CLASSIC WIRING FLOW
DIAGRAM-REVB-10/3/14

Solar Panels

CLASSIC POWER
WIRING

MidNite

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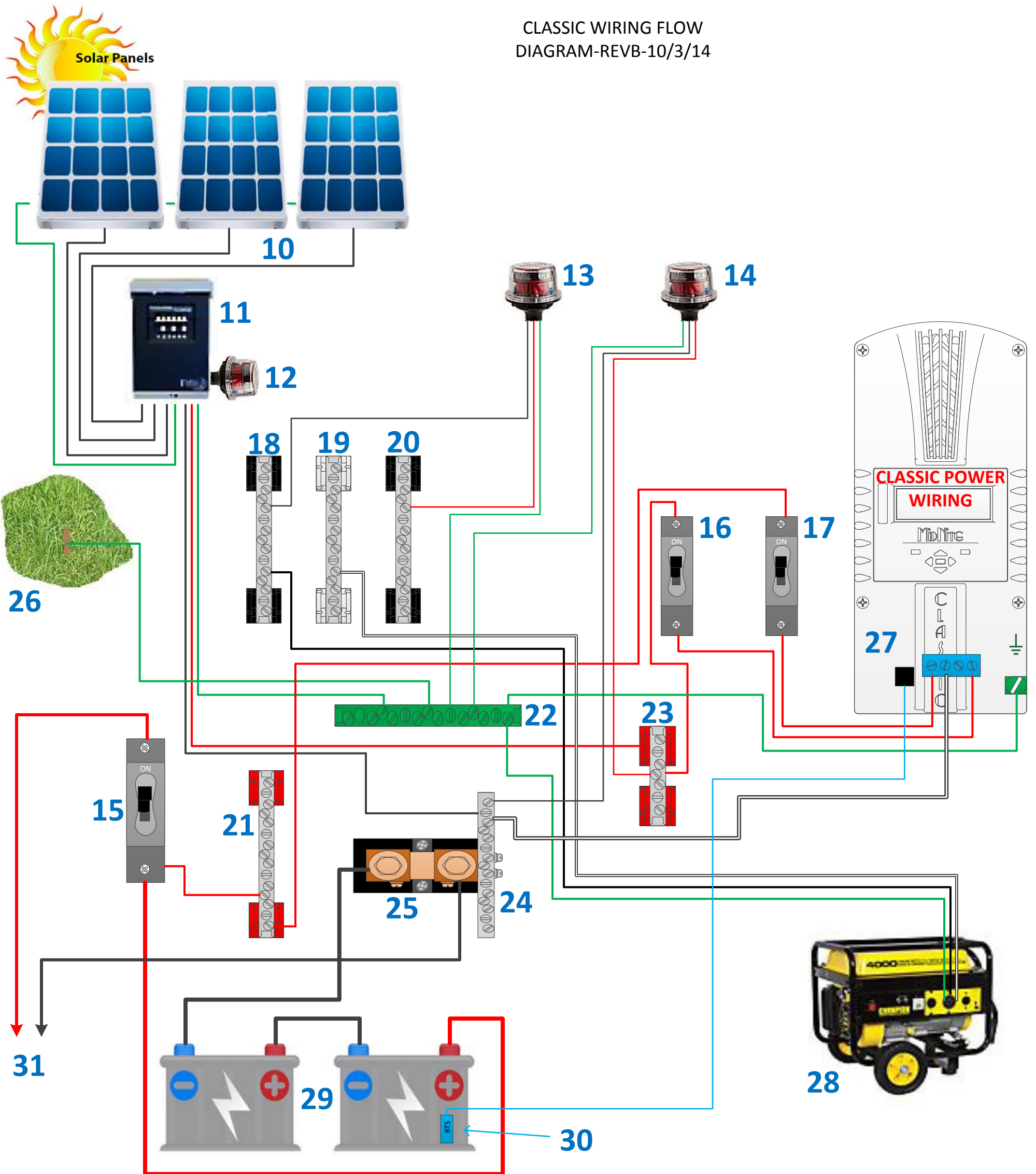
10 = Solar panels. May be more than 1 in series, but VOC of the strings needs to be watched so you do not exceed the voltage limits of the charge controller.

11 = MidNite Combiner box. This takes the strings of solar panels and combines them into a single string to the Charge controller. Make sure to pick the proper voltage and amperage breakers for this box.

12 = MNSPD300-DC DC Surge Protection Device 300vdc max.

13 = MNSPD300-AC AC Surge Protection Device.

14 = MNSPD300-DC DC Surge Protection Device 300vdc max.

15 = MidNite DC breaker for the Positive conductor to the Inverter. Typically a MNEDC125, MNEDC175 or MNEDC250

16 = MidNite DC breaker for the Solar Panel (PV) Input to the Classic

17 = MidNite DC breaker for the Battery Output side of the Classic

18 = AC L1 Input Bus Bar. This is where the generator L1 input gets wired.

19 = AC Neutral Bus Bar. This is where ALL AC Neutrals get wired

20 = AC L1 Output Bus Bar. This is where the L1 Output to the Load center for the building would connect

21 = Battery Positive Bus Bar. This is where we would wire the Battery positive side of the Classic, as well as where we would wire up DC loads. Do NOT wire the battery cable to this bus bar.

22 = Earth Ground Bus Bar. This is the common Earth Ground bus bar where all the grounds get wired back to and it needs to be connected to the building's ground rod system, example 26.

23 = PV Positive Bus Bar. This is where the Solar Panels positive lead connects.

24 = Battery negative Bus Bar. This is where the solar panel negative lead would go as well as the Classics negative lead and any negatives from the loads. Do NOT connect the battery negative cable to this bus bar

25 = DC Shunt. Measures tha amperage in or out of the battery. You connect the battery to one side and everything else to the other side.

26 = Earth Ground system of the building

27 = Classic Charge controller.

28 = AC Generator

29 = Batteries. The Voltage must match the voltage of the inverter. Typically 2-3 strings of batteries would be considered the max.

30 = Classic temperature sensor. This is used to compensate for the temperature of the battery. If a battery is cold it has to be charged to a slightly higher voltage and when it is hot it will be charged to a slightly lower voltage.

31 = DC Cables to Inverter