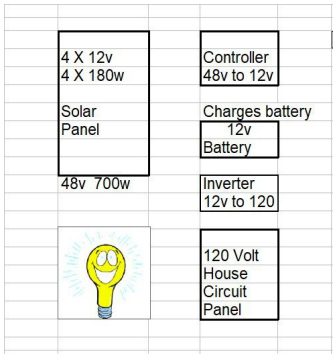
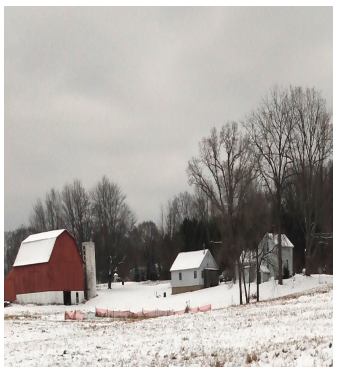
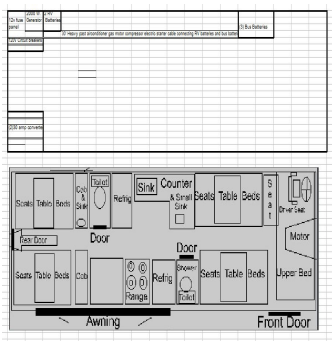
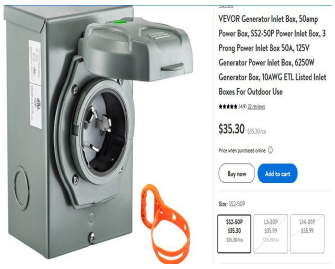
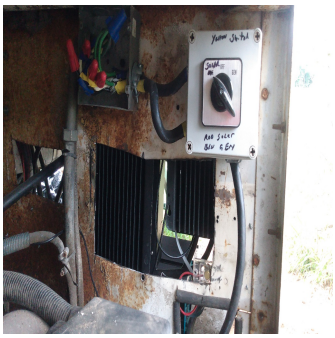

4 X 12v
4 X 180w
Solar
Panel
48v 700w
Controller
48v to 12v
Charges battery
12v
Battery
Inverter
12v to 120
120 Volt
House
Circuit
Panel




Sink
Counter
Seats
Table
Beds
Door
Awning
Front Door


BEW 6795


VEVOR Generator Inlet Box, 50amp Power Box, SS2-50P Power Inlet Box, 3 Prong Power Inlet Box 50A, 125V Generator Power Inlet Box, 6250W Generator Box, 10AWG ETL Listed Inlet Boxes For Outdoor Use
$35.30
Buy now
Add to cart




10.11v
0.15A
voltage
current
15W
0Wh
power
energy

Explaination of the solar system assembly photos above

First step is to determine how many watts your house or RV needs to provide your needs !
Add up each electric powered device you need to power, and how many constant hours it needs power.
Major component cost:
180watt solar panel $200 each (12volt x 4 = 48v & 700watts charging batteries MAX)
60 amp controller $350 each (can only handle 800 watts input from panels)
3000watt inverter $ 375 each (handles 12volts and up to 3000watts)
90 AH. DC. .Batt. $ 125 each One battery provides 90 amps for one hour. Don't use more than 50% to protect battery!
30amp batt. charger $100 each to charge the batteries if the sun doesn't shine when needed.

1. Solar system simplified: Solar panels to Controller to batteries to Inverter to circuit breaker panel

2. Photo of the Blickley Farm from an airplane piloted by grandson Isaac Blickley

3. Winter view of barn, garage and house of Blickley Farm, inhabited by daughter Rhonda,

4. Floor plan of the converted bus where Bill and LaVerne live spring, summer and fall,

5. The first trailer base for solar panels was an old boat trailer that needed a lot of welding and replacement parts,

6. After fixing the old trailer we built a base for solar panels. Background shows the trailer we first planed to use,

7. Constructing the panel base was done sheltering in our barn during the fall and winter,

8. We were able to make the frame out of galvanized steel angle that had holes that were a perfect solar panel match,

9. After installing the outer frame each panel was carefully bolted into the frame,

10. We decided that the initial frame and support was not sturdy enough for withstanding sever winds so we reinforced it,

11. Placing the system in the bus was a searching and deciding where it would fit and how to install things process,

12. We decided to cut a hole, and make a door in the bus side panel, and replace the LP tanks with the controller and inverter,

13. a. We wanted to be able to disconnect the panels from the bus to be able to use them at the farm house,
    b. We decided to use a heavy duty, outdoor input socket installed on the bus back bumper,

14. These input sockets are not cheap but are very durable, water resistant and have a temporary locking ability for the plug,

15. The bus had a normal 120 volt hookup and a 7000 watt generator and now needed to be wired for 120 volt solar inverter,

16. a. I was not confident to do the three way , land-line, generator and solar inverter hookup, so we hired an electrician,
    b. After some discussion with the electrician, we together wired a special switch into the system to select the desired electric source,

17. Just inside the back bumper, where the LP tanks had been, we installed the controllers,

18. Just below the controllers, on the old LP platform, we installed the 12v to 120v inverter,

19. To monitor the electric use of things in the bus and the productivity of the solar system, we have several monitoring devices,

20. The bus is parked in the shade of large trees, so the solar panels are placed 100 feet away to get in more sun.

Note:
We are running eight 12v 180watt solar panels in two arrays of four connected in series, potentially producing 1400 watts.
Since the arrays, connected, can provide 1400 watts, we added the farm house controller on the bus to handle the extra wattage.
We are prepared to separate the two arrays so that one array/trailer can be moved to the farm house.
We also are preparing to be able to keep all solar arrays at the bus or move them both to the farm house.

We also have a rebuilt 1937 windmill running a traditional hand water pump capable to provide water for the bus water tanks.
The windmill is not in the most efficient location for access to wind but the hand pump is convenient for campers.
We have learned to limit our use of water and know we can hand pump, when the wind does not make the windmill work pumping.