HOBBYWING®

DataLinkBox G3
USER MANUAL

Thank you for purchasing the product! This product is a brushless propulsion system debugging tool, designed to be used with a brushless propulsion system. The brushless propulsion system delivers powerful performance, but improper use can result in personal injury or equipment damage. Therefore, we strongly recommend reading this manual thoroughly before use and strictly following the prescribed operating procedures. We are not responsible for any damages arising from the use of this product or unauthorized modifications, including but not limited to compensation for incidental or indirect damages.

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01 Introduction

The DataLinkBox G3 is a communication device that integrates data collection, storage, and transmission. When used with the operating software, it enables real-time monitoring of the propulsion system's operation and records flight status data. The DataLinkBox G3 helps users analyze ESC usage data, upgrade ESC programs, and adjust parameters, fulfilling personalized setup needs and significantly enhancing the safety and reliability of the aircraft.

02 Product Features

- Compared to previous versions, DataLinkBox G3 adds Bluetooth functionality, enabling basic parameter adjustments via Bluetooth connection with the app.
- DataLinkBox G3 also introduces throttle output, which can be set via the app, computer software, or a switch. After setting, the function can be enabled by using either the software interface or the throttle slider.
- The app enables real-time status data reading without complex wiring connections.
- Advanced features require the desktop software and a USB connection between the computer and the DataLinkBox G3 for operation.
- The LED indicator colors provide quick insight into the DataLinkBox's usage status. For details, refer to the LED color indicator table.
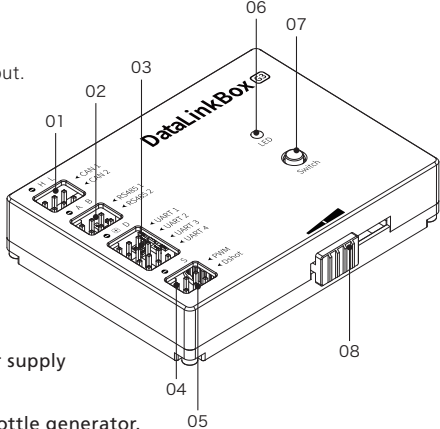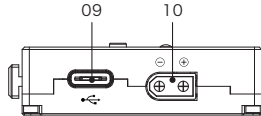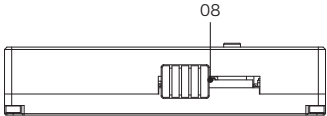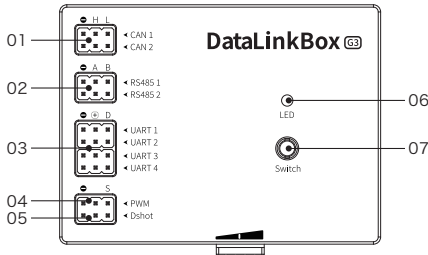
03 Specifications

MODEL	DataLinkBox G3
Dimensions	67*52.8*15mm
Operating Voltage	6~81V
Weight	50g

04 Interface Description

1. CAN1 and CAN2: ESC CAN data cable input ports. These two ports serve as backups for each other, and either one can be used.

2. RS485 1 and RS485 2: ESC RS485 data cable input ports. These two ports serve as backups for each other, and either one can be used.

3. UART 1~4: ESC serial data cable input ports. These four ports serve as backups for each other, and either one can be used.

4. PWM: the PWM signal output port. When the ESC PWM throttle signal cable is connected, it outputs the PWM signal.

5. Dshot: the Dshot signal data interface. When the ESC Dshot throttle signal cable is connected, it communicates data with the Dshot ESC mutually.

6. LED: The LED indicators flash in different colors to indicate different operation statuses.

7. Switch: Press the switch three times quickly to unlock throttle output; press it twice to disable throttle output.

8. Throttle slider: After unlocking with the switch, the throttle slider can be slid left or right to adjust the throttle output.

9. Type-C Interface: Use a data cable to connect to the computer for software upgrades or parameter adjustments.

10. XT30 power input.

Note:

1. For wire order, see the relevant ESC signal wire color definitions.

2. Select the appropriate debugging interface based on the ESC's external communication type. For instance, for ESCs with CAN functionality, use CAN1 or CAN2 for upgrades or parameter adjustment.

3. The throttle signal output requires proper software settings or button operations (refer to specific ESC manuals or video tutorials for detailed instructions).

4. When powering the DataLinkBox G3, either the Type-C or XT30 port can be used; a redundant power supply is not required. Make sure that the operation is within the operating voltage.

5. The Dshot function does not support ESC parameter adjustment for FPV drones, only serving as a throttle generator.

05 LED Color Indicator Information

DataLinkBox G3 Mode	DataLinkBox G3 Status	LED Color Indication
Data Collection	The SD card is abnormal when the DataLinkBox G3 starts up.	The blue LED blinks once slowly.
	The SD card operates normally when the DataLinkBox G3 starts up	The green LED blinks once slowly.
	The SD card is abnormal when the DataLinkBox G3 is running.	The red LED blinks once slowly.
Upgrade Function	The DataLinkBox G3 firmware is being upgraded.	The purple LED blinks twice.
	The serial port ESC firmware is being upgraded.	The cyan LED blinks twice.
	The CAN ESC firmware is being upgraded.	The yellow LED blinks twice slowly.
U-disk Function	The Type-C cable connects to the computer, and the DataLinkBox G3 enters the U disk mode.	The green LED blinks once slowly.
RTC	The battery level is insufficient.	The red LED flash alternately fast and slow
	The RTC initialization fails.	The red LED blinks quickly.
Bluetooth Error	The communication is abnormal.	The yellow LED blinks once slowly.

06 Function Description

This manual provides an introduction to the DataLinkBox G3 basic functions. Due to various ESC models and an extensive range of function adjustments, please refer to the relevant usage tutorials or videos for more information. These can be accessed via the following channels:
1. HobbyWing Official Website https: //www.hobbywing.com;
2. Contact official technical support and customer service;
3. Contact HobbyWing's authorized dealers.

07 After-Sales Service

If the device is damaged, please contact HobbyWing customer service immediately. Unauthorized disassembly, repair, or modification is strictly prohibited. The manufacturer will not be responsible for any consequences resulting from such actions.

Resources & Specifications

Visit www.hobbywing.com/en/products/datalinkbox-g3 for more details about HOBBYWING DataLinkBox G3