HOBBYWING®

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OTA Programmer
USER MANUAL

01 Introduction

OTA Programmer is a module which adopted the Bluetooth communication technology for transferring data between an ESC and a smart device (Android phone, tablet, and etc). It makes the wireless communication between ESC and smart device possible; user can easily program and upgrade ESC, and monitor data transferring via this unit.

02 Specifications:

- Working Voltage: 5V-12.6V.
- Supported Bluetooh Version : ≥ 4.0
- Effective Range: 0-3m (Open Field).
- Size: 30.0x25.5x8.5mm (LxWxH).
- Weight: 10.2g.

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03 Applications

The OTA Programmer module works with the following products of HOBBYWING.
- Some of XERUN series & EZRUN series of car ESCs.
- Some of PLATINUM series of aircraft ESCs.
- Some of SEAKING series of boat ESCs.
- For details, please refer to ESC manual to ensure if the ESC can work with OTA Programmer.

04 Features

- Tri-black cable: to connect the programming port on the ESC or one end of the Y harness.
- Short black line: it's the antenna to enhance the Bluetooth signals.
- LED light: to indicate the working status of OTA Programmer.
- RESET button: to factory reset this OTA Programmer.

LED Light
Short Black Line
Tri-black
RESET Button
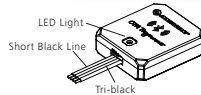
05 Download (of HOBBYWING HW Link APP)

1. Android Version
   Users can download the app from HOBBYWING website or GOOGLE PLAY.
2. iOS Version
   Users can visit Apple's App Store, search "hobbywing", and click the "download" icon to download the app.

06 User Guide

### 1 How to Connect OTA Programmer to Different ESCs

The way to connect OTA Programmer to ESC may vary because of different ESC hardware design. The following are the ways to connect OTA Programmer to different ESCs, about which way you should take, please refer to the user manual of your ESC. In some case, the special Y harness (As shown picture 1: with three female connectors not two female connectors and one male connector) included in the package may be needed for connecting the OTA Programmer to ESC.

A   B
C
Picture1

Picture 2
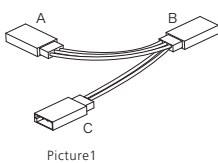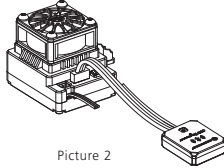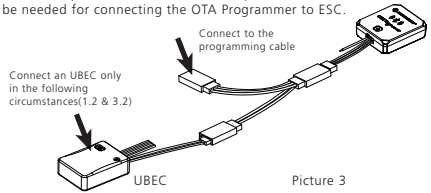
Connect to the programming cable
Connect an UBEC only in the following circumstances(1.2 & 3.2)
UBEC   Picture 3

1. **For ESC with the throttle cable and programming cable multiplexed.**
   1.1 For ESC with built-in BEC: in this case, a piece of Y harness is needed to connect the OTA Programmer and ESC. To be specific, connect the ESC throttle cable and OTA Programmer tri-black cable to connector A and connector B of the Y harness respectively (as shown picture 3).
   1.2 For ESC without built-in BEC: in this case, a piece of Y harness is also needed to connect the OTA Programmer and ESC. To be specific, connect the ESC throttle cable and OTA Programmer tri-black cable to connector A and connector B of the Y harness respectively. And connect the remaining end (/connector C) of the Y harness to an UBEC to power the OTA Programmer (as shown picture 3).
2. **For ESC that the fan port (on the ESC) is also the programming port**
   In this case, please unplug the fan wire first, and then plug the tri-black cable on the OTA Programmer to the fan/programming port (as shown picture 2).
3. **For ESC with a separate programming cable**
   3.1 For ESC with the programming cable which has the output voltage of 5-12.6V: in this case, a piece of Y harness is needed to connect the OTA Programmer and ESC. To be specific, connect the ESC throttle cable and OTA Programmer tri-black cable to connector A and connector B of the Y harness respectively (as shown picture 3).
   3.2 For ESC with the programming cable which has no output voltage: in this case, a piece of Y harness is needed to connect the OTA Programmer tri-black and ESC. To be specific, connect the ESC programming cable and OTA Programmer tri-black cable to connector A and connector B of the Y harness respectively. And an UBEC is needed to power the OTA Programmer, connect the remaining end (/connector C) to the battery (as shown picture 3).
4. **For ESC with a separate port for programming**
   Plug the OTA Programmer directly into the programming port on ESC(as shown picture 2).
   Note: An extra battery(5-12.6V) can replace the UBEC mentioned above.

2 How to make change to ESC & OTA Programmer via the Hobbywing HW Link App

Users can program or upgrade their ESCs via the App. (For detailed information, please refer to the user manual of HOBBYWING HW Link App). Connect a battery to the ESC and turn it on, Start the Hobbywing App "HW Link" on your smart device, It will ask if you want to connect "Bluetooth" or "W iFi" the first time when you open the app; at this point, please select "Bluetooth". You need to change the connection to "Bluetooth" after using the "W iFi" connection, you can click "Settings" (on the home page) and then "Select the connecting mode" to change the connection. then the following interface will show up.
1. **Connect OTA Programmer**
   A list of Bluetooth devices will pop out when you click the Connect icon on the upper right corner, then select Bluetooth named "HW-BLE******", enter the initial passwor "888888" and then click "OK".
2. **OTA Programmer Connection Status**
   The Connect icon (at the top right cor ner on the user interface of the App) will tur n Blue if the the smart device is successfully connected to the to the ESC. Otherwise, it will stay Grey (as shown right).
3. **How to change the factory-default Bluetooth name & password**
   - Click the "Settings" icon and get into the "Setting page".
   - Click "Setting of the Bluetooth Module" and get into the "Bluetooth Setting" page, input the new Bluetooth name(HW can't be deleted), new password and then click "OK".

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Parameters   Firmware Update
Data Log   Settings

Disconnected   Connected

07 Explanations for LED Status

LED turns on solid RED indicating the OTA Programmer is successfully powered on and it functions well.
LED blinks indicating the OTA Programmer is building the connection or transferring data between the ESC and the smart device.

08 Factory Reset

Keep holding the RESET button with a thin and sharp thing like toothpick\tweezer or something for about 5 seconds, release the RESET button when the LED is flashing, then you can reset all parameters of the OTA Programmer to factory default values.

09 FCC Information