Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

STASRC LCD Program box

STASRC Surpass Hobby Flier Brushless ESC Speed Controller and LCD Program Box User Manual

Model: LCD Program box (Compatible with 60A, 80A, 100A ESCs)

1. Introduction

This manual provides detailed instructions for the proper setup, operation, and maintenance of your STASRC Surpass Hobby Flier Brushless Electronic Speed Controller (ESC) and the associated LCD Program Box. Please read this manual thoroughly before using the product to ensure optimal performance and safety.

2. Safety Information

Always observe the following safety precautions to prevent injury or damage to the product and surrounding equipment:

- Ensure all connections are correct and secure before applying power. Incorrect polarity can cause severe damage.
- Operate the ESC and motor in a well-ventilated area to prevent overheating.
- Keep hands and loose clothing away from rotating parts of the motor.
- Disconnect the battery immediately after use and before any maintenance or adjustments.
- Do not expose the ESC or Program Box to moisture or extreme temperatures.
- Use only compatible batteries and motors as specified for the ESC.

3. Product Overview

The STASRC Surpass Hobby Flier Brushless ESC is designed for high-performance applications, featuring a robust power output component (MOSFET) for low heat generation and high reliability. It incorporates a high-performance 32-bit processor for faster operation and offers ultra-smooth startup with precise throttle linearity. The ESC also includes a Switch-Mode BEC (SBEC) with adjustable 5V/6V output, providing a continuous 8A current for steering servos.
The LCD Program Box (Model: LCD Program box) serves as an external programming device for the ESC, allowing users to easily adjust various parameters and perform battery checks. It simplifies the configuration process, making it more convenient than traditional button-based programming.



Figure 1: STASRC Surpass Hobby LCD Program Card G2. This dark gray rectangular device features a light green display screen. The top surface is labeled 'SURPASS HOBBY' and 'LCD PROGRAM CARD G2'. Below the screen, there are four control buttons: 'MENU', a down arrow, an up arrow, and 'OK'. The right side of the card has 'BATTERY CHECK' printed vertically, indicating its dual functionality.

4. Setup

4.1 ESC Connection

1. **Motor Connection:** Connect the three motor wires from the brushless motor to the three output wires of the ESC. Ensure proper phase matching for correct motor rotation. If the motor rotates in the wrong direction, swap any two of the motor wires.
2. **Battery Connection:** Connect the battery connector to the corresponding input connector on the ESC. Ensure correct polarity (red to positive, black to negative).
3. **Receiver Connection:** Plug the ESC's throttle signal cable (usually a three-wire cable: signal, positive, negative) into the throttle channel of your receiver (typically channel 2).

4.2 LCD Program Box Connection

To program the ESC using the LCD Program Box, connect the signal cable from the ESC to the designated port on the LCD Program Box. The program box will draw power from the ESC or can be powered externally (DC5-12.6V).

5. Operating Instructions

5.1 ESC Operation

1. **Power On:** After all connections are made, connect the battery to the ESC. The ESC will emit a series of tones indicating successful initialization.

2. **Throttle Calibration:** Perform throttle calibration according to your radio system's instructions to ensure the ESC recognizes the full throttle range.
3. **Normal Operation:** Control the motor speed via your radio transmitter's throttle stick.

5.2 LCD Program Box Operation

The LCD Program Box allows for easy adjustment of ESC parameters and battery voltage checking.

1. **Connecting:** Connect the ESC to the program box. The program box will power on and display the main menu.
2. **Navigation:**
    - Press the 'MENU' button to cycle through different programming options.
    - Use the 'Up Arrow' and 'Down Arrow' buttons to change parameter values.
    - Press the 'OK' button to confirm and save your selections.
3. **Programmable Parameters:** The program box allows adjustment of various ESC settings, including but not limited to:
    - Motor Timing (automatically identified and adjustable)
    - Low-Voltage Protection Threshold
    - Start-up Protection
    - Over-Temperature Protection
    - Phase Loss Protection
    - Signal Loss Protection
    - BEC Output Voltage (5V/6V adjustable for 60A/80A/100A models)
4. **Battery Check:** Utilize the 'BATTERY CHECK' function on the side of the program box to quickly assess battery voltage.

6. Maintenance

- Regularly inspect all wires and connectors for signs of wear or damage.
- Keep the ESC and Program Box clean and free from dust, dirt, and moisture. Use a soft, dry cloth for cleaning.
- Store the product in a cool, dry place when not in use.
- Avoid exposing the devices to direct sunlight or extreme temperatures for extended periods.

7. Troubleshooting

If you encounter issues, refer to the following common problems and solutions:

- **No Power/No Response:** Check battery connection, ESC power switch (if applicable), and ensure the battery is charged.
- **Motor Not Spinning:** Verify motor connections, throttle calibration, and check for signal loss protection activation.
- **Motor Stuttering/Irregular Operation:** Check motor timing settings, ensure motor wires are securely connected, and inspect for phase loss protection.
- **ESC Overheating:** Ensure adequate ventilation, check for excessive load on the motor, and verify over-temperature protection settings.
- **Low Voltage Cutoff:** If the motor stops or power reduces, the low-voltage protection may have activated.

Recharge or replace the battery.

For persistent issues, consult the manufacturer's support resources.

8. Specifications

8.1 ESC Specifications

Parameter	60A ESC	80A ESC	100A ESC
Cont./Burst Current (A)	60A/80A	80A/100A	100A/120A
Battery Cell NiXX/Lipo	5-18NC/2-6Lipo	5-18NC/2-6Lipo	5-18NC/2-6Lipo
Weight (g)	50g	75g	80g
BEC Output	5V/6V 8A	5V/6V 8A	5V/6V 8A
Size (mm) L*W*H	70x34x10	90x37x10	90x37x10
Connector (mm)	4	4	4
User Program	Yes	Yes	Yes

8.2 LCD Programming Card Specifications

Parameter	Value
Size	84x49x11.5mm
Weight	40g
Power Supply	DC5-12.6V

9. Warranty and Support

For warranty information, technical support, or service inquiries, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B0DMF5K1XH

More documents and user manuals: **https://manuals.plus/**