

LIMITED WARRANTY  
 Mtroniks Ltd. guarantees this product to be free from factory defects for 24 months from purchase date, verified by receipts. This does not cover suitability for specific applications, components worn by use, tampering, incorrect connection, alteration to original connectors, switches or wires (apart from the fitting of an in-line fuse), damage to batteries or other equipment through use, misuse or shipping damage. Our liability is limited to repairing or replacing units to original specification. Our liability will not exceed the cost of the product. By using this ESC, the user accepts all liability. We reserve the right to modify this guarantee without notice. Copyright © Mtroniks Ltd. 2005

## INSTALLING YOUR MICRO VIPER ESC

### Positioning of your ESC in the model

Mount the MICRO VIPER ESC as far away as possible from the receiver, using double sided tape or velcro.

Keep the power wires away from the antenna and other thin wires to avoid interference problems (See Fig.1 for example install).

The antenna should come straight out of the receiver into the antenna tube and up out of the model. Do not attempt to use any part of the model as an antenna!

The ESC should be positioned to allow cooling air to pass over the heatsink, this reduces the risk of over-temperature shutdown.

Make sure your motor is fitted with two (2) motor capacitors (0.1uF) - one from the negative terminal to the can and one from the positive terminal to the can.

### Wiring up of ESC in model (See Fig.1)

The MICRO VIPER ESCs are supplied with Tamiya style and bullet connectors at the factory.

### Colour coding for wires (denoted on ESC sticker):

Black(Outside edge of ESC) =Batt -ve

Red(Outside edge of ESC) =Batt +ve

Black(Towards centre of ESC) Blue on sticker =Mot -ve

Red(Towards centre of ESC) Yellow on sticker =Mot +ve

**NOTE: ALWAYS DISCONNECT ESC FROM BATTERY CELLS WHEN NOT IN USE, we recommend fitting an in line fuse in the positive wire between the cells and the ESC. (Usually 5A lower than the ESC's stated limit. eg.. 5A fuse for a 10A ESC)**

### Receiver Lead Connections

The receiver lead on the MICRO VIPER ESC is the JR type, see chart below. For some receivers you may need to swap the red and brown wires in the plug.

RECEIVER TYPE	SIGNAL	+VE	-VE
	POSITION 1	POSITION 2	POSITION 3
FUTABA, SANWA, KO	White/Blue	Red	Black
HI-TEC	Yellow	Red	Black
JR, GRAUPNER, KYOSHO	White/Orange	Red	Brown
ACOMS	Yellow	Red	Black
AIRTRONICS	White/Orange	Black	Red
<b>MTRONIKS</b>	Orange	Red	Brown

**CAUTION! If using an external receiver battery, you must remove the red wire from the ESC's receiver lead first. If using more than one ESC in your model with an external receiver battery you must disconnect the red wire from ALL ESC's. If using more than one ESC in your model without an external receiver battery ensure that only one of the ESC's has the red wire connected. MICRO VIPER ESCs are fitted with 1.2A BEC unless otherwise stated.**

# MICRO VIPER INSTRUCTION SHEET AND WARRANTY

## PLEASE READ & FULLY UNDERSTAND THE INSTRUCTIONS & WARRANTY BEFORE USE

### ESC SET-UP

Before beginning set-up you need to connect up your MICRO VIPER ESC as in Fig.1.(When plugging the ESC's receiver lead into the receiver make sure that the signal wire - orange - is facing inwards).

### Calibrating the ESC to your transmitter

Now that you have installed your MICRO VIPER ESC in your model you need to set the ESC so that it responds to your transmitter.

1. Switch on your transmitter and ensure the throttle control and throttle trim are in the neutral position.
2. Plug your MICRO VIPER ESC into your battery pack and turn the ESC on with on/off switch. (The red & green LED's will flash for 2 seconds - This is the set-up window, if you press the button whilst the LED's are flashing you enter set-up, if you let the LED's flash for 2 seconds then stop, the ESC will operate with previously input set up values.)

**NOTE: If you have removed the factory fitted battery connector, (see warranty) ensure polarity is correct.**

NOTE2: If LED's do not flash but instead there is a solid red LED this indicates no signal, check transmitter is turned on & that the receiver lead is correctly plugged into the receiver.

3. Whilst the LED's are still flashing, press the set button, this will set your neutral position, the green LED will come on.

4. Push the throttle control to the full forward position and return to the neutral position, (This has set maximum forward speed point) the red LED will come on.

5. Pull the throttle control to the full brake/reverse/astern position and return to the neutral position. (This has set the maximum brake/reverse/astern point)

**Calibration is complete!**

Your MICRO VIPER ESC is now ready to use!

### NEW Cruise control

The Micro Loco ESC is now equipped with a cruise control.

What this feature does is hold the last known good signal from the receiver if it is lost and keeps it at this point until a good signal is again seen.

An example of this is if your loco enters a tunnel on the track layout and the connection between your transmitter and the receiver in the loco is severed, the loco will continue on through the tunnel at the same speed it was going when it entered until it leaves the other end and the radio connection is restored when it will again respond to your transmitter.

Another example of this is if you set the loco moving at the speed you want it to run round the whole track but don't want to hold the throttle in this position using the transmitter for long periods of time you can simply switch the transmitter off and the loco will continue on at that speed until you switch the transmitter back on again.

The new cruise control really gives the Mtroniks loco ESC a whole new level of enjoyment and realism!

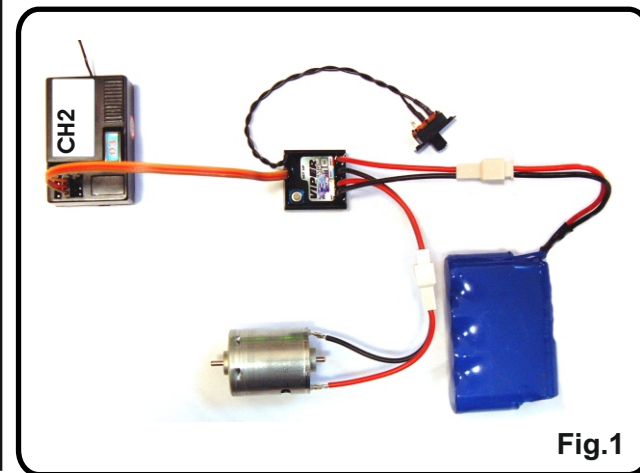


Fig.1