

Electrical Safety

Because of the potentially dangerous voltages in this system, electrical safety is extremely important. The generator makes dangerous voltages whenever it spins, so cannot be turned off while the system is at sea. The other source of high voltage is the battery system, which can be turned off to contain the voltages to a single housing. However, the battery voltages are always present even if the system is ashore and disabled, so there are safety issues to be considered in assembly and handling of this component. Finally, the power converter contains a capacitor that can quietly contain high voltages after the main battery system is turned off or removed.

Three areas of electrical safety under consideration are:

- Battery box assembly and maintenance safety.
- Safety of the system at sea and hazards to divers and uninvited visitors to the buoy.
- Capacitor safety