

# Computer Know How Series

Presented by Adam Lacey ([Applications Etc.](#)) 916-813-7819

**Power, Battery Backups (UPS/BBU) & Battery Life** – Thursday April 12<sup>th</sup> 2018 @ 2pm

<http://www.aehost.net/morpd> or <http://www.morpd.com>

## 1) Topic of the Day

- a. **Power, Battery Backups (UPS/BBU) & Battery Life** – electric power is the root of all electronics and batteries help with preservation and portability.
- b. Why do I need to know about power? Power is a huge part of our everyday lives. It allows us to light the night, travel near and far, cook, clean, play and is the one thing modern technology cannot do without.

## 2) Power (electric)

- a. What types of power are there? – Alternating Current (AC) and Direct Current (DC).
- b. What type of power do the outlets in your home provide? \_\_\_\_\_
- c. What type of power do your electronics use? \_\_\_\_\_
- d. How do we generate power? F\_\_\_\_ or H\_\_\_\_, S\_\_\_\_\_, W\_\_\_\_\_, W\_\_\_\_\_, etc  
(Hint: basic everyday things or elements.)
- e. What measurements are used for power? Volts, Amperes, Watts, Hertz (cycles/sec)

## 3) Battery Backups (UPS/BBU)

- a. Define UPS and BBU? \_\_\_\_\_ & \_\_\_\_\_
- b. Why do I need a Battery Backup? It protects your systems hardware, software and data.
- c. Is a Battery Backup better than a Surge Protector? Yes, a battery backup provides protection from both power spikes (like a surge protector) and power loss (Brown or Black out).
- d. They are measured in Volt Amps (VA) and we highly RECOMMEND them to protect your DATA!

## 4) Battery Life

- a. Battery life is two fold. First is Battery Life or how long a battery lasts on a full charge. Second is Battery Lifespan or how many charge cycles it can handle before Battery Life degrades. When a Battery's Lifespan & Life are degraded the battery may need to be replaced. (see links)

## 5) Links and Resources

- a. OSHA Electric Power - [https://www.osha.gov/SLTC/etools/electric\\_power/illustrated\\_glossary/power\\_generation\\_plant.html](https://www.osha.gov/SLTC/etools/electric_power/illustrated_glossary/power_generation_plant.html)
- b. Electrical Power: Definition & Types - <https://study.com/academy/lesson/electrical-power-definition-types-quiz.html>
- c. SparkFun Electric Power - <https://learn.sparkfun.com/tutorials/electric-power>
- d. Watts, Amps and Volts and How To Understand Electricity - <https://owlcation.com/stem/Watt-are-Amps-and-Volts>
- e. How to Prolong Lithium-based Batteries - [http://batteryuniversity.com/learn/article/how\\_to\\_prolong\\_lithium\\_based\\_batteries](http://batteryuniversity.com/learn/article/how_to_prolong_lithium_based_batteries)
- f. How to charge your devices the right way - <https://www.popsci.com/charge-batteries-right>