

ALISTAIR MCGHEE waxes wild and free on a very good reason not to sit beside him on the next plane out of Heathrow: his new-found love of Audioroot's inspired battery kit.

Can there be any truth in stereotypes? Are all directors spoiled children? Do all camera operators suffer from Ansel Adams syndrome? Are all sound operators really, really boring people? Consider this cautionary tale. A good friend of mine was returning from a trans-Atlantic shoot on the west coast. Drawing the shorter of the straws he was seated next to the sound man, who over the next nine hours dedicated the conversation to the vexed subject of batteries – types and varieties thereof and the pros and cons of the different charging regimes, and not by any means ignoring the fascinating area of battery chemistry. Needless to say by the time they set foot on Heathrow tarmac, they were close to a suicide, or at the very least a murder.

and when it reaches non-safe point, end configuration. Now the controller knows how much charge that battery holds – all you have to do is tell it which battery you have connected when you power up, and you get all that lovely info on state of charge.

You might be smirking a bit at the estimated time left at current draw. Well, running my aged Filmtech LSP4 plus a couple of phantom powered mics, a brand new 89 Wh battery promised 21 hours 20 minutes. Six hours later it promised fifteen hours ten minutes. Thirteen and a half hours later the display showed six hours 50 minutes left. So far, so good. Switch off overnight. Next day it powered up displaying five hours thirty minutes – a little light – but in the end recalculated and delivered six hours thirty

AUDIROOT BATTERY KIT

Batteries, Chargers & Adapter Kit

But the truth is, we love our batteries, and a new system for sound recordists is big news. So at the risk of incontinence to thousands of location sound staff – look out, Audioroot is coming to town. Audioroot is a French company with a range of new-ish battery products designed for sound recordists, and promoting a battery technology designed around Lithium Iron Phosphate rather than the more common Lithium Cobalt Oxide. If you believe Wikipedia, this will result in cheaper batteries... that'll be the day.



minutes. A nice bright red LED will flash when you get below ten percent capacity. There is a regulated version available with two 9v outputs for directly powering radio mic receivers.

If you don't need eight outputs the eSmart BG comes with four, two of which are separately controlled from a locking front panel switch. You get the same info as

the bigger box (but not the calibration facility for non-Audioroot batteries), the input is a hard wired dedicated Audioroot cable assembly. And finally, the vmDBOX a small digital voltmeter-cum-power distribution box with six outputs. This is designed to give you an accurate (two decimal places) voltmeter. The voltmeter consumes about 50 milliwatts, which you should be able to spare.

Practically, Audioroot can squeeze more power into its batteries. It offers a 37 watt hour, and an 89 watt hour. I had two of the bigger ones to play with. Audioroot has left behind the NP1 shape for a Nintendo DS-sized battery weighing 16.5 ounces. My six-channel Audio Developments fully loaded with phantom mics and two radio channels draws about 7 watts, so a fully charged 89Wh battery will give over 12 hours – or what most director's believe can be achieved before lunch.

So apart from some fancy chemistry, more power, and a different shape, what have Audioroot batteries ever done for us? Well, these batteries are smart. Each battery has an on-board chip that communicates with the outside world via smBus technology. So if you use one of Audioroot's smBus enabled chargers, your battery will know how many cycles it has been through. Its temperature and state of charge can be declared to the outside world, and if all is working well then the operator will 'know' how much time they have left at the current rate of usage.

As for chargers, I had the portable one you might take on location, which is a no-frills affair and not smart, and the two-slot desktop charger, which will update your batteries' internal info. The desktop charger is simple to use and fairly discrete, and far too noisy. Change the fan, monsieur root. While I'm in a critical vein, the BG's outputs are not labelled, and if I were designing a battery system from scratch I would have tried for a clever locking system on the battery end connector, and maybe something a tad more substantial. Connecting batteries with less than 10% charge can confuse the state of charge sums, but that red LED saves your blushes.

However these are nits, and shouldn't obscure the fact that the Audioroot battery system is a work of Gallic genius. Tonnes of power in the batteries, brilliant features on the boxes, and if you sat down and said, "what do I want my battery system to do?", then Audioroot has answered the question in spades. C'est magnifique. Don't sit next to me on a plane any time soon. **AW**

In order to access this information you need one of Audioroot's external power distribution boxes. However 'power distribution box' does these devices a real disservice. The eSMART BG-DU is bit bigger than a box of Swan Vestas, while the BG-DH is more 'Bryant and May'-sized. The BG-DU accepts a Hirose input, and has eight outputs. It has a colour OLED screen, which is daylight readable with a very fetching three-colour fuel gauge. On screen with one of its own batteries you get: percentage charge, current voltage to one decimal place, remaining time at current discharge rate, current draw, temperature, wattage being drawn, and number of battery cycles. Even if you haven't got an Audioroot battery, the BG-DU is willing to learn. It can remember the capacity of up to eight batteries, so pick a battery, pick a number, and with your battery fully charged connect all your kit and power up selecting 'configuration' mode. Keep an eye on the system voltage



THE REVIEWER

ALISTAIR MCGHEE began audio life in Hi-Fi before joining the BBC as an audio engineer. After ten years in radio and TV, he moved to production. When BBC Choice started, he pioneered personal digital production in television. Alistair is now Assistant Editor, BBC Radio Wales, but is allowed out occasionally.

INFORMATION

- €890.00 / Hire from Richmond Film Services at GB10 per day / GB40 per week
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