

## *Battery Eliminator Circuit for Radio Controlled Models.*

The Dawnmist HyperBEC was designed to avoid the problems of low output and vulnerability associated with traditional BECs. It uses the latest integrated PNP pass-element technology to provide a generous current (up to 5 Amps continuous, 7 Amps on surges) without compromising the output voltage. Its 'drop-out voltage' is in a class of its own, meaning that the power fed to the R/C will still meet the minimum 4.5 Volts required, even when the main battery is as low as 5.0 Volts and with a full 5 Amp current drain. No other BEC on the market comes close to this specification.

The Dawnmist HyperBEC is also robust. Unlike most BECs, it will survive accidental reverse connection to the battery (*and will protect the R/C from damage!*), and withstands output short-circuits. A generously-sized heatsink keeps the BEC cool even under the most demanding conditions. Low-noise linear circuitry avoids any possibility of generating radio glitches, and protects the delicate R/C from conducted noise generated by the motor and speed-controller.

## Wiring Up

Wiring the HyperBEC into your R/C system is simple: just connect the black-and-white wires to the main battery (white is positive), and plug the red-and-brown lead into your receiver's Battery socket (red is positive). That's it!

If you are using the HyperBEC to replace a built-in BEC in your speed controller (many modellers do this if the in-built BEC is inadequate), it is important to disconnect the power feed from the original (in-built) BEC: the HyperBEC will not object to being paralleled with another power source, but the speed controller might be damaged. The speed controller BEC feeds power to the Rx through the central (usually red) core of its lead to the Rx output — simply separate out, cut, and insulate this core, so that the speed controller only has the two outer connections to the Rx. This leaves the old BEC in the speed controller to power just the speed controller itself, while the HyperBEC powers the Rx and servos.

## Mounting

The HyperBEC may be fitted to your model in any convenient way provided that the printed circuit board is not shorted. Two screws are provided in the end of the heatsink for mounting. The heatsink is electrically connected to system negative (black and brown cores).

## Technical Specifications

Product Title:	Dawnmist HyperBEC 555HV
Dimensions:	34 × 53 × 16 mm
Weight:	26 gm approx.
Battery:	6–20 series cells NiCd/NiMH (7.2–24 V nom.) or 2–7 series cells LiIon/LiPo (7.2–25.2 V nom.) Any number of parallel cells
Nominal Output Voltage:	5.5 Volts
Output Current:	5 Amp continuous, 7 Amp peak
Low-battery Performance:	4.5 V out for 5.0 V in at 5 Amp.
Overcurrent Protection:	Current-limited output (appx 7.5A)
Input protection:	Reverse and overvoltage protected
Thermal Protection:	Automatic switch-off on overheat
Approvals:	Meets relevant CE specifications

## Warranty and Support

The HyperBEC 555HV comes with a limited warranty against defects in parts and workmanship for a period of one year after purchase. This does not cover damage caused by overload, misuse, impact or unauthorised modification, and is limited to the repair or replacement of the defective unit. Consequential losses of any sort are not covered, and it is stressed that it is the purchaser's responsibility to ensure that this product is used safely and properly. This does not affect your statutory rights.

Dawnmist products are engineered to a high standard, and we want you to get the best out of them. If you have any difficulties, please email [tech@dawnmist.org](mailto:tech@dawnmist.org).

*Dawnmist Studio, Exwick, Exeter EX4 2LJ, United Kingdom (UK)*

<http://www.dawnmist.org>