

Emcomm Application Note

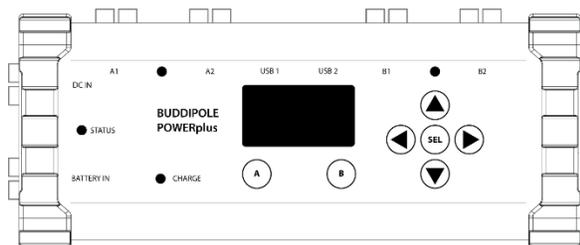
POWERplus and Emcomm

The ability to configure communications to suit the unique requirements of a specific emergency is a particular strength of the Amateur Radio Service.

Being prepared with a well equipped go kit provides the ability to quickly set up a field or home station that can operate from DC or emergency power as well as manage changing needs.

POWERplus provides flexibility

POWERplus can provide some solid assistance in supporting the power needs of the station as well as unforeseen needs.



POWERplus is a power management system that uses DC or Battery power to serve multiple outputs. It also includes an internal battery charger and two USB chargers.

DC Power Operation

Connect to a 12V power system and emergency battery and you will have DC output for your radio even if the DC power is interrupted. While the DC power is good POWERplus will keep your emergency battery charged, but if the DC power goes away the battery will be instantly connected to your radios.

Battery Operation

Battery power is great but it is a limited resource so it is important to know how well it is keeping up. POWERplus has power monitoring to show the battery voltage and load currents so you will have a view on your energy reserve.

Built in battery monitoring also helps to protect your battery from over-discharge by providing visual and audible warning of low battery voltage condition as

well as the ability to automatically disconnect the battery.

Powering other devices

In an emergency you do not know in advance what power requirements you will need. POWERplus helps by providing two sets of outputs that are individually monitored. This allows you to put your critical equipment on one group of protected outputs but retain the capability of powering other devices, planned or not, from a separate group of outputs. Each of the output groups is individually protected by a user configured circuit breaker allowing you to set the maximum current in either group.

Compact and Reliable

All of these functions could be provided by using a collection of different items. The unique aspect of POWERplus is that they are all included within a rugged custom enclosure. A similarly capable system using individual items would require several power monitors, a battery charger, automatic power changeover and a power distribution system. Each of those being individually connected by separate power cables, is not just difficult to deal with but a big knock to system reliability.

Comprehensive DC Power System

Connect an external DC power source and a battery and you have a complete DC power system including battery charger, USB chargers and distribution.

