Reasons inverter isn't working right or shutting down checklist.

This is a list of common issues found in installations. First thing to do is read the manual.

1. Battery cable size needs to be 4/0. Look at manual for proper wire sizing for everything. IT'S FOR A REASON.

Powerflo 5: Minimum of 3 batteries for our inverter. 2 awg from battery to combiner and 4/0 from combiner to inverter.

Powerflo16: For single battery use 4/0 to the inverter. For multiple batteries use 2/0 to combiner and 4/0 from combiner to inverter.

2. Both toroids need to be inside the inverter. NOT IN THE WIRE TROUGH.
3. Check your inverter firmware. In local access look for master dsp version, slave dsp, CSB versions. On the house swipe from right to left. Latest versions: MSDSP: 020606
   SDSP: 020200
   CSB: 020611

   If your inverter is not on the latest firmware contact your installer to get it updated.

   If you are the installer follow these steps below:

   A. Put inverter into standby mode. It will say OFF on the screen.
   B. Connect the Wi-Fi to it. The dongle will have a green light on it. If you are off grid then a generator will be needed to run the Wi-Fi router.
   C. Login into service.midnitepower.com with your installer account to update the inverter. If you haven't done this

before then contact us at 877-600-6688 and we can guide you through the process.

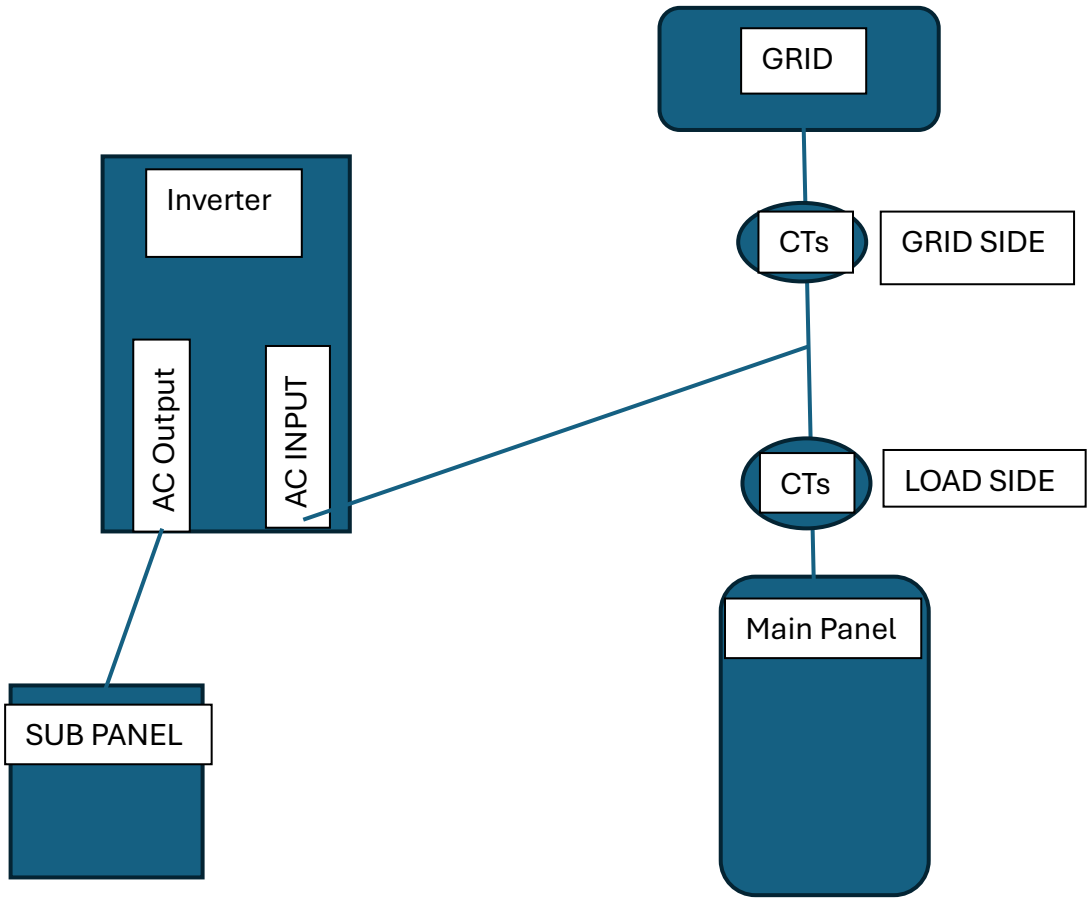
Latest battery Firmware: Powerflo 5: 5K-BMS-V0521

Powerflo 16: 16K-BMS-V0523

If you are off grid with no Wi-Fi you will need a windows computer with an updater tool. Contact us for more information on this.

Don’t forget to read the manual.

4. CT sensors need to be in the correct location for grid tie systems. There are only 2 locations where the CTs should be.



5. CT sensors are labeled L1 and L2. Make sure the arrows are pointing towards the inverter and main panel. If the CTs are on the load side, then make sure the arrows are pointing towards the main panel. WE DO NOT RECOMMEND PUTTING THE CTs ON THE LOAD SIDE OF THE GRID INTERCONNECTION.
6. IF THE CTS ARE IN THE WRONG LOCATION, you will see lots of crazy numbers on the data.
7. All batteries need to be the same voltage before connecting in parallel. IF they are not the same voltage then charge each battery individually to 100%.
8. NO ALUMINUM WIRING. The breakers are not rated for aluminum.

PV

1. Make sure the Negatives of the pv arrays are NOT bonded together.
2. Make sure the PV negative are not bonded with the inverter ground.
3. Have erroneous pv readings? A full reset to factory settings along with clearing all data is needed.
    a. Put inverter into standby
    b. Go into equipment maintenance and click Clear all data and click reset. Wait 2 minutes.
    c. Turn off all breakers and pv switch. Make sure inverter goes dark then set timer for 5 minutes and 22 seconds.
    d. Turn breakers back on and go into local access and program all settings. Then turn inverter back on.

For parallel inverters

1. Communication cable should be shielded with ferrules. Recommended wire size 20-23 awg.
2. Do not wrap these cables around any dc or ac wires.
3. Look for dip switch configuration in manual.
4. WI-FI not connecting? Turn off all breakers on one inverter so that it's dark and connect the other inverter to Wi-Fi. Then vice versa. Inverter only works on 2.4 Ghz
5. Make sure all AC input or output is parallel on all inverters.
6. Make sure all AC lines are the EXACT SAME LENGTH from the combiner to each inverter in parallel.

You can always reset to factory settings and shut off all breakers for 8 minutes then reprogram parameters and turn back on.

Once you have done all this and still have problems then start by taking pictures of the complete installation and sending them to support@midnitepower.com then call us. We will ask for pictures.

CHECK ALL PROGRAMING. Refer to the Midnite Proflow sheet for descriptions of each parameter.

Programing grid feed priority without a battery.

Grid feed priority should only be used without a battery. If you are using Grid feed priority, then you should **not** have a battery. The following is the recommended settings.

Power Control-

Work Mode- Grid feed priority

Support Normal Load-ON

Zero Export-OFF

Power Control- CT sensor

Sensor Location-GRID SIDE

Energy Flow Direction- FROM GRID TO INVERTER

Maximum Feed In Grid Power (W)- 11,400 watts

Maximum Consumption From Grid (W)- 30 watts

TimeBase Control- OFF

Battery

Battery brand selection- Unavailable

General

Enable Low Voltage Ride Through- ON

Enable Anti-Islanding-ON

GRID

First boot and reconnect boot set to 10 seconds each and LEAVE AT 20%

All work modes work without a battery for different applications.

SMART LOADS DO NOT WORK UNLESS YOU HAVE A BATTERY.

You can always reset to factory settings and shut off all breakers for 8 minutes then reprogram parameters and turn back on.

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