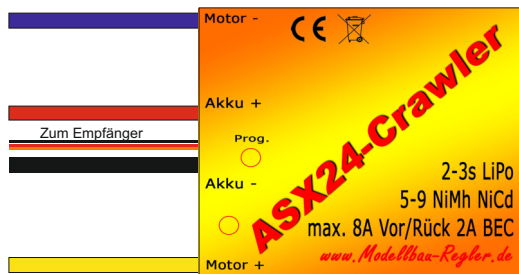




user manual

ASX24-Crawler



Features:

5-9 cell NiCd or NiMh / 6-12 V lead-acid battery
Lipo mode: 2-3 S Lipo

Max - current: 8 A short-term 10 A
BEC: 2A max

programmable, failsafe, LED monitor,
automatic lipo cell detection and
monitoring, intelligent soft-polarity-reversal,
50% back speed programmable, temperature monitoring

Autosetup ASX24-Crawler

This ESC is subjected to extensive product testing in our company to ensure that our customers receive flawless products. The ESC is set to the Graupner standard RC signal setting. The vast majority of all RC systems on the market work with these RC values. The setup function of this ESC is only required if your RC system deviates from these values, e.g. with some very old RC systems. (older than 10 years)

All settings in the transmitter for the channel used must be set to the delivery status of the transmitter.

In order to determine whether the ESC is working properly with your system, it is sufficient to put it into operation. So connect the motor to the yellow and blue wires and plug the ESC into the correct channel of your receiver.

Always turn on the transmitter first.

Make sure that the trim for the channel used is in the middle.

Then plug the battery into the ESC.

After about 3 seconds, the ESC starts and reports that it is ready for operation with an acknowledgment beep via the motor. The green zero point LED lights up. Then give full throttle in both directions to test it. At full throttle, the ESC must show the full throttle position after a short time by the red LED lighting up.

If this does not work as described, check whether the transmitter settings are really all set to standard settings.

If that does not help, you can use the setup function to set the ESC exactly to the RC signal output of the system used. This function ensures that the ESC works perfectly with any RC system, but is only intended for emergencies.

How you can use the setup mode and the ESC to adjust your RC system is described on the next page.

The set values can be overwritten again and again and remain stored in the ESC even without a battery being connected.

ESC setup guide

1. Connect the ESC to the receiver
2. Switch on the transmitter, throttle stick to “zero” or “motor off”
3. Connect battery
4. Within 3 seconds of plugging in the battery
Briefly press the programming button once
5. Now the **red LED** lights up
6. Move the throttle stick quickly to “full throttle” and stay there until the **green LED** lights up (important servo reverse in the transmitter must be switched off)
7. Pull the throttle stick back to full reverse and stop there.
8. After successful programming, both LEDs go out and the ESC signals saving of the values with a “beep”.
9. Would you like a 50% reverse speed limit
You now have to move the stick back to full throttle again if not, then bring the stick in zero position.
10. If you have selected the 50% limit, two long beeps will now sound “Beep” tones, if not followed by a long “beep”
11. After a further 2 seconds or when the battery is next plugged in after three seconds the green LED lights up and the Motor beep acknowledgment (three short beeps, exception with Lipos) is included connected motor. After the engine beep the ESC is ready for operation.

Accidentally pressing the programming button while driving or after the first three seconds after connecting the battery has NO effect.

EXCEPTION:

Switch lipo mode on or off.

In order to switch the voltage monitoring for Lipo on and off, press and hold the Prog. button for 3 seconds during operation. This switches the Lipo mode on or off. Then the controller restarts.

You can see whether the lipo mode is on by the **blue LED**.

LED on = Lipo mode on

LED off = Lipo mode off

lipo monitoring

The ASX24-Crawler has an automatic detection of the number of connected Lipo cells and a corresponding undervoltage detection. When plugged in, the ESC reads the voltage of the battery and determines the number of cells in the Lipos. Therefore, only connect the ESC to fully charged Lipo cells!

Acknowledgment after plugging in the drive battery:

Normal mode **blue LED** does not light up.

Three short beeps about 3 seconds after connecting the battery.

Lipo mode blue LED lights up.

Long beeps depending on the number of cells, i.e. 3S results in 3 beeps and both LEDs flashing with each beep.

Be 100% sure to check if the ESC has correctly recognized the number of your lipo cells. If you are unsure, it is better to plug the ESC in again.

Correct undervoltage detection is not guaranteed if the number of cells is detected incorrectly. NEVER put the ESC into operation if the number of cells was incorrectly detected!!!

When delivered, the Lipo monitoring is set to OFF.

If everything is okay and you run the ESC with Lipos, you will notice that your cells are empty when the motor suddenly slows down and only has about 20% power left and stutters. This is the ESCs signal to tell you that the cells are empty and that you should stop soon and switch off your model as quickly as possible.

The ASX24-Crawler can be operated with up to 3S Lipo with BEC function. Depending on the servo type, we recommend using only one servo with the BEC and 3SLipo switched on. With small servos, several can also be used. Just make sure that the controller doesn't get too hot during operation. If you can touch the controller for a long time without burning yourself, everything is fine.

Make sure that the servo runs smoothly, if the servo consumes too much power, it can cause permanent damage to the ESC!

temperature shutdown

This ESC has a temperature monitoring. If it gets too hot due to overload, it slows down the motor a lot (approx. 20% remaining motor power). You can safely drive your model back with the remaining power, but then you must switch off the ESC immediately and let it cool down! If this happens more often, you should look for the source of the error or install a more powerful ESC. Switching off the temperature too often can lead to permanent damage in the ESC!

50% reverse speed limit

Many model builders want the motor speed to be throttled when reversing. The ESC can be programmed to control reverse power from 0 to 50%, instead of full 100% reverse power.

This ensures very sensitive maneuvering in reverse gear for high driving safety and ensures a true-to-original look.

motor brake

During polarity reversal or when the motor stops, the ESC automatically brakes the motor to protect it and the batteries from high current peaks. This function is particularly important to protect the collectors of expensive high-performance motors from damage when the polarity is reversed at full speed.

ATTENTION

Reverse polarity or incorrect connection of the ESC can lead to a defect in the ESC in seconds!

The yellow motor + and blue motor - motor cables must NEVER touch when the battery is connected!

recommendation and advice

Place the ASX24-Crawler at a sufficient distance from the receiver to prevent interference. If there is excessive heating during operation, the cause in most cases can be found in excessive load of the BEC. Caution is advised here, because overloading the BEC can lead to a drop in the supply voltage for the receiving system. It is therefore essential to ensure that the rudders and rudder linkages run smoothly.

If things don't want to work.

All of our products are tested here in-house to ensure that they function correctly. We attach particular importance to the fact that no production errors end up with the customer. In over 95% of the cases where a product is sent to us because it does not work in the model, the error is not in our product but somewhere else in the model. So if a new ESC from us does not work as it should, the fault can lie in many places and does not necessarily have to come from the ESC itself.

Therefore, in such cases, do not hesitate to send us an email to Info@Modellbau-Regler.de. We guarantee you will get a short-term answer, often within 24 hours. In most cases we can then solve problems without sending them in and wasting money and time. We fully understand that not everyone is an electronics or model building expert and we help where we can.

CAUTION

It is important to ensure that there are no objects in the rotating circle of the motor when the battery is connected. The operation of this speed controller is therefore only permitted in situations in which property damage and personal injury are excluded. Never continue to use a speed controller that has been damaged (e.g. due to breakage, reverse polarity or moisture). Otherwise, malfunctions can occur at a later point in time or as a result of subsequent errors. The speed controller may only be supplied from rechargeable batteries, operation on power supply devices is not permitted.

our ESC family



AS 12/6 RW EASY

12 cells, 6A, with and without cables
20 x 17 x 5 mm 2 g



AS 12/15 RW EASY or Normal

12 cells, 15A, BEC
31 x 26 x 7 mm 25 g



AS 12/40 RW EASY or Normal

12 cells, 2-3s with LiPo protection, 40A, BEC
47 x 37 x 9 mm 40 g



AS 12/50 RW EASY or Normal

12 cells, 2-3s with LiPo protection, 50A, BEC
47 x 37 x 9 mm 50 g



AS 14/80 RW LIPO HF

14 cells, 2-4s with LiPo protection, 80A, BEC
53 x 40 x 10 mm 50 g



AS 26/60 RW

26 cells, 3-8s with LiPo protection, 60A, Opto
74 x 52 x 15 mm 95 g



AS 26/100 RW

26 cells, 3-8s with LiPo protection, 100A, Opto
108 x 52 x 15 mm 115 g

warranty conditions

We grant a 12-month guarantee on this speed controller. All further claims are excluded. This applies in particular to claims for damages caused by failure or malfunction. For damage to property, personal injury and their consequences arising from our delivery or work We accept no liability, since we are unable to control the handling and application. We cannot provide any guarantee for damage caused by operating conditions outside of the specified data.

This applies in particular to :

- Too low or too high operating voltages (number of cells)
- Excessive current values
- Operation of the product outside of model construction. So e.g. in any test systems or when operating with power supplies.

Legal stuff

CE testing

This product complies with the EMC directives 89/336/EEC, 91/263/EEC, 92/31/EEC

Tested according to the following basic standards:

EN 55014-1/A1 55014-2 / WEEE DE 74067127

Area of use: radio controlled models

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