Hobbywing HWI30501003

HOBBYWING LED Program Card Instruction Manual

Model: HWI30501003
Brand: Hobbywing

Introduction

The HOBBYWING LED Program Card is a user-friendly device designed for programming Hobbywing Electronic Speed Controllers (ESCs). It provides a straightforward interface for adjusting various parameters of your ESC, ensuring optimal performance for your RC models. This manual outlines the features, setup, operation, and maintenance of your LED Program Card.

Key Features

- Intuitive LED display for easy parameter viewing and adjustment.
- Compact and portable design.
- Includes a 3-wire male/male plug for direct connection to the ESC.
- Compatible with a wide range of Hobbywing ESCs, including Platinum V1/V2 & FlyFun V5 series (brushless aircraft), EzRun & QuicRun series (brushless car), Quicrun 1080 & 880 (brushed), and SeaKing series (brushless boat).
- Features a universal programming chart (blue) that corresponds to the red-labeled QuicRun chart provided with compatible ESCs.

Setup

Connecting the Program Card

To connect the HOBBYWING LED Program Card to your ESC, use the provided 3-wire male/male plug. Locate the program port on your ESC, which is typically found at the end of the switch. This port is marked with symbols indicating negative (-), positive (+), and signal (~). Ensure the plug is inserted correctly according to these markings.



Image: The HOBBYWING LED Program Card connected to an Electronic Speed Controller (ESC) using the included 3-wire cable. The card displays "ITEM" and "VALUE" indicators.

Powering On

Once connected, turn on your ESC. The LED Program Card's displays will illuminate, showing the current item and its corresponding value.

Operating Instructions

Navigating and Changing Settings

The program card features "ITEM", "VALUE", "RESET", and "OK" buttons. Use the "ITEM" button to cycle through the programmable parameters. Use the "VALUE" button to change the setting for the currently selected item. Press "OK" to save your changes. The "RESET" button will revert settings to factory defaults.
Refer to your specific ESC's instruction manual for a detailed chart of what each item number and value represents, as the stickers on the program card may not always perfectly match all ESC models.

Common Programmable Parameters

1. **RPM/Throttle Matching (Item 1):** This setting controls the 1:1 ratio, preventing the motor from stalling when going uphill. It can be enabled or disabled. Disabling it may cause slight stalling on inclines.
2. **LiPo Cells (Item 2):** Automatically detects 2S or 3S LiPo battery configurations. While it defaults to auto-detection, you can manually set it if you consistently use one specific cell count.
3. **Cutoff Voltage (Item 3):** Sets the low voltage cutoff level for LiPo batteries. Options include "Low", "Intermediate", and "High", corresponding to different voltage per cell thresholds (e.g., Low ~3.3V/cell, Intermediate ~3.5-3.6V/cell, High ~3.7V/cell). For NiMH batteries, this setting should be "Disabled".
4. **ESC Thermal Protection (Item 4):** Enables or disables thermal protection for the ESC. It is recommended to keep this enabled at the lowest setting to prevent overheating.
5. **Motor Rotation (Item 5):** Controls the forward motor rotation (Clockwise or Counter-Clockwise). Adjust this to ensure your vehicle moves forward when throttle is applied, especially for vehicles with reversed drivetrains.
6. **BEC Voltage (Item 6):** Sets the BEC (Battery Eliminator Circuit) output voltage to either 6.0V or 7.4V, depending on your servo and receiver requirements.
7. **Drag Brake Force (Item 7):** Adjusts the strength of the drag brake, which is applied when the throttle is released. This is crucial for rock crawlers to hold position on inclines.
8. **Drag Brake Rate (Item 8):** Controls how quickly the drag brake is applied. A lower setting results in a smoother, less jerky stop, which can be beneficial for precise control.
9. **Max Reverse Force (Item 9):** Determines the maximum power available in reverse. Options typically include 25%, 50%, 75%, or 100%. Reducing this can make reverse movements smoother and easier to control for fine adjustments.

Video Tutorial: HOBBYWING LED Program Card Setup

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Video: A detailed setup guide for the HOBBYWING LED Program Card, demonstrating how to connect it to an ESC and navigate through the various programming options. The video covers RPM/Throttle Matching, LiPo Cells, Cutoff Voltage, ESC Thermal Protection, Motor Rotation, BEC Voltage, Drag Brake Force, Drag Brake Rate, and Max Reverse Force settings.

Maintenance

- Keep the program card clean and free from dust and moisture.
- After use, always disconnect the program card from the ESC and re-insert any protective rubber plugs into the ESC's program port to prevent moisture ingress.
- Store the card in a dry, cool place away from direct sunlight.

Troubleshooting

Card Not Powering On

- Ensure the 3-wire plug is correctly inserted into the ESC's program port, observing the polarity markings.
- Verify that the ESC is powered on and functioning correctly.

Settings Not Saving

- Always press the "OK" button after making changes to save the new settings to the ESC.

Unexpected Motor Behavior

- Double-check the "Motor Rotation" setting (Item 5) to ensure it matches your vehicle's drivetrain configuration.
- Review "Drag Brake Force" (Item 7) and "Drag Brake Rate" (Item 8) if the vehicle stops too abruptly or rolls unexpectedly.
- Confirm "RPM/Throttle Matching" (Item 1) is set according to your preference for smooth power delivery.

Specifications

Feature	Detail
Model Number	HWI30501003
Product Dimensions	3.46 x 2.2 x 0.55 inches
Item Weight	1.59 ounces
Manufacturer	Hobbywing Technology
Date First Available	September 29, 2012
Recommended Age	16 years and up

Warranty & Support

For warranty information and technical support, please refer to the official Hobbywing website or contact their customer service 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.

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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