

ARMADA, THE LATEST IN BATTERY CONDITIONING SYSTEMS

An Interview with Peter Coplestone Operations Manager



Peter Coplestone

Q. Peter, can you start by explaining what you mean by a battery conditioning system?

A. The idea is that the six-channel Armada will take any chemistry of battery, but it's particularly important for lithium-ion batteries because of the IATA law that came in a couple of years ago. The regulations require that they can only be flown at 30 per cent or less state-of-charge. And that can be difficult to achieve.

So, rather than simply charging or discharging a unit, the Armada is capable of conditioning any battery to be in a transport mode, a storage mode or fully charged.

Q. How will it help your primary customers in the defence sector?

A. The defence sector is covered by exactly the same transport laws. It's slightly different if they use the battery on a rotary aircraft or a fixed wing aircraft but if it's just being transported from somewhere to somewhere, lithium-ion batteries have to be at 30 per cent state-of-charge unless they get a specific

exemption from every single country they fly over. Not that easy to obtain.

Q. Does the Armada represent a new service for Lincad?

A. Well, we've always been able to offer a similar service for our batteries here at our HQ but it was something we had to do in a different way. We'd discharge them completely and then put the required amount of charge back in. The point about Armada is that the whole process is now entirely automatic once we've established what sort of Battery Interface Adaptor is needed.

Having done that, we can work out the appropriate algorithm and how it's got to be discharged. We can do that for over 250 different battery types, whatever the chemistry. Once we've done that, the customer is able to maintain their entire fleet of that type of battery.

Q. Are we just talking about air transport?

A. Well, at this moment in time maritime is not covered by the IATA regulations. However, there is talk that both road and maritime will eventually go the same way and expect any lithium-ion batteries being transported to be at less than 30 per cent state-of-charge. In fact, some ferry companies between Ireland and mainland UK are already insisting on that.



Armada Six-Channel Battery Conditioner

Q. What markets are you looking at for the Armada?

A. We're already selling it to the UK Ministry of Defence and we've also sold it to some of the major defence primes. Going forward, we're also looking at European defence forces.

Because the Armada's power requirement ranges from 90 volts up to 264, it can be used anywhere around the world, in Japan for example which has low voltage. Obviously, we would like to sell to the Americans but they tend to develop their own kit. However, we are certainly going to target countries like Australia, New Zealand and Canada.

Q. Once a customer has bought an Armada, are there any maintenance issues?

A. No, it's effectively maintenance-free, so you don't have to do anything to it. Once we've provided the right Battery Interface Adaptor, the Armada doesn't need calibrating. It doesn't need anything. We're also working to future-proof it with software upgrades which we could easily send out to customers.

As far as I'm aware, the Armada is a unique product. Nobody else is producing anything equivalent. Due to the fact it has six ports, all of which can take a different battery chemistry type, you can set a lot of batteries to the state-of-charge you need.

Another great thing about the Armada is that it's not that big, 180 millimetres by 440 by 355, and it only weighs about 16 kilos. So, it's soldier-portable.



Q. Will you have an example of the Armada on the Lincad stand at DSEI this year?

A. Yes, we definitely will and we'll have it working on some of our products, some of our list products. So, people can ask questions and see it demonstrated. We'll also have our latest Caravel chargers on display as well.

Q. Is the Armada manufactured in the UK?

A. Yes, it's important to point out that we are an entirely UK company. Everything we design and manufacture is done here in Surrey. So, exhibiting at DSEI with its international audience will be good for British business and will hopefully encourage a global market to buy more British products. ●



Transportation