Specifications

Max input voltage	60V
Max current (continuous)	100A
Max current (peak)	160A
Voltage resolution	4mV
Current resolution	5mA

Connections

0V	\	
Rx	|-	Prog
Tx	/	
-	\	
+	|-	Rx
S	/	
S	\	
+	|-	ESC
-	/	

Pins identified with the first one being closest to the power cables.

eLim

energy limiter

mlm

What does it do?

The **eLim** energy limiter is an electronic device which is used in R/C models to provide a calibrated amount of energy from a battery power source.

Why is it needed?

The quest for ever greater performance leads to competitors pushing the battery packs to their limits by charging to maximum voltage and discharging to or below their minimum voltage.

The result is that the life of packs can be short and the cost of racing has become a concern.

Also, despite what it may say on the label, not all batteries deliver their rated capacity and if they do, they don't do it for long. This means that not all racers are competing with the same amount of energy.

How does the eLim help?

The **eLim** is connected to a larger more robust battery but only allows a pre-determined amount of energy to be used. Because the battery is not fully discharged, it will now last much longer and they will now deliver exactly the same amount of energy each time to all competitors.

How does it do this?

The **eLim** constantly monitors the instantaneous voltage and current so that the power (watts) can be calculated. This power when logged over time is deducted from a pre-programmed amount of energy. When the limit is reached, the throttle demand to the ESC is reduced to zero over a period of three seconds.

Is the model now dead?

For a while yes. It will re-enable in two minutes so that it can be recovered.

Will it work with pistol grip transmitters?

Yes. The **eLim** automatically senses the pulse width at zero throttle.

How can it be programmed?

The **eLim** can be calibrated and its energy limit set by using an associated programming device which is obtained from mlm Solutions. This programmer will only be sold to race organisers in order to ensure that all **eLims** in a race are calibrated and set using common standards.

How is it connected?

The picture below shows how to connect the **eLim** into your model. Note which side of the eLim is connected to the battery. This is important.

When powered up, an LED will flash at a 2Hz rate. This indicates that there is still energy left.

When the energy limit is reached, the LED will remain on constantly and the throttle will be reduced to zero over a 3 second period to avoid an abrupt stop.

After two minutes, the throttle will be re-enabled.