

## LARKS “Off Grid Solar Power Station”

Our Off Grid Power station is designed to allow our members the convenience of charging their flight batteries via DC power. The system is as was originally proposed i.e. an 800 Amp Hour battery power plant maintained via a 600 watt solar system. This should very adequately take care of our charging and AC needs. The AC portion is designed to power the fans, lighting, our weather station and a WiFi module plus any other incidental needs such as computers and other electronic equipment. The AC is derived via a 2200 watt pure sign wave inverter so there should be no issues with the quality of power available. As of October 24, 2023 the main backbone circuit has been upgraded to 24 volts to better handle the load being placed on the station.

### **Solar Panel Disconnect:**

On the south side of the charging station is the solar disconnect. This was installed for outside access at the request of the County. **Please do not turn off unless there is an emergency** and there is need to cut the power coming from the solar panels.

### **DC Operation: Battery Charging**

The DC component of the system is very straight forward. We have provided six (6) DC charging ports with 13.8 volts (approx.) that are activated via the central breaker switch (red is positive and black is negative).

To use simply turn on the main switch/breaker (it's located in the center of the charging ports), the voltage will appear (on the volt meter mounted directly above the main DC breaker/switch) when the system is active. If you are the last person using the system kindly just turn off the main switch.

Additionally we have installed 8 XT90 connectors that provide 24 volts (approx.) for those that have DC chargers capable of handling 24 volt input.

## **AC Operation / Fans**

To the left of the charging station you will find a utility box with a bubble cover. The right side is the push button switch for the AC power inverter. This must be on for any of the AC services to function

- To turn on simply press and hold the power button for a second or two, the green light will come on.

Please turn off the power when the last person is done using the AC service. This will save unnecessary wear on the inverter.

- To turn off simply press and hold the power button for a second or two, the green light will go off.

The left side you will find an electronic timer switch that controls the fans. Simply push the desired amount of time desired and that's it.

The AC outlet on the north end of the power station is active once the inverter has been turned on.

Hope everyone takes advantage of and enjoys our new power station!