

# Elysium LX60B Pro

*Chargers like this will do a lot more than just top-up Li-Po packs. The cycling function is ideal for i.c. flyers who wish to keep their receiver and transmitter battery packs conditioned.*

**T**he Elysium is distributed by Logic RC, a new UK distributor that's unveiled an attractive selection of electric flight products before the eyes of a hungry market. The comprehensive range takes in receivers, motors, ESCs and accessories, all carrying the Fusion brand name. Among the most recent introductions are six new chargers of which the Elysium sits just under the range-topping unit. Okay, second fiddle it may be, but in many respects its feature set, specification and price will make it the preferred choice for the majority of flyers. You'll notice that I didn't say 'the majority of electric flyers', because a charger like this is also an indispensable aid for i.c. flyers seeking to manage their Tx and Rx battery packs. By this I mean that the unit has the ability to cycle NiCad and NiMH packs as a means of ensuring that they're periodically refreshed and, thus, protected from memory effect and routine charging errors. Notwithstanding, the Elysium will, in the main, be contemplated by electric flyers, so let's see what it can do.

## WALK AROUND

Aesthetically, the silver-painted case and matching plastic side panels make for an attractive design, whilst the inset two-line LCD display and input button panels do nothing to spoil the effect. In short, it's a unit that's nicely made and looks good.

One side of the case carries the power input leads (mains 240V and

12V), the other side managing the output sockets to the tune of two 4mm banana jacks sat alongside a JST-EHR balance socket. There are four main Li-Po battery balancer plug types these days, the three balancer boards supplied ensuring that the unit can handle any battery fitted with either JST-XH, JST-EHR, FlightPower or Polyquest balancer plugs. Batteries fitted with JST-EHR plugs simply plug straight into the charger.

## OPERATION

Whilst Li-Po batteries are now commonplace and have become widely adopted by electric flyers over the last few years, when first introduced the issues of cell imbalance weren't fully appreciated or understood. However, over time, users have become aware that some Li-Po

cells can exhibit voltage imbalance (especially if discharged close to or above their respective 'C' ratings), which means that a charger pumping away at a constant rate would be in danger of overcharging an individual cell within a pack.

Some older chargers don't incorporate a balancer unit, relying instead on an in-line, plug-in balancer to monitor individual (lithium) cell voltages. However most of the new chargers that have appeared in the last eighteen months feature an integrated balancer and, thankfully, the Elysium is one such.

Flyers sometimes ask how often Li-Po batteries should be balance-charged, to which the unhelpful answer is 'when the cells are close to or out of balance'. In practice it can be tricky to monitor individual cells within



DAVID ASHBY CHECKS OUT THE NEW MULTI FUNCTION BALANCER CHARGER FROM LOGIC RC

*The output side sports 4mm charge lead plugs alongside a JST-EHR balance port.*

*The silver design is attractive and the unit is easy to use once familiarity has been gained. In this respect the instructions are good.*





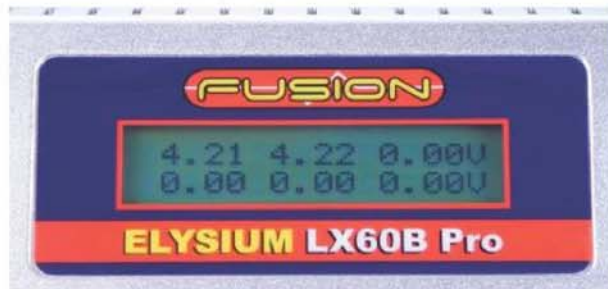
a Li-Po pack so it's best to balance-charge every time; that way there's nothing to worry about. That said, it's useful to monitor cell voltages while charging takes place and with a few button presses the Elysium allows you to do just that.

It's important to remember that both the battery main (positive / negative) leads and the balancer plug must be connected to the charger at the same time for balance charging to take place. The unit will charge a pack without the balancer plug connected, but in doing so won't balance the cells. The unit boasts a 2C Li-Po charge rate, although it's usually best to charge at 1C - and indeed this is the rate the Elysium will deliver by default, unless overridden. Remember that a 2000mAh battery

pack is charged at 2A to achieve a 1C charge rate. The charging regime relies on delivering a constant current until the cell voltages reach 4.1V, 4.2V and 3.7V for Li-Ion, Li-Po and Li-Fe cells respectively. The unit then switches from constant current to constant voltage, which allows the cells to dictate how much current the charger should deliver for a safe, balanced charge.

A little time spent playing with the charger will soon gain familiarity, with the Elysium's operating menus largely similar to those found on other two-line LCD balancer chargers; no bad thing.

Switch the unit on and it displays the last charging set-up used; a quick press of the 'battery type' button cycles between the usual types and pressing the 'inc' button selects the



relevant charging programme: charge / discharge or cycle, and in some cases other relevant criteria such as delta-peak cut-off levels and lithium battery types.

Back at the main start-up screen, a simple press of the 'enter' button highlights the charge variables such as battery capacity and charge rate, and a final press of the same button gets things going. The unit checks momentarily for a balancer connection so it knows what to do, and then gets on with the job. Cell

*The two line display reports the data you'd expect (centre pic), while individual cell info (bottom pic) is just a few button pushes away.*

**...a charger like this is an indispensable aid for i.c. flyers seeking to manage their Tx and Rx battery packs**



*I couldn't detect a fan although there are plenty of cooling slots. Either way, the unit didn't get hot in use.*



Logic include balance plug adaptor boards covering all the main balance plug types - very handy.

voltages can be checked along the way by pressing the 'battery type' button and then scrolling with the 'inc / dec' buttons to check this and other data such as max / min voltages. The unit signals that charging is complete with a cheery beep and the display will show the charge time, pack voltage and the level of charge administered to the battery.

<b>Name:</b>	Elysium LX60B
<b>Type:</b>	Balancer charger
<b>Manufactured by:</b>	Logic RC
<b>UK distributor:</b>	Logic RC Tel. 01992 558226 www.logicrc.com
<b>RRP:</b>	£79.99
<b>Dimensions (mm):</b>	145 x 144 x 64
<b>Cell handling:</b>	1 - 6 Li-Po, Li-Ion, Li-Fe cells 1 - 14 NiCad and NiMH cells 1 - 6 lead-acid cells
<b>Charge rate:</b>	0.1 - 6A (2C Li-Po) Max 50W
<b>Discharge rate:</b>	0.1 - 1A
<b>Supplied with:</b>	240V mains lead, 12V leads with crocodile clips, balancer plug adaptor boards for FlightPower, Polyquest and JST-XH (JST-HER direct to charger), instructions.

Although I've yet to detect or hear a fan in operation the unit remains cool in use, and the blue back-lit display is easy to read and interpret.

**CHARGER TO GO?**

The Elysium's specification and price place it firmly in the mid-range territory as far as balancer chargers go. For many, myself included, a

good charger like this is ideal for everyday use, perhaps after a trip to the field when the first priority is to get a pile of Li-Po battery packs replenished and ready for the next flying session. It's at times like these when complicated machines aren't required; good, honest units such as the Elysium get the job done with the minimum of fuss.

**WESTONUK**  
westelectronics

**JACK POWER**  
HIGH PERFORMANCE

THE ULTIMATE IN HIGH PERFORMANCE LITHIUM-POLYMER BATTERIES

WESTON UK ARE PROUD TO ANNOUNCE THEIR EXCLUSIVE DISTRIBUTION OF THE NEW GENERATION LIPO CELLS FROM JACK POWER, BOASTING 25C AND 35C LIPOLY RANGE THESE BATTERIES HAVE UNBELIEVABLE CYCLE LIFE WITH THE VOLTAGE AND CAPACITY REMAINING CONSTANT THROUGHOUT



See our web site for full details

- 2s 450 mAh/ 7.4v 25c
- 2s 600 mAh/ 7.4v 25c
- 3s 450 mAh/ 11.1v 25c
- 3s 600 mAh/ 11.1v 25c

- 3s 1300 mAh/11.1v 25c
- 3s 1800 mAh/11.1v 25c
- 3s 2200 mAh/11.1v 25c
- 3s 3700 mAh/11.1v 25c
- 4s 2200 mAh/11.1v 25c

- 5s 3700 mAh/18.5v 25c
- 6s 2500 mAh/22.2v 25c
- 6s 3300 mAh/22.2v 25c
- 6s 4500 mAh/22.2v 25c

More available and in 35c rating as well

For our full range of products visit - [www.westonuk.co.uk](http://www.westonuk.co.uk)  
Weston UK, 84-88 London Road, Teynham, Sittingbourne, Kent, ME9 9QH ENGLAND  
Tel: +44 1795 521030 Fax: +44 1795 522020 Email: alan@westonuk.co.uk

