



- blink-mc** measures the receiver operating voltage under load (while the model is in flight), stores the value, and displays it constantly until the receiver is switched off.
- blink-mc** uses a piezo sounder to inform you in two steps when the receiver battery reaches a critical state while the model is flying.
- blink-mc** can be used as a model-finder, i.e. it helps you locate a lost model.
- blink-mc** features an integral glitch counter which informs you of the number of occurrences of interference (glitches) during the flight. It does this by counting the glitches (pulse variations) at the receiver output to which you have connected the unit.
- blink-mc** features a row of eight LEDs: 1 x blue, 4 x green, 2 x orange, 1 x red.
- blink-mc** configures itself automatically to the operating voltage of your receiver battery. When you switch on the receiver all the lights in the chain of LEDs glow continuously for about three seconds to place a load on the receiver battery.
The unit then displays the appropriate number of cells by means of the corresponding LED. At the same time the model-finder sounds 4 .. 6 times according to the number of cells.
When you switch off the model-finder the bank of LEDs indicates the operating voltage of the receiver battery.
Important: if the **blink-mc** reports the wrong number of cells this should be viewed as a serious warning: if the number of cells is too low, your battery is already flat.
- blink-mc** simultaneously displays two voltage parameters relating to the on-board battery:
- a) the mean minimum voltage, in the form of a continuously glowing LED;
 - b) any momentary voltage collapse, in the form of a flashing light at the lowest measured voltage value.
- blink-mc** is connected to a vacant receiver socket using the integral receiver cable.
If you operate this vacant channel from the transmitter you can call up two important auxiliary functions simultaneously:
Interference (glitch) counter and model-finder:
The blue LED (#8) flashes to indicate "glitch counter interrogation" mode. One (or none if there have been no glitches) of the remaining 7 LEDs now indicates the number of occurrences of interference encountered in the last flight. The number of glitches is the number in brackets printed on the sticker on the unit.
At the same time the sounder beeps to act as a model-finder.
- blink-mc** is very light, and can easily be attached to your model using Velcro (hook and loop) tape, double-sided tape (servo tape), contact cement or acid-free silicone sealant. If you want to use the model-finder function glue the sounder directly over a small opening in the fuselage (circuit board upright) to allow the sound out. If necessary bend the sounder carefully through 90°. This can only be done once!
- Note:** Please check the power supply voltage in your model before take-off by operating all the control surfaces simultaneously. You will now see a voltage display under load, varying with battery type, capacity, age and servo load. The display is constantly updated and corrected while the model is in the air. The two minimum voltage memories and the glitch counter in the **blink-mc** are not erased until you switch off the power supply.



CE certification:

The products described in this document satisfy all current and relevant EC directives:

EMV directives: 89/336/EWG, 91/263/EWG, 92/31/EWG

The product has been tested in accordance with the following basic norms:

Interference emission: EN 50 081-1:1992

Interference resistance: EN 50 082-1:1992 and EN 50 082-2:1995

For you as end-user this means that you have acquired a product which meets the protective requirements of the European Community aimed at ensuring safe operation of the unit.

Specification:

LED	Glitch counter	Colour	Voltage, 4-cells	5-cells	6-cells	Sounder warning
8	0	blue	> 5.5 V	6.9 V	8.3 V	
7	1	green	<=5.5 V	6.9 V	8.3 V	
6	2	green	<=5.25 V	6.6 V	7.9 V	
5	<=4	green	<=5.0 V	6.3 V	7.5 V	
4	<=8	orange	<=4.8 V	6.0 V	7.2 V	
3	<=16	orange	<=4.6 V	5.8 V	6.9 V	
2	<=32	orange	<=4.4 V	5.5 V	6.6 V	1 x per 2 seconds
1	<=64	red	<=4.2 V	5.3 V	4.6 V	1 x per 1 second

Weight: approx. 7.5 g

Dimensions: approx. 32 x 16 x 6 mm + 10 x 12 mm sounder

No-load current drain: approx. 3 mA

Current drain per LED: additional 6 mA

Current drain, sounder: additional 35 mA

Mean value assessment: 8 voltage values within 1 sec

Glitch detection: measured pulse width minus 10%

Glitch counter interrogation:* channel pulse width > 1.75 ms

Model-finder activation:* channel pulse width > 1.75 ms

Voltage tolerance: approx. 5%

Notes:

[*] If the model-finder sounds continuously after you have switched on the receiver battery and run through the start-up routine, you need to set the channel to which the blinki-mc is connected to a shorter pulse width.

If you are using a PCM receiver in a model aircraft we recommend setting a pulse width which corresponds to the servo neutral position (see below, last paragraph).

If you connect the blinki-mc directly to the battery via a Y-lead (no receiver signal), then the glitch counter and model-finder are disabled.

We cannot state with certainty the voltage level at which it is not safe to fly again as we have no knowledge of the types of battery you use and the loads to which they are subjected. For this reason you will need to carry out your own experiments to establish the safe level. In general terms you should assume that the battery's internal resistance is excessive if the difference between the minimum voltage LED (flashing) and the mean voltage indicator (continuous light) is great.

When you switch on the receiver the glitch counter measures the pulse width of the associated servo output. From this point on if the unit encounters lower values or isolated higher values it counts each occurrence as interference (of course, the glitch counter's interrogation process is not interference, and is therefore not counted). For this reason the associated channel must only be varied at the transmitter for the purpose of switching on the buzzer and/or interrogating the system, and preferably by means of a toggle switch.

PCM receivers: if the PCM receiver is set to enter Hold-Mode when interference occurs, the glitch counter will not recognise the interference because the receiver itself eliminates any change in the output signal. For this reason please configure the system for fail-safe operation in such a way that the PCM receiver produces very short signals at the channel to which the blinki-mc is connected. For normal flying set the pulse width of the channel to neutral, because you will need the longer signals to interrogate the glitch counter and switch on the model-finder.

