Dear customers, thank you for purchasing and using this HOBBYWING product! Please read through this manual before use and strictly abide by the specified operating procedures. We shall not be liable for any liability arising from the use of this product or unauthorized modification of the product, including but not limited to reimbursement for incidental or indirect losses.

【Introduction】

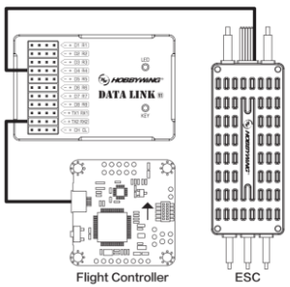
DATALINK V2 is a communication device which integrates data collection, data storage and data transmission. It can monitor the running status of power system in real time together with aircraft control equipment and record flight status. DATALINK can analyze user's fault data and monitor the operation status of aircraft, which greatly enhances safety and reliability of flight.

【Specification and Dimension】

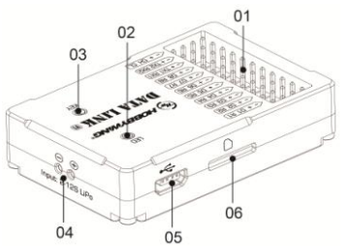
1. Physical dimension: 57*40*13mm
2. Input power: 2-14S LIPO

【Installation and Connection】

1. Data output line of the ESC connects to DATALINK"-□D（1-8）"port to input the serial data.
2. FC can connect TX1 RX2/TX2 RX2 port to output DATALINK total integrated serial data to FC.



【Component port description】



1.1 Serial connection

1.1.1 The serial port ESC can connect to DATALINK"-□D（1-8）"port to input data, and store the ESC data in DATALINK memory card.

1.1.2 TX1 RX1 is output port of serial data, outputting total data of all ESC's low-speed serial port. TX2 RX2 is the output port of 1M BPS serial port, outputting total data of all ESC's high-speed serial port. It can connect to FC and other devices.

1.2 CAN connection

CAN ESC data line connects to - CH1 CL 1+ port to input data and store the ESC data in DATALINK memory card. Only - CH1 CL1 + port in DATALINK can receive ESC CAN data transmission. It can receive 8 channel ESC data input at the same time with parallel port connecting to DATALINK.

Note: When connecting the ESC, please make the DATALINK and ESC be grounded together. The number of ESC

2.KEY

It is used to install drive if there is unidentified devices when first connected to computer.

3.LED

The LED illustrates function and feeds back working status.

4.Power input port

The input port of power supply supports 2-14S LIPO.

【LED indicating light】

DATALINK mode	DATALINK status	LED status
Data collection	SD card is abnormal when DATALINK starts.	Blue LED single flashes slowly.
	SD card is normal when DATALINK starts.	Green LED single flashes slowly.
	SD card is abnormal during DATALINK running.	Red LED single flashes slowly.
Upgrade function	Firmware upgrade of Datalink device	Purple LED double flashes.
	Firmware upgrade of serial ESC.	Cyan LED double flashes.
	Firmware upgrade of CAN ESC.	Yellow LED double flashes.
Function of U disk.	Connect the computer to enter the U disk mode.	Green LED single flashes slowly.

【Function description】

DATALINK V2 has the functions of data storage (stored in memory card of 128M), data forwarding, upgrading ESC and

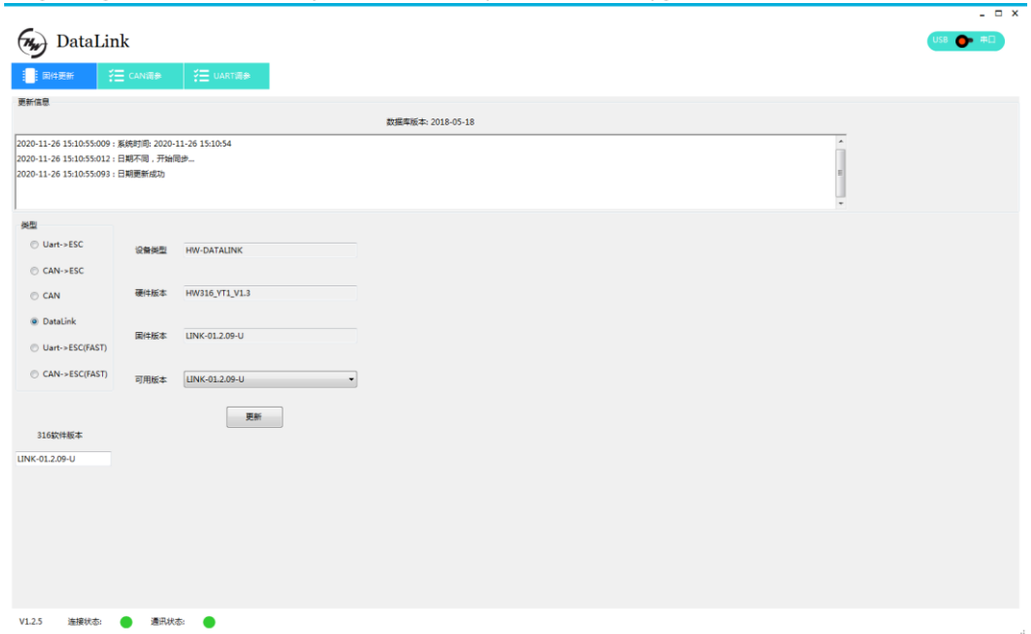
DATALINK, etc.

1. Data forwarding and storage function

DATALINK connects to ESC and power on (USB cable is not connected) to enter normal data collection and forwarding mode. The real-time data of ESC will be stored in new folder in SD card and display the current time; meanwhile, DATALINK will send total integrated serial data to FC by disconnecting TX RX.

The SD card data storage method is as follows: When open the data box, a new file folder will be created in SD card to store the data. After power off and restart, the next file folder will be automatically generated to store the data. The naming rule of the file folder is UART-year, month, day-hour, minute, second, for example, UART-201120-17404. The memory of a file folder is 1M, and the next file folder will be automatically generated and store the data up to 1M, until the final data is recorded, the naming rule is UART-year, month, day-head hour, minute, second-end hour, minute, second (CAN data rule is the same as above, the format is CAN****.cdat）. When the memory card is full, the record file of the farthest date will be automatically deleted.

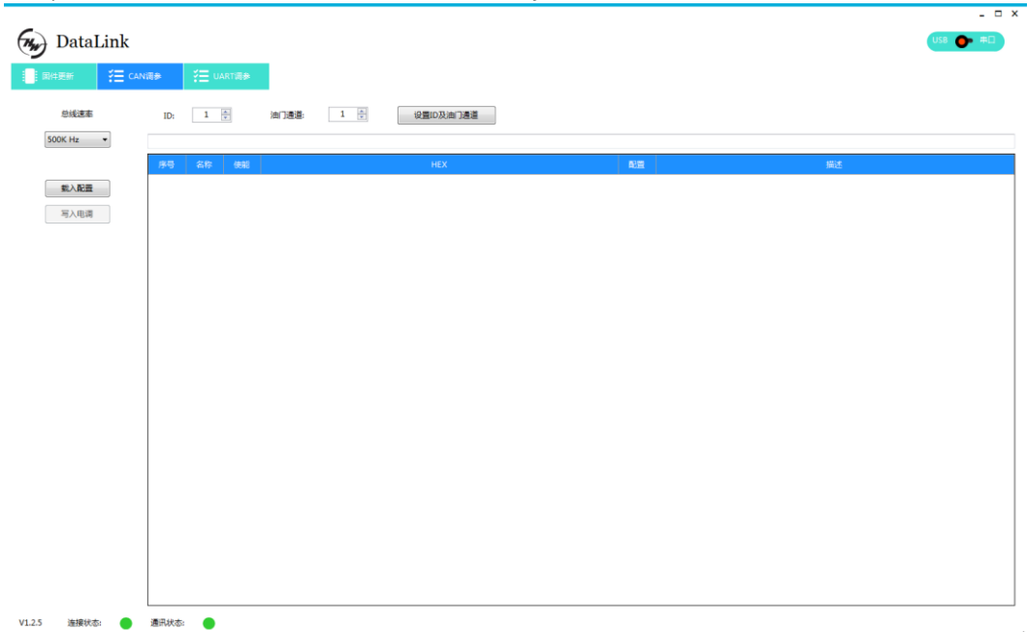
Open DATALINK software first, select default USB link mode (upper right corner of the software), switch to the Datalink option in the firmware upgrade. Then connect the DATALINK to the computer with USB cable. After the link is successful, the green light will be on. After that, you can click the required firmware to upgrade.



Note: If the PC (computer) cannot identify DATALINK, press KEY button, connect DATALINK with USB cable to open DATALINK, the red, green and blue LED flash alternately at this time. The USB HID drive can be installed in this status. The method is to select DATALINK as “USB inputs device drive” in computer device manager. Operate again after installation.

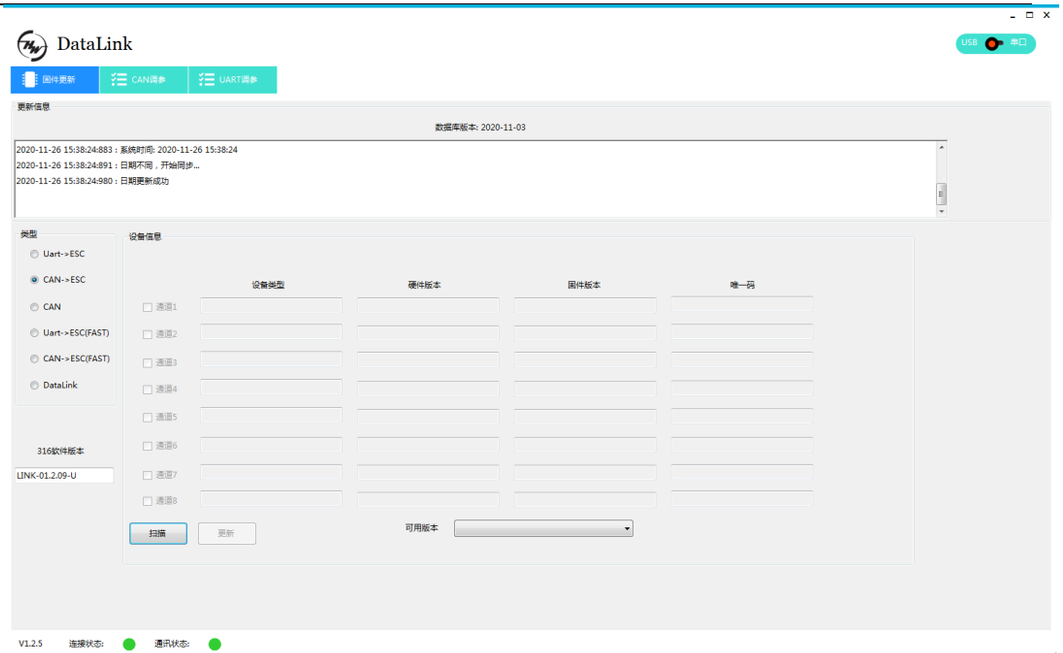
【CAN ESC upgrade】

1. Connect DATALINK to computer, open DATALINK software, select “Datalink” in “firmware update” to see the firmware version, need to upgrade as *****-C, for example, LINK-01.2.09-C.
2. Set ID number and throttle channel of CAN ESC. Set ID number and throttle channel of different ESC in CAN parameters item, such as 1.2.3...8 and so on. The factory default ID of the ESC is 125.



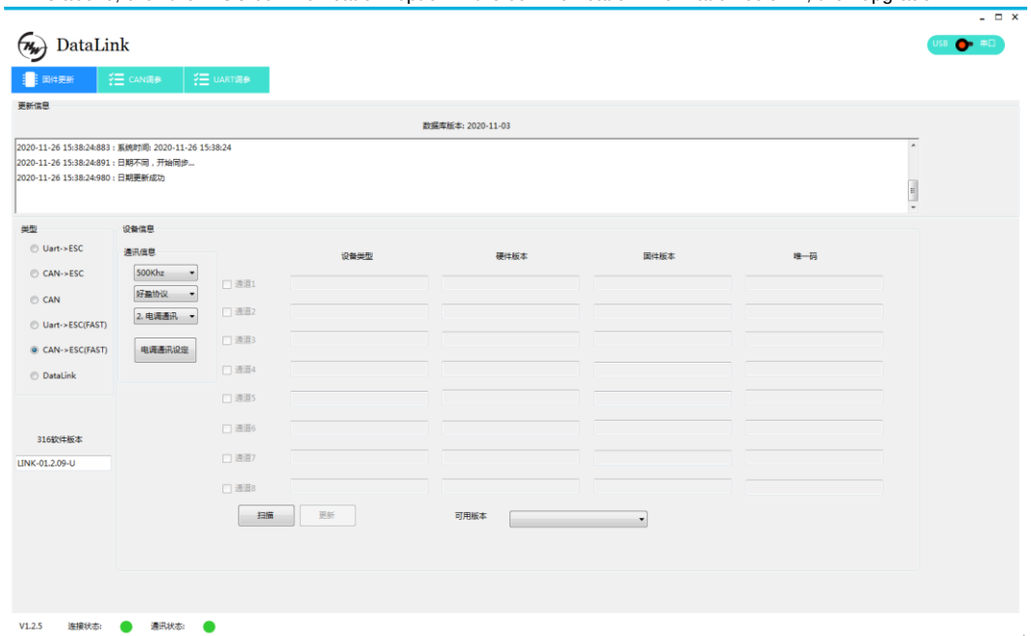
3. Common upgrade method: Select CAN-ESC function, click Scan, then power on the ESC need to be upgraded (all ESCs need to be upgraded should be connected to - CH Cl + port in parallel in advance), click Stop after three seconds. After that, you can select all firmware versions to upgrade.

Power on again, select the CAN function, click Scan, after three seconds, select Stop. Select the newly upgraded ESC to upgrade the CAN communication firmware.



4. Fast upgrade method: Select CAN-ESC（FAST） (FAST stands for fast upgrade, which can only be supported by the latest ESC firmware) function. First, click the "ESC communication" option, select the "ESC drive" option in the communication information column, and then click Scan. After three seconds, the channel can be selected will be displayed, and then click Stop, and then select the ESC to be upgraded.

As above, click the "ESC communication" option in the communication information column, then upgrade.



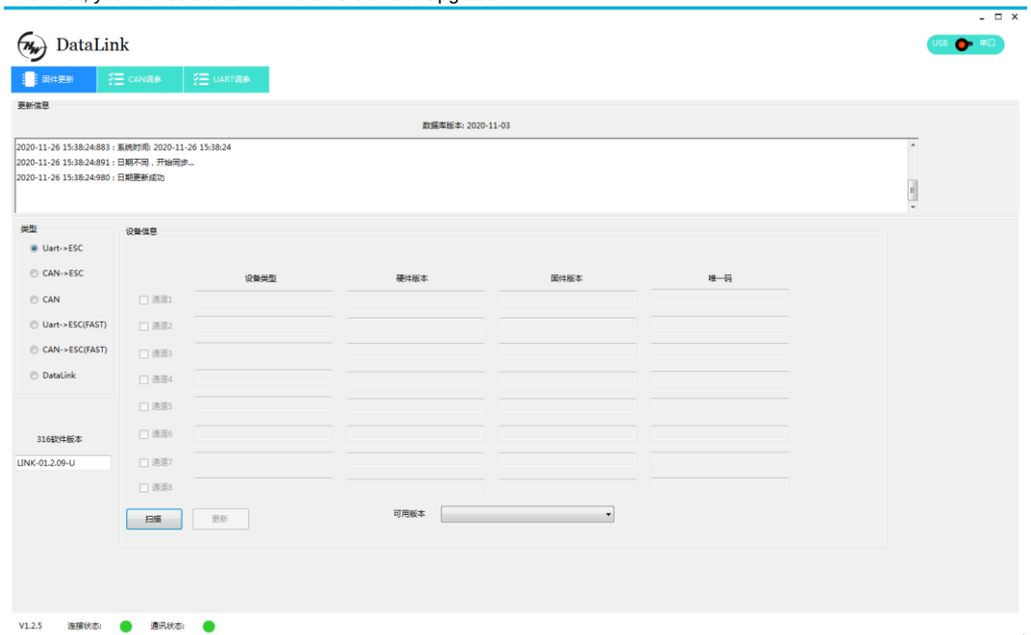
Note: The ID number of the CAN ESC for synchronous upgrading must be different. If the ID number is the same, it cannot be upgraded. It is necessary to set different ID in the second ESC parameter adjustment function to upgrade together.

【Serial port ESC upgrade】

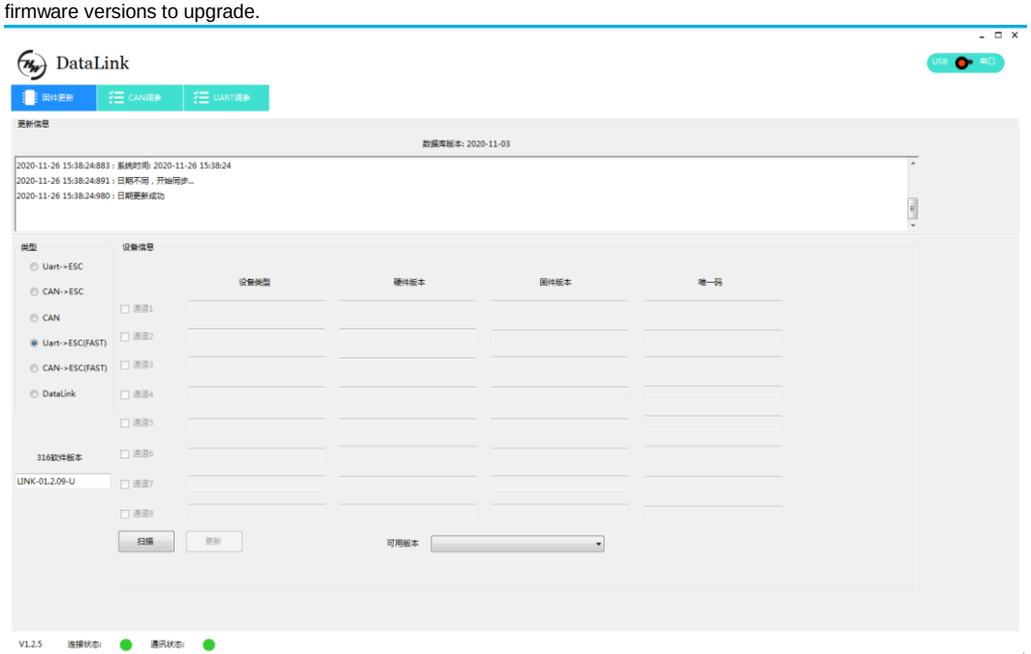
1.Connect DATALINK to computer, open DATALINK software, select “Datalink” in “firmware update” to see the firmware version, need to upgrade as *****-U, for example, LINK-01.2.09-U.

Common upgrade method: Select UART-ESC function, click Scan, then power on the ESC need to be upgraded (all

ESCs need to be upgraded should be connected to（-□D） port in parallel in advance), click Stop after three seconds. After that, you can select all firmware versions to upgrade.



2. Fast upgrade method: Select UART-ESC（FAST） (FAST stands for fast upgrade, which can only be supported by the latest ESC firmware) function. click Scan, then power on the ESC need to be upgraded (all ESCs need to be upgraded should be connected to（-□D） port in parallel in advance), click Stop after three seconds. After that, you can select all firmware versions to upgrade.



【Comparison of ESC data】

1. Connect the DATALINK to the computer and open DATALINK software, select the serial port option in the upper right corner, check the serial port data, select UART data option and load data, check CAN data, select CAN data option and load data, input motor pole pairs, no need to change if gear ratio is 1. The data generally includes RPM, input throttle, output throttle, voltage, input current and output current, MOS tube temperature and capacitance temperature etc. If the data has been copied from the DATALINK, there is no need to connect DATALINK. Directly open the software to load and check the data.

2. Select the data comparison function of DATALINK software to directly compare and check RPM, voltage or current of each channel. As above, If the data has been copied, there is no need to connect DATALINK. Directly load and check the data.