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The Manatee Amateur Radio Club, Inc. • An ARRL Affiliated Club

MARCI Newsletter

President's Message

Wow time flies, even when you are not looking! September is already upon us.

Hurricane season is in full swing, and we have storms a brewing. As amateur radio operators we need to be prepared, but most important we need to have a plan. A plan for our families and pets. Where will we go, and where can they go?

And then you should start thinking about what you can do to help.

We need to mark our calendars for every Sunday night, the MARCI Information Net has changed nights to Sunday nights at 7:00 on the 146.820 club repeater. Even the format has been updated, so mark the calendar and join in. Sunspots are on the rise, 20 meters has been active longer, 10 meters has even shown signs of improvements. So power up that radio and tell everyone on the net who/what you have been up to. Keep an eye on the website for some upcoming events. And as always have fun doing it. Till next issue, 73

Ed Skalecki, NI4MX

Feature

Using Sealed Lead Acid Batteries

HT's are wonderful devices. In what has become a very small package, manufacturers of Amateur Radio equipment now offer multiple band coverage, extended receive capability, and for HT's, relatively high power. Most offer 5 watts out on high power. All this capability does have a price. Even with the newest Lithium-Ion batteries, which are quite expensive, it is possible to run the battery flat in just one afternoon.

The choices are simple. Buy at least one spare battery, or find an alternate power source. The second choice is the one I want to discuss.

The automotive adapter cable for most HT's is relatively inexpensive. It allows you to use your HT while mobile in your car without running the battery in the HT down. It can do so much more.

By using the automotive adapter to plug into a SLA Battery of the type sold for Uninterruptible Power Supplies or Fire and Burglar Alarms, it is possible to extend the life of the HT power to several days. This can be very important if our area loses power for three or four days or even more than a week. This was demonstrated firmly for us by last year's hurricane season.

The SLA battery of choice delivers 13.6 volts (approx.) and has a capacity of over 7 ampere hours. Compare that to even the best Lithium-Ion battery which has a capacity of barely 1.6 ampere

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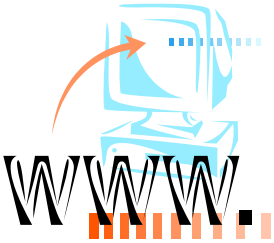

MARCI on the Internet

MARCI Web Site
Club Information
http://www.manatee-arc.org

Check out the New, Updated MARCI Web Site!

West Central Florida Group

WCFG Web Site
NI4CE Repeater Network
http://www.ni4ce.org

The American Radio Relay League (ARRL)

ARRL Web Site
The National Association for Amateur Radio
http://www.arrl.org/

MARCI Repeater 146.820 - 100 CPS Tone

Using Sealed Lead Acid... (Cont'd)

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hours. The biggest difficulty with SLA's is their weight. The size currently being discussed weighs about 6 pounds. It will surely require a pack capable of being worn on a belt or over the shoulder. I chose to mount mine into my CERT backpack. The battery fits easily into one of the smaller compartments. SLA batteries are sealed, and so can be placed in any attitude or position without leaking. As long as the terminals are insulated so they cannot be shorted out, there will be no problem. Shorting out an SLA battery can result in a fire at least if not a small explosion.

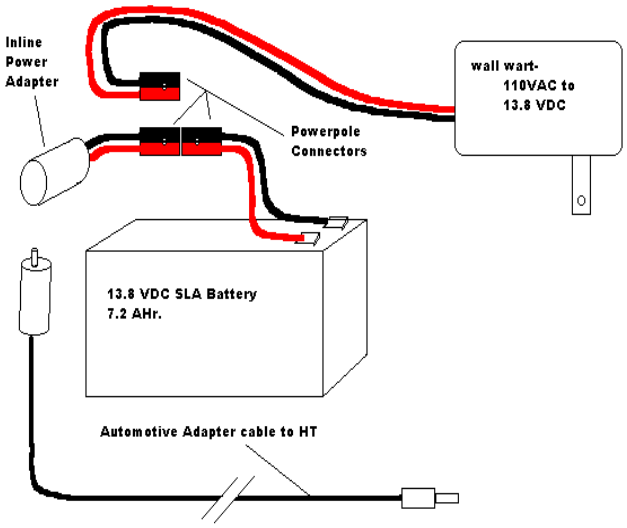
The battery can be easily float charged with a small "wall wart" as long as it puts out 13.8 VDC. DO NOT USE ONE that puts out 13.8 VAC. A wall wart that puts out 15 or 16 VDC can be used WITH ONE IMPORTANT RULE REMEMBERED. It cannot be used as a float charger. It MUST be TIMED and DISCONNECTED after the battery has been sufficiently recharged. All of the "wall warts" should be current limited to about ½ an amp current flow.

As indicated in the diagram, the connectors used to connect the charger can also be used to connect the in line power connector for the automotive adapter cable.

As an alternative to the "wall wart" you can purchase a smart charger specifically for SLA batteries. These are more costly, but do allow you to plug in and forget until you need the battery. This type of charger initially feeds the battery a higher voltage (15 volts+), then drops the voltage to 13.6 or so to maintain the battery in float mode once it is fully charged. The 13.6 "wall wart" will be in float mode right from the start, so it will take longer to charge a depleted battery.

Systems like this are available commercially from several manufacturers, generally with a price tag from $80 to $100. You can get a used but perfectly good SLA battery from some alarm companies who change them out for their clients on a regular schedule. The cost may even be $0. A correct type "wall wart" can be obtained at most hamfests for less than $5. The automotive power jack or "cigarette lighter adapter" can be found at any auto parts store for less than $3. Total cost less than $10. If you go for the "smart charger" your cost will still be less than $40. You decide.

73, *Geoff Haines*, NIGY



Contributors Wanted!!!

The MARCI Newsletter needs you! We're looking for contributors to prepare articles for publication on the technical, operational and practical aspects of Amateur Radio. Contact the editors for more information!