Noble NB4 Pro+

USER MANUAL

2.4GHz AFHDS 3
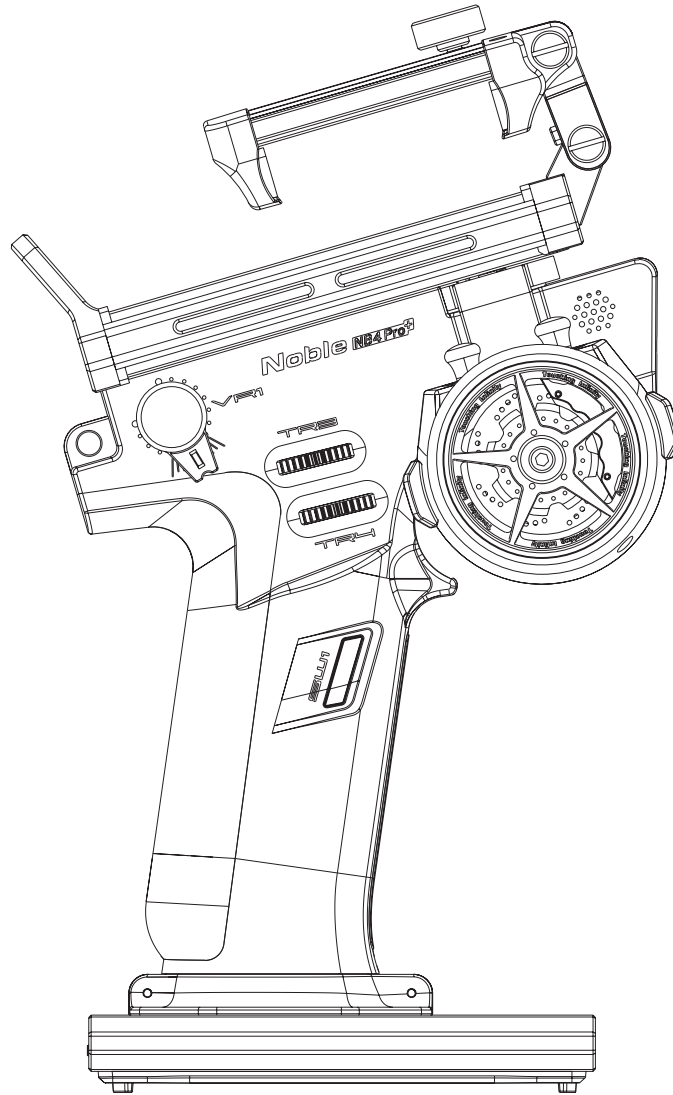
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Touching Infinity

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1. Safety

1.1 Safety Symbols

Pay close attention to the following symbols and their meanings. Failure to follow these warnings could cause damage, injury or death.

⚠ Danger	• Not following these instructions may lead to serious injuries or death.
⚠ Warning	• Not following these instructions may lead to major injuries.
⚠ Attention	• Not following these instructions may lead to minor injuries.

1.2 Safety Guide

🚫 **Prohibited**	❗ **Mandatory**

🚫

- **Do not use the product at night or in bad weather like rain or thunderstorm. It can cause erratic operation or loss of control.**

- **Do not use the product when visibility is limited.**

- **Do not use the product on rain or snow days. Any exposure to moisture (water or snow) may cause erratic operation or loss of control.**

- **Interference may cause loss of control. To ensure the safety of you and others, do not operate in the following places:**
  - Near any site where other radio control activity may occur
  - Near power lines or communication broadcasting antennas
  - Near people or roads
  - On any body of water when passenger boats are present

- **Do not use this product when you are tired, uncomfortable, or under the influence of alcohol or drugs. Doing so may cause serious injury to yourself or others.**

- **The 2.4GHz radio band is limited to line of sight. Always keep your model in sight as a large object can block the RF signal and lead to loss of control.**

- **Never grip the transmitter antenna during operation. It significantly degrades signal quality and strength and may cause loss of control.**

- **Do not touch any part of the model that may generate heat during operation, or immediately after use. The engine, motor or speed control, may be very hot and can cause serious burns.**

❗

- **Misuse of this product may lead to serious injury or death. To ensure the safety of you and your equipment, read this manual and follow the instructions.**

- **Make sure the product is properly installed in your model. Failure to do so may result in serious injury.**

- **Make sure to disconnect the receiver battery before turning off the transmitter. Failure to do so may lead to unintended operation and cause an accident.**

- **Ensure that all servos operate in the correct direction. If not, adjust the direction first.**

- **Make sure the model flies within a certain distance. Otherwise, it would cause loss of control.**

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2.Product Introduction

This product uses 2.4GHz, third generation, automatic frequency hopping digital system, consisting of a Noble NB4 Pro+ (NB4 Pro+ for short) transmitter, FGr8B receiver, and FGr4B receiver. It supports output in 18 channels. In addition, the product implements extreme-speed output on 2 channels. A cell phone holder with Noble NB4 Pro+ is more convenient for users to perform monitoring in real time. It is also compatible with model cars, boats, and etc. It supports a USB simulator function (enabled by default).
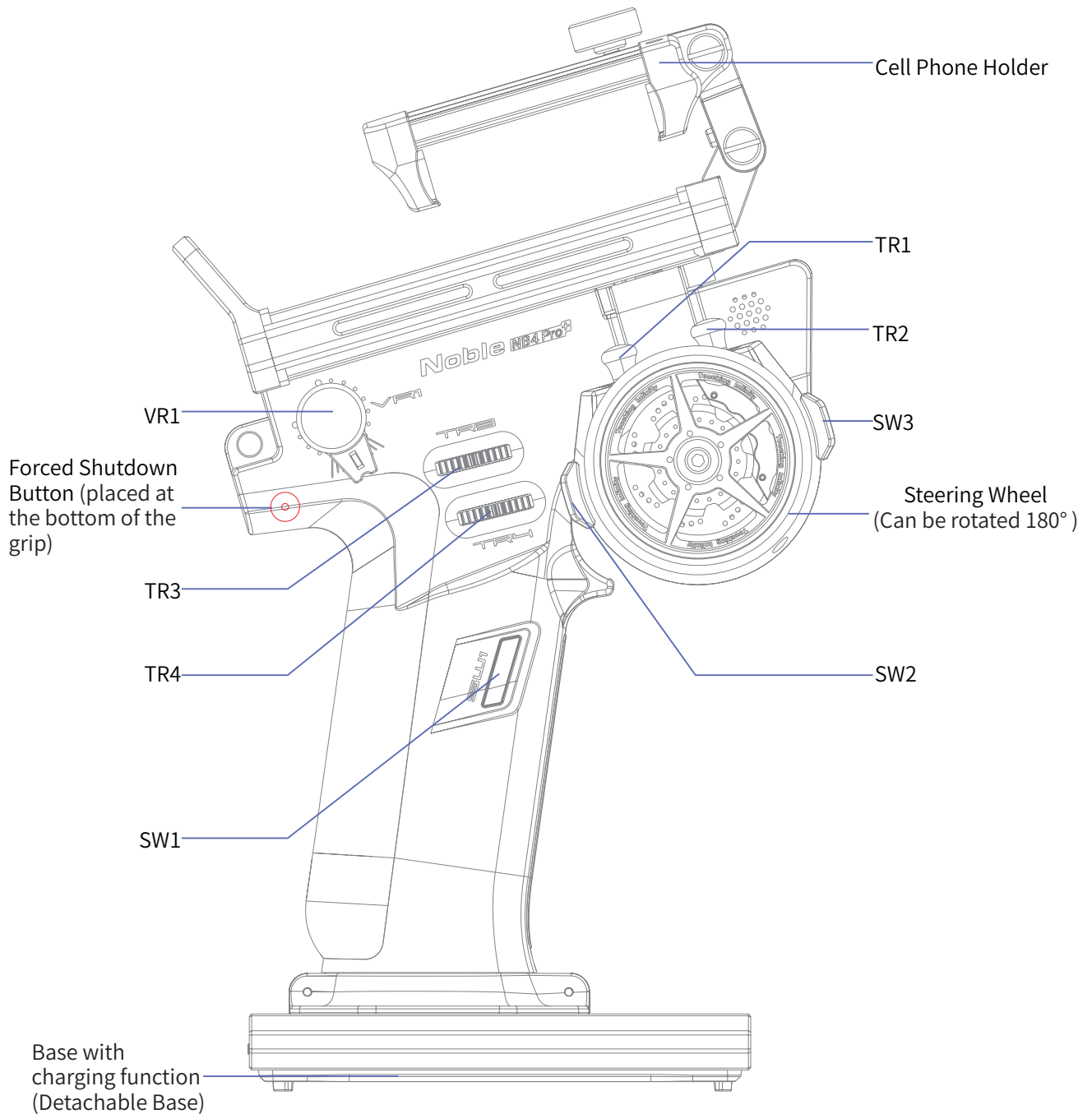
2.1 System Features

AFHDS3 (third-generation automatic frequency hopping digital system) is a newly developed digital wireless system. It is compatible with single antenna bidirectional real-time data packet transmission and data stream transmission. With the advantages that come with the WS2A wireless system and the new 2.4GHz chip, the system can dynamically set: number of channels, channel resolution, range, anti-interference requirements and latency to meet the needs of different users.

Compatible with Unidirectional/ Bidirectional Real-time Data Transmission	The system supports one-way and two-way connections. When the transmitter is working in oneway transmission way, the receiver can receive data from the transmitter. When the transmitter is working in two-way transmission way. The receiver can receive data from the transmitter and the transmitter can also receive data from the receiver, as well as the information cross from the temperature and speed sensor modules. This gives better control over the models and obtains information on its current status, so as to make model control more secure.
Uncorrected Data Transmission	The independent uncorrected data transmission module is built into RF system; it can send many different types of data including flight control data.
Intelligent RF configuration	Depending on hardware, certification, the amount of data to be transmitted, anti-interference, latency and distance requirements, the system intelligently adapts the corresponding RF configuration to meet the requirements of the user.
Multi-channel Frequency Hopping	This systems bandwidth ranges from 2.402GHz ISM to 2.480GHz. Intelligent RF configuration according to the needs of RF configuration, through the different RF configuration, different power-on time, different frequency hopping law and different use of frequency points to actively avoid the same frequency interference.
Unique ID Recognition System	Each transmitter and receiver has it's own unique ID. Once the transmitter and receiver have been bound, the ID will be saved. When the syetem is working,if the IDs are matched, the connection will be connect, otherwise, there is no connection between transmitter and receiver. This unique ID recognition syetem resists the interference so as to make the system stabler and more reliable.
Low Power Consumption	The system is built using highly sensitive low power consumption components, maintaining high receiver sensitivity, while consuming as little as one tenth the power of a standard FM system, dramatically extending battery life.

2.2 Transmitter Overview

Cell Phone Holder

TR1

TR2

SW3

VR1

Steering Wheel
(Can be rotated 180°)

Forced Shutdown
Button (placed at
the bottom of the
grip)

TR3

TR4

SW2

SW1

Base with
charging function
(Detachable Base)

Note: If you can't shut down the transmitter properly, please shut down the transmitter by pressing
the force shutdown button on the transmitter. (Operation: Pull apart the hand glue placed at the top of
transmitter's grip or take off the whole handle glue. Use a relatively slender tool, insert the tool into the
round hole on the right side of the grip(direction as shown in the figure above), and press the forced switch
button in the round hole. After pressing the button, the transmitter will be shut down immediately.)

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Holder Connection Hole

Display

VR1

Lanyard Eye

TR3

TR4

SW1

Grip

Adjust Trigger Size

Adjust Trigger Tension

Adjust Steering Wheel Tension

Adjust Trigger Structure Travel

Adjust Steering Wheel Rotate Travel

18650 Battery
Cover(Detachable)

Steering Wheel Swivel Bracket

Transmitter LED

Transmitter Power Button

Spring Clip

Power Port

Spring Clip Slot

Power Port

Base Battery Indicator

Type-C input port, Firmware Update,Charging Jack, Connect to Simulator Port, Connect to Game Handle PortTrainer Interface, Head Tracker Interface

Base Power Button

USB 5V 2A Port

2.3 Receiver Overview

FGr8B

FGr4B

For best signal quality, it is recommended to keep the receiver antenna up and away from metal when installing the FGr8B or FGr4B receivers.

2.4 Status Indicator

The status indicator is used to indicate the power and working status of the receiver.

- Off: The power is not connected.
- Lit in red: The receiver is on and working.
- Flashing quickly: The receiver is binding.
- Flashing slowly: The bound transmitter is off or signal is lost.
- Three-flash-one-off: The receiver is in firmware upgrade state.

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3. Getting Started

Before operation, install the battery and connect the system as instructed below.

3.1 Transmitter Battery Installation

⚠ Danger	•	Only use included batteries .
⚠ Danger	•	Do not open, disassemble, or attempt to repair the battery.
⚠ Danger	•	Do not crush/puncture the battery, or short the external contacts.
⚠ Danger	•	Do not expose to excessive heat or liquids.
⚠ Danger	•	Do not drop the battery or expose to strong shocks or vibrations.
⚠ Danger	•	Always store the battery in a cool, dry place.
⚠ Danger	•	Do not use the battery if damaged.

The Noble NB4 Pro+ has 2 batteries, one located in the handle and one in the removeable base.

To attach the base:
1. Line up the base so that the transmitter handle has a slight over hang on the back.
2. Carefully insert the base contacts into the hole in the bottom of the handle.
3. Hold the handle firmly and pull the battery backwards. When it is secure you should hear a click.

Steps to disassemble the base:
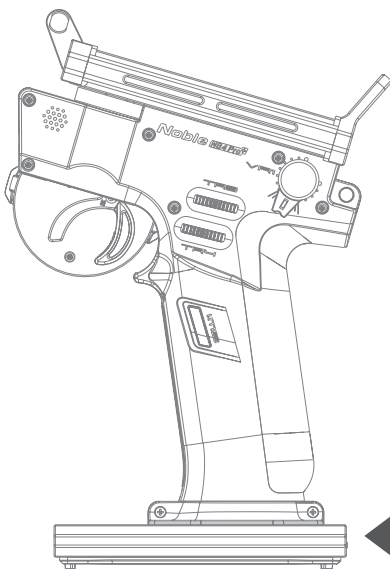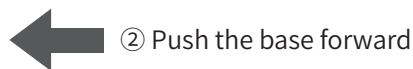
② Push the base forward

① Lift the base up
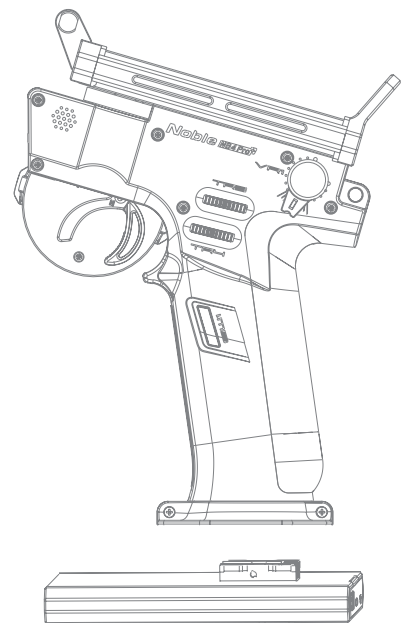
③ Remove the base

Steps for replacing the built-in battery of the handle:

1. Remove the grip first, and then remove the handle battery cover (18650 battery cover) ;
2. Remove the 18650 battery to be replaced, align the negative end of the fully charged 18650 battery with the end of the battery compartment with spring, press the spring and install the battery ;
3. Close the handle battery cover (18650 battery cover), install the grip, switch it on, and test whether the transmitter works normally.

Notes:

• Before replacing the handle built-in battery, make sure the transmitter is powered off and disconnected!

• When placing the handle built-in battery, pay attention to the positive and negative poles of the battery.

• To prevent the grip from being damaged during removal or assembly, pay attention to the control force during operations, and refer to [11.4 Remove the grip] and [11.5 Assemble the grip].
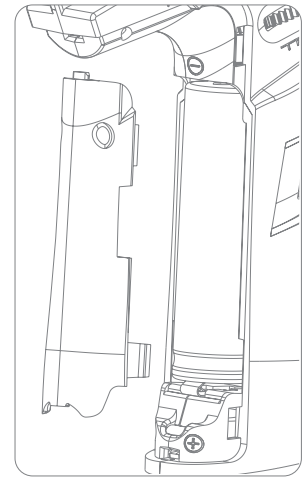
4. Operation Instructions

After setting up, follow the instructions below to operate the system.

4.1 Power On

Follow the steps below to turn on the transmitter:

1. Make sure that：
   - The battery is fully charged and installed correctly.
   - The receiver is installed correctly and powered on.
2. Hold the power button until the screen turns on.

⚠ Note	• Operate with caution in order to avoid damage or injury.
⚠ Note	• **Make sure that the throttle is at its lowest position and the switches are set to their up position.**

4.2 Binding

The transmitter and receiver have been pre-bound before delivery.

If you are using another transmitter or receiver, follow the steps below to bind the transmitter and receiver:

1. Press the Bind button on the receiver for seconds, and then connect the power cord to any interface on the receiver. At this time, the receiver will flash quickly.
   - Please make sure your transmitter is not connected to other receivers before binding.
2. Turn on the transmitter, click ⚙ and enter [RX SET], and select [Bind Set] on the menu.
3. Click [Enhanced RX]. Under the [Start Channel] menu, click the corresponding channel as needed, and click ◄ to return to the previous interface.
4. Click [Start Bind]:
   - AFHDS3 2 Way: If binding is successful the status indicator will remain solid and the transmitter will exit bind mode automatically.
   - AFHDS3 1 Way: If binding is successful the status indicator will flash slowly, however bind mode on the transmitter must be exited manually by touching the back icon.
5. Once binding is complete, remove the power cord from the receiver.
6. Check to make sure everything functions as expected. If not repeat the steps above.
   - This binding procedure only applies to the Noble NB4 Pro+ transmitter and FGr8B/FGr4B receivers. Different receivers have different binding procedures. Please refer to our official website for more information and relevant user manuals.

4.3 Transmitter LED Indicator

The transmitter LED color can be customized, or you can select one of the five colors defined in the options (Red, Green, Blue, Yellow or White), and the LED brightness can be adjusted. The LED display can also be turned off or set to indicate the transmitter battery power by using the [Battery Indicator] function.

To change the LED color see the 8.8 LED section of this user manual.

4.4 Power Off

Follow the steps below to turn off the system:

1. Disconnect the receiver power first.
2. Press and hold the transmitter power button until the screen turns off.

⚠ Danger	• Make sure to disconnect the receiver power before turning off the transmitter. Failure to do so may lead to damage or serious injury.

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5. System Interface

The main interface mainly displays information related to the model, such as transmitter voltage information, function status and so on.

The display on the main interface can be customized as required, including the states and data of the main interface. Up to 8 states and data can be displayed.

Main interface left slide: Channel display; right slide: Failsafe; upward slide: Timer; downward slide: System settings. If you need to change settings, refer to [8.10 Quick Access].

Model Name

Sensors
0 to -40 dBm: The communication quality is best. -40 dBm to -85 dBm: The communication quality is good. Less than -85 dBm: Indicates that there is an obstacle between the transmitter or receiver or the distance is far. Shorten the control distance to avoid losing control.

Dashboard Display
Show the real time status of the function. Tap the dashboard area to enter the setting interface and set the related functions to be displayed as required.

Steering Trim

Display Custom of Main Interface
Tap this area, and then click Select Home Screen Display options to enter settings Screen, select related functions to be displayed as required.

Bottom Bar

Menu Icon

Tap and hold the icon for 2 seconds to lock or unlock the screen.

RX's Battery Volume

TX's Battery Volume

Function Status Bar

Dashboard Display
When the sensor values are displayed, you can set the corresponding values of the dashboard pointer range by the maximum and minimum values.

Throttle Trim

Display Custom of Main Interface
If two items in the same line in this area are set to the same, it will display by merging, such as CH4; Or two adjacent rows of four items are set to timer, the timer is displayed by merging.

The bottom bar is hided.
Swipe right on the main screen to enter the main menu. For details about the Settings on the bottom bar, see [8.9 Quick Access].

Function Status Bar

The function status bar displays the status of various functions. If the function icon shows in a bright color, then it is active, if it is light gray, then it is inactive.

CURVE   ENG CUT   BOAT   Programing Mixes   System Sound

ABS   IDLE UP   CRUISE   TIMER
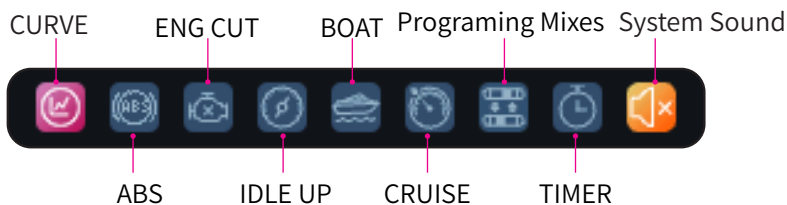
It indicates that the function is currently disabled and all settings are invalid.

It indicates that the function is currently enabled and all settings have taken effect.

Reset Icon
Used to reset the setting parameter.

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6. Function Settings

This section introduces details functions and their use.

Notes:

1. The default ex-factory state of this transmitter allows the user to set the functions under CH1-CH4, follow the steps for specific function settings for other channels.

2. Some functions are disabled by default, and you may need to tap ⊗ and enable the function for the setting to take effect.

3. The function menus may vary with the receiver protocols. The actual product menu shall prevail.

6.1 REV

The REV(Reverse function) is used to correct a servo or motor's direction in relation to the systems controls. For example, if a steering servo is mounted upside down in order to fit inside a model, when the system's steering wheel is turned, the servo will move in the opposite direction. To fix this, all we need to do is reverse CH1.

The Condition function can be used for REV function, and you can set the REV function for both condition 1 and condition 2 respectively. Namely, you can set different channel directions in different conditions.

Setup:

1. Touch the box next to the channels name. If the channel is in normal mode, the box will display "NOR", if it is reversed it will display "REV".

2. Test to make sure everything is working as expected.

6.2 EPA

EPA(End Point Adjust) are the limits of the channels range of movement. There are two endpoints, a low endpoint and a high endpoint.

Setup:

1. Touch a low or high endpoint box on a channel or move the corresponding control to the diection you wish to limit. The selected endpoint will be highlighted.

2. Use "+" and "-" to change the end point position (Press and hold to accelerate the adjustment). The maximum is 120% and minimum is 0%.

3. Test to make sure everything is working as expected.
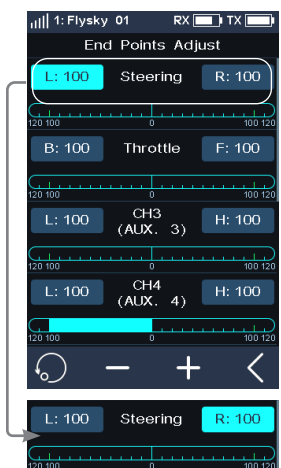
6.3 SUBTRIM

SUBTRIM can be used to adjust the error of the structure by changing the channel neutral position.

For example, if a car's wheels are slightly out of aline-ment, even when the transmitter steering wheel is not being touched, subtrim can be used to correct the alignment.

Setup：

1. Touch the box next to the channel name to select it. When selected the box will be highlighted.
2. Use "+" and "-" to change subtrim position.
3. Test to make sure everything is working as expected.

6.4 D/R

To set the output rates of channel 1 and channel 2, namely, the ST Rate, the Forward Rate, and the Brake Rate.

The value range which can be set is from 0 to 100%. The default value is 100%. The steering progress bar and the throttle progress bar which are located at the bottom of the interface display the real-time channel status of this two channels respectively.

The Condition function can be used for D/R function, and you can set the rate parameter for condition 1 and condition 2 respectively.
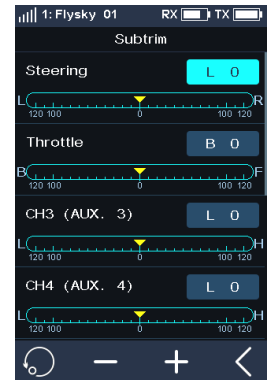
Assign controls to quickly adjust the function parameters, such as VR/TR controls.

Setup:

1. Touch an option you want to set(When the option is selected, it will be highlighted).
2. Use "+"and "-" to change the percentage as needed. The rate value increases in case of clicking "+", and decreases by clicking "-".
3. Test to make sure everything is working as expected.
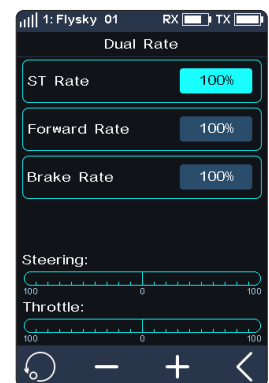
6.5 CURVE

It is used to set the data change rate of channel 1 and channel 2, that is, the Steering Curve, the Forward Curve, and the Brake Curve.

This function is enabled by default. Click ☑ to disable this function. When this function is disabled, the icon will change to ⊗. Assign controls to quickly enable or disable the function, such as SW control.

The Condition function can be used for D/R function, and you can set the curve parameter for condition 1 and condition 2 respectively.

ST Curve
To set the data change rate of channel 1.

[Type]: Set the curve change form. You can set it to exponential [EXP] (smooth curve) or
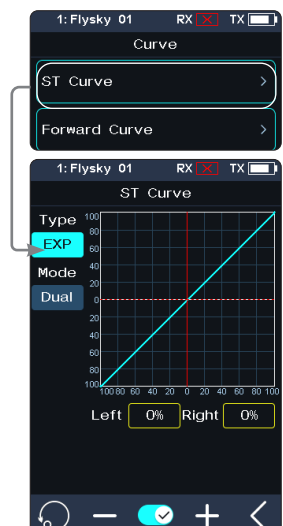
ARC (bend position adjustable). By default, it is EXP.

[Mode]: Set the adjustment mode of the curve, which can be set as "Dual" (synchronous adjustment of left and right sides) or "Single" (independent adjustment of left and right sides).

[Left]: Left rate, which can be adjusted when the mode is set to Single. It is used to independently adjust the left turn curve of channel 1.

[Right]: Right rate, which can be adjusted when the mode is set to Single. It is used to independently adjust the righ turn curve of channel 1.

[Point]: It can be adjusted when the type is set to ARC, and used to set the turning point position of the polyline.

Setup:

1. Touch [ST Curve] to enter.

2. Touch [Type] or [Mode] to set the corresponding type and mode.

3. Use "+" and "-" to raise or lower the percentage as needed.

4. Test to make sure everything is working as expected.

Additionally, assign controls to quickly adjust the rates, such as VR/TR controls.

Forword Curve

To set the data change rate of channel 2.

[Type]: Set the curve change form. You can set it to exponential [EXP] (smooth curve) , ARC (bend position adjustable) or multi-fold CRV (fixed fold position, 9 points in total). By default, it is EXP.

[Point]: It can be adjusted when the type is set to ARC, and used to set the turning point position of the polyline.

[Rate]: To set rate for the curve.

Refer to the previous description [ST Curve] for the function setting steps.

Additionally, assign controls to quickly adjust the rates, such as VR/TR controls.

Brake Curve

To set the data change rate of channel 2 in case of brake or backward.
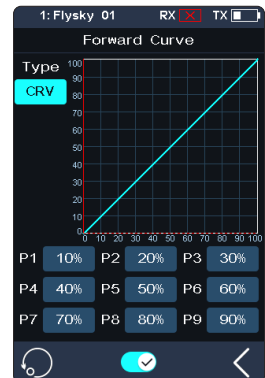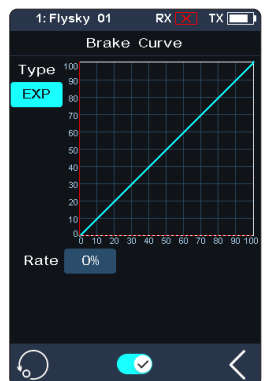
Refer to the previous description [ST Curve] for the function setting steps and parameters descriptions.

6.6 TIMER

This function can set with a variety of timers, to generally calculate the total model run time, competition specific time spent, or transmitter run time, etc.

The timer features three different modes of timer:

Up Timer

Start the clock from zero.

Click [Up Timer], then click [Start] to start the timer. Click [Stop] to stop the timer. Click [Reset] to reset the single timer function to its default value.

Down Timer

Countdown from the set time, the shortest time is 1 second. The system will send out a reminder when it reaches a minute sharp. When the countdown is less than 1 minute, the system will give voice prompt in 30 seconds, 20 seconds, 15 seconds. And when the countdown time left only 10 seconds, the system will send a voice prompt every second. When the timer reaches 0, the system will send a voice to prompt that the timer time is up, and start up timer.

Click [Down Timer]. Then click the minutes or seconds display interface, by clicking "+" or "-" to change the duration. Press and hold the "+" or "-" to accelerate the adjustment. The maximum duration is 99 minutes and 59 seconds.

Lap Timer

Record the length of each lap.

Once triggered the on icon will become the lap icon. After clicking Lap, the system starts the next lap timer immediately. The timer voice prompts the number of the last lap timer. The timer interface stops for 3 seconds and displays the time of the last lap. All previous lap times will be recorded in the lap timer list. The maximum number of laps is 99 and the minimum lap time must be over 3 seconds.

Lap Memory

Records the results from the lap timer.

Click [Lap Memory] to enter, the total time and average timing time will be displayed in the menu. Click ◀ to return to the previous interface. The longest lap in the list is shown in red, while the shortest lap is shown in green.

Throttle Start Timer

To start the timer by a set throttle value. Click ◉ to activate this function.

Click "+" or "-" to change the throttle start value. Press "+" or "-" for seconds to accelerate the throttle start value. The value change level is 1, and the level range is 1 to 100. You can stop the timer by clicking [TH Stop], and use "+" or "-" to change the throttle stop value,and the level range is -100 to 100. Note that the throttle stop value should be less than the throttle start value.

In addition, the timer can be quickly enabled and disabled by an assigned control through [ASSIGN], such as SW controls which button type is set to S DIR. Press the control for seconds to reset the timer.

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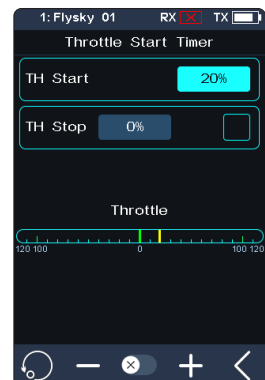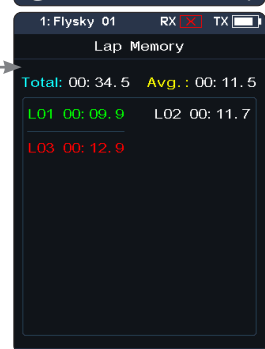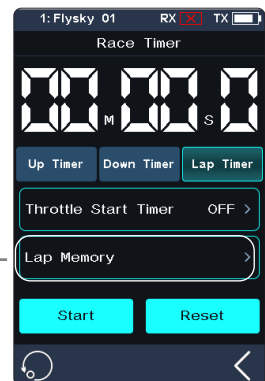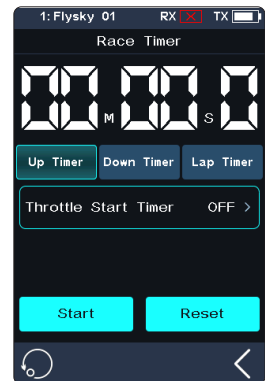
6.7 ASSIGN

The key assignment function is used to assign keys or switches to different functions for quick switch or control. If the base color of a control is green, indicating the control has been assigned.

A control can be assigned to control multiple functions or auxiliary channels at the same time, after assigned, in case of managing the control, a pop-up window will appear, prompting the real-time value or state.

Note: The number of channels is subject to the [Channel Number Definition]. Further more, a auxiliary channel can be assigned a control via [AUX]function.

TR Controls

The six keys or knobs TR1-FB, TR1-LR, TR2-FB, TR2-LR, TR3 and TR4 have the same function and can be used to quickly adjust the function parameters. Set to S DIR (single direction) or 2 DIR (two directions) through [Button Type].

When the TR control is set to S DIR, you can quickly enable, disable, or switch the assigned functions and channel functions.

If the TR control is set to 2 DIR, when [Type] is set to Normal, functions can be assigned for quick adjustment of function parameters; when [Type] is set to 2 POS(2-position), functions and auxiliary channels can be assigned to quickly enable or disable functions or switch channel states (2-position); When [Type] is set to 3 POS(3-position), auxiliary channels can be assigned to quickly switch the channel states (3-position).

[Type]: Used to set the control to normal, 2 POS or 3 POS.

[Function] and [Function2]: Assign functions to this key or knob.

[Direction]: Used to set the NOR(normal) or REV(reverse) of this button or knob.

[Mode]: When "Trigger" is selected, channel data will change once through key triggering. Channel data will return to the state before key operation when the key is released. When "TURN" is selected, channel data remains in effect at the time of trigger if the button is rebounded.

[Step]: Step, which is used to adjust the value change of a single operation. "1" means move the key once, the value change level is 1, the level range is 1-120, the user can adjust it as needed.

Setup:

1. Touch [TR1-FB] or any of the other button icons. 2 DIR is the default setting.

   [Button Type S DIR]: Means the key or knob can control enabling, disabling, or switching from one direction separately.
   [Button Type 2 DIR]: Means the key or knob can adjust the function or channel values in two directions (upward and downward).

2. Click [Type], switch between [Normal], [2 POS], and [3 POS] as required.

3. When Type is set to Normal, touch [Function] or [Function2] to enter the next menu, after selecting the function, click ◖ to return to the previous interface.

4. Click the [NOR] option on the right side of [Direction]. Then, [REV] is displayed. It indicates the actual operation of this button is reversed with the output.

5. Click[Step], then use "+" or "-" to change the value.

   When Type is set to [2 POS] or [3 POS], the step can be adjusted.
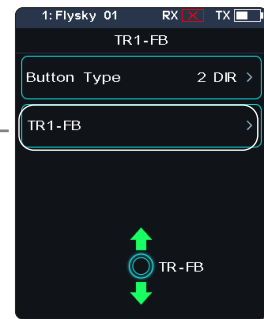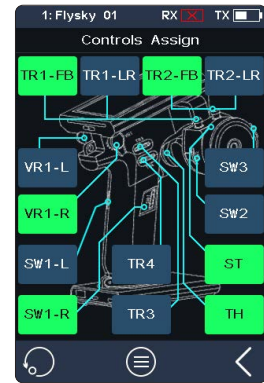
When Type is set to [3 POS], you can set the mode to Trigger or TURN.

6. Test to make sure everything is working as expected.

Switching to Sigle Direction

1. Click [TR1-FB] or other key icon to enter the submenu; then click [Button Type 2 DIR]. The system will prompt "Switch button type may cause current key setting to be lost, confirm and switch?", click [Yes] to switch [S DIR].

2. Click [TR1-F] or [TR1-B] to display the function setting interface.

3. Click the [Function] or [Function2] icon, then click the corresponding function. Click ◄ to return to the previous level interface.

4. Click the [NOR] option on the right side of [Direction]. Then, [REV] is displayed. It indicates the actual operation of this button is reversed with the output.

5. Click[Mode], then set the mode to Trigger or TURN.

6. Test to make sure everything is working as expected.
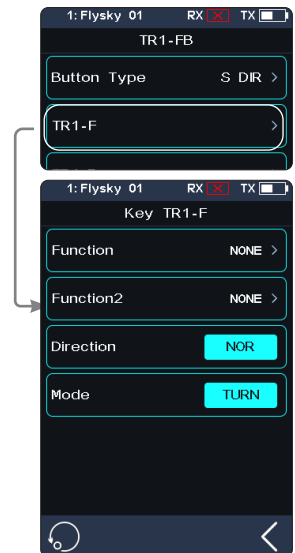
VR Controls

The VR1-L and VR1-R knobs functions are similar to TR controls when TR control is set to 2 DIR. However, the step of VR control cannot be adjusted.

When the VR knob [Type] is set to Normal, functions can be assigned to quickly adjust function parameters. When [Type] is set to 2 POS or 3 POS, functions and auxiliary channels can be assigned to quickly enable or disable the function, or switch the channel states (2-position or 3-position).

[Rate]: Used to set the size of the angle.

[Offset]: Used to set the neutral position of the angle

For the meanings and function settings of other parameters, refer to the TR controls above.
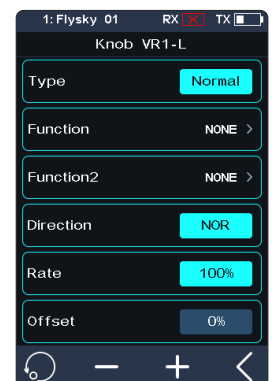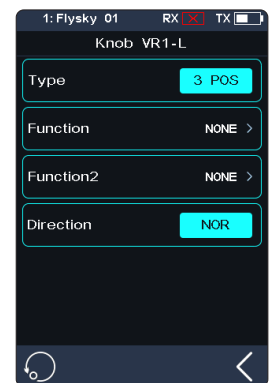
SW Controls

Functions and auxiliary channels can be assigned to the keys of SW1L, SW1R, SW2 and SW3, quickly to enable or disable functions or switch channel states (2-position).

When SW2 and SW3 are combined as combination switch, the combination switch functions are similar to TR controls when TR control is set to 2 DIR.

Note: The default key type is S BTN(single button). Click the [S BTN] icon on the right side of [Button Type] to switch to the C BTN (combination button).
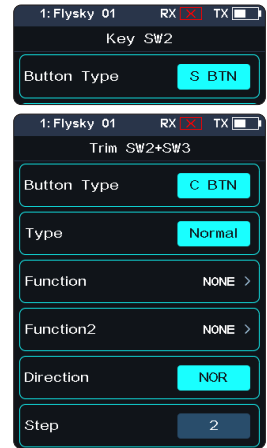
Steering Wheel And Throttle Trigger

Assign the functions or auxiliary channels to quickly adjust function parameters or channel state.

Note: The steering wheel is fixedly assigned with CH1 and the throttle trigger is assigned with CH2, to control the steering and forward/backward movement of the model. When assigning auxiliary channels or functions to the steering wheel and throttle trigger, ensure that the auxiliary channels or functions are assigned correctly to avoid damage to the model or other risk factors caused by misoperation.

Key Assign

To view detailed information about the function assignment of all keys and knobs.

Click 🔘 to enter the [Keys Assign].

You can directly click the corresponding button to set the function.
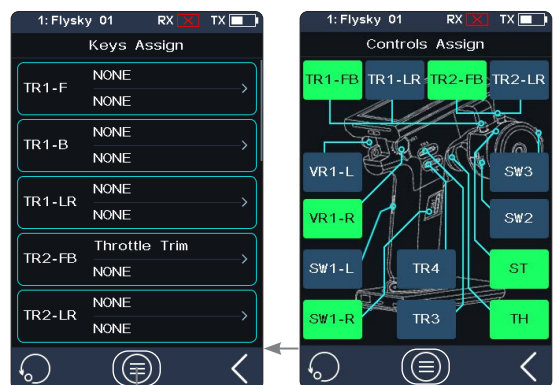
Click to enter Servo View menu.

6.8 AUX

Noble NB4 Pro+ has two fixed channels. Channel 1 outputs steering and channel 2 outputs throttle. If you need to increase the fixed channel, you can use this function.

Note: The number of channels is subject to the [Channel Number Definition].

Channel name pre-selection:

1. Click [CH5   NONE] or other channels to enter the interface to set the channel name.

2. Click ⊜ and then click the corresponding channel as needed. Click ◀ to return to the previous level interface.

   • The channel will be occupied after selection.

To set the channel name:

Click the [Name] option to set the desired channel name. Press [Enter] for confirmation. Click ◀ to return to the previous level interface.

• A name can be set to any combination of letters, numbers or symbols.

When some functional states are exactly opposite to the model actual state, it can be adjusted by the reverse switch function. After adjustment, the functional state is consistent with the model actual state.

Press ⊜ to activate reverse fuction, then you can view the real-time status of functions via the home screen.
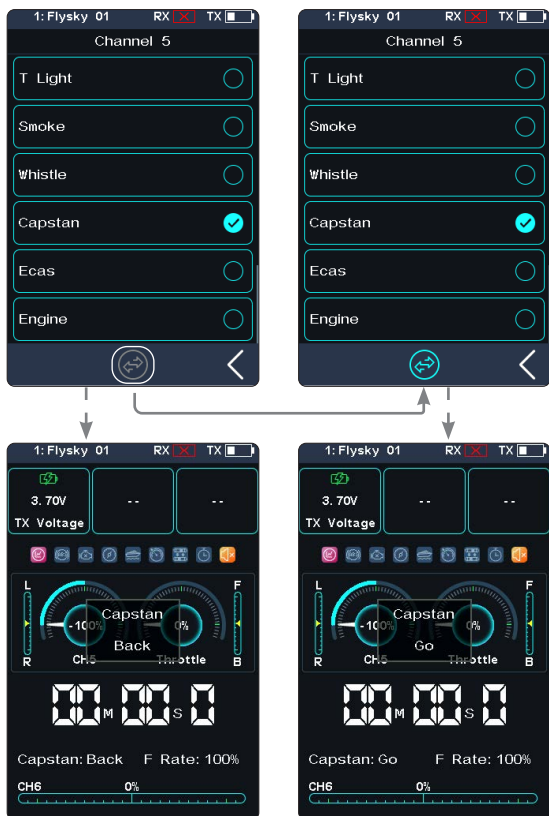
Set a control

Sets a control to control the channel. Refer to [ASSIGN] for setting steps.

Click ⊜ to enter the [Keys Assign]. In this list, you can view detailed information about the function assignment of all keys and knobs. You can directly click the corresponding button function to set the function.
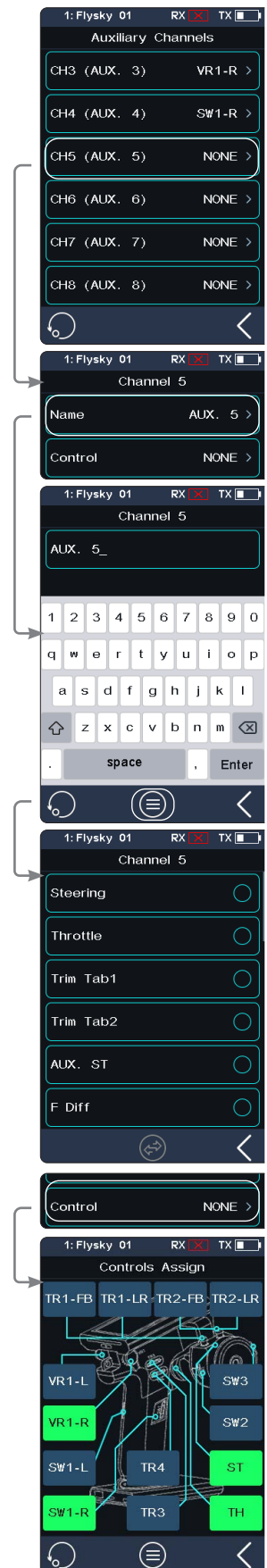
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6.9 MODEL

The model functions are used to change, reset, rename, copy or customize the display and sorting of the main menu. The Noble NB4 Pro+ can store up to 25 models.

Select Model

To select a model.

Tap Select Model, then touch a model from the list.

Auto Search Receiver

The model with successful 2-way binding can be switched through the Auto Search Receiver function. Note that the model which is the receiver corresponding to must be in the power-on state.

Click ⊚ , the system will prompt "Searching for receiver". When the model corresponding to the powered-on receiver is searched, it automatically switches to the model.

Model Name

To name the model.

After clicking [Name: FlySky 01], use the keyboard in the interface to type in a new name. When the setting is finished, click "Enter" to save the setting. Click ◁ to return.

Channel Number Definition

This function is used to select the number of channels(2~18channels can be selected).

If the larger number of channels is switched to the lower number of channels, the system will prompt "The model will reset need re-binding, Are you sure?". Click "Yes". Switching is successful.

When the lower number of channels is switched to the larger number of channels, model data will not be reset. The system will prompt "After switching you need re-binding, Are you sure?". Click "Yes". Switching is successful.

After choosing [CH2 (Fast)], only two channels for steering and throttle are retained. This makes operations easier and channel delay experiences are richer. It is suitable for new players and players who like different throttle speed experiences.
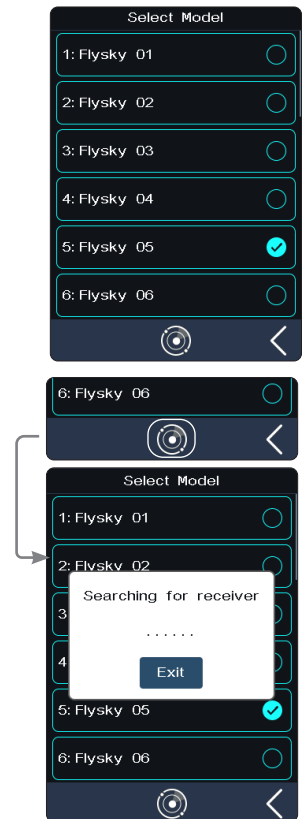
RF Setup

It includes RF protocol setup of the transmitter and receiver and RF module firmware update.

RF Standard

To select RF protocol of the transmitter and receiver.

[AFHDS3 1 Way]: It features lower latency, allowing one transmitter to connect multiple receivers. It is applied when the model does not need any return data.

[AFHDS3 2 Way]: With the two-way return function, it can return feedback data from receivers and sensors, and realize one transmitter to one receiver.

[Mini-Z(EVO)]: Used with FS-minizRF3 receiver to control Kyosho miniZ EVO car. The number of channels is fixed (two channels: steering and throttle).

[Mini-Z(EVO2)]: Used with FS-minizRF3 receiver to control Kyosho miniZ EVO2 car. The number of channels is fixed (two channels: steering and throttle).

[Mini-Z(FHSS)]: It is compatible with a Kyosho FHSS receiver to control the cars of Kyosho mini-Z FHSS. The number of channels is fixed (four channels).

FS-RM005 RF module supports a Noble NB4 Pro+ transmitter. It is only compatible with Kyosho Mini-Z (FHSS) cars.

Bind steps when using FS-RM005 RF module:

1. Remove the transmitter base's mobile power supply and insert the RF module into the transmitter base correctly (as shown in the figure on the right).
2. Click [MODEL]. Select the RF Setup and set RF Standard as Mini-Z (FHSS).
3. Insert FS-RM005 RF module and re-install the transmitter base power supply.
4. Connect the power cord to the transmitter. Press the receiver Bind key while connecting the receiver power supply. At this time, the receiver LED flashes quickly.
   - Operation modes vary with receivers in case of their binding state.
   - When Mini-Z(FHSS) is not selected, the FS-RM005RF module does not have the RF transmit function, and its power supply is turned off.
5. Click [RX set], and select [Bind Set]. After the receiver LED state turns to slow flashing, the transmitter will automatically exit the bind state. When the receiver LED is solid on, it indicates the binding is successful.
6. Check whether the servo is working properly. If a binding is required again, repeat the above steps.
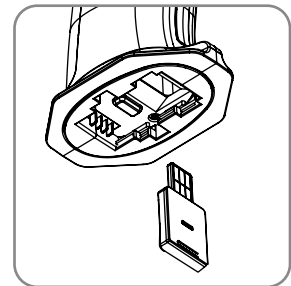
Change the RF protocol

1. Click [RF Std.] to enter the submenu.
2. Click the corresponding function as needed . Select "Yes" after the prompt box pops up and click ◀ to return to the previous interface.
   - If you switch the RF standard, the model will be reset and a binding is required again.

Update RF

The update RF function can be used to update the built-in RF module firmware. After the firmware of the transmitter is updated, you need to update the RF module firmware when the system prompts that the RF fails or the bind of the receiver fails.

Click [Update RF], Click "Yes" after the prompt interface pops up. An update progress bar appears. Wait a few seconds, thn the update is completed. The transmitter will automatically exit the update interface.

If the transmitter cannot enter the update RF status, there may be no RF module or the RF module is faulty.
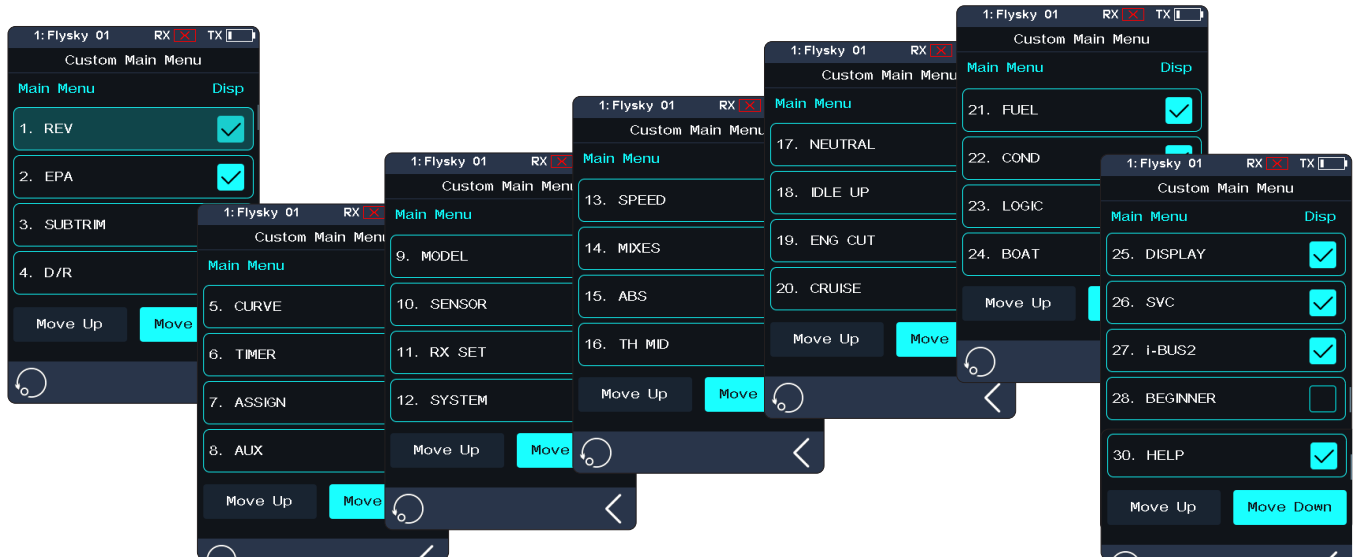
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Custom Main Menu

You can customize the main menus sorting of and visibility of functions.

Click the small box, to select (show it in the menu) or deselect (hide from menu). If you need to adjust the menu order, select the menu you want to move (highlight is selected), then touch [Move up] or [Move down] to change its position in the menu.

Model Reset

To reset a model.
Click Model Reset, then select "Yes" after the prompt box pops up to complete model reset.

Copy Model

To duplicate a model.

Click Copy Model, then touch the model to copy from the list. Next select a target slot from the list, this will overwrite everything in that slot. Then click Yes after the prompt box pops up.

Save As Default Data

To set the current model data to user default data.

Click [Save As Default Data], then click "Yes" after the prompt box pops up. Note After operation [Factory reset], the data will be restored to the factory default data.

Reset To Default Data

To set the current model data to user default data.

Click [Reset To Default Data], then click "Yes" after the prompt box pops up to reset.

Import or Export Model

You can import and export models by FlySky Assistant which can be downloaded via the FlySky official website, and then operate it on the PC (No need go back to click the menu on the transmitter, you can operate it directly)!

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6.10 SENSOR

This function can display the sensor information received by the receiver on the transmitter.

This function shows all sensors connected to the receiver, including sensor type, ID and real-time value.

It can also be accessed quickly from the home screen.

This function is availale when the receiver is bound to the transmitter using the AFHDS 3 2 Way protocol.

Sensor	
Display Sensors	>
Choose Sensors	>
Data Record	>
Speed And Distance	>
Speed Sensor Set	>
Altitude Zero Set	>
GPS Set	>
Curr and Vol Sensor Set	>

Display Sensors

This list displays all sensor data connected to this transmitter device, including sensor type, ID, real-time value, and polarity and limit values.

[Type]: To show the sensor type.

[ID]: To display the sensor's number.

By default, the number zero in the list includes the TX Voltage, RX Voltage, Signal, RSSI, Noise and SNR.

No. 1 is the return information of the Slave (secondary) receiver.

No. 2 is the first external sensor connected to the receiver, and so on, it supports up to 14 sensors.

This list data is displayed in real time. When the receiver is connected to a sensor, this list will be refreshed to display the new sensor's data. When the sensor is disconnected, the sensor data will not be displayed.
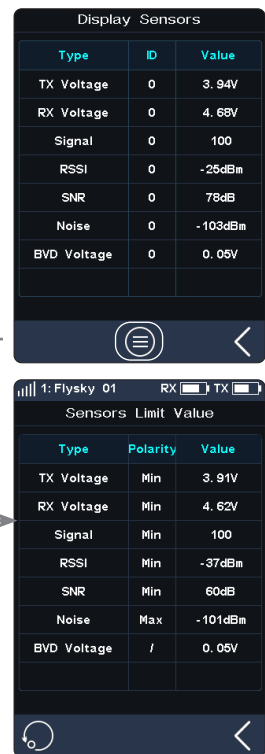
[Value]: To display the data returned by a sensor.

Sensor Limit Value: Displays the extreme value information of the connected sensor. Click 🔘 to enter the submenu which displays the limit value.

[Type]: To show the sensor type.

[Polarity]: To display the polarity to be recorded by the corresponding sensor, maximum, minimum, or "/".

[Value]: Record and display the actual limit value of the corresponding sensor.

To clear all records by clicking 🔘 .

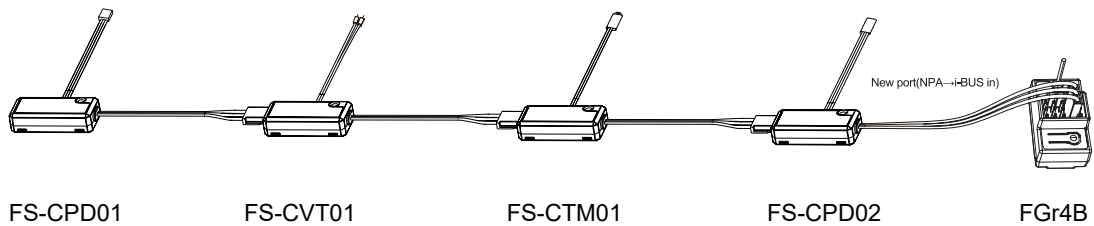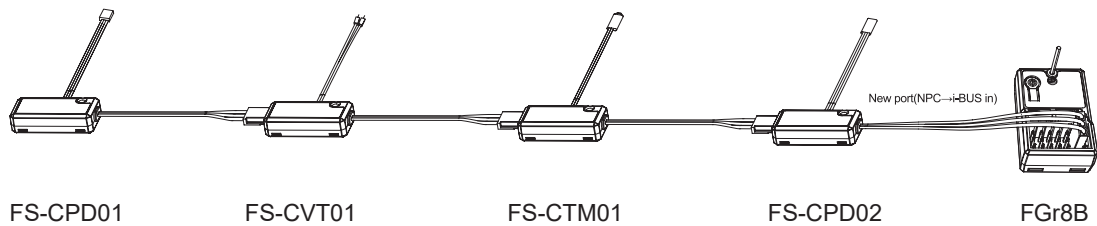Note: "/" Indicates that the extreme value is not recorded.

Display Sensors		
Type	ID	Value
TX Voltage	0	3. 94V
RX Voltage	0	4. 68V
Signal	0	100
RSSI	0	-25dBm
SNR	0	78dB
Noise	0	-103dBm
BVD Voltage	0	0. 05V

1: Flysky 01	RX	TX
Sensors Limit Value		
Type	Polarity	Value
TX Voltage	Min	3. 91V
RX Voltage	Min	4. 62V
Signal	Min	100
RSSI	Min	-37dBm
SNR	Min	60dB
Noise	Max	-101dBm
BVD Voltage	/	0. 05V

i-BUS series sensor connection diagram

New port(NPC→i-BUS in)

| FS-CPD01 | FS-CVT01 | FS-CTM01 | FS-CPD02 | FGr8B |

New port(NPA→i-BUS in)

| FS-CPD01 | FS-CVT01 | FS-CTM01 | FS-CPD02 | FGr4B |

Notes:

1. If using the AFHDS 3 classic edition receivers, you must select the [RX Interface Protocol] in the [RX SET] menu and select [i-BUS], save and exit, then connect the sensor to the receiver's i-BUS port. All other steps remain the same.

2. If you use an enhanced edition receiver, you need to set the New Port interface to i-BUS in.

Temperature Sensor (FS-CTM01)

Used to monitor the temperature of various components. The temperature of the component can be monitored via the transmitter. Alarms can be set.

1. Connect the FS-CTM01 sensor to the receiver or other sensors connected to the receiver using the same method as shown above.

2. Use a spongy double-sided tape to firmly stick the temperature probe to the part you wish to monitor (such as motor, battery).

3. Turn on the transmitter, enter [SENSOR]> [Display Sensors]. If the "Type" column displays "Temperature" and the "Value" column displays a temperature data, then the installation was successful, otherwise repeat the above steps.

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Voltage Sensor (FS-CVT01)

It is used to monitor the model's battery voltage. The battery voltage can be monitored through the transmitter. Alarms can be set.

1. Connect FS-CVT01 sensor to the receiver or other sensors using the same method as shown above.

2. Insert the red and black wire pins into the plug of the battery used for testing. The red wire is the power anode and the black wire is the power cathode. Make sure to connect correctly.

3. Turn on the transmitter, enter [SENSOR]>[Display Sensors]. If the "Type" column displays "External Voltage"and the "Value" column displays a voltage data, then the installation was successful, otherwise repeat the above steps.
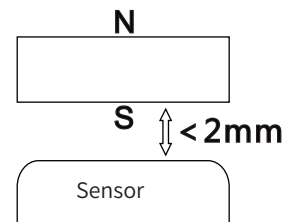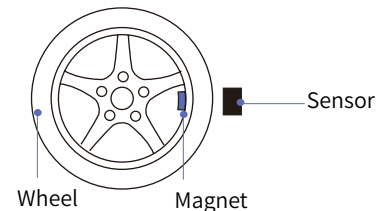
Speed Sensor (FS-CPD01, FS-CPD02)

The speed sensor is applied to test the speed of the motor.

- "Motor Speed" indicates that the sensor is testing the motor speed; "0rpm" is the speed measurement value.

Magnetic Induction Speed Sensor (FS-CPD01)

1. Connect the FS-CPD01 sensor to the receiver or other sensors using the same method as shown above.

2. Place the sensor next to the magnet, which is fixed at the position of the axial rotation to be tested (e.g. inside the wheel hub of the model car).

3. Place the sensor within 2 mm of the magnet, with the south or north pole of the magnet parallel to the sensor.

4. Turn on the transmitter, and select [SENSOR] > [Display Sensors]. Turn the wheel. When the "Type" column shows RPM and the RPM value (0rpm) in the "Value" column changes. It indicates that installation is successful. Otherwise, repeat the above steps.

Light induction Speed Sensor (FS-CPD02)

1. Connect the FS-CPD02 sensor to the receiver or other sensors using the same method as shown above.

2. Fix the sensor and the reflective sticker at the position of the axial rotation to be tested. Keep the sticker flat and perpendicular to the sensor probe. Keep a moderate distance between the sensor probe and the sticker.

3. Turn on the transmitter, and select [SENSOR] > [Display Sensors]. Turn the wheel. When the "Type" column shows RPM and the RPM value (0rpm) in the "Value" column changes. It indicates that installation is successful. Otherwise, repeat the above steps.

i-BUS2 series sensor connection diagram

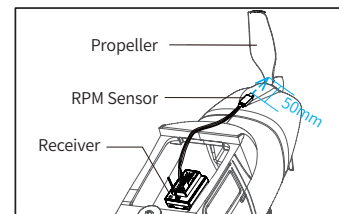FS-iBS01

FGr8B

FS-iBS01

FGr4B
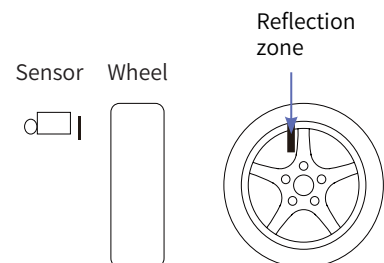
Notes:

1. The i-BUS2 series sensors are only compatible with AFHDS 3 enhanced edition receivers. Take the FS-iBS01 sensor connection diagram as an example. The method for connecting other i-BUS2 sensors is the same.

2. The i-BUS2 series sensor must be connected to the New Port of the receiver, and set the New Port interface protocol to i-BUS2 via [RX SET]>[Receiver Interface Protocol].

i-BUS2 Optical Perception Sensor(FS-iBS01)

It is used to monitor the model's speed, such as motor speed. Alarms can be set.

- "Motor Speed" indicates that the sensor is testing the motor speed; "0rpm" is the speed measurement value.

Propeller

RPM Sensor

Receiver

50mm

1. Use 3M stickers to fix the sensor at the appropriate location of the model as shown right in the figure. And make the optical perception detection elementper pendicular to the reflective surface of the motor rotor. It should be noted that the fixed surface should be flat. You can also use a cable tie to tie it to the model. In this case, you should control the force.

2. Connect the sensor to the receiver using the same method as shown above.

3. Turn on the transmitter, enter [SENSOR] , then select [Display Sensors] menu. When the "Type" column shows RPM and the RPM value (0rpm) in the "Value" column. It indicates that installation is successful. Otherwise, repeat the above steps.

- The distance between the optical perception detection element and the propeller or rotor is not more than 50 mm or 30 mm (with a light shield).

Note: Please refer to the FS-iBS01 manual for more details.

i-BUS2 Altitude Sensor(FS-iBA01)

It is used to monitor the model's altitude. Alarms can be set.

- "Air Pressure" indicates that the sensor is monitoring air pressure; "Height" means the height measurement, "Altitude" is the altitude measurement.

1. Use 3M stickers to fix the altitude sensor at the appropriate location of the model. It should be noted that the fixed surface should be flat. You can also use a cable tie to tie it to the model. In this case, you should control the force

2. Connect the sensor to the receiver using the same method as shown above.

3. Turn on the transmitter, enter [SENSOR] , then select [Display Sensors] menu. When the "Type" column shows Air Pressure, Height, Altitude and their values in "Value" column. It indicates that installation is successful. Otherwise, repeat the above steps.

Note: Please refer to the FS-iBA01 manual for more details.

i-BUS2 Temperature Sensor(FS-iBT01)

It is used to monitor component temperature. Alarms can be set.

1. Use 3M stickers to fix the temperature sensor at the appropriate location of the model. It should be noted that the fixed surface should be flat. You can also use a cable tie to tie it to the model. In this case, you should control the force.

2. Use soft glue to stick the temperature detecting element on the parts to be detected, for example, motor, ESC or engine.

3. Connect the sensor to the receiver using the same method as shown above.

4. Turn on the transmitter, enter [SENSOR] , then select [Display Sensors] menu. When the "Type" column shows temperature and the value in "Value" column. It indicates that installation is successful. Otherwise, repeat the above steps.
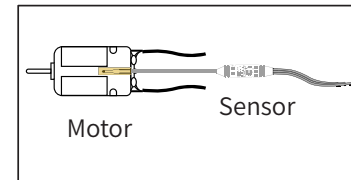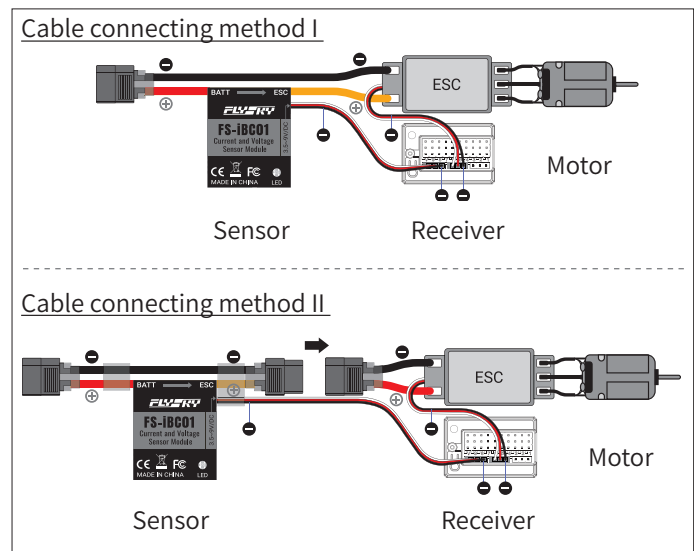
Note: Please refer to the FS-iBT01 manual for more details.

i-BUS2 Current and Voltage Sensor(FS-iBC01)

It is used to monitor the information such as the voltage, current and actual battery consumption capacity of the ESC in real time.

1. Use 3M stickers to fix the sensor at an appropriate location of the model. It should be noted that the fixed surface should be flat. You can also use a cable tie to tie it to the model. In this case, you should control the force.

2. Finish cable connecting according to the cable connecting digrams as shown. Make sure the cables are connected correctly.

3. Turn on the transmitter, enter [SENSOR] , then select [Display Sensors] menu. When the "Type" column shows Curr and Vol, Voltage, Current, etc., and the corresponding values of voltage and current in "Value" column. It indicates that installation is successful. Otherwise, repeat the above steps.

Note: Please refer to the FS-iBC01 manual for more details.

⚠ Warning	• Make sure to refer to the "Installation and Cable Connecting" section of the FS-iBC01 user manual for correct wiring. Otherwise, there may be an explosion or fire.

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Choose Sensor

This function allows you to select the sensor to be displayed on the main screen and high and low alarm values for that sensor.

There are multiful sensor function settings under this function, such as [TX Voltage], [RX Voltage], [Signal Strength] and [RSSI], for setting high and low alarm values of the corresponding sensor. During the operating process of the transmitter, we cannot always pay attention to whether the power state of the receiver is sufficient. When the voltage of the receiver is too low, it may cause the power of the receiver to run out by continuing to use. Therefore, the low voltage alarm of the receiver can be set according to the demand to remind the player that the power is too low and pay attention to charging.

For example , the Signal Strength Indication (RSSI). It refers to the distance between the transmitter and the model determined by received signal strength. A low signal strength indicates a weaker signal received by the receiver. This may cause the model to lose signals. A high signal strength indicates that the signal received is too strong, and this may interfere with the signals of the receiver and cause the model to lose control. Therefore, users can also choose to set the strong alarm alert.

Setup:

[TX voltage]

1. Eenter this menu, then touch ⬛ to enable this function. When this function is enabled, the icon will change to ☑ .
2. Click [Low Alarm] to select. [Value] is the corresponding status low alarm value. Touch "+" or "-" to change the trigger value. The setting of [Hight Alaram] is the same.

[RX voltage], [Signal Strength], [RSSI] can all be set using the above instructions.
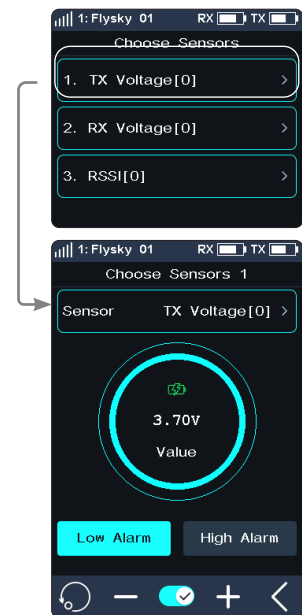
Data Record

Note: Before using this function, note that [RF Standard] needs to be set to [AFHDS3 2 Way].

This function is used to display and set data-record information.

To set the sensor to be recorded.
Click to enter the setting interface.

To display the actual page number of the coordinate diagram.

The start/stop/reset of Data Record can be controlled by an assigned control via [ASSIGN]. When a control is assigned, click the control to pause the data record, and hold the control for 2S to reset the record.

When the function is paused, swap the screen left or right to turn the page and view the related records.

To select the sensor to be viewed after clicking here, then the relevant data will be displayed in the upper coordinate.

To display data for the selected sensor. The horizontal axis represents the time, and the vertical axis represents the sensor value.

Reset icon
Click to clear all recorded data.
It can also assign controls to reset data via [ASSIGN].

To disable or enable the function.

You can set the sensor to be recorded through Data Record Set.

[Record Duration]: Selects the maximum duration of a data record.

[Curve1~4]: Selects the function displayed the curve(Refer to the following table for the function which can be set). Four curves can be set.

[Max Value]: Sets the maximum value corresponding to the function, that is, the value corresponding to the top of the vertical axis in the coordinate. If function of curve is set to Non-channel, this function item appears.

[Min Value]: Sets the minimum value corresponding to the function. If function of curve is set to Non-channel, this function item appears.

Setup:

1. Click [Data Record], then touch ▢ to enable this function. When this function is enabled, the icon will change to ▢ .

2. Click ☰ to enter data record set menu.

3. Click the curve to enter, then select an appropriate function as your desired. Click ◁ to return.

4. Click[Max Value], then touch "+" or "-" to change the value. The setting of [Min Value] is the same.
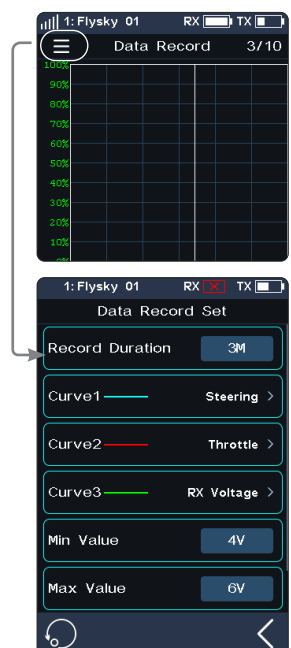
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Supported Devices, Default Values and Setting Ranges of Data Record						
Devices	Type	Default Value		Related Items for Setting		
		Min Value	Max Value	Setting Range	Step	Unit
Transmitter	Voltage	3	5	0~10	1	V
Receiver	Voltage	4	6	0~10	1	V
	BVD Voltage	5	10	0~100	1	V
Voltage Sensor	External Voltage	5	10	0~100	1	V
Temperature Sensor	Temperature	0	80	-100~200	10	°C
Altitude Sensor	Altitude	0	100	-1000~1000	10	m
RPM Sensor	Rotational Speed	0	5000	0~99900	100	rpm
	Speed	0	60	0~300	10	km/h
GPS	Speed	0	60	0~300	10	km/h
	Altitude	0	100	-1000~1000	10	m
	Acceleration	0	10	-20~20	1	m/s^2
FXS Servo	Angle	-80	80	-100~100	10	°
	Angular Velocity	-200	200	-1000~1000	10	° /s
	Voltage	4	6	0~10	1	V
	Current	0	10	0~100	1	A
	Temperature	0	80	-100~200	10	°C
PowerHD Servo	Voltage	4	6	0~20	1	V
	Temperature	0	80	-100~200	10	°C
	PWM Duty Cycle	0	100	0~100	10	/
HW ESC	Voltage	5	10	0~100	1	V
	Current	0	10	0~1000	1	A
	Rotational Speed	0	5000	0~99900	100	rpm
	Electricity Consumed	0	5000	0~99900	100	mAh
	ESC Temperature	0	80	-100~200	10	°C
	Motor Temperature	0	80	-100~200	10	°C
Current and Voltage Sensor	Voltage	5	10	0-100	1	V
	Max Value	5	10	0-100	1	V
	Min Value	5	10	0-100	1	V
	Current	0	10	0-1000	1	A
	Max Current	0	10	0-1000	1	A
	Average Current	0	10	0-1000	1	A
	Power	0	100	0-99900	10	W
	Used Capacity	0	5000	0-99900	100	mAh
i-BUS2 Servo	Voltage	4	6	0-20	1	V
	Current	0	80	-100-200	10	°C
	PWM Duty Cycle	0	100	0-100	10	/

Speed And Distance

This function is used to detect motor wheel revolutions and distance traveled.

[Speed Sensor]: Select the target sensor. If the sensor and receiver are connected, the sensor will appear in this menu automatically. You can choose between two speeds or [None].

[Set Rotation Length]: If a speed sensor is installed on the wheel, you need to define the ratation length. This length will be used to calculate the distance traveled. Click "+" or "-" to adjust the length.

[Reset Odometer 1]: Odometer 1 is used to record the distance traveled.

[Reset Odometer 2]: Odometer 2 is used to record the total driving distance, that is, it is the cumulative distance.
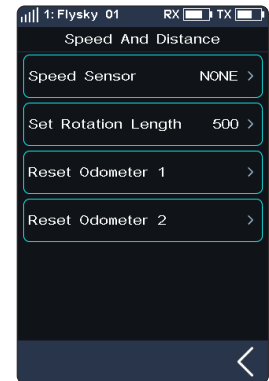
i-BUS2 Speed Sensor Set

This function is used to set the number of reflective spots on the corresponding sensor.

[Speed Sensor]: Select the sensor.

Click it to enter, then select the sensor. Click ◀ to return.

[Reflective Spot]: To set the number of sensor reflective spots. Namely, this value corresponds to the actual number of reflecting points on the device. Click "+" or "-" to adjust the number.
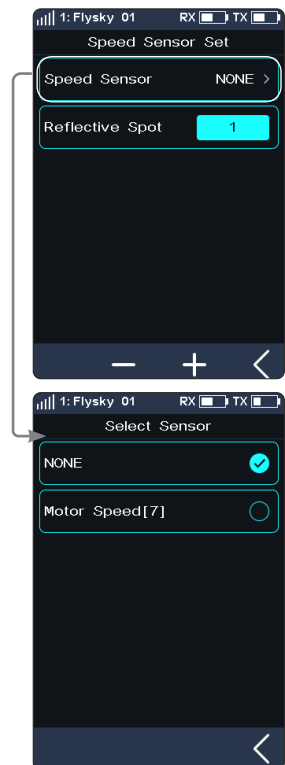
Altitude Zero Set

This function is used to set the current height to 0 m base height.

[Alitude Sensor]: To display the ID of the sensor. If multiple altitude sensors are connected, by default, this is the sensor with the smallest ID.

[Current Height]: Display the real time height information after performing zero adjustment. otherwise, it is the actual altitude information.

After performing zero adjustment, the height information before and after zero adjustment will displayed in [Sensor List]. That is, it is height and altitude.

Click 🔘 to reset the current altitude to the actual altitude. After clicking, Select "Yes" after the prompt box pops up.

GPS Set

This function is applicable to GPS module of i-BUS2protocol. Through this function, you can set the standard time zone, perform gyroscope level calibration, and view GPS parameter display interface to get relevant information. The positioning icon 📍 will appear in the top bar of the menu.

[UTC Select]: Sets UTC. Tap UTC select to enter, and tap an appropriate time zone. Then click ◀ to return.

[Gyroscope Calibration]: Calibrates the gyroscope. Before calibration, please connect the GPS sensor to the device correctly and make sure the device is placed horizontally. Tap Gyroscope Calibration to enter, then click Calibration. The system will calibrate automatically. When calibration succeeds or fails, the system prompts a pop-up screen with the success or failure of calibration. Recalibrate it in case of failure.

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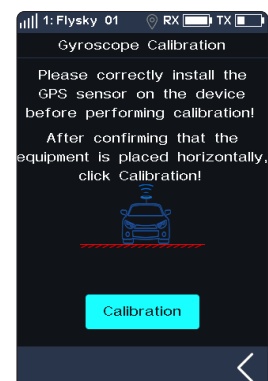
[GPS Display]: To display the information returned by the GPS sensor.

To display the number of satellites returned by GPS.

When the number of displayed satellites is more than 10, the GPS positioning accuracy is high, otherwise there is positioning error.

To show whether the positioning is successful or not. If the icon is blue indicating the positioning is successful, the icon is gray, then the positioning is failure.

To display the date and time in 24-hour clock.

Model data displaying area

To display the real-time latitude and longitude of the model.

To display the real-time latitude and longitude of the starting point.

Reset Icon
Reset the position of starting point to default value.

GPS Status Icon

Set the data source of yaw angle.

When checked, the data is from the gyroscope angle for calculation. If unchecked, the data comes from the actual motion condition.

Azimuth angle shows the relative orientation of the model relative to the starting point.

1. The direction indicated by the green icon represents the real-time moving direction of the model. The center point indicates the starting position, and the outer circle indicates the relative orientation of the model. Click " + " or "- " to change the offset angle and the step is 10°.

2. The azimuth angle can be displayed in the home dashboard area through customization.

Attitude angle displays the real-time attitude information of the model relative to the horizontal position, including the pitch angle parallel to the direction of the connection line between the vehicle head and tail and the roll angle perpendicular to this line.

1. "+" indicates pitching up or rolling right; "-" indicates pitching down or rolling left.

2. The attitude angle can be displayed in the home dashboard area through customization.

Curr and Vol Sensor Set (Current and Voltage Sensor Set)

This function is adapted to i-BUS2 protocol current and voltage sensors, to reset sensor data and related max/min data.

[Power on Recovery Data]: Sets whether the recorded data will be cleared automatically when the current and voltage sensor is powered on. And the recorded data include the maximum/minimum voltage, maximum current, average current,battery consumption capacity, and run time.

When the item is ticked, the recorded data will be cleared automatically, otherwise, it will not be cleared.

[All Data]: Clears all recorded data. And the recorded data include the maximum/minimum voltage, maximum current, average current,battery consumption capacity, and run time.

Tap [All Data], then select "YES" after the prompt box pops up.

[Limit Value Reset]: Resets all extreme value which includes the maximum/minimum voltage and the maximum current.

Tap [Limit Value Reset], then select "YES" after the prompt box pops up.

[Voltage CAL]: Calibrates the battery voltage. Note that properly connect the sensor's detection line to the device to be detected before starting calibration.

Setup:

1.   Tap [Voltage CAL] to enter the next level interface;
2.   Tap [Calibration], the system prompts that the calibration is successful. Click "OK" to finish the calibration.
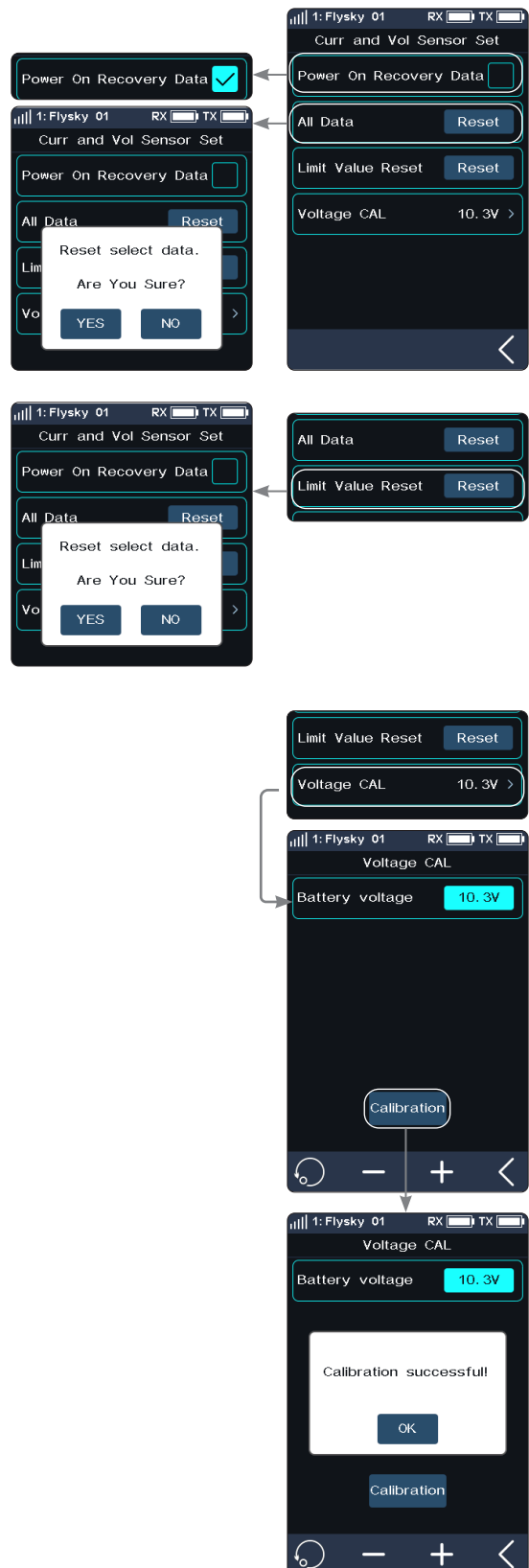
6.11 SPEED

This function allows you to set the steering speed, forward speed, brake speed and response speeds of CH3 to CH18.

The Condition function can be used for SPEED function, and you can set the rate parameter for both condition 1 and condition 1 respectively.

Note: the number of channels controlled is subject to the [Channel Number Definition].

[Steering]: Changes the corresponding speed of the servo when the steering channel is outputting at fast speed. The minimum delay is 0.00s, and maximum delay is 10.00s. The adjustment step is 0.01s.

This function can be used for adjustment when the vehicle is operated with fast steering, which may cause the vehicle to lose control or when the vehicle structure cannot withstand a too fast steering speed.

[Forward]: Sets the response speed of the throttle channel.

This function can be used to imitate models with slow acceleration and deceleration response (for example, large trucks).

[Brake]: Used for vehicle models.

The [Steering], [Forward] and [Brake] can be adjusted by assigned controls via the [ASSIGN] function, such as VR/TR controls.
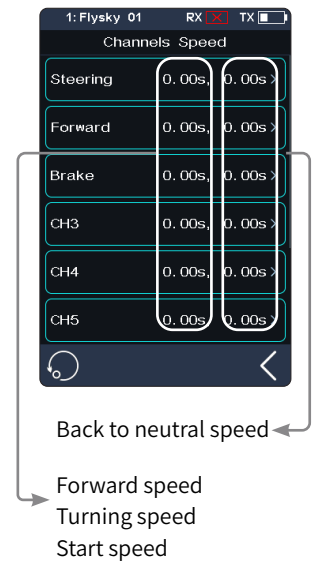
Channel Speed - Steering

Setup:

[Turn Speed]: Slows down channel output speed when the steering wheel is moving from the neutral position to maximum travel.

[Return speed]: Slows down channel output speed when the steering wheel returns to the neutral position.
1. Click [Turn Speed] or [Return Speed]. This item is highlighted when selected.
2. Click "+" or "-" to change response duration as needed.
3. Verify that the settings are normal as expected.

Progress bar 1: Show the channel output speed after the delay (as shown on the right).

Progress bar 2: Show the actual speed before the delay takes effect (as shown on the right).
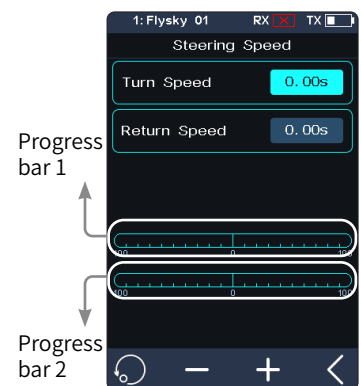
Channel Speed-Brake

This function is only applicable to normal mode. It is not displayed in ship mode.

Setup:

[Go Speed]: Sets the speed of the throttle brake.

[Return speed]: Set the speed at which the throttle brake returns to the neutral position.

1. Click [Go Speed] or [Return Speed]. This item is highlighted when selected.
2. Click "+" or "-" to change the response duration as needed.
3. Verify that settings are normal as expected.

Progress bar 1: Show the channel output speed after the delay (as shown on the right).

Progress bar 2: Show the actual speed before the delay takes effect (as shown on the right).
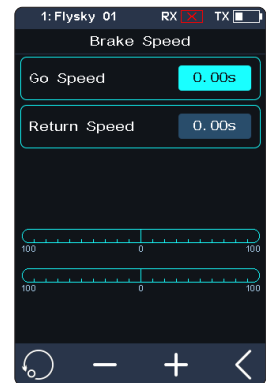
Channel Speed - Forward

This function is used to set the delay of the throttle start and return-to-neutral.

[Go Speed]: Sets the speed of throttle acceleration.

[Return Speed]: Sets the speed at which the throttle returns to the neutral position.

[Point P1]: Means the division point between the first forward travel and the second forward travel. The default point is 30%, and adjustable range is 0-99%.

[Point P2]: Means the division point between the second forward travel and the third forward travel. The default point is 60%, and the adjustable range is 1-100%.

[L]: The first travel.

[M]: The second travel. It can be set under the menu of mode 2 and mode 3.

[H]: The third travel. It can be set under the menu of mode 3.

Setup:

1. Tap the icon next to the mode, then use "+" or "-" to select the mode.
2. Click the option that needs to be set. This item is highlighted when selected.
3. Click "+" or "-" to change the response time or the percentage of the corresponding point as required. Then tap "+" or "-" to accelerate adjustment of the corresponding value.
   - The percentage of point P1 differs from the percentage of point P2 by at least 1%. The lower the percentage, the slower the throttle channel responding to the throttle trigger operation.
4. Verify the settings are normal as expected.

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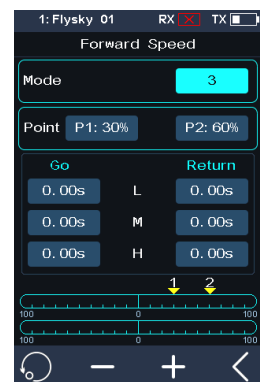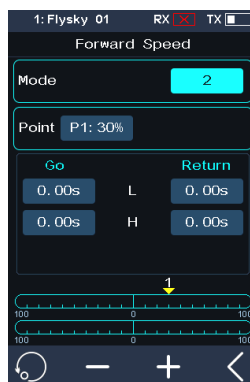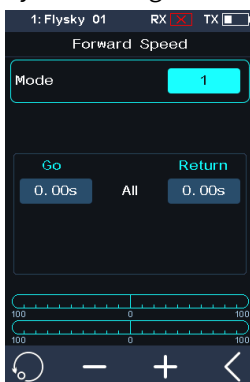
When the Boat mode is enabled, the related menus are as below.
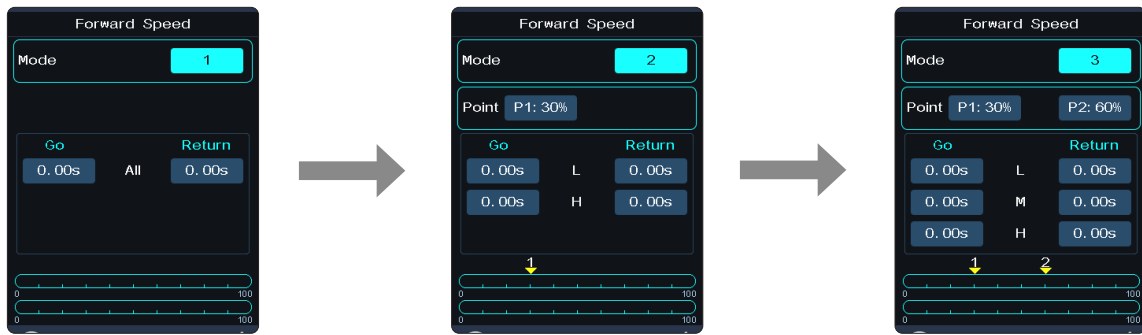
Channel Speed - CH3-CH8

This function is used to set the delay time of CH3-CH18 forward and return-to-neutral.

6.12 MIXES

This function allows you to set 5 mixing functions,that is, [4WS Mixing], [Track Mix], [Drive Mix], [Brake Mixing], and [Programming Mixes].

4WS Mixing

Used to set the wheels that control steering of the vehicle, front, rear or all four wheels.

This function is applicable to crawler with steering on both front and rear wheels.

By default, the front wheel steering is used in this function.

By default, the function is disabled.

[Mix Rate]: Set the amount of mixing from the steering channel mixing to the mixed channel. The adjustment range is 0-100%.

Setup:

1. Click [CH3] on the right side of [Mix Channel]. Then click the corresponding channel. After selection, the channel will be occupied. Click ◁ to return to the previous level
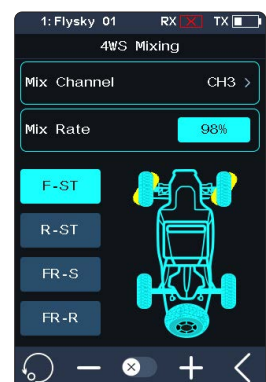
interface.

- Each channel can only be assigned one mixing function. It is not allowed to conflict with other Func Assign channel. When the selected channel is assigned with other mixing functions, the system will give a pop-up window reminder.

2. Click "+" or "-" to change the ratio as required.

3. Click ⬛ to enter Controls Assign menu, then select the steering type as required. You can select [Steering Mix Mode] in the [Assign] function, and control or switch, such as SW keys. Alternatively, you can select [Steering Mix Rear], [Steering Mix Same] or [Steering Mix Reverse], to assign a control to disable or enable, such as SW controls. Click ◀ to return, after this function is enabled, the icon will change to ☑ .

- You can select [4WS Mixing Rate]in[ASSIGN], then assign a control to adjust, such as VR/TR controls.

4. Verify the settings are normal as expected.
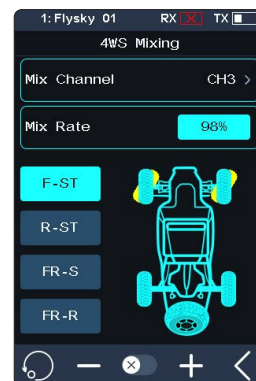
Track Mix

This function is applicable to models such as tracked vehicles and tanks, and allows one trigger or steering wheel to control the left and right tracks to move forward or steering differently at the same time.

This function allows you to set the rates of forward, backward, left and right separately. The rate adjustment range is 0-100% and the adjustment step is 1%.

The left progress bar shows the channel value of CH1 left track. The right progress bar shows the channel value of CH2 right track. The figure on the right indicates the state of operating the throttle forward separately.

Setup:

1. Select the check box on the right side of [Track Mixing] to enable this function. After the function is enabled, the icon will be change ☑ .

2. Click the rate you want to set. The selected option is highlighted.

3. Click "+" or "-" to change the ratio as required.

- The rate can be adjusted by selecting [Track Mixing Forward], [Track Mixing Backward], [Track Mixing Left] or [Track Mixing Right] in the [ASSIGN] function, with assigning a control for adjustment, such as VR/TR controls.
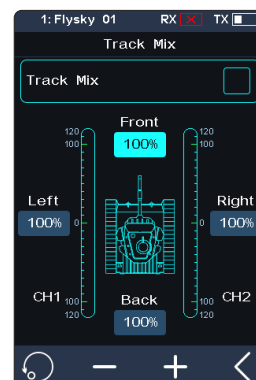
Drive Mix

Drive mix is used to set the way to control the vehicle engine drive, including three drive modes: rear drive, front and rear hybrid drive, and front drive. By default, rear drive is used.

Front drive has a shorter braking distance, which is suitable for emergency braking. In Rear drive, the front wheels can focus on steering, which is more suitable for vehicle drift. The F-R Drive (front and rear hybrid drive) is to drive the vehicle by starting all four wheels together, which can provide more traction to improve power of the vehicle in acceleration, hill climbing, and other roads.

[Mixing rate]: Include front rate (F) and rear rate (R) (100:100=F100%:R100%). The rate is only used when front and rear drive are mixed. The adjustment range of both front and rear rate is 0-100%, and the adjustment step is 1%.

Setup:

1. Click [CH4] on the right side of [Mixing Channel]. Click the corresponding channel as required. This channel will be occupied after selection. Click ◄ to return to the previous level interface.

   • Each channel can only be assigned one mixing function. It is not allowed to conflict with other Func Assign channel. When the selected channel is assigned with other mixing functions, the system will give a pop-up window reminder.

2. Click "+" or "-" to change the rate as required.

   • When the mixing ratio is 100%:100%, the ratio of [R] decreases when you click "+", and the ratio of [F] decreases when you click "-". In any state, the percentage of [F] and [R] is kept at 100%.

3. Select the drive mode as needed. The figure on the right indicates the state of rear drive mode.

4. Click 🗙 to enter Controls assign menu. You can select [drive mix rate] under the function of [ASSIGN], and assign a control for adjustment, such VR/TR controls. Click ◄ to return, after this function is enabled, the icon will change to 🗹 .

5. Verify the settings are normal as expected.
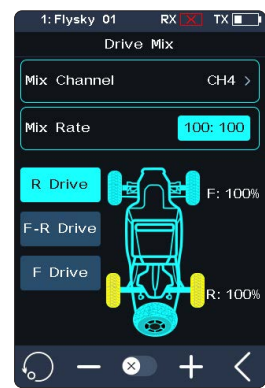
Brake Mixing

This function has two sets of brake mixing controls, to use multiple servos to control brakes; for example, models using different servos to control the front and rear brakes.

If your model uses multiple channels to control the brakes together, you can use this function to control the brake channel as a mixer channel for the throttle channel.

Setup:

1. Click [Brake Mixing 1   Off] option to enter the submenu.
2. Click [CH3] on the right side of [Mix Channel]. Then click the corresponding channel as needed. This channel will be occupied after selection. Click ◄ to return to the previous level interface.

   • Each channel can only be assigned one mixing function. It is not allowed

to conflict with other Func Assign channel. When the selected channel is assigned with other mixing functions, the system will give a pop-up window reminder.

3. Perform the settings by following the steps of setting the [EXP] and [ABS] function.

4. Use the servo display function. Verify that the settings are normal as expected.

You can select the menu corresponding to brake mixing under the [ASSIGN] function, and assign a control for adjustment, such as VR/TR controls. A pop-up window will appear in the adjustment by pressing the key, prompting the realtime value. Select [Brake Mixing 1 EXP Setting], [Brake Mixing 1 A.B.S.] or [Brake Mixing 2 EXP Setting], [Brake Mixing 2 A.B.S.] to assign SW keys to achieve two sets of brake mixing functions to enable/disable quickly.
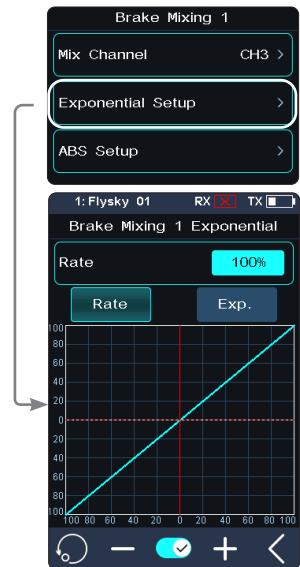
Programming Mixes

The Mixing function can be used to set the mix-control relationship between channels, containing a total of 8 groups of mixing relationships.

Setup:

1. Click [Mixing 1] or other mixing options as needed to enter the setting interface.

2. Click ⊠ to enable this function. When this function is enabled, the icon will change to ☑ .

3. Click [Master Channel], select a master channel from the list. The master channel will affect the slave channel .

4. Click [Slave Channel] and select a slave channel from the list.

5. Select [Low Side Mixing] or [High Side Mixing] as needed. Click "+" or "-" to change the percentage to adjust the amount of low end or high end mixing. Click ◄ to return to the previous menu when the setting is complete.

6. Click [Offset]. Then click "+" or "-" to change the offset associated with the master channel and the slave channel.

7. Repeat the above operations to set other mixing controls.

Assign a control in the [ASSIGN] function to adjust 8 groups of programmed mixing controls of [Low Side Mix], [High Side Mix] and [Offset] rates, such as VR/TR controls.

In addition, it is possible to quickly enable or disable Mix 1 to Mix 8 functions by a control, such as SW controls.

6.13 ABS

A.B.S. stands for auto breaking system. This function is used to stop the wheels from locking which can lead to loss of control or a skid. A.B.S. manages this by regulating the amount of pressure the breaks use, which is done by pumping the breaks on and off rather than a constant force.

The Condition function can be used for ABS function, and you can set the ABS parameter for both condition 1 and condition 1 respectively.

There are six sub menus for A.B.S. function setting, [Brake Return], [Delay], [Cycle Length], [Trigger Point], [Duty Cycle], and [Steering Mix].

In the submenus, pulses are shown as a square wave, the peaks indicating brake on, and troughs in-dicating reduction in braking. As the value changes, the square wave will change to represent the function's current settings.

The trigger point is represented as a green line on the graph.

Below the graph is a bar that shows the real-time braking position. When this function is active and the brake is applied, the green bar will oscillate in real time showing the A.B.S. in action.

The function is disabled by default. Click ⊠ to enter Controls Assign menu. Assign a control to enable or disable the function. When this function is enabled, the icon will change to ✓ .

Brake Return

Control the reduction of braking during each pulse. Can be set to any value between 0% and 100%. By default it is set to 50%. If set to 60%, when the brakes are active; the system will remove 60% of the brakes strength on each pulse.
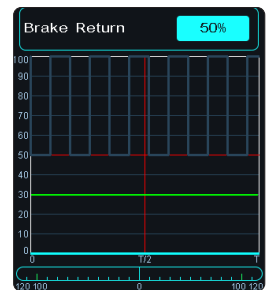
Delay

Determine how long it takes for the A.B.S. system to take effect. At a setting of 0%, the A.B.S. system will take effect as soon as the brake is applied. The higher the value, the longer it will take for the A.B.S. to function.

When the value is set to 0%, there will be no delay, meaning the breaks will be applied as soon as they are triggered. The maximum setting of 100% will result in a delay of 2 seconds.
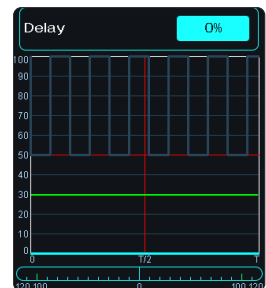
Cycle Length

Increase or decrease the time between pulses. It can be set to any value between 20% and 100%. By default it is set to 50%.The higher the value, the longer the pulse. The maximum setting of 100% will result in a cycle length of 0.5 seconds.

Cycle Length   50%
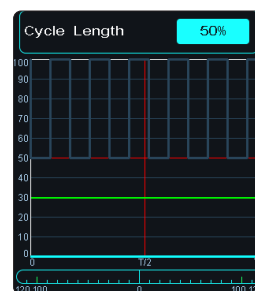
Trigger Point

Configure the point at which the A.B.S. starts to function. It can be set to any value between 20% and 100%. By default it is set to 30%. The higher the percentage, The closer the trigger position of the A.B.S. is to the full braking position.

0%-100% represents the entire braking travel movement of the throttle trigger.

Trigger Point   30%

Duty Cycle

Change the length of each pulse and the gap between them. Adjustment range is from-4 to +4 cycles. By default it is 0. When the value is changed, the peak and trough lengths of the brake pulse's square wave change accordingly.

Adjusting the brake to release rate.
When the duty cycle is set to "0", the rate is 1: 1;
When the duty cycle is set to "1", the rate is 1: 2;
When the duty cycle is set to "-1", the rate is 2: 1.

Duty Cycle   0
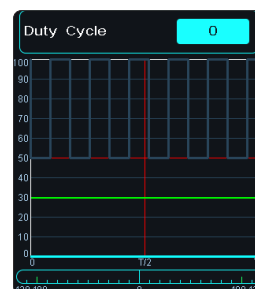
Steering Mix

A.B.S. can be enabled or disabled automatically while turning when mixed with steering wheel .

The percentage represents the trigger position through its entire range of movement. E represents inside, N represents outside; if 50% N is set, the ABS function is to turn off when within 50% (10% N-50% N), and outside 50% (50% N-100% N) is to turn on the ABS function;

If 50% E is set, the ABS function will be turned on within 50% (10% E-50% E), and the ABS function will be turned off outside 50% (50% E-100% E).

Setup:

1. Touch [⊗] to enable this function.

2. Touch a setting to select it.

3. Touch "+" or "-" to change the value.

4. Repeat as needed.

5. Test to make sure everything is working as expected.

Steering Mix   OFF

Steering Mix   100% E
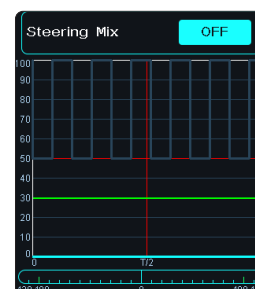
6.14 TH MID

The TH MID(throttle middle) function is used to set the neutral position of the throttle and brake to correct the problem of unequal throttle travel and brake travel of some models. If the neutral position is not set correctly, the model may start acceleration and driving directly after power-on.

Setup:

1. Click "+" or "-" to change the percentage as needed.

2. Verify the settings are normal as expected.
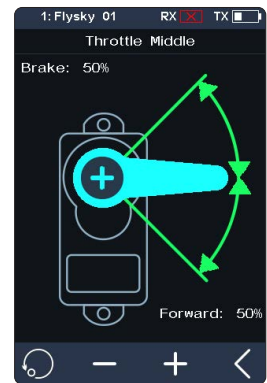
6.15 NEUTRAL

The function is used to set a "dead zone" for throttle control, in which the throttle always outputs the neutral value, and throttle channel does not change when moving the trigger.

[Forward]: When it exceeds the dead zone, the throttle channel will output this value directly to accelerate forwards.

[Dead Zone]: The range of the dead zone. By default, the value is 0%.

[Backward]: When it exceeds the dead zone, the throttle channel will brake or output this value directly to accelerate forwards.

Setup：

1. Touch [Forward], [Dead Zone] or [Backward], This item is highlighted when selected.

2. Use "+" and "- " to to change the percentage as needed.

3. Repeat with other settings as needed.

4. Test to make sure everything works as expected.
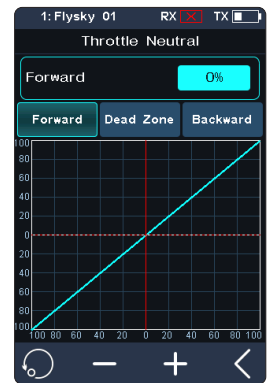
6.16 IDLE UP

The Throttle Idle Up function is used to set the engine idle for gas-powered car when the trigger is in the neutral position. After setting the Idle Up function. Idle Up function makes sure that the engine always has some throttle in order to keep it from stalling.

This function is disabled by default.

[Lock Mode]: When the lock mode is disabled, the channel data continues to decrease when the trigger is pulled back. When lock mode is enabled, pull back the trigger, and the channel data locks to the set value.

Setup:

1. Click 🔲 to enter Controls Assign menu. Assign a control to enable or disable the function. When this function is enabled, the icon will change to ☑ .

2. Click "+" or "-" to change the percentage as needed.

3. Test to make sure everything works as expected.
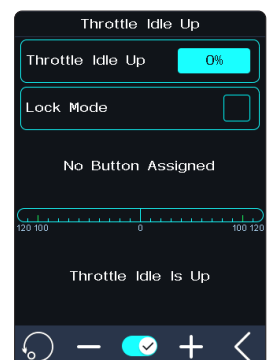
6.17 ENG CUT

After the function is enabled, the throttle servo will remain in the predefined position, and the throttle trigger cannot control the throttle output.

Setup:

1. Click 🔲 to enter Controls Assign menu. Assign a control to enable or disable the function. When this function is enabled, the icon will change to ☑ .
2. Click "+" or "-" to change the percentage as needed.
3. Test to make sure everything works as expected.
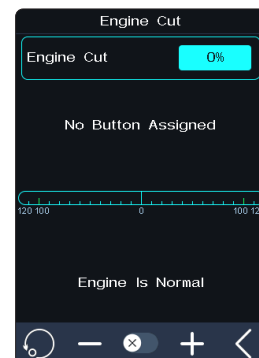
6.18 CRUISE

When the cruise function is enabled, the throttle channel remains the channel value output as the function is enabled.When the vehicle travels at the desired speed, the cruise function can be enabled. The vehicle can continue to travel at the same speed after it is enabled,but also manually increase the speed.

[Manua Acceleration]: When this function is enabled, pulling the trigger can increase the throttle amount in the cruise state, and the vehicle accelerates. When the trigger is released, the vehicle can continue to travel at the previous speed.

The function interface displays the percentage of throttle channel output value in real time.

Pull the trigger or manage the assigned control to exit cruise state.

Setup:

1. Click 🔲 to enter Controls Assign menu. Assign a control to enable or disable the function. When this function is enabled, the icon will change to ☑ .
2. Click "+" or "-" to change the percentage as needed.
   • The percentage cannot be adjusted when cruise function is not enabled.
3. Click [Manua Acceleration], increase the throttle as needed.
   • The throttle capacity can be increased through the trigger. After releasing the trigger, the throttle will return to the set value.
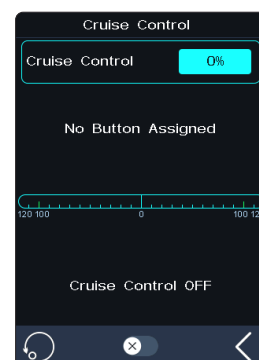
6.19 FUEL

The fuel consumption function is applicable to fuel vehicles, displaying the real-time fuel consumption. After this function is enabled, the ⬛ will be displayed in the status bar at the top of the main interface.

[Remaining Fuel]: Displays the actual remaining fuel quantity of the model vehicle in percentage.

[Tank Capacity]: Sets the capacity of the fuel tank of the model vehicle.

[Min Fuel C](Min fuel consumption): Sets the fuel consumption corresponding to the minimum throttle of the model vehicle.

[Max Fuel C](Max fuel consumption): Sets the fuel consumption corresponding to the maximum throttle of the model vehicle.

[Fuel Exp](Fuel consumption Exponential): Sets the rate of throttle trigger action to fuel consumption.

[Alarm Fuel]:Sets the fuel alarm. When the fuel is smaller than the set value, the transmitter will send an alarm.

Setup:

1. Click ⬛ to enable the function. When this function is enabled, the icon will change to ⬛ .
2. Click "+" or "-" to change the percentage as needed.
3. Test to make sure everything works as expected.

6.20 COND

You can set some functions and enable the condition mode. It supports two groups of condition mode in total(C1 and C2). You can set the condition mode in six functions, that is, [Dual rate], [Curve], [Channel Speed], [ABS], [Trims], and[Reverse]. When the condition mode is enabled, the control must be set by [Key setting] to switch the condition mode. The default condition mode is C1.

When the function is enabled, the condition mode icon (**C1** or **C2**) is displayed in the status bar at the top of the main interface.

In practice, the setting parameters of the functions are different for the same function when a model vehicle runs on different roads. In this case, the condition mode can be switched to invoke different setting parameters.

Setup:

1. Tap the function you want to set condition, such as Dual rate.
2. Click ⬛ to enable the function. When this function is enabled, the icon will change to ⬛ .
3. Set a control via ASSIGN function to switch between two conditions.
4. Access D/R function, then set the related parameters of
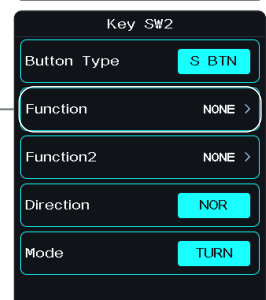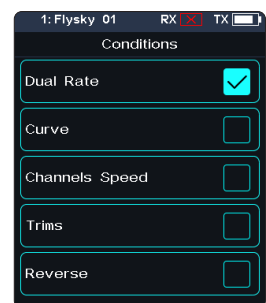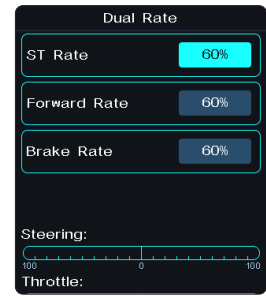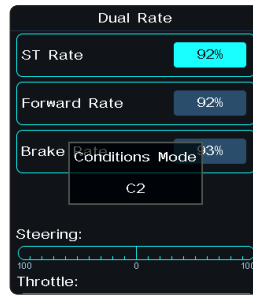
D/R under condition 1.

5. Switch to condition 2, then set the related parameters of D/R under condition 2.

6.21 LOGIC

A logic switch is a virtual switch consisted of 2 switches.

If there is any mathematical logic relationship between certain switch controls and the other two switch controls, this function can be used to express this logic and use it as a logic switch in control.

The system supports to set two groups of logic switches in total. There are three logic difinations between two switches: AND, OR and XOR. [AND] If switch 1 and switch 2 are active, then the logic switch will be on. If either switch 1 or switch 2 is off, or switch 1 and switch 2 are both off, the logic switch is off. [OR] If either switch 1 or switch 2 is active, or switch 1 and switch 2 are both on, then the logic switch will be on. If switch 1 and switch 2 are both off, the logic switch will be off.[XOR] If either switch 1 or switch 2 is active, then the logic switch will be on, but if switch 1 and switch 2 are both active or off, the logic switch will be off.

[Logic Switch 1 or 2]: Sets the logic switch.

Click to enter the setting menu.

[Switch 1 or 2]: Sets a switch of the logic switch.

Click to enter the setting menu. then select an appropriate switch, click ◀ to return to the previous menu.

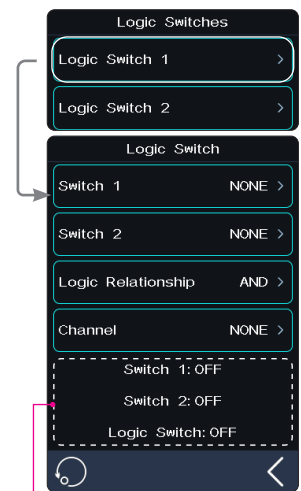[Logic Relationship]: Sets the logic relationship.

Click to enter the setting menu. then select an appropriate logic relationship , click ◀ to return to the previous menu.

[Channel]: Sets a channel corresponding to the logic switch.

Click to enter the setting menu.

The logical relationship between logical switches are as following.

Status display: Displays the status of the two switches and the status of the logical switch after logical operation.

Switch	Logic Relationship											
	AND				OR				XOR			
Switch1	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON
Switch2	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Logic Switch	OFF	OFF	OFF	ON	OFF	ON	ON	ON	OFF	ON	ON	OFF
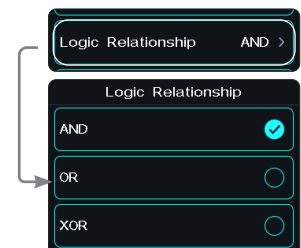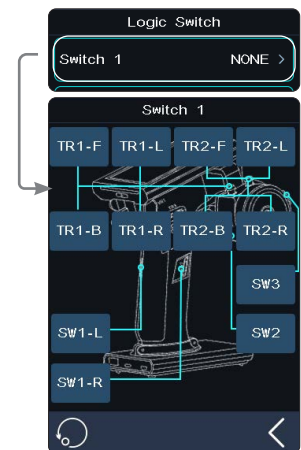
6.22 BOAT

This function is used only when you are using a model boat. When this function is active, the throttle channel is set to its lowest position and the brake functionality is disabled.

To enable this function, select [Boat] to switch to boat mode. When switching is successful, [Normal Mode] is changed to [Boat Mode]. The check box is selected.
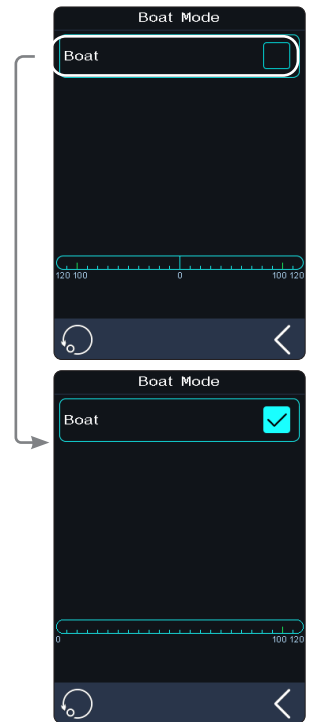
6.23 DISPLAY

This function displays the model's channel output and can be used to test output and servo range.

Press 🔴 to start servo test mode, which will move all the channels slowly though their entire range of motion. Press 🟢 to turn off servo test mode.

⚠ WARNING	•	Make sure the model engine is powered off while the test function is activated.

Click 🔘 to enter the channel display interface. In this list, you can view the data progress bar of all channels and the percentage data of channels.
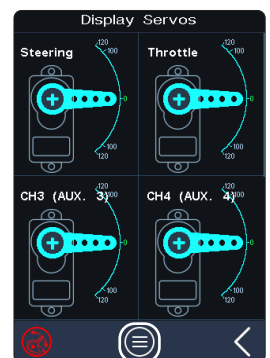
## 6.24 SVC

The receivers configured with this function are INr4-GYB (built-in gyroscope) and GMr (with gyroscope interface).

After the transmitter has bound with the receiver in AFHDS3 2 Way mode, press the SVC to access the function, coming along a prompt for gyroscrop level calibration. It is recommended that the user should follow the prompt on the interface to complete the gyroscope calibration when using the gyroscope for the first time.
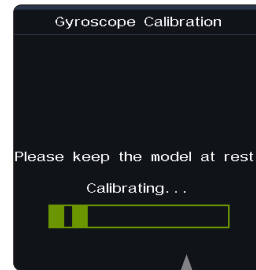
Assign controls to quickly enable or disable the intelligent vehicle control functions, such as SW control.

Assign controls to quickly adjust steering sensitivity, throttle sensitivity, priority, and advanced functions such as steering wheel sensitivity, damping range, damping setting, and vibration filter parameters. such as R/TR controls.

Assign controls to quickly switch between model vehicle types. such as SW controls.
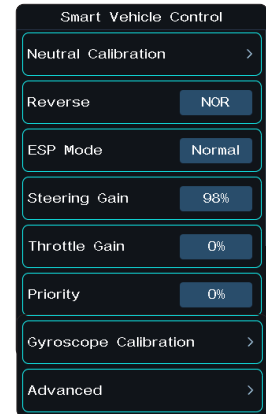
Neutral Calibration

Used for gyroscope to calibrate steering and throttle neutral to make the best driving condition when the vehicle is driving normally.

Before enabling the SVC function, you need to adjust the vehicle's steering servo volume, neutral trim and throttle neutral to the best driving condition. After completion, start the [Smart Vehicle Control] function for neutral calibration. Every time you change the trim or throttle curve, you need to calibrate the neutral position. The steering throttle should be placed in the neutral stationary state during the calibration process.
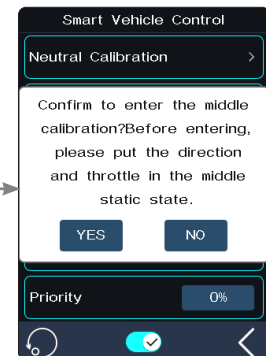
Reverse

You can set the direction when the gyroscope mixes with the steering channel.

ESP Mode

Used for model assisted stability. Two modes are available: Normal/Lock.

[Normal]: When the vehicle is yawing or steering, the gyroscope automatically provides an opposite compensation to control the servo to keep it stable or prevent drifting according to the angular velocity generated.

[Lock]: If the steering wheel is return-to-center, the gyroscope will control the servo in the opposite direction according to the yaw angle when the vehicle is yawing, to make it go back to the expected direction (if the steering wheel is not return-to-center in the "Lock mode", it will be the same as the "Normal mode").

Steering Gain

Used to change the sensitivity of the mixing steering channel. And the setting range is between 0% and 100%.

Throttle Gain

Used to change change the sensitivity of the mixing throttle channel. And the setting range is between 0% and 100%.

Priority

Used to set the control ratio between steering wheel control and gyroscope in the steering, i.e., turning radius. In direction turning by using the steering wheel, the steering angle will be reduced due to the influence of gyroscope mixing. When the value is 0%, the mixing control is the strongest, that is, the turning radius is the largest. When the value is 100%, the mixing control is 0, that is, the turning radius is the smallest. And the setting range is between 0% and 100%.

Gyroscope Calibration

Used for the first time to enable the gyroscope via binding or gyroscope calibration required after replacement.The model keeps a stable and stationary state. Click calibration. The receiver flashes twice and exits automatically. This indicates that the calibration is successful.

(The above are the adjustable parameters when the transmitter is adapted to the GMr receiver and FS-GY01 gyroscope, and it is also adjustable when it is adapted to the INr4-GYB receiver.)

Advanced

To adapte INr4-GYB receiver compatible with model drift cars, etc. You can set type of the model cars, and customize parameters for [ST Wheel Gain], [Damper Point], [Damper] and [Filter].

[ST Wheel Gain]: Adjustment of intervention ratio of steering operation to gyro control, It is more sensitive in the steering control when the value increases.

[Damper Point]: Adjusts the servo to the damper point in front of the target angle position. In the damping interval, the servo oscillation speed will be slowed down. The higher the value, the larger the interval in which the servo speed is slowed down.

[Damper]: Slow down the servo speed in the damper point, and adjust the damping effect in the damper point. The higher the value, the slower the servo slowing down in the damper point. As a result, it takes longer time for the servo to reach the target angle. This parameter needs to be set together with [Damper point] to achieve the best result.

[Filter]: Used to suppress jitter. The higher the value, the stronger the jitter suppression.

Setup:

1. Tap 🔲 to enable this function. When this function is enabled, the icon will change to 🔲 .

    • If the gyroscope is not connected, this function cannot be activated, and the system prompts "The current receiver is not properly connected to the gyroscope".

2. Click [Neutral calibration]. A pop-up box will appear "Are you sure you want to enter neutral calibration? Put the steering and throttle in the neutral stationary state before entering". Click "Yes". The transmitter enters the calibration state. The system prompts successful calibration with sound reminder.

3. If you want to change the direction of action, please click [Reverse]. If the function is set to reverse, it will show "Reverse";

    • The method of replacing EPS is the same as above.

4. Under this function, you can also set the percentages of [Steering Gain], [Throttle Gain], and [Priority]. The adjustable percentages range is 0% to 100%. After selecting the option, click "+" or "-" to change the percentage.
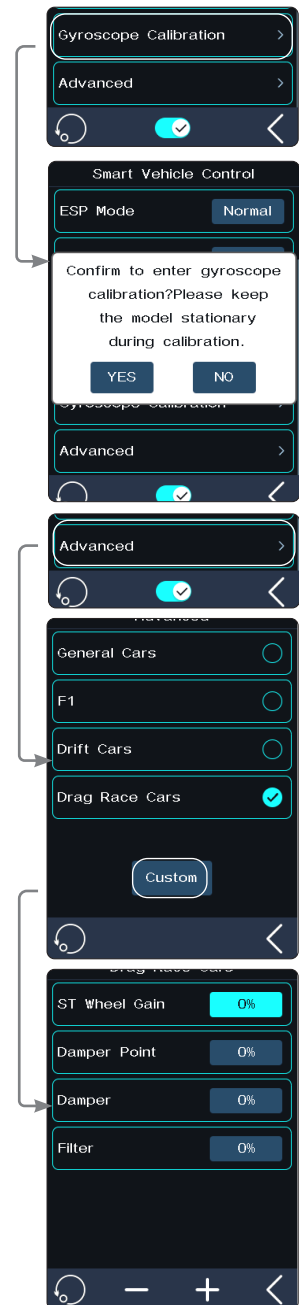
5. Click [Gyroscope calibration]. A pop-up box will appear, indicating"Are you sure you want to start the calibration". The system prompts successful calibration with sound reminder.

    • When calibrating the gyroscope, please make sure the model is in a stable and stationary state.

6. Tap [Advanced], then select a type for the model car. After clicking [Custom], tap an item you want to set among [ST Wheel Gain], [Damper Point], [Damper] and [Filter]. Afterwards, click "+" or "-" to set to the desired value.

6.25 TRAINER

Noble NB4 Pro+ supports three function modes: Trainer, Student and H Track. Transmitters set to Trainer or H Track Mode accept external signals to control the model, that is, the trainer interface or head tracker interface has the ability to recognize external PPM signal input. Transmitters set to Student Mode only output PPM signals and do not recognize the input signals.

Two transmitters (one for Trainer mode and one for Student mode) can be connected via a double-ended Type-C cable to realize the trainer function.

One transmitter (H Track mode) can be connected to the headset via head tracker cable to realize the head tracker function.

Setup:

1. Find this function in the menu and click ⬛ to enable this function. When this function is turned on, the icon will change to ⬛ .

    • You can assign a control in the [ASSIGN] interface to enable or disable this function.

2. Click Mode (it is Trainer by default) to switch to Student and H Track.

3. Perform the test to ensure that the settings work as intended.
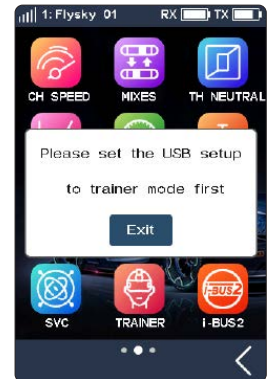
Trainer

When the Trainer Mode is set to Trainer, the transmitter only supports Trainer function at this time.

Setup:

1. Click to enter [Trainer].

2. Click [Trainer Mode Setup]to select to turn on [Steering], [Throttle], [CH 3-18].

    • The number of channels displayed is based on [Channel Number Definition] in [MODEL].

3. Perform the test to ensure that the settings work as intended.

Click ⬛ to reset the Trainer Mode function. If you select [Yes] in the pop-up window, all settings are restored to the default values. If you select [No], the pop-up window closes directly.

Student

When the Trainer Mode is set to Student, the transmitter only supports Student function at this time.

[Signal Polarity]: High level is valid by default positive. Some devices may recognize low level as valid signal. At this time, set the signal polarity to negative, that is, low level is valid.

[Number of Channels]: set the number of channels in a PPM signal. By default, a PPM signal contains 8 channels. The setting range is 4-18, and the step is 1.

[Period]: Refer to the time of transmitting a PPM signal. The standard 8-channel PPM signal period is 20ms. The range is 12.5 - 45ms, and the step is 0.5ms.

- When fewer channels are used, a shorter period can be set to shorten the time required to send a signal to reduce latency. However, the setting of the period can only shorten the idle period, instead of effective signal duration. Therefore, the setting of the period will not reduce the number of signal channels. When the number of channels increases and the effective signal sending time is greater than the period, the system will process the signal in the minimum idle mode, and the interface setting value will not be changed accordingly.

[Starting Level]: The start mark time identifies the PPM signal. Default value is 400us. The range is 100 - 700us, and the step is 50 us.

Setup:

1. Click to enter [Student].

2. Click [Signal Polarity] to switch to negative low level is valid.

    - Some devices may recognize a low level as a valid signal, and at this time [Signal Polarity] should be switched to negative.

3. Click [Number of Channels], [Period] or [Starting Level]. When selected, this item is in high-luminance state.

4. Click "+" or "-" to change the number of channels, period or starting level as needed. Long press "+" or "-" to accelerate the adjustment of the corresponding values.

5. Perform the test to ensure that the settings work as intended.

Click ⊙ to reset the Student Mode function. If you select [Yes] in the pop-up window, all settings are restored to the default values. If you select [No], the pop-up window closes directly.
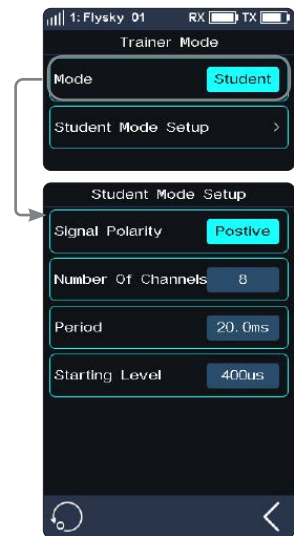
H Track

When the Trainer Mode is set to H Track, the transmitter only supports Head Tracker function at this time.

Setup:

1. Click to enter [H Track].

2. Click the corresponding channel in the list to assign (by default, it is unassigned). You can assign CH1-CH8 as the control channels.

    - The number of channels displayed is based on [Channel Number Definition] in [MODEL].

3. Perform the test to ensure that the settings work as intended.

Click ⊙ to reset the Head Tracker Mode function. If you select [Yes] in the pop-up window, all settings are restored to the default values. If you select [No], the pop-up window closes directly.

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Notes:

1. Users need to prepare the cable for the Trainer function (dual-ended Type-C cable) and the cable for the Head Tracker function (Type-C port on one end and audio port on the other end in advance).

   • If users do not have a suitable head tracker cable, the FS-XC201 Type-C cable can be used to change the cable according to the definition of Type-C cable sequence, retaining the Type-C connector of the Type-C cable. Use a plier and other tools to cut off the other end of the Type-C cable, and lead out the wire cores wrapped by the Type-C cable. The user confirms which two wires are the ground line (GND) and the signal line (PPM). Generally, the black wire core is the ground line and the white wire core is the signal line. It is subject to the actual measurement of the wire sequence.

   • Take the S-terminal of the head tracker interface as an example. Before rewiring, you need to confirm the pin definition of the S-terminal, so as to lead out the earth wire (GND) and signal wire (PPM) wrapped in the head tracker cable. The steps are similar to those of rewiring FS-XC201 Type-C cable. Keep the S-terminal connector of the head tracker cable, cut off the other end with a plier and other tools, and lead out the cores wrapped in the head tracker cable, and then connect the two cores of the FS-XC201 Type-C cable with the two cores of the head tracker cable. Then you can use the head tracker function normally (the GND line connects to the GND line, and the Signal line connects to the signal line).

   • Take the 3.5mm head tracker interface as an example. Choose 3.5mm Type-C cable to change to 3.5 mm audio port adapter cable. You need to confirm in advance whether the audio port of the FPV glass outputs PPM signals (For details, check FPV glasses manual.). Meanwhile, make sure that the signal line (PPM) of the Type-C cable connects to the PPM signal line of the audio port. If the connection is not established, the transmitter will not be able to correctly identify the PPM signal output from the headset, and will not control the headset.
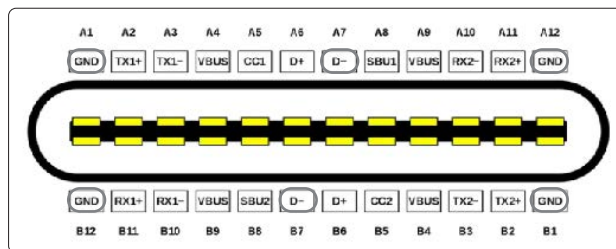
Type-C Wire Sequence

Type-C wire sequence definition:

Noble NB4 Pro+ transmitter base Type-C interface uses GND, USB_DM (D-pins) , where the D- pin is used to transmit and receive PPM signals.

2. Before enabling this function, you need to select Trainer Mode by choosing [System] >[USB Setup].

3. To enable the Trainer function, short press the power button of both transmitter bases to make sure that the bases of both transmitters are activated. Meanwhile, make sure that the two transmitters are connected correctly. To realize the head tracker function, short press the power button of one transmitter base to make sure that the base of the transmitter is activated, and make sure that the headset is connected correctly.

4. Noble NB4 Pro+ Trainer Interface of transmitter can adaptively identify the input PPM signals. Most of the devices that support PPM output can be used as the external input signal source of the Trainer Mode. However, some of the devices may not support this function, and you can set up the PPM output of the Trainer Interface to match the external devices that have the special requirement of identifying the PPM signal.

5. When the Trainer transmitter does not detect the Student transmitter , for example, Student switching transmitter turn-off and cable disconnection of Student transmitter, the control right is automatically returned to the Trainer transmitter.

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6.26 BEGINNER

The beginner mode is suitable for entry level players to improve the safety of operations by limiting the amount of throttle servo.

This function is hidden by default. You need to enable it manually via [MODEL]>[Custom Main Menu].

Setup:

1. Go to the [Custom Main Menu] menu under the [MODEL] menu, and select the [Beginner] check box. After selection, this function is displayed on the menu interface.

2. Find the function in the menu and click ▣ to enable this function. When this function is enabled, the icon will change to ▣.

    Assign SW type buttons to enable/disable the beginner function.
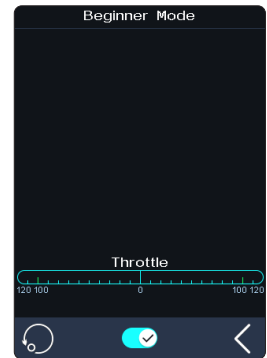
6.27 i-BUS2

The i-BUS2 device settings function is used to set up the i-BUS2 devices, such as FS-iBH07 Hub or i-BUS2 protocol servo.

*   At the transmitter side, you firstly need to set the receiver interface to be connected to the iBUS2 device as i-BUS2 via [RX interface protocol] function.

If the transmitter is normally connected to the i-BUS2 HUB, you can set it as PWM converter.

If the transmitter is normally connected to the i-BUS2 sensor type device, you can access the sensor setting interface through this function.

If the transmitter is normally connected to the i-BUS2 type servo or ESC, you can set the relevant function parameters, monitor data, and assign channels for controlling devices.
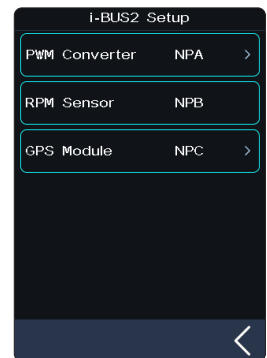
FS-iBH07 Extender

When the transmitter detects the i-BUS2 HUB device, the i-BUS2 HUB device can be set as a PWM converter or reset it back to the i-BUS2 HUB device via this function.
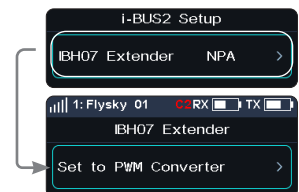
FS-iBH07 Extender

When the transmitter detects the i-BUS2 HUB device, the i-BUS2 HUB device can be set as a PWM converter or reset it back to the i-BUS2 HUB device via this function.

Setup:

1. Click [i-BUS2 Setup] to enter the setting menu.

2. Tap [i-BH07 Extender　NPA], then click [Set to PWM converter]. After click [OK] in the pop-up window, tap [PWM Coverter　NPA].

3. Tap [Set to i-BUS2 Extender] to set it back to HUB. And tap one interface to enter, then click a channel to set as the output channel of the converter.

4. Tap ◄ to return, a propmt pop-up window comes along with it "Whether to set the frequency of PWM converter synchronous", then click [YES] or [NO] to exit. If you select YES, it will be synchronous, otherwise, it's in the contrary.

   • The voltage returned from the extender can be displayed in real time in the [Sensor] menu.

   • When a servo is connected to the interface set to i-BUS2 protocol, it will display the servo type and the interface in [i-BUS2 Setup] menu.
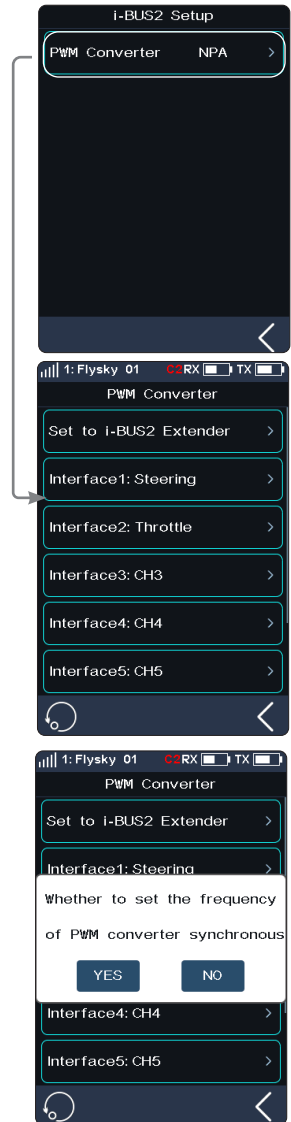
i-BUS2 SENSOR

When the transmitter detects an i-BUS2 sensor, you can set the function parameters of the sensor in this function. Refer to 6.10 SENSOR for more details.

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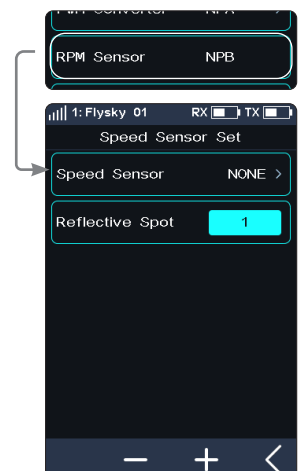
i-BUS2 SERVO (FXS260/380)

When the transmitter detects the i-BUS2 FXS260/380 servo, you can use this function to set the relevant function parameters of the servo, monitor the information returned from the servo, and assign the channel for controlling the servo.

Servo Setup

Set the function parameters to adjust the corresponding servo.

[Soft Start]: Sets the response speed of the servo instant startup.

[Thermal Protection]: Enables/disables the thermal protection function of the servo.

[Power]: Sets the output power of the servo when it is working.

[Boost]: Sets the voltage of the servo instant startup, so as to change the startup strength of the servo.

Setup:

Select the function item, then click "+" or "-" to change the percentage or the option.

Data Sense

Monitor the return information from the corresponding servo.

Tap [Data Sense]to enter the Data Sense interface. You can view the relevant information.

You can also tap ◉ to enter the Data Record interface.

Note: If the sensor data record has been set to display information related to this i-BUS2 servo, then click to enter the data recording interface. Otherwise, a pop-up window will prompt whether to switch to the information about the device. Click YES to switch, click NO not to replace, and the original device information will still be displayed.

Channel

Assign the corresponding channel to control this servo.

Tap [Channel] to enter, then tap an appropriate channel. Afterwards, click ◀ to return to the previous interface.

i-BUS2 SERVO (Power HD)

When the transmitter detects an i-BUS2 servo (Power HD), you can use this function to set the relevant function parameters of the servo, monitor the information returned from the servo, and assign the channel for controlling the servo.

The settings of Power HD servo parameters are similar to those of the FXS260/380. Refer to the description of FXS260/380 servos. You can save Power HD servo parameters as two sets of configuration parameters. Two sets of commonly used parameters can be saved as Configurations 1 and 2, respectively. Both can be switched by setting a control.

Setup:

1. Two sets of commonly used parameters can be set and saved as Configurations 1 and 2 by taping Save config 1 or Save config 2, respectively.

2. Tap 🔳 to enter Config Switch Switch interface.

3. Select a control, then tap 🔘 to enable this function. When this function is enabled, the icon will change to ☑ . Then the two sets of configurations can be switch by this control.

Click 🔄 to reset the settings to the default data, that is, data of Configuration 1. If the data of Configuration 1 is not set when you click 🔄 to reset the data. The system prompts to save the data of Configuration 1 first.

About the setting of PowerHD servo on Data Sense and Channel, refer to the description of FXS260/380 servos.

Note: For details about Power HD parameters, see the corresponding manual of Power HD servo.

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i-BUS2 SERVO

When the transmitter detects an i-BUS2 servo, you can use this function to set the relevant function parameters of the servo, monitor the information returned from the servo, and assign the channel for controlling the servo.

The settings of i-BUS2 servo parameters are similar to those of the Power HD. Refer to the description of Power HD and FXS260/380 servos.
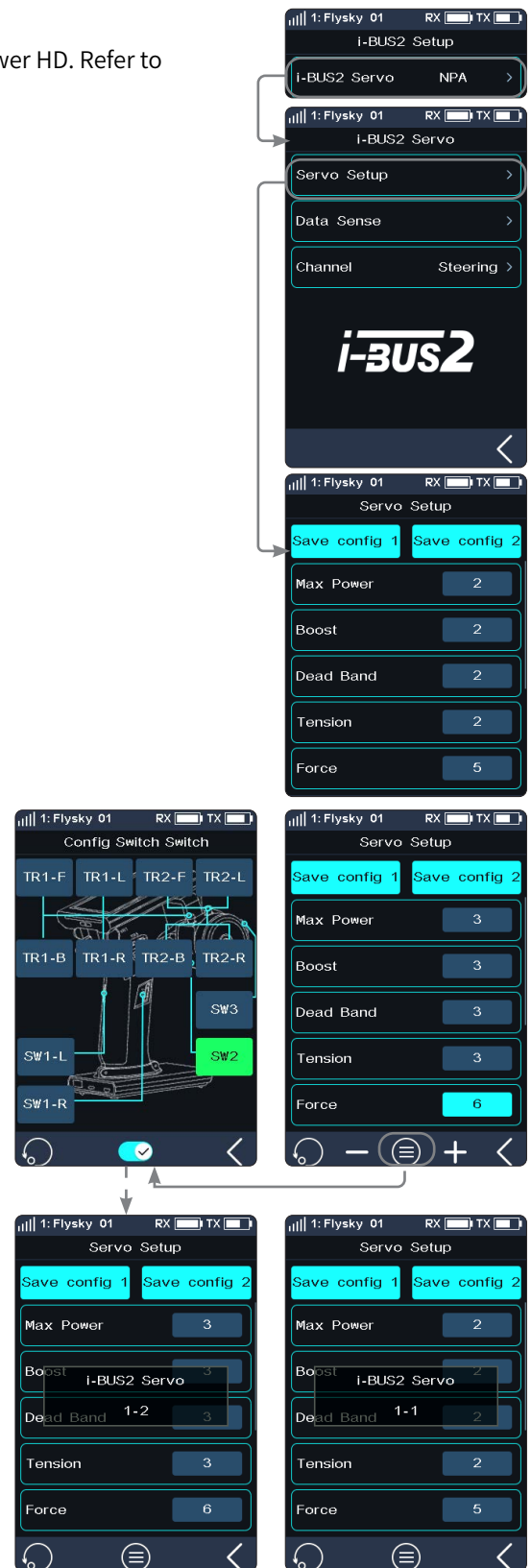
About the setting of i-BUS2 servo on Data Sense and Channel, refer to the description of FXS260/380 servos

Note: For details about i-BUS2 parameters, see the corresponding manual of i-BUS2 servo.

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i-BUS2 ESC (XERUN AXE R2)

When the transmitter detects an i-BUS2 i-BUS2 XERUN AXE R2 ESC, you can use this function to set the relevant function parameters of the ESC.

Servo Setup

Set the function parameters to adjust the corresponding ESC

Setup:

After selecting the function item to be set, click "+" or "-" to adjust the value or option; click ⚠ and then click [Yes] to send the set parameters to the ESC device, which will take effect after the ESC is restarted.

Notes:
1. The RPM Decrease Rate can be set only when the RPM/TH Matching is set to Disabled.
2. For details about ESC parameters, see the corresponding manual of ESC.

Data Sense

Monitor the return information from the corresponding ESC.

Tap [Data Sense]to enter the Data Sense interface. You can view the relevant information.

You can also tap ◉ to enter the Data Record interface.

Note: If the sensor data record has been set to display information related to this i-BUS2 ESC, then click to enter the data recording interface. Otherwise, a pop-up window will prompt whether to switch to the information about the device. Click YES to switch, click NO not to replace, and the original device information will still be displayed.

Channel

Assign the corresponding channel to control this ESC.

Tap [Channel   Throttle   >] to enter, then tap an appropriate channel. Afterwards, click ◀ to return to the previous interface.

i-BUS2 ESC (XERUN AXE R3)

Note: This function is available for version 1.0.6 or later.

When the transmitter detects an i-BUS2 XERUN AXE R3 ESC, you can use this function to set the relevant function parameters of the ESC.

Servo Setup

Set the function parameters to adjust the corresponding ESC.

Setup:

After selecting the function item to be set, click "+" or "-" to adjust the value or option; click ⚠ and then click [Yes] to send the set parameters to the ESC device, which will take effect after the ESC is restarted.

In addition, for [Max. F. Force], [TH Increase Rate], [RPM Decrease Rate], [Max. R. Force], [Max. Brake Force], [Drag Brake Force], [Drag Brake Rate], [Turbo Timing], and [Turbo Delay], you can also adjust the parameters in real time (parameters are not saved) by using the VR/TR type controls assigned by the [ASSIGN] function. However, in this functional interface, it cannot be adjusted through VR/TR controls. It can be adjusted through VR/TR controls in other interfaces, and a pop-up window will pop up to prompt the real-time adjusted value. Note that when adjusting [Drag Brake Force] through the control, the adjustment range is the same as the range set through [Servo Setup].

Notes:
1. The RPM Decrease Rate can be set only when the RPM/TH Matching is set to Disabled.
2. For details about ESC parameters, see the corresponding manual of ESC.

Data Sense

Monitor the return information from the corresponding ESC.

Tap [Data Sense]to enter the Data Sense interface. You can view the relevant information.

You can also tap ▤ to enter the Data Record interface.

Note: If the sensor data record has been set to display information related to this i-BUS2 ESC, then click to enter the data recording interface. Otherwise, a pop-up window will prompt whether to switch to the information about the device. Click YES to switch, click NO not to replace, and the original device information will still be displayed.

Channel

Assign the corresponding channel to control this ESC.

Tap [Channel: Throttle] to enter, then tap an appropriate channel. Afterwards, click ◀ to return to the previous interface.

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6.28 HANDLE

It is used to assign and monitor the controls of the external USB devices of the base. To replace the transmitter controls with external USB device controls to control the transmitter's channels or functions, use the[HANDLE](gamepad) function.

Assign Control

Used to assign a channel or function to the selected control.

Sticks

Assign the channel or function for joystick control , to allow users to set relevant functions.

[Function] : Sets the function of the selected control.

[Direction]: Sets the data direction of the selected control. It can be set to NOR or REV.

[Dead Zone]: Sets the neutral dead zone value of the automatic self-centering joystick.

Setup:

Tap the stick to enter, then click "+" or "-" to change the percentage or select the option.

Tap ▤ to enter the Display Control interface, to allow users to monitor all control information, such as name and status.
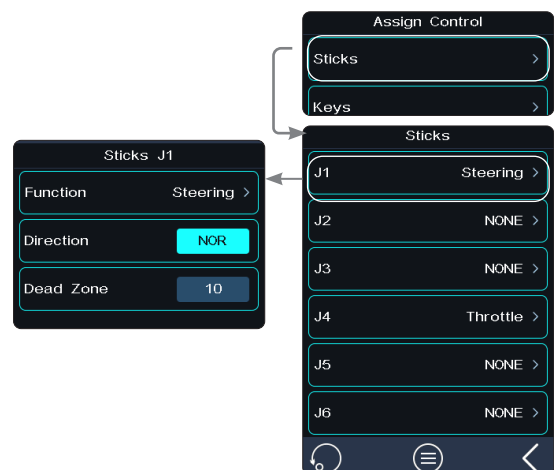
Keys

Assign the channel or function for button control, to allow users to set relevant functions.

[Mode] : Sets the effective button mode. It can be set to Turn or Trigger, and the Trigger mode is the default mode.

For the [Function] and [direction] descriptions, refer to the descriptions of Sticks.

The settings of Keys are similar to those of the Sticks, refer to the description of the Sticks.
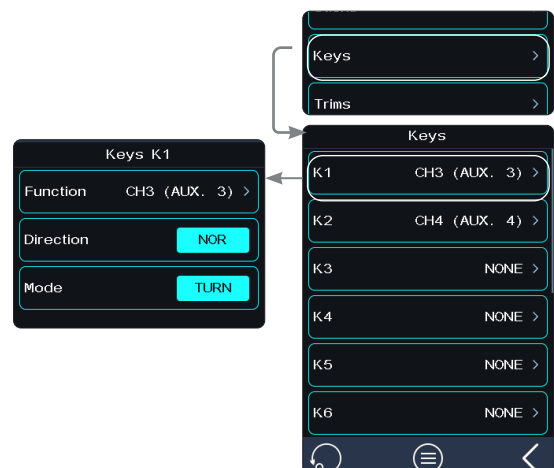
Trims

Assign the channel or function for trim control , to allow users to set relevant functions.

[Step] : Sets the valid value for each operation of the trim control.

For the [Function] and [direction] descriptions, refer to the descriptions of Sticks.

The settings of Trims are similar to those of the Sticks, refer to the description of the Sticks.
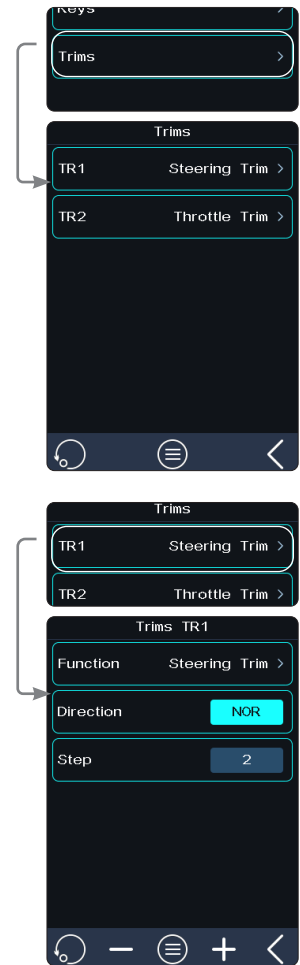
Display Control

Display the raw data and assignment status of all controls.

Setup:

Tap [Display Control] to enter. Then you can view the related information.
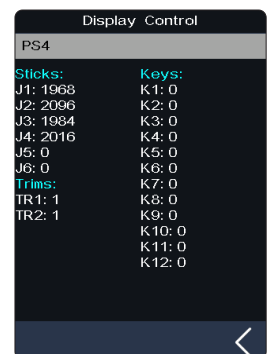
6.29 HELP

To obtain the user manual via this function. Users can contact us through social accounts listed on the interface. Users can call up the QR code and scan the code according to their needs.

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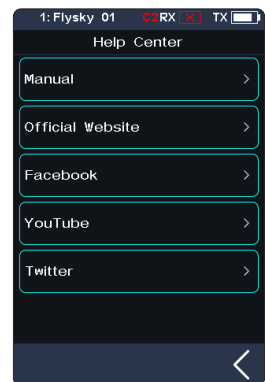
7. RX SET

This section introduces details functions relate to receiver and their use.

7.1 Bind Set

This function is used to adjust the transmitter to the binding state so that it can bind with the receiver.

Noble NB4 Pro+ supports a dual-receiver mode. The ex-factory bind settings of the transmitter and receiver are completed successfully.

If you need to re-bind, please follow the following steps for the bind between the transmitter and receiver.

Classic Version (Take FGr4P as an example)

Classic version receiver mode is only applicable to adaptations between the transmitter and receivers such as FGr4, FGr4S, FGr4P, FTr4, FTr10 and FTr16S.

1. Insert the bind cable into the receiver's Bind port,and plug the power cable into any other port. At this time, the receiver LED will flash quickly.
2. Turn on the transmitter. Click 🔘 and enter the [RX SET], and select [Bind Set] in the menu.
3. Click [Classic RX]. Then click [Start Bind]:

   • When the RF standard selection is AFHDS 3 2 way, the receiver LED is solid on, indicating the binding is successful. The transmitter will automatically exit the binding interface.

   • When the RF standard selection is AFHDS 3 1 way, the receiver LED flashes slowly, after the receiver LED becomes slow flashing, then put the transmitter to exit the binding state. At this time, the receiver LED is solid on indicating the binding is successful.

4. The binding is successful. Take off the binding cable and power cord from the receiver.
5. Reconnect the power cord to the receiver. Check whether the servo is working properly. If a binding is required again, repeat the above steps.
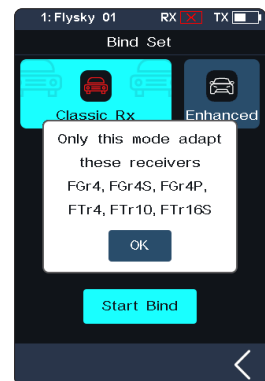
Enhanced Version (Take FGr8B as an example)

In the use of an enhanced version receiver, if one receiver cannot meet the demand, you can use the dual-receiver mode.

1. Press the Bind button on the receiver for seconds, and then connect the power cord to any interface on the receiver. At this time, the receiver LED will flash quickly.

   • Please make sure your transmitter is not connected to other receivers before binding.

2. Turn on the transmitter. Click 🔘 and enter the [RX SET], and select [Bind Set] in the menu.
3. Click [Enhanced RX]. The system prompts "After switching you need re-binding,
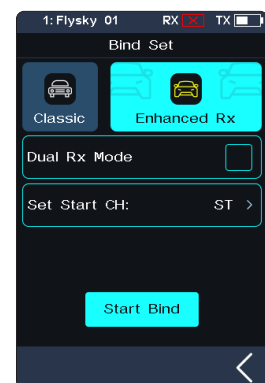
Are you sure?". Then click [Yes].

4. Click [Set Start CH]. And click the corresponding channel. After selection, this channel will become the first channel to receive transmitter signals. Click ◀ to return to the previous level interface.

5. Click [Start Bind]:

   • When the RF standard selection is AFHDS 3 2 way, the receiver LED is solid on, indicating the binding is successful. The transmitter will automatically exit the binding interface.

   • When the RF standard selection is AFHDS 3 1 way, the receiver LED flashes slowly, after the receiver LED becomes slow flashing, then put the transmitter to exit the binding state. At this time, the receiver LED is solid on indicating the binding is successful.

6. The binding is successful. Take off the power cord from the receiver.

7. Reconnect the power cord to the receiver. Check whether the servo is working properly. If a bind is required again, repeat the above steps.

   • If you want to use the dual receiver mode, click the check box on the right side of [Dual Receiver Mode]. The icon will change to ☑ and then the transmitter will enter dual receiver mode. After selection, bind the transmitter with the primary receiver and the secondary receiver in turn.
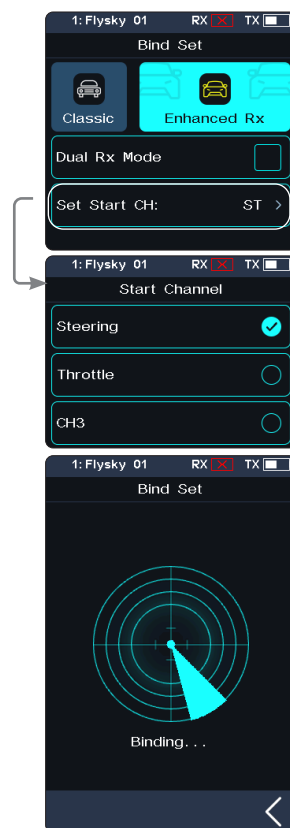
• This binding procedure only applies to the Noble NB4 Pro+ transmitter and FGr4P/FGr8B receivers. Different receivers have different binding procedures. Please refer to our official website for more information and relevant user manuals.

• Our products are updated regularly, check on website for the latest updates and features.


Two Receivers Mode

For a standard car and boat model, the FGr8B receiver with 8 channels can satisfy the requirements.

This function can be used when you have two models that you want to control with the same transmitter.

For some models with more complex functions, such as excavators (loaders) with extended fuel lines, dump trucks with hydraulic booms, etc., the FGr8B receiver with 8 channels is not enough. It needs to be determined according to the number of functions. You can assign two receivers to the vehicle base function and the boom base function, and then switch between them with Noble NB4 Pro+'s [Dual Rx Mode] function. Noble NB4 Pro+ has only 18 output channels. When the number of combined dual receiver channels exceeds the number of channels pre-selected by the transmitter, extra channels cannot be used.

   • Disconnecting one receiver in dual receiver mode does not affect the connection of the other receiver.
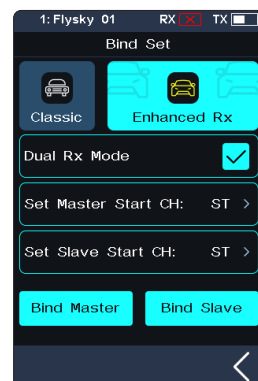
Note: When there is a stable AFHDS3 2 Way communication established between the transmitter and the receiver, the transmitter recognizes the receiver as a non FLYSKY receiver, the system will prompt and interrupt the communication.

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7.2 Steering Force

This function is used to adjust the amount of steering force when the servo is steered.

This function can be set when the transmitter RF Setting is set to [Mini-Z(FHSS)]. It will be hidden when the RF is set to other standards.

Setup:

Click "+" or "-" to change the percentage of steering force. The adjustment range is 0-100%, and the adjustment step is 1%. It also can be adjusted by assigning TR/VR key or knob in [ASSIGN] function.
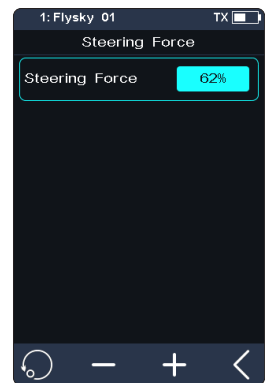
7.3 Gyro Gain

This function is used to adjust the gain of the gyroscope on the receiver.

This function can be set when the transmitter RF Setting is set to [Mini-Z(FHSS)]. It will be hidden when the RF is set to other standards.

Setup:

Click "+" or "-" to change the percentage of gyroscope gain. The adjustment range is 0-100%, and the adjustment step is 1%. It also can be adjusted by assigning TR/VR key or knob in [ASSIGN] function.
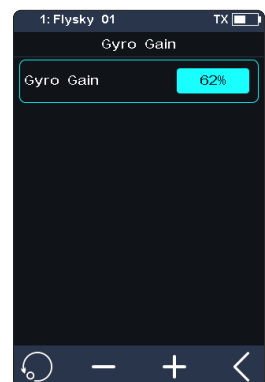
7.4 RX Interface Protocol

This function is used to set the receiver output mode.

Classic Edition Receiver Interface Protocol

When the adapted receiver is FGr4, FGr4S, FGr4P, FTr4, FTr10 and FTr16S, The output protocols of [CH1 interface] and [Serial] can be set respectively. [CH1 Interface] can be set to PWM or PPM. [Serial] can be set to i-BUS or S.BUS (please refer to [7.8 i-BUS Setting] for specific i-BUS setting).

CH1 Interface

Sets the output protocol of CH1.

Setup:

1. Click [CH1 Interface].
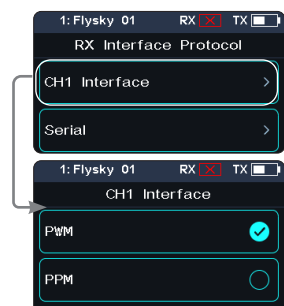
2. Tap the corresponding protocol. Click ◁ to return to the previous level interface.

Serial

Sets the output protocol of serial interface.

Setup:

1. Click [Serial].
2. Tap the corresponding protocol. Click ◁ to return to the previous level interface.
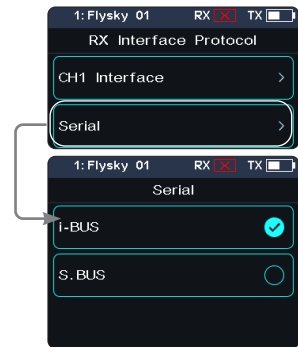
Enhanced Version Receiver Interface Protocol

When the adapted receiver is another enhanced version receiver, the output protocol of the receiver NPA/NPB/NPC/NPD interface can be set.

In dual receiver mode, the interface protocols of the Master and the Slave receiver can be set respectively.

For the NPA/NPB/NPC/NPD interface of the Master receiver, the output modes include PWM, PPM, S.BUS, i-BUS in, i-BUS out and i-BUS2.

- When the NPA interface is set to PPM output, the other interfaces support PWM, S.BUS, i-BUS in, i-BUS out and i-BUS2 signal output.

The output modes for the Slave receiver NPA/NPB/NPC/NPD interface are PWM, PPM, S.BUS, i-BUS out and i-BUS2.

- When the RX i-BUS 2 HUB simulator function is disabled, you can select only once for PPM, S.BUS, i-BUS in, i-BUS out and i-BUS 2 signals in multiple new ports. For example, if NPA is set to i-BUS out, NPD/NPC/NPB/NPA should not be set to i-BUS out.

- The simultaneous conflict of i-BUS and i-BUS2 transmission information is prohibited. When any new port is set to i-BUS out or i-BUS in, other new ports should not be set to i-BUS2. If any new port is set to i-BUS2, other new ports should not be set to i-BUS out or i-BUS in.

- When the RX i-BUS2 HUB simulator function is enabled, multiple new ports can be set to one type of signal, such as NPA ~ PWM, NPB ~ PWM, NPC ~ i-BUS2, and NPD ~ i-BUS2.

[i-BUS in]: Connects to i-BUS sensor.

[i-BUS out]: Connects to i-BUS extension receiver or other i-BUS signal recognition device.

[i-BUS2]: When the receiver i-BUS2 HUB simulator function is disabled, only 1 i-BUS2 signal output is allowed. When the receiver i-BUS2 HUB simulator function is enabled, 1-4 i-BUS2 signal outputs can be selected.

Setup:

1. Click [Receiver Interface Protocol]. When the bind setting is in dual receiver mode, select the Master receiver or the Slave receiver to enter the submenu.

2. Select [NPA] or other options. Click the corresponding protocol as needed. Then click ◁ to return to the previous level interface.
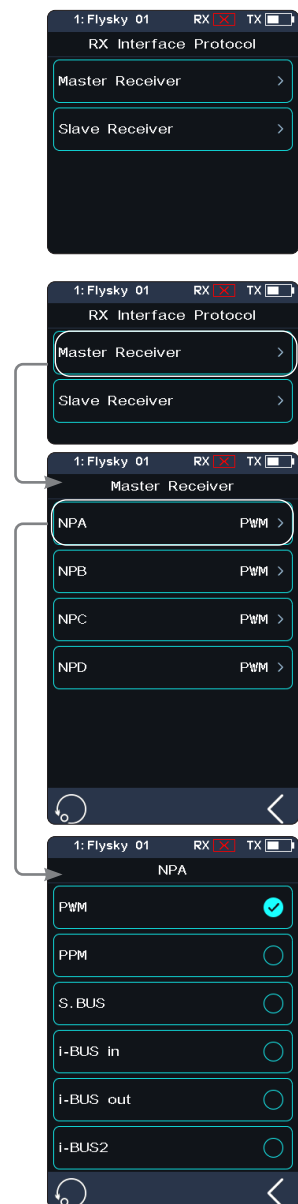
7.5 Failsafe

The Failsafe function can be set in the following three ways:

- Set to disable the signal output of i-BUS-out and PPM protocol interfaces in case of out-of-control, i.e., no output at i-BUS-out & PPM interfaces in case of losing control.

- Set failsafe values channel by channel: Free/Fixed value/Hold.

- [Set all fixed value channels], namely, you can set the output values of all channels that have been set to a fixed value to the current value, and this value will be output when the system is losing control.

Failsafe Test Function

Used to simulate the out-of-control case, when the model is out-of-control, the transmitter will shut down the RF, then the model will enter the out-of-control state. All channels will output according to failsafe settings.

Setup:

1. Tap 📶 , a popup window comes along with it as shown. Press and hold 📶 over 1 second, then the system turns off RF. And the receiver output channel value according to failsafe settings.

2. Release 📶 , the RF is on and the connection is restored.
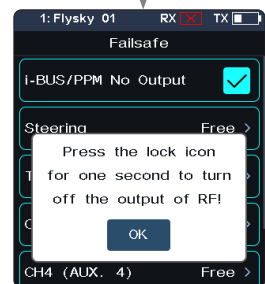
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i-BUS&PPM No Output

This function is for i-BUS and PPM signals. After [i-BUS/PPM No Output] is enabled, regardless of the setting of the failsafe, these two types of failsafe signals are always no output. If the function isdisabled, after losing control, you can set by channel: set to fixed value or keep the last output value. By default, this function is enabled.

Tap ☑ at the right side of [[i-BUS/PPM No Output], the check box next to right of the option is not ticked , it indicates that the function is disabled.
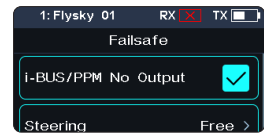
Setting A Separate Channel

Used to set the output signal states of channels respectively: Free means that there is no output in case of out-of-control; Hold means the last channel value is kept in case of out-of-control; Fixed Value means that you can set the failsafe output value by moving the control, then the value set will output in case of out-of-control.

Setup:

1. Tap the channel you want to set.
2. Click an appropriate option as desired. If the fixed value is selected, move throttle trigger(steering wheel, button or knob)to the desired position and hold it, then click ◀ to finish the settings.

Setting All Fixed Value Channels

Used to set the output value of all channels that have been set to a fixed value after out-of-control.

Setup:

Tap this function while moving the control to the desired position and holding, after that a prompt interface comes along with it as shown on right. Click"YES" to finish.
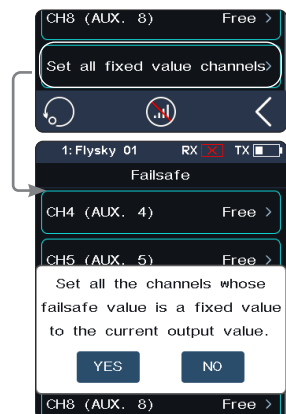
Note: Gas-powered models are slightly different with Battery Powered models when it comes to failsafe setup.

Gas-powered: It is recommended to set failsafe setting as if the vehicle's brake state, that is, set the throttle channel output value of the vehicle when subjected to brake as the failsafe value. The braking effect can be customized accordingly.

Battery Powered: 1. It is recommended that the failsafe is set to Free. In case of out-of-control, it will enter braking state when ESC does not received signals.
2. It is also possible to set the failsafe settingas if the vehicle's brake state. Same as the gas-powerd.

• Some ESCs also use breaking as reverse, make sure to check this with your model.

7.6 Servos Frequency

This function is used to select the frequency of channel data PWM signals. The function includes analog servo (95 Hz), digital servo (380 Hz), and custom frequency. You can select or set the correct output frequency value according to the servo used. By default, the system adopts the digital servo. The custom frequency adjustment range is 50-400 Hz.

The servos frequency varies slightly with the connected receivers.

For the Classic Edition Receiver

1. Click [Servos Frequency].
2. Click the corresponding option. Click ◖ to return to the previous level interface.
   - If the transmitter RF Setting is set to [AFHDS 3 1 way], modify the servo response speed and then tap ◖ . The system prompts "It takes effect after bind or re-bind. Are you sure you want to bind?"
3. If you choose [Custom], click "+" or "-" to adjust the frequency.
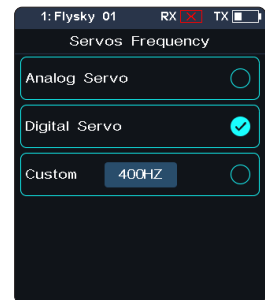
For the Enhanced Edition Receiver

[SR]: One of the specifications in the servo frequency (PWM frequency is 833 Hz).

[SFR]: One of the specifications in the servo frequency (PWM frequency is 1000 Hz).

Note: the conventional servo response speed (PWM frequency) is 50-400 Hz. The overall system delay will be decreased when SR and SFR are selected. Make sure that the adapted servo supports the corresponding frequency. Otherwise, it may cause the servo not to work properly or even damage the servo.
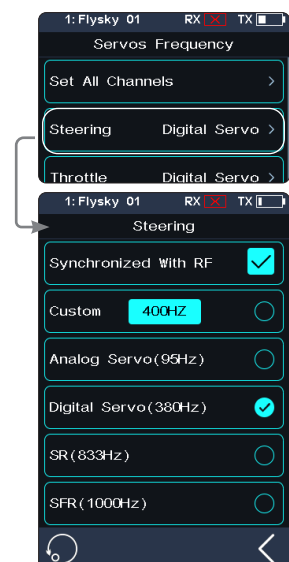
Setting A Channel

Sets PWM frequency for a channel.

[Synchronized with RF]: The PWM output is synchronized with the timing of the (RF) radio signal reception.
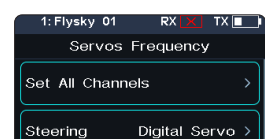
Setup:

1. Click [Steering   Digital Servo] or other options to enter the function setting interface.
2. Click the corresponding servo frequency according to the actual state of the adapted receiver. Click ◖ to return to the previous level interface.
   - Click the check box on the right of [Synchronized with RF]. The icon will change to ☑ . The PWM output is synchronized with the timing of the (RF) radio signal reception. after it is checked.
3. If you choose [Custom], click "+" or "-" to adjust the frequency value.

Setting All Channels

Sets PWM frequency for all channels.

For function Setup, refer to the Setup section of Setting A channel above.

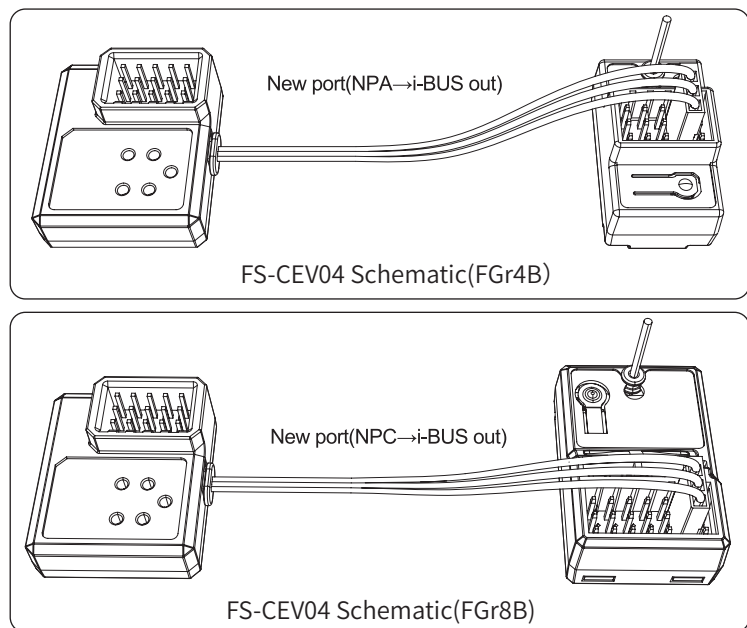微信公众号   Bilibili   Website   Facebook

7.7 i-BUS2 Setup

This function is used to set up the i-BUS2 devices. For details, see 6.26 i-BUS2 section.
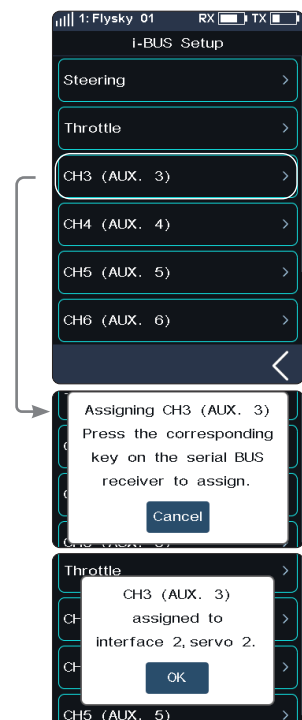
7.8 i-BUS Setup

This function is used to set up the i-BUS expansion module.

The i-BUS function is mainly used for servo expansion. If a cable is too short or the number of servos exceeds the outputs for the receiver, the i-BUS serial bus receiver provides a convenient option for expansion. When using the i-BUS serial bus receiver, make sure that it is powered separately to ensure that servos have sufficient power.

New port(NPA→i-BUS out)

FS-CEV04 Schematic(FGr4B)

New port(NPC→i-BUS out)

FS-CEV04 Schematic(FGr8B)

Setup:

1. Turn on the transmitter and enter [MODEL], then tap [Channel Number Definition], and select the number of channels to be set (optional 2、4、6、8、10、12、18 channels, the system defaults to 8 channels).

2. Go to [RX SET] and bind the transmitter and receiver.

3. Tap [RX Interface Protocol] and select [i-BUS out].

4. Connect the FS-CEV04 to the FGr8B/FGr4B receivers' [i-BUS out] interfaces.

5. Touch [i-BUS Setup] and select the channel to be assigned, (touch "channel X", the system display a "Assigning channel X, Press the corresponding key on the serial BUS receiver to assign"). Use the appropriate tool to press the K1, K2, K3 or K4 button on the FS-CEV04 to assign the selected channel to C1, C2, C3 or C4. If successful, the transmitter will display: "Channel assigned to interface X / Servo X".

6. Connect the servo to the corresponding port and check if it is working as expected.

7. Repeat the above steps as needed.

1: Flysky 01 RX TX
i-BUS Setup

Steering >
Throttle >
CH3 (AUX. 3) >
CH4 (AUX. 4) >
CH5 (AUX. 5) >
CH6 (AUX. 6) >

Assigning CH3 (AUX. 3)
Press the corresponding
key on the serial BUS
receiver to assign.
Cancel

Throttle >
CH3 (AUX. 3)
assigned to
interface 2, servo 2.
OK
CH5 (AUX. 5) >

7.9 Config PWM Converter

This function allows you to configure the corresponding receiver to a PWM converter. After the setting is successful, the receiver is used as a PWM converter, and the interfaces output PWM signals.

Note: This function is not available for all receivers. For the classic receiver, only the FGr4 and FTr10 receivers are availabe.

- The receiver which is set as the PWM converter can be converted into a receiver by rebinding the transmitter, and then used normally as a receiver after successfully rebinding the transmitter.

[i-BUS To PWM]: This feature is adapted to classic edition or enhanced edition receivers to config as PWM converter. For the classic edition receivers, after it is set as a PWM converter, its SENS interface is connected to the interface of the receiver outputting i-BUS or i-BUS out. For the enhanced edition receivers, after it is set as a PWM converter, its NPA interface is connected.

[i-BUS2 To PWM]: This feature is adapted to enhanced edition receivers to config as PWM converter. After it is set as a PWM converter, its NPA interface is connected the interface of the receiver outputting i-BUS2. And you can set related parameters through [i-BUS2], refer to 6.26 i-BUS2 section.

i-BUS To PWM

Setup:

1. Enter the interface of Config PWM Converter and tap [i-BUS To PWM].

2. Tap [Start Channel] to enter the setting interface, then set the start channel for the PWM converter.

   - For example, if the receiver has 4 channels, and since one of channels is used as an extension interface, then the start channel of the PWM converter can be set to "4".

3. Tap [Servos Frequency Digtal] to enter the setting interface to set the servo frequency for the PWM converter. Then click [Start Config], the configuring interface comes along.

4. Put the receiver to enter the binding state, after the status of the receiver LED changes from fast flash to two-flash-one-off, it indicates the configuration is finished. Then click ◄ to return.

If you set the receiver as a i-BUS2 PWM converter, there are not need to set [Start Channel] and [Servos Frequency].
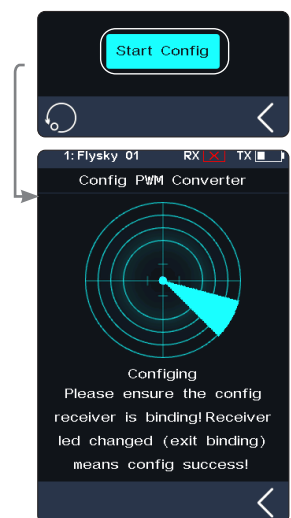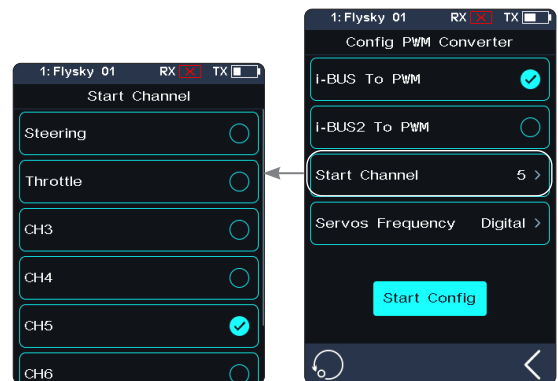
7.10 RSSI Output Setup

Through this function, you can select a channel to output the signal strength value of the receiver. After the function is enabled, the selected channel does not perform the output of transmitter's corresponding channel function, but outputs the receiver's signal strength value. This feature is necessary for FPV players with autopilot.
We recommend you to select the CH14 or any auxiliary channel. You can make corresponding adaptations in the settings to view the RSSI information on FPV glasses.

Setup:
1. Tap the check box on the right side of [ON] to enable this function.
2. Click [Output Channel] to enter, and tap the corresponding channel. Click ◀ to return to the previous level interface.
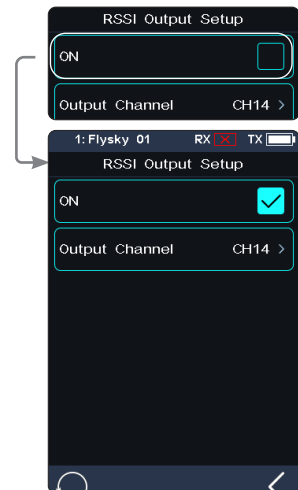
7.11 RX Battery Monitor

This function is used to detect the voltage status of the receiver or corresponding Sensor battery.

Set the high and low battery voltages according to the actual usage of the receiver battery and the remaining battery level displayed through the icon in the upper right corner of the interface. The transmitter will promptly send an alarm according to battery conditions.

When the receiver or sensor battery voltage is lower than the [Alarm voltage] alarm value, the transmitter will report "The receiver voltage is low".

[Sensor]: The voltage of the Voltage sensor is used as the voltage of the receiver. [Internal Voltage], [External Voltage], [BVD Voltage] or [ESC Power]can be selected. After selection, it can be displayed and alarmed through the transmitter.

Setup:
1. Tap [Rx Battery Monitor] to enter the setting interface.
2. Click [Sensor] to enter and select an internal or external sensor.
3. When set the Sensor as the voltage sensor, then set the [Low Voltage], [Alarm Voltage], and [High voltage] values; When set the Sensor as the [ESC Power] or [Sensor Power], [Alarm Power] and [Full Power] can be set.
    - [Low Voltage]: It is corresponding to receiver battery level which is 0%; [High Voltage]: It is corresponding to receiver battery level which is 100%.
    - [Alarm Power]: It is corresponding to power in case of the alarm; [Full Power]: It is corresponding to ESC/Sensor battery level which is 100%.
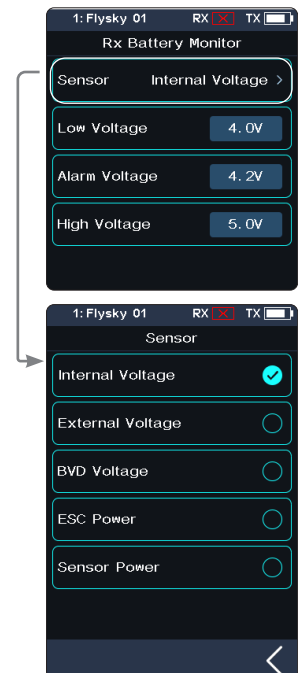
Notes:
1. [ESC Power] is only applicable for Hobbywing XERUN AXE R2/R3 ESC.
2. When multiple XERUN AXE R2/R3 ESCs are connected, the setting is for the first ESC connected.
3. [Internal Voltage] is corresponding to the voltage of the receiver; [External Voltage] is corresponding to the voltage detected by the FS-CVT01 sensor; [BVD Voltage] is corresponding to the voltage detected through BVD function; [ESC Power] is corresponding to the power of XERUN AXE R2/R3 ESC; [Sensor Power] is corresponding to the power of Current and Voltage Sensor.

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7.12 Range Test

This function is used to test whether wireless communication between the transmitter and the receiver is normal.

As the actual remote control distance between transmitter and receiver is far, it is hard to test whether the radio frequency is normal by controlling a distance of several hundred meters between the transmitter and receiver in practice. Theoretically, the remote control distance in this function will be reduced to 30-40 meters. So, you can test whether wireless communication between the transmitter and the receiver is normal at a close distance when the function is enabled. This can save testing time.

Setup:

1. Make sure the transmitter and receiver are bound.
2. Enter the [Range Test] menu and press the SW1-R button.
3. One person stands in place with the model in hand, and the other person holds the transmitter and gradually moves away to 30-40 meters and walks around with this distance as a radius centered on this model.
   - Please make sure the transmitter is installed with phone holder, with use of the standard version firmware.
   - Make sure that the transmitter antenna is unobstructed and that there are no objects or sources of interference between the transmitter and the receiver.
4. Check the RSSI on the transmitter. If the signal strength is high and stable, it means that the radio frequency of this system works normally.

7.13 BVD Voltage Calibration

There may be a voltage difference between the voltage detected by the receiver and the actual voltage of the battery. Use this function to set a calibration coefficient for the receiver to make the voltage displayed on the interface is equal to the battery voltage, namely, the sum of the detection voltage and the calibration coefficient is equal to the voltage displayed on the interface.

The BVD voltage detection range is from 0 to 70V.

[Battery Voltage]: Displays the battery voltage detection value returned by the receiver in real time. This feature is only subject to the enhanced edition receiver.

Notes:

1. **This function is available for enhanced edition receivers with BVD function, must be in two-way communication with the transmitter.**
2. **In two receivers' mode, this function is only applicable to the master receiver. In such case, first calibrate the BVD voltage of this receiver and then use it as a Slave receiver to bind with the transmitter.**
3. **Pay attention to correctly connecting the BVD cable and the anode and cathode of the battery as shown in the right diagram.**

Setup:

Connect the BVD detection line correctly before setting, and then perform calibration.

Note: Please refer to the voltage value of multimeter for calibration.

1. Click [BVD Voltage Calibration] to enter the function setting interface.
2. Click "+" or "-" to change the battery voltage value as needed.
3. Click [Calibration]. After successful calibration, click "YES" in the pop-up window reminder.
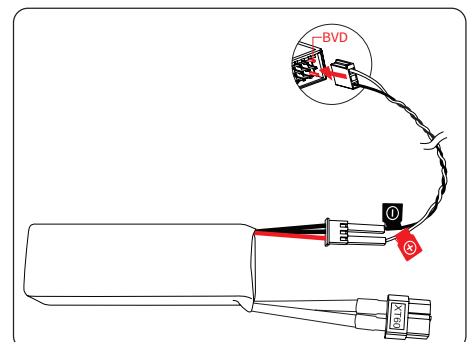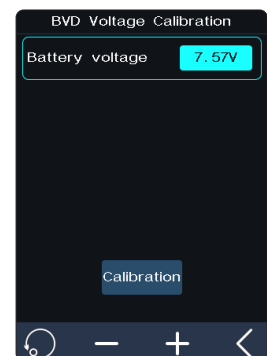
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7.14 Low Signal Alarm

This function is used to enable or disable the low signal alarm function.

[Low Signal Alarm]: If checked, the system will alarm automatically if the signal strength of the receiver is lower than 30.

7.15 Signal Lost Alarm Setup

Used to set the alarm function when the transmitter does not receive the information returned by the receiver. You can set whether to turn on the Signal Loss Alarm, the Alarm Type and the time to trigger the alarm (Sensitivity).

Setup:

1. Tap [Signal Lost Alarm Setup]. When checked, the function is enabled.

2. Tap [Alarm Type] to enter the next level interface, and tap the appropriate type. Then click ◁ to return.

3. Tap [Sensitivity], then click "+" or "-" to change the value.

Note: This alarm is not enabled by default if the number of channels is set to 2-channel Extreme Mode.
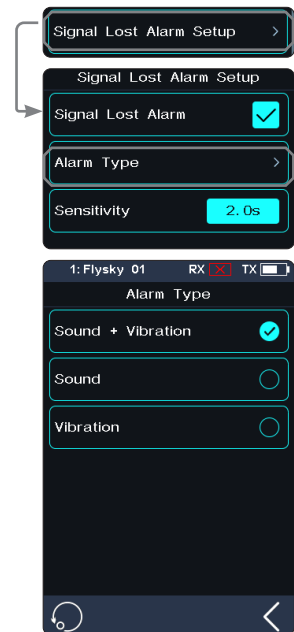
7.16 Update Receiver Firmware

After the transmitter has updated the firmware, and at the time, it can not bind with the receiver, then the receiver firmware is needed to be updated.

Setup:

Touch [Update Receiver]:

*   Some receivers such as GMr needs to be updated with "Flysky Assistant".

*   If the transmitter has successfully coded and the connection is established, if the receiver is the latest version, a pop-up prompt will appear [The current version is the new version, no upgrade is required!]. If the receiver is an old version, a pop-up prompt [Are you sure to update the receiver?]. Click [OK] to update the receiver;

*   If the receiver and the transmitter are not connected, then enter the Select Receiver interface, check the receiver to be connected and pop up a prompt [Please connect XX or enable XX enter the mandatory update mode]. Click [OK]!

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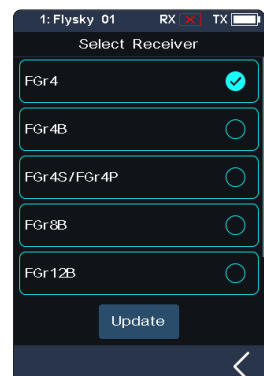
After entering the update state, When the progress is 100%, it indicates the update is successful.

Note: You must update the transmitter's firmware before updating the receiver's firmware.

BIND Button

BIND Button

FGr8B

FGr4B
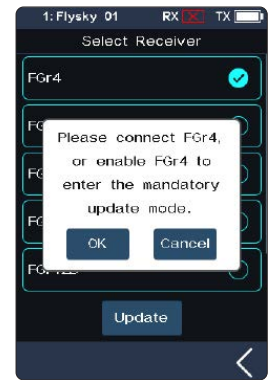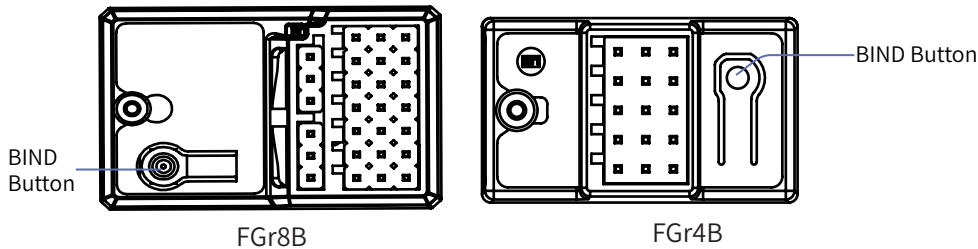
The steps of the forced update of the receiver are as follows:

1. Press and hold the Bind key on the receiver over ten senconds while powering on the receiver, then release the Bind key after the receriver LED works in flash-three-one-off state repeatedly.

   Or Power on the receiver first, then press and hold the BIND button for more than 10 seconds, the LED of the receiver will be in a state of three-flash-one-off, then release the BIND button.

2. Power on the transmitter and select [Update Receiver]. Click the corresponding receiver. Select "OK" on the pop-up box. Click [Update] to enter the update state.

3. When the update has finished, the receiver LED flashes slowly.

Note: Receivers that can be checked may vary with different RF standard.

7.17 Steering ICS

This function is used to set the parameters of the gyroscope mixing steering channel of the vehicle control base board.

This function can be set when the transmitter RF Standard is set to [Mini-Z(EVO2)]. It will be hidden when the RF is set to other standards.

Setup:

1. Tap the function item you want to set.
2. Click "+" or "-" to change the option or value.

7.18 Throttle ICS

This function is used to set the parameters of the gyroscope mixing throttle channel of the vehicle control base board.

This function can be set when the transmitter RF Standard is set to [Mini-Z(EVO2)]. It will be hidden when the RF is set to other standards.

Setup:

1. Tap the function item you want to set.

    •   For function [Reverse Limit] and [Brushless], tap it repeatedly to select between OFF and ON.

2. Click "+" or "-" to change the option or value for other functions.

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8. SYSTEM

This section introduces details functions relate to system and their use.

8.1 USB Setup

USB Setup is used to support the output signals of Type-C port.

[USB Function]: When the input or output is USB signal, you can control the simulator and connect the computer and FlySky Assistant.

[Trainer Mode]: When the input or output is PPM signal, it can realize the trainer and head tracker functions.

Setup:
1. Click [USB Setting] to enter the selection interface.
2. Select the corresponding function as needed.
   - Select USB Function. The trainer function is not displayed(displayed in case of selecting the trainer function) .
3. Click ◀ to return and save.
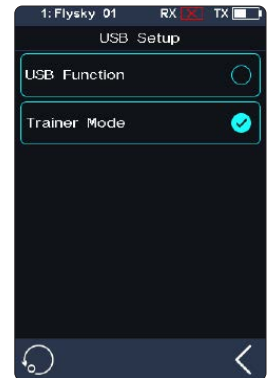
8.2 Theme

It is used to set the overall color style of the system, with 4 options.

Setup:
1. Touch [Theme] to enter the menu.
2. Select a theme as your desired.
3. Touch ◀ to return to the previous menu and save the setting.
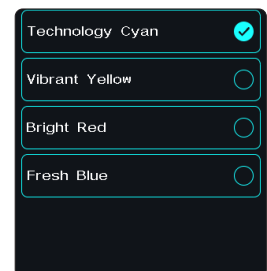
8.3 Wallpaper

It is used to set the wallpaper of home screen and main menu.

[Home Screen Wallpaper]: Sets the wallpaper of home screen.

[Main Menu Wallpaper]: Sets the wallpaper of the main menu.

Wallpaper preview: To preview the wallpaper in full screen and hide the option, click the area outside the corresponding function option. Click again to exit the preview.

Setup:

1. Touch [Wallpaper] to enter the menu.

2. Select a wallpaper as your desired.

3. Touch ◄ to return to the previous menu and save the setting.
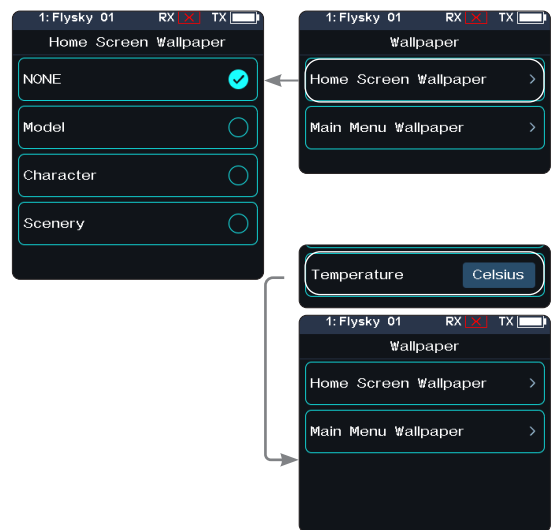
8.4 Units

Choose what units to use for length and temperature.

[Length]: Select between metric and imperial system. The default is Metric.

[Temperature] : It can be selected in Celsius and Fahrenheit. The default is Celsius.

The box in highlighted is the currently selected setting.

Setup:

1. Touch [unit] to enter the menu.

2. Select a unit from the list.

3. Touch ◄ to return to the previous menu and save the setting.

8.5 Backlight Adjustment

This function controls the backlight brightness.

Note: Turning the brightness up will use more power and as such, the longer the Backlight timeout, the more power consumption, the shorter the battery using time.

[Backlight Timeout]: Select the delay time. That is, when there is no action, the screen is reduced to a minimum brightness state after the corresponding backlight delay time, with options of 5 seconds, 10 seconds, 30 seconds, 1 minute, 2 minutes, 5 minutes, 10 minutes of backlight delay and normal light.

Tap[Backlight Timeout]to enter, and select an appropriate item as needed. Then, click ◖ to return to save.

[Max Backlight]: The backlight state of the transmitter display when the backlight is strongest. The adjustment range is 10%-100%.
Tap[Max Backlight], then click "+" or "-" to change the percentage as required.

[Mini Backlight]: The backlight state of the transmitter display when the backlight is weakest. The adjustment range is 0%-50% (the screen is not bright at 0%). The adjustment method is the same as above.

The adjustment method is the same as above.
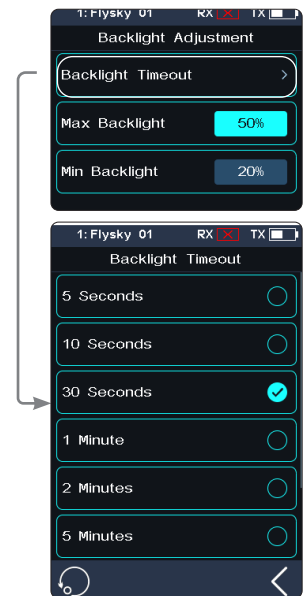
8.6 Sound

This function is used to turn on or off sound of different function and the adjustment of volume, including system sound, alarm sound, power-on/power-off sounds, and etc.

[Volume]: To set the volume.
Tap [Volume] , then select the desired volume from the list. Touch ◖ to return to the previous menu, and save it.

[System Sound]: To turn on or off system sound.
Click the option box on the right side of the interface. The icon will change to ☑ , indicating that the system sound is enabled.

[Alarm Sound]: To turn on or off alarm sound.

[Power On/Off Sound]: To turn on or off power-on/off sound.
Click the option box on the right side of the interface to enable. After it is enabled, the system will sound "Welcome to Noble Pro Plus" when turned on, and the system will sound "Shutting down" when turned off.

[Trim Sound]: To turn on or off power on/off sound.

[Timer Sound]: To turn on or off timer related prompt sound.

[Sensor Sound]: To turn on or off sensor alarm related prompt sound.

[Menu Operation Sound]:To turn on or off prompt sound when a touch screen operation takes effect.

Note: For details about how to set other functions, refer to system sound settings.

## 8.7 Vibration

This function is used to enable or disable the vibration of different function and and the adjustment of vibration levels, including system vibration, alarm vibration, etc.

[Vibrate Level]: To set the intensity of vibration level.
Tap [Vibrate Level], then select the desired level from the list. Touch ◀ to save.

[System Vibrate]: To turn on or off system vibration.
Tap the box at the right of "System Vibrate". If there is a check in the box, indicating the function is enabled.

[Alarm Vibrate]: To turn on or off alarm vibration.

[Power on/off Vibrate]: To turn on or off power on/off vibration.

[Trim Vibrate]: To turn on or off the trim operation of the prompt vibration.

[Timer Vibrate]: To turn on or off timer related prompt vibrations.

[Sensor Vibrate]: To turn on or off sensor alarm related prompt vibrations.

[Menu Operation Vibrate]:To turn on or off prompt vibration when a touch screen operation takes effect.

Note: For details about how to set other functions, refer to system vibration settings.
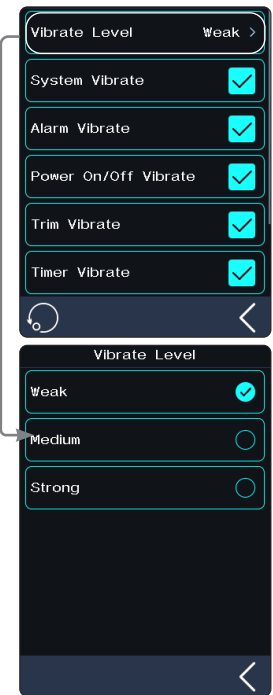
8.8 LED

The LED function can change the color of the LED strip which is located above the power button of the transmitter, as well as the brightness adjustment of the LED strip. And it can also be set as the power capacity indication.

Type Selection

Allows you to turn the LEDs on/off, as well as to customize the LED color or select the color already defined in the options.

Setup:
1. You can choose to turn off the LED.
2. LED can be used for power capacity indication (displaying different colors according to current battery voltage);
   - High-green
   - Medium-yellow
   - Low-red
3. Select a color from the list.
4. To customize LED colors.
   - Tap the R, G or B option area, and then tap "+" or "-" to set the appropriate value; you can also touch and slide the screen directly to set it. Tap ◀ , and then tap [Yes] in the pop-up window to finish the setting.
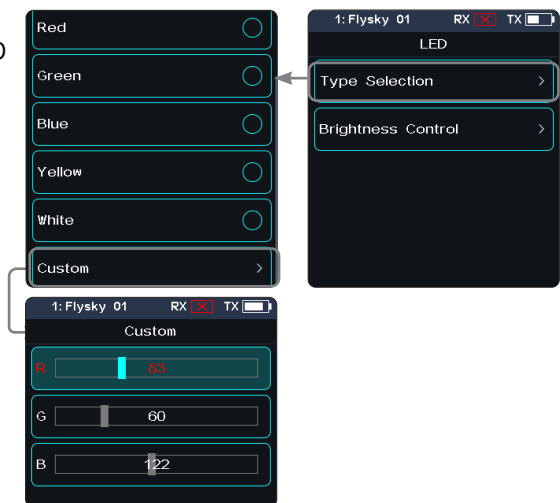
Brightness Control

To set the LED brightness.
Touch "+" or "-" to adjust the LED brightness.

After setting, tap ◀ to save and exit.

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8.9 Auto Search Receiver

When the Auto Search Receiver is checked, then, automatically switch to the model corresponding to the currently powered on receiver in case of the transmitter's power-on. Namely, to search for the power-on receiver which has bound to the transmitter in AFHDS3 2 Way mode.

Setup:

Tap the box at the right of the [Auto Search Receiver]. If there is a check ☑ in the box, indicating that the function is active.

Note: In the auto search of receiver, you must ensure that only one model that needs to be controlled is powered on (power off other models).
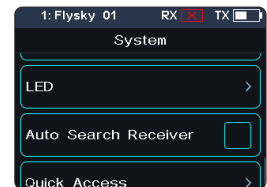
8.10 Quick Access

This function is used to set up the Up, Down, Left and Right quick sliding screen functions of the main interface. Users can customize the sliding screen interface according to their needs.

[Bottom Bar Display]: It is used to set whether to display the bottom bar of the home screen.

Tap [Bottom Bar Display], then the icon on the right will change to ☑ , the function is enabled. Namely, the bottom bar of the home interface will display. When the bottom bar does not display, you can slide screen left to enter the main menu.

[Home-Screen Quick Access]: The [Home-Screen Quick Access] can help users find setting interfaces quickly. For example, when users want to check the lap counting time after the function is enabled in the model operations, users can use this function to enter the timer interface quickly.

Setup:

1. Enter in the function interface, click the corresponding function option to choose it; and select NONE to avoid quick operation;

2. Click ◀ , so you can save the settings.

Note: In case of sliding the screen, it recomends as close to the edge of home screen as possible to slide.
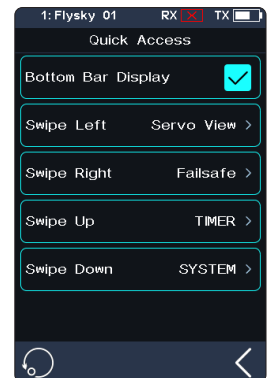
8.11 Mian Screen Lock Setup

This function is used to set the state of the transmitter after the main interface is locked.

[Touch Screen]: It can prevent the transmitter screen from being touched by mistake, because this may change the parameters that have been set.

[Touch Screen + Set]: Only channels are controllable after selection. This can avoid changing the set parameters when someone else perform operations or accidentally toggles a switch for personal reasons.

[Touch Screen + Set + CH]: After locking, all knobs, keys, or trims are unavailable. This can prevent others from modifying channel data when operating on behalf of others or changing setting parameters by accidentally toggling a switch for personal reasons.

You can click the corresponding function according to your needs. If it becomes ☑ , indicating the function is enabled.
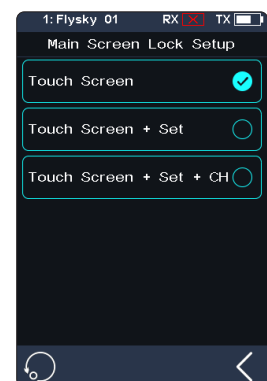
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8.12 Standby Timeout

This function is used to set Standby Timeout intervals or no standby timeout alarm. 5 options: [NONE], [3 Minutes], [5 Minutes], [10 Minutes] and [20 Minutes]. [NONE] means no standby timeout alarm. The time to alarm can be selected as desired. The default is 3 minutes.

Click [Standby Timeout] to enter setting menu, and click the option as required. For example, if you set the alarm time to 3 minutes, the system will give a vibration and audio alarm when the transmitter is idle for 3 minutes. You can set the on/off and volume of the sound, and the on/off and level of the vibration in [8.6 Sound] and [8.7 Vibration] in [System Settings].
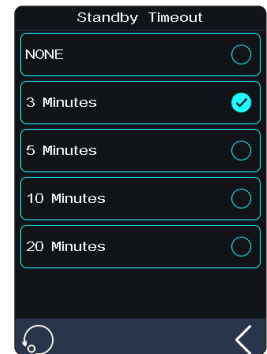
8.13 Auto Power Off

If the transmitter is powered on for a long time, the transmitter battery may be used up. If the system detects that the transmitter is not used for a long time, it will be automatically shut down.

If no operation is detected within five minutes, the system starts playing no operation sound, Auto Power Off will turn off the transmitter if no receiver is connected .

To toggle Auto Power Off, touch the box to the right of the setting. If there is a check ☑ in the box, indicating that the function is active.

8.14 Stick Calibration

Use this function to correct for the mechanical deviation of the throttle trigger and steering wheel, for example, deviation occurred in the self-centering or maximum/minimum travel.

The blue bar is the channels current position and the calibrated range will be the same color like the background.

Setup:

1. Move the steering wheel and throttle trigger as far as they can go in each direction. Then release them to make them back to netrual position.
2. Touch ◁ to save and return to the previous menu.
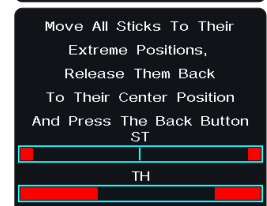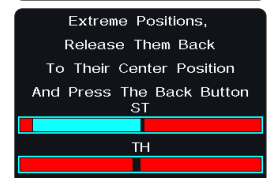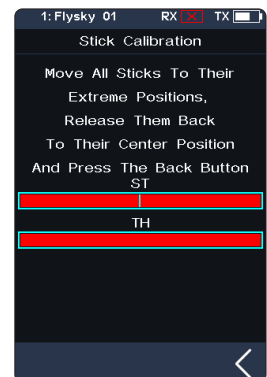
8.15 Firmware Update

In case of updating the firmware of the transmitter, use this function to put the transmitter to enter updating mode first, then upgrade the transmitter's firmware.

⚠ WARNING	• **Use the USB Type-C cable shipped with the transmitter.** • **Do not unplug the USB Type-C cable while the firmware is updating.**

Setup:

1. Download and open the newest official software.

2. Connect a transmitter with a computer by USB Type-C cable.

3. Touch [Firmware Update], after which "Updating the transmitter firmware may cause model data to be restored to factory default values. Are you sure?" will be displayed. Touch "YES", to enter update mode.

4. After completing the above steps, click [Update] in the software on your computer to start the update.

5. The tranmitter will power on again when the updating process is completed. Then remove the USB Type-C and close the firmware.

The firmware of the transmitter can also be updated through the FlySky Assistant (FlySky Assistant can be downloaded from the official website www.flysky-cn.com), in such case, just make sure the transmitter is turned on and connected to the computer.

Note: The model data will be reset after the firmware update. Back up the model data before you perform firmware updating. If the transmitter is not recognized by the official software, there may be a version problem occured.

The firmware of the transmitter can also be updated by FlyskyAssistant. In such case, just make sure the transmitter is turned on and connected to the computer.
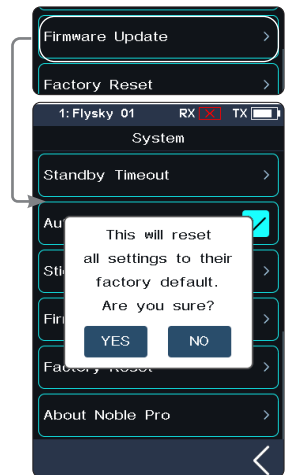
8.16 Factory Reset

Factory Reset function resets all of the transmitter settings and functions back to their factory default state/data.

Setup:
Touch "Factory Reset", then touch "YES" when prompted.

Note: To avoid errors, do not use this function during operation.
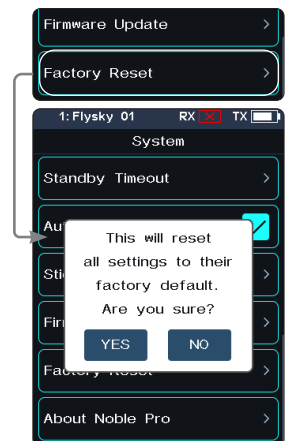
8.17 About Noble NB4 Pro+

This function contains basic information such as product name, firmware version, version date, hardware and RF library version.

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9. Transmitter Specifications

This chapter includes specifications for Noble NB4 Pro+ transmitters, FGr8B receiver and FGr4B receiver.

9.1 Transmitter Specifications (Noble NB4 Pro+)

Product Model	Noble NB4 Pro+
Compatible Receivers	FGr8B, FGr4B and other AFHDS 3 receivers
Compatible Models	Car, boat, robot or ironclad
Number of Channels	2(Extreme-speed), 4, 6, 8, 10, 12 or 18 channels
RF	2402.6-2479.4MHz
Maximum Power	17.84dBm (for EU)
RF Protocol	AFHDS 3
Low Voltage Alarm	Lower than 3.65V
Data Output	USB Type-C
Charging Jack	USB Type-C
Antenna	Single built-in antenna
Display	3.5-inch 320*480 full dot matrix color IPS touch screen
Resolution	4096
Input Power	1S (4.2V)*4300mAh Lithium Polymer Battery+3450mAh 18650 Battery
Distance	More than 300m (Ground distance without interference)
Online Update	Yes
Temperature Range	-10° C~+60° C
Humidity Range	20%~95%
Color	Black
Dimensions	142.7*120*232mm (With Cell Phone Holder)
Frequency Received by the Wireless Charger	108.0-144.8KHz
Weight	670g
Certifications	CE, FCC ID: 2A2UNNB4PRO00, MIC, RCM, IC: 25584-NB4PRO00

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9.2 Receiver Specifications (FGr4B)

Product Model	FGr4B
Number of PWM Channels	4
RF	2.4GHz ISM
RF Protocol	AFHDS 3
Compatible Transmitters	All Transmitters Which Support AFHDS 3 Protocol
Antenna	Single Antenna
Operating Voltage	3.5~9V/DC
Data Output	PWM/PPM/i-BUS/S.BUS/i-BUS2
Temperature Range	-10℃ ~ +60℃
Humidity Range	20% ~ 95%
Online Update	Yes
Dimensions	17*29*16.6mm
Weight	6.4g
Certifications	CE, FCC ID: N4ZFGR4B000

9.3 Receiver Specifications (FGr8B)

Product Model	FGr8B
Number of PWM Channels	8
RF	2.4GHz ISM
RF Protocol	AFHDS 3
Compatible Transmitters	All Transmitters Which Support AFHDS 3 Protocol
Antenna	Single Antenna
Operating Voltage	3.5~9V/DC
Data Output	PWM/PPM/i-BUS/S.BUS/i-BUS2
Temperature Range	-10℃ ~ +60℃
Humidity Range	20% ~ 95%
Online Update	Yes
Dimensions	35*23.3*13.3mm
Weight	9.4g
Certifications	CE, FCC ID: N4ZFGR8B

10. Package Contents

The accessories included are different in different versions, please consult your dealer for details.

11. Instructions

11.1 Brake Pad Replacement and Angle Adjustment

1

▶ First insert a hexagonal screwdriver into the screw hole used to secure the steering wheel.

2

▶ Turn the hexagonal screwdriver counterclockwise until the screw is completely loose and remove it.

4

▶ Pinch the brake pad with two fingers and take out upwardly.

3

▶ Take out the steering wheel upward.

5

▶ Prepare the brake pad for replacement and two screws. Use a hexagonal screwdriver to fix the screws on both ends of the brake pad in turn.

6

▶ Align the brake pads installed with the screws upwardly and press firmly to secure the brake pad in the slot.

7

Brake Disc
Calliper

▶ According to the diagram, the caliper is fixed by two screws through the brake disc, and the steering wheel and the steering wheel sponge are set in the direction of the arrow.

9

▶ Insert the screw into the screw hole used to secure the steering wheel, then align the hexagonal screwdriver with the hexagonal hole in the head of the screw, hold the side of the steering wheel with one hand and turn the screwdriver clockwise with another hand until the screw is secured.

8

▶ Use the mounting slot of the steeringwheel with brake pad adjustment hole to place over the protruding connector of the brake pad, then press the steering wheel to fix it.

11

▶ Insert the hexagonal screwdriver into the two adjustment holes at the top of the steering wheel and adjust the rotation angle of the steering wheel as needed.

• The tighter the screw, the smaller the rotation angle. The looser the screw, the larger the rotation angle.

10

▶ Take the steering wheel sponge after fixing the screws.

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12

▶ Reinstall the steering wheel sponge after adjusting the brake pads.

13

▶ Do the stick calibration after installation is complete. Then the transmitter can be used normally.

⚠ Pay attention to your strength in the process of replacing the brake pads. Remember not to damage accessories. Please refer to the above steps to replace the brake pads, to ensure that the brake pads can be used normally.

11.2 Installation of Mobile Phone Holder

1

▶ Insert the screws into the screw holes on both sides of the bottom holder shell. Connect the left and right sides of the holder shell in turn. Use a hexagonal screwdriver to turn clockwise until the screws are fixed.

2

▶ Face the installed holder shell handle upward and align both sides of the holder shell with both sides of the transmitter display screen.

▶ Gently push the holder shell until both sides of the holder shell can completely cover the display screen.

3

▶ Connect the holder shell with the holder connector to the top of the screen. Press the holder shells on the left and right sides by hand and insert the screws into the screw holes.

4

▶ Turn the screwdriver clockwise in sequence to secure the screws on the left and right sides.

5

▶ Connect the holder connector to the holder head on the transmitter. Align the connection hole and insert the long screw. Set the nut on the other end of the screw and gently install the nut clockwise by hand to make it fixed.

• Choose whether to install the connector as required.

• Pay attention to the direction of the connector.

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6
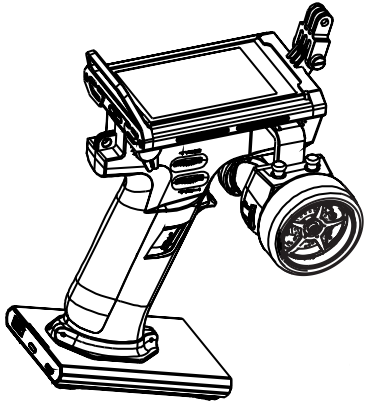
▶ Ensure the holder connector is installed.

7
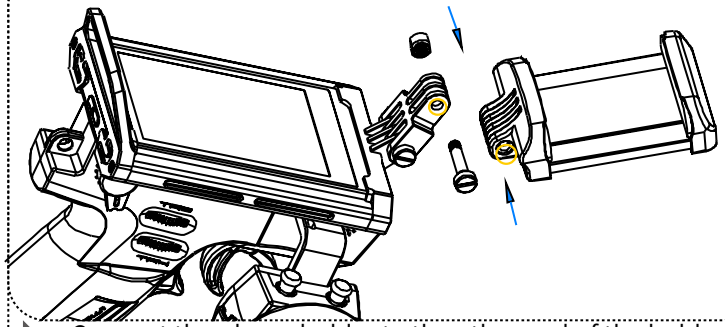
▶ Connect the phone holder to the other end of the holder connector. Align the connection hole and insert the long screw. Set the nut on the other end of the screw and gently install the nut clockwise by hand to make it fixed.

8
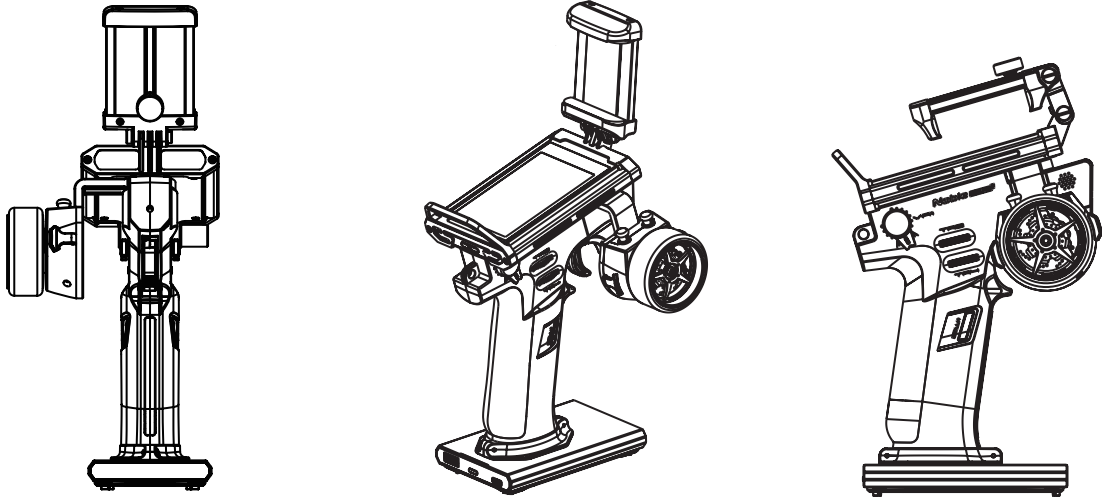
▶ After installation, twist the holder to ensure the holder is flexible and is firmly fixed.

11.3 Disassembly of Mobile Phone Holder

1
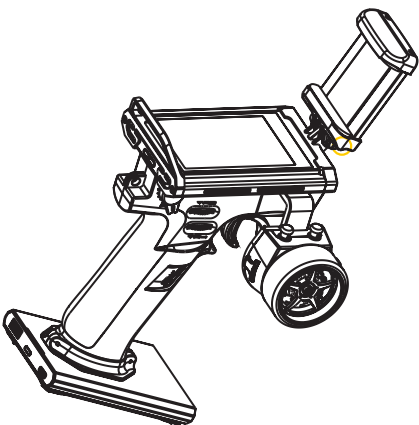
2
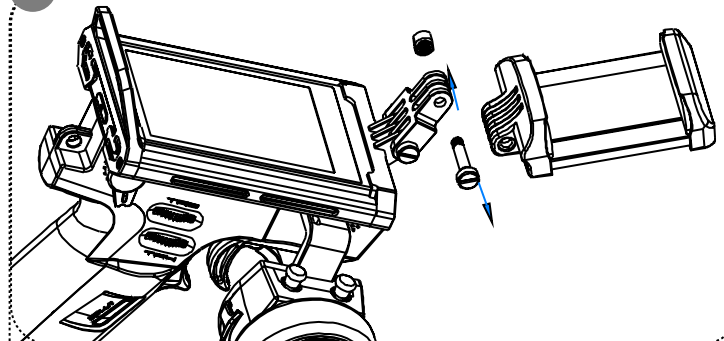
▶ Gently unscrew the nut connecting the holder connector and the phone holder counterclockwise by hand until the nut is completely loose. Then remove the screw, nut and holder.

3
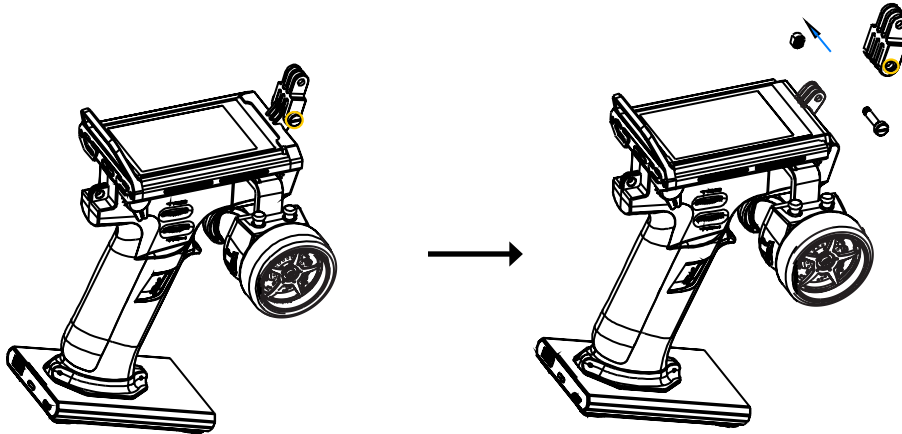
▶ Gently unscrew the nut connecting the holder connector and the holder shell counterclockwise by hand until the nut is completely loose. Then remove the screw, nut and holder.

4
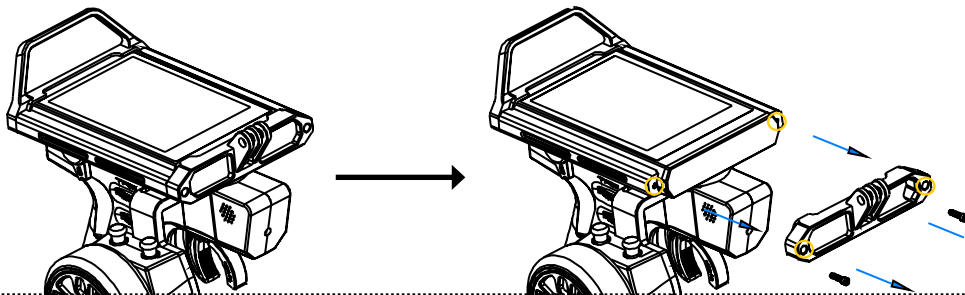
▶ Use a screwdriver to connect the screws on both sides of the top of the screen. Gently turn the screwdriver counterclockwise until the screws on both sides are completely loose. Remove the screws and take off the top holder shell.

5
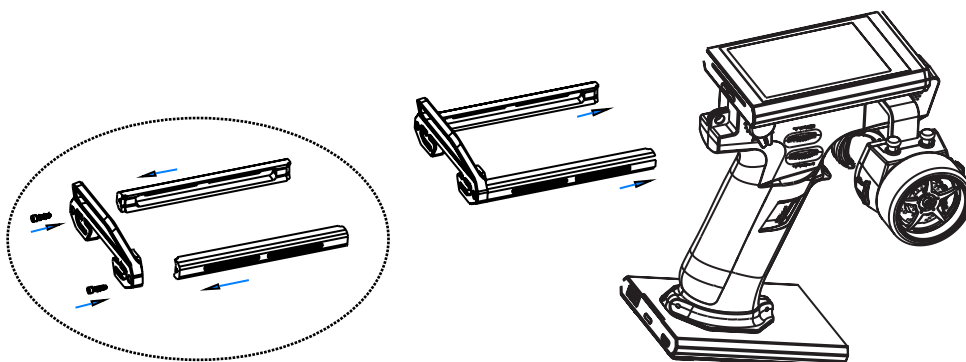
▶ Gently remove the remaining holder shell. Do not scratch the sides of the transmitter screen. Remove the screws on both sides of the holder shell with the handle in turn.

⚠ Pay attention to your strength in the Disassembly of Mobile Phone Holder process. Remember not to damage accessories.

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11.4 Removing the Grip
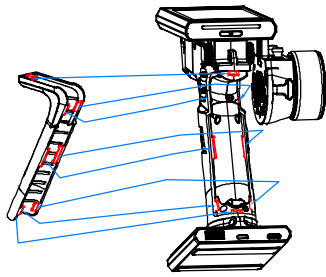
① Check the positions of the 8 clips.

Middle Position

② Unsecure the middle clip of the grip from the middle of the assembly gap, and then remove all the remaining clips from the middle to the periphery.
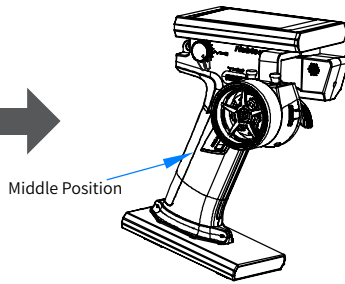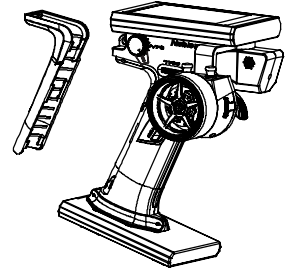
③ Remove the whole grip naturally.

11.5 Assembling the Grip
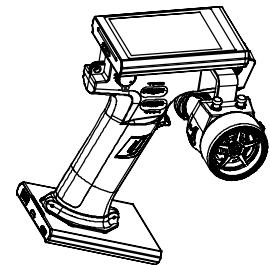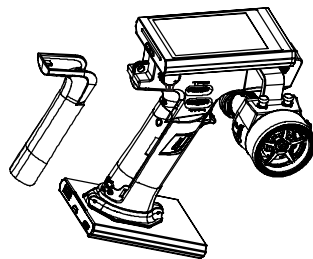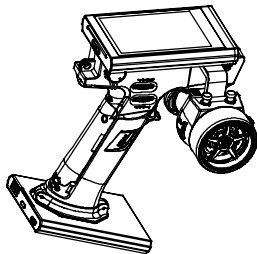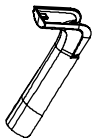
① Align the 8 clips of the grip.

② Put the grip into the handle, use your thumb to press the 8 clip positions. Apply the force increasingly until the grip edge is completely affixed to the plastic parts.

11.6 Wireless Charging Function and Precautions

Wired Charging Method
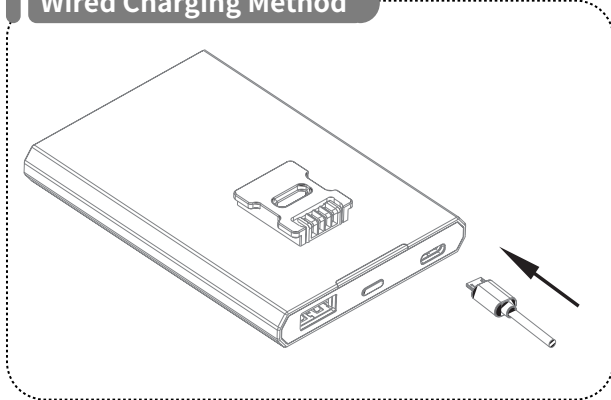
▶ The transmitter base can be charged directly by connecting the USB Type-C cable.

Wireless Charging Method
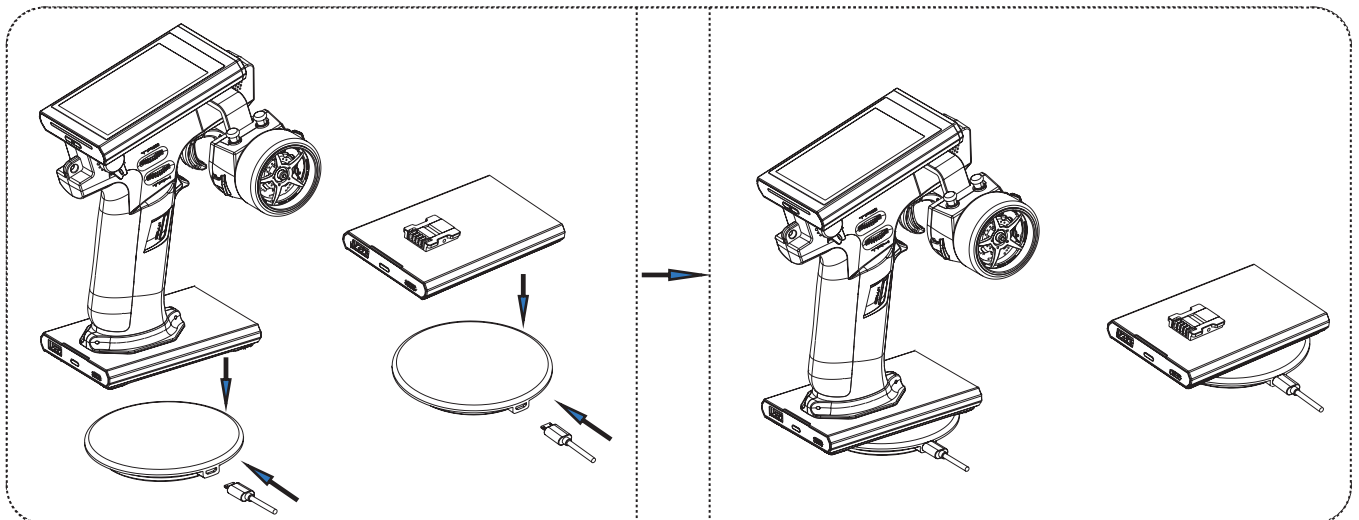
- When the transmitter base indicator of the wireless charger is blue, it indicates the connection is successful and there is ongoing charging.
- When the transmitter base indicator of the wireless charger is red, it indicates the transmitter base is not connected, or the connection failed.
- When the transmitter base indicator of the wireless charger is blue and solid on, it indicates that the battery is fully charged. It takes about 9.5 hours to fully charge in the entire system (including the transmitter, base, and wireless charger base).
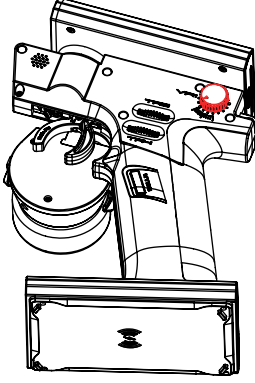
⚠ If the transmitter base of the wireless charger is not used properly, it will lead to ineffective charging, or the charging efficiency may be affected.
There are the following non-standard operations: transmitter base is not aligned with the wireless charger base or the base may be tilted.
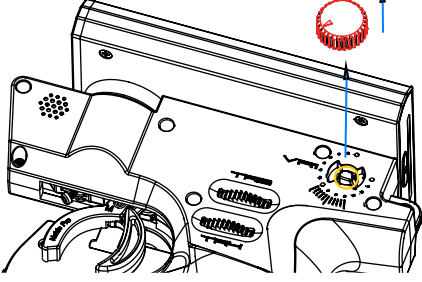
11.7 Replacing VR1 Knob as a Three-position Switch

1
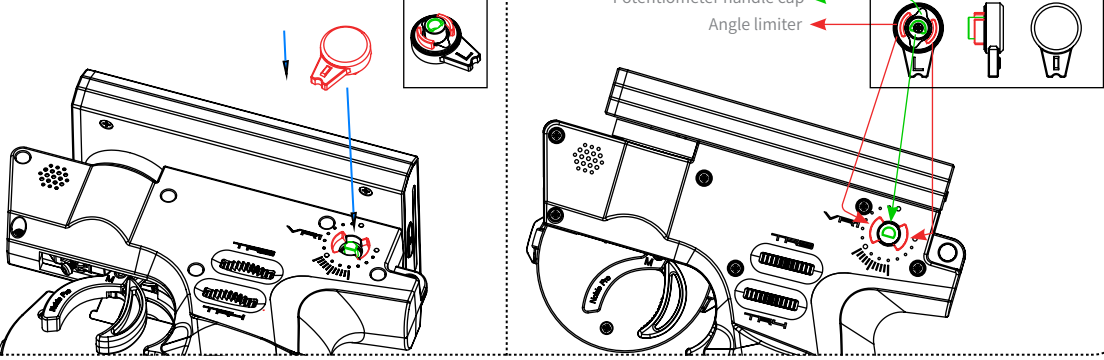
▶ Make sure that the knob needs to be replaced with a three-position switch.

2
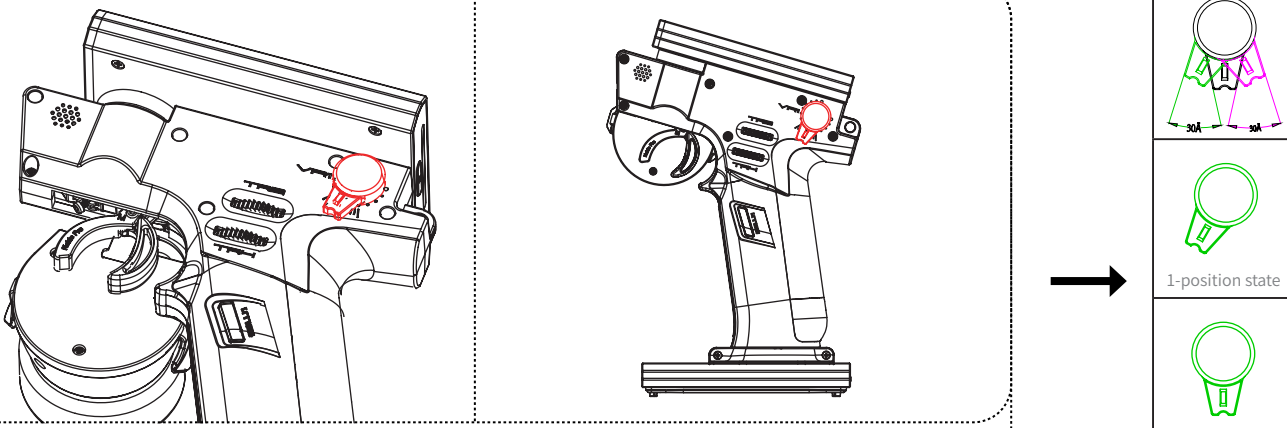
▶ Turn the knob clockwise until the knob is loose. Pinch the knob with the thumb and index finger and then lift it upward to remove the knob.

3

Potentiometer handle cap
Angle limiter

▶ Prepare a three-position switch to be replaced by first aligning the angle limit flap of the three-position switch with the angle limit slot on the transmitter, then align the potentiometer handle cap of the switch with the potentiometer handle of the transmitter. When the angle limit flap and the potentiometer handle cap are aligned at the same time, press the switch firmly by hand.

4

30A   50A

1-position state

2-position state

3-position state

▶ After installation, turn the knob left and right to test if it is installed correctly.

⚠ Pay attention to your strength in the process of replacing the three-position switch to avoid damaging accessories.

Please refer to the above steps for installation. Make sure the product can work properly after installation.

11.8 Replacing the 3-position Switch as VR1 Knob

1

2

▶ Remove the three-position switch upwardly.

4

3

▶ Align the knob with the potentiometer handle cap and press down hard on the knob until the knob is completely fixed.

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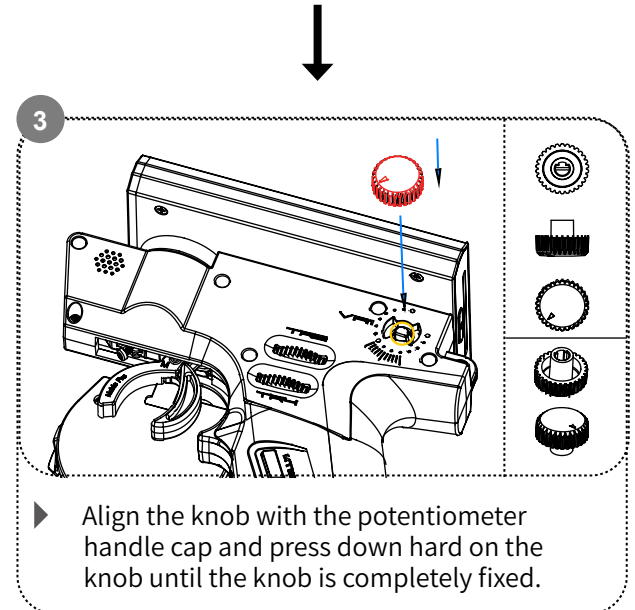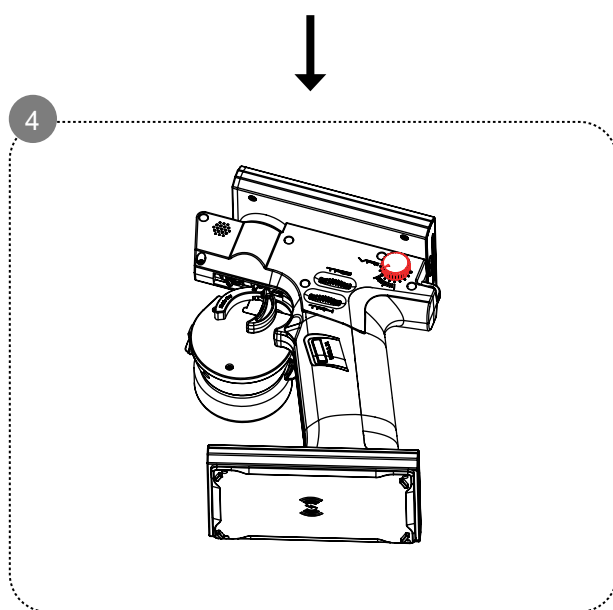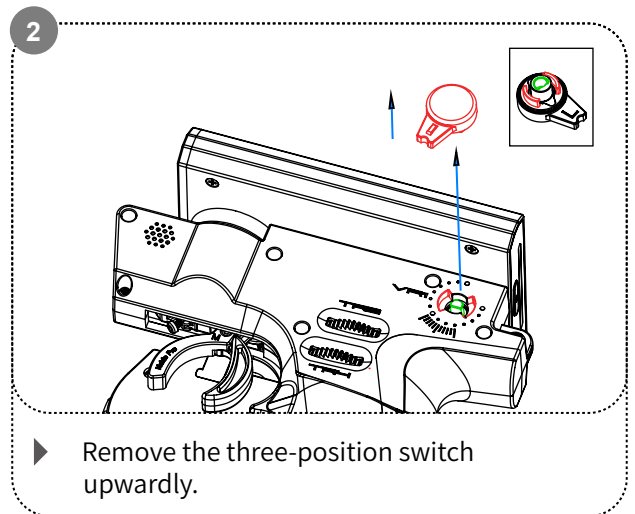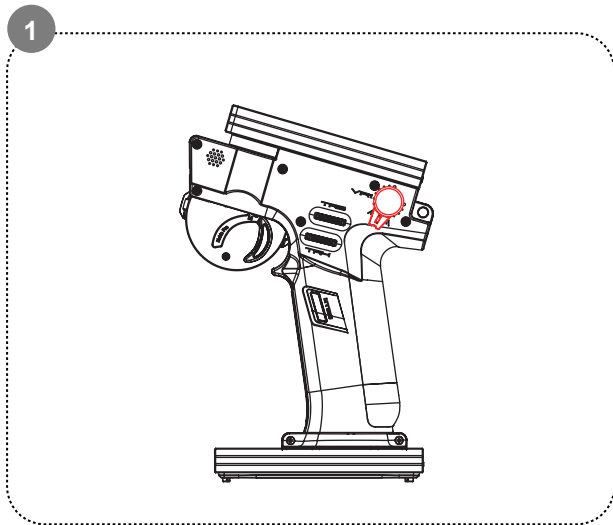
11.9 Trigger Spring Replacement

1
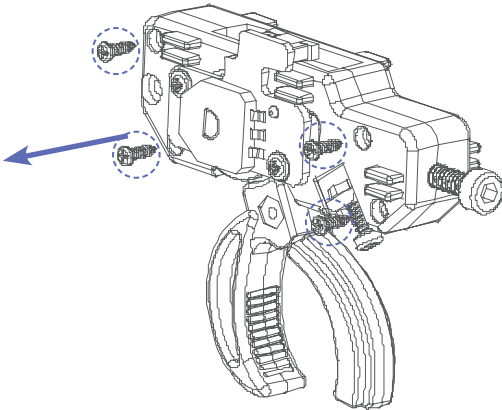
Remove 4 screws(PWA 2.1*6mm);

2
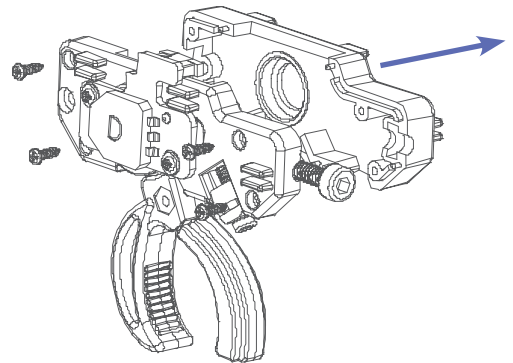
Remove the upper trigger cover;

3

Spring Adjusting Block
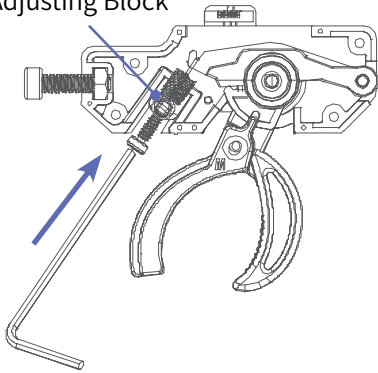
Adjust the screw(HB2*9mm) with a metric 1.5mm hexagonal screwdriver and adjust the spring adjusting block to the very bottom;

4

The upper end of the spring is detached first.
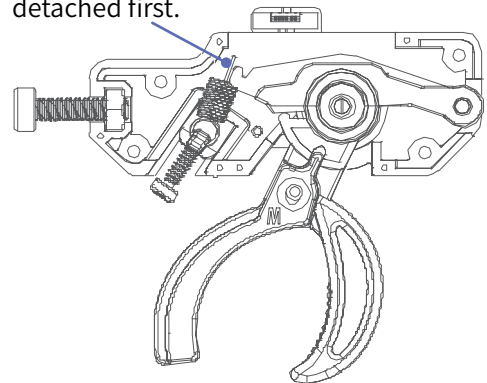
Lift the upper end of the spring, and finally the spring is removed;

5

Lift the spring and hang it.

Spring hook

Spring Adjusting Block
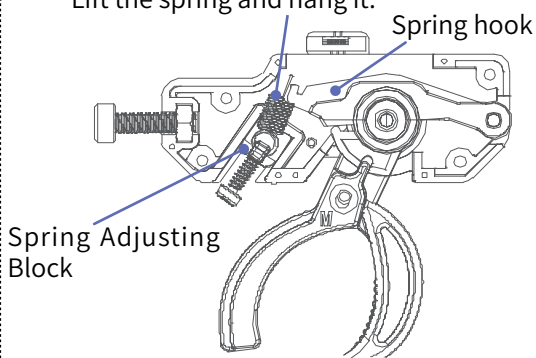
Hang the lower end of the spring to the spring adjusting block, then lift the spring and hang it;

6

Spring Adjusting Block
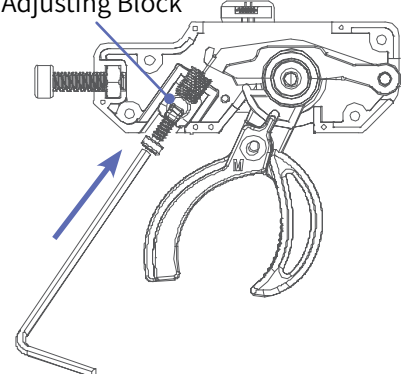
Adjust the screw(HB2*9mm) with a metric 1.5mm hexagonal screwdriver, and adjust the spring adjusting block to the appropriate position;

7
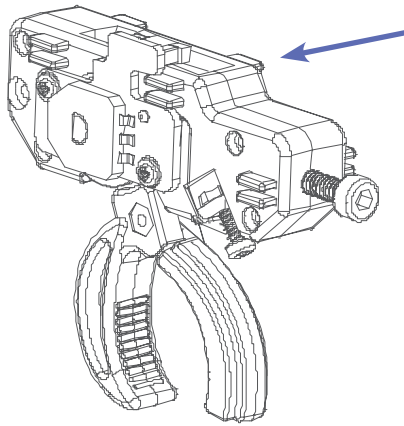
▶ Install the upper trigger cover;

8
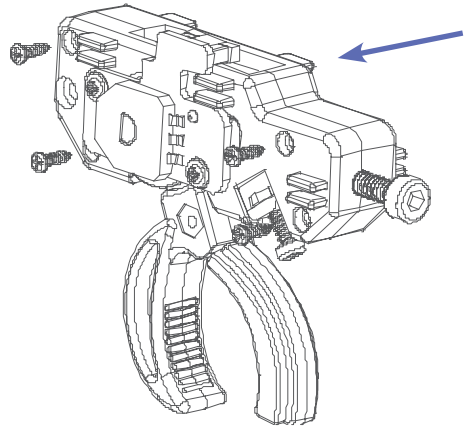
▶ Lock 4 screws(PWA 2.1*6mm) to secure trigger cover;

9
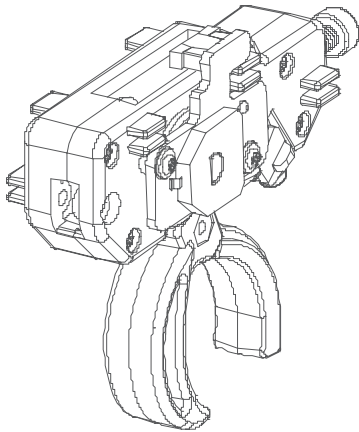
▶ Complete the trigger spring replacement.

11.10 Steering Wheel Spring Replacement

1
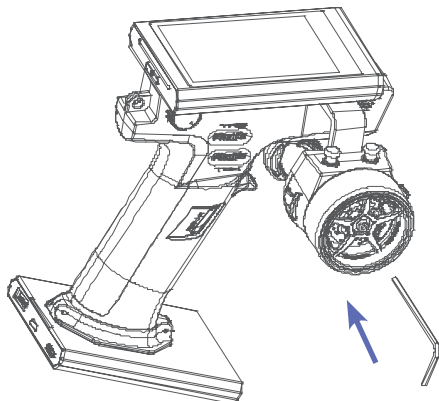
▶ First insert a metric 2.5mm hexagonal screwdriver into the screw hole used to secure the steering wheel;
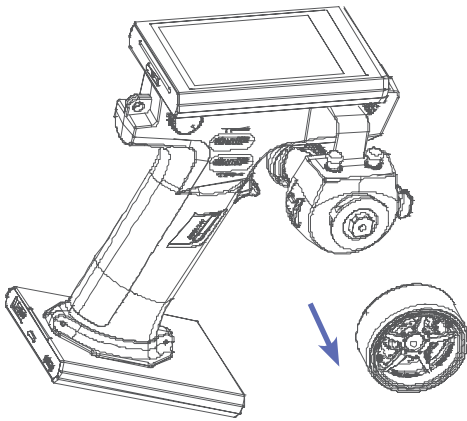
2
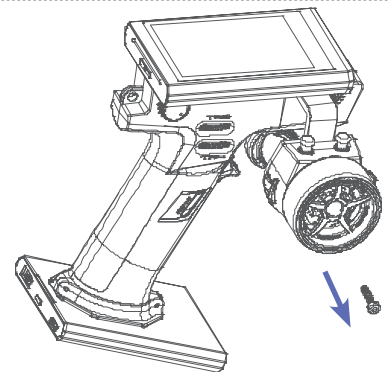
▶ Turn a metric 2.5mm hexagonal screwdriver counterclockwise until the screw(HM3*12mm) is completely loose and remove it;
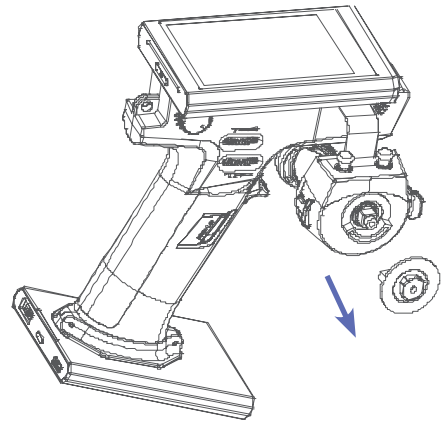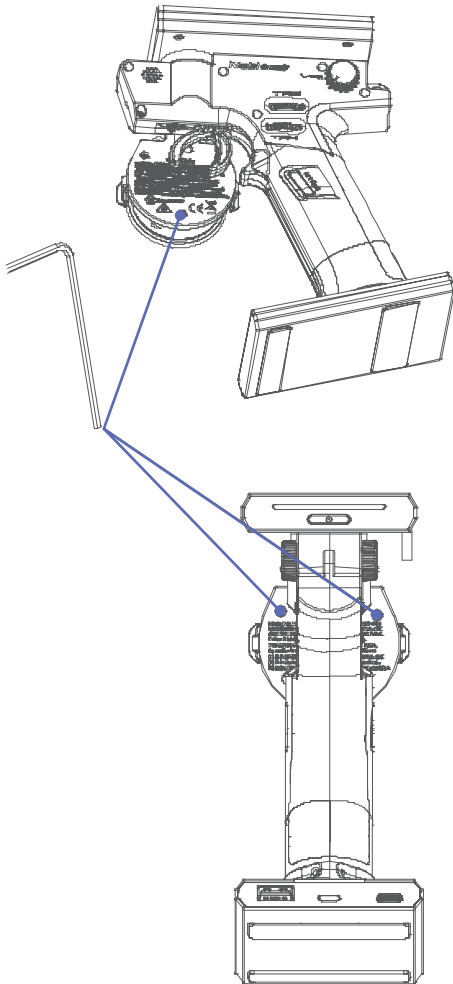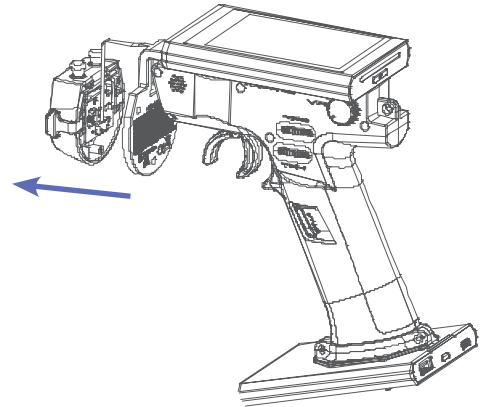
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3

Remove the steering wheel;

4

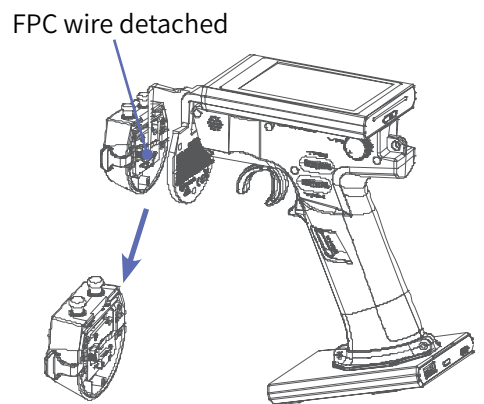Pinch the brake pad with two fingers and take out upwardly;

5

Remove the screws by turning them counterclockwise with a metric 1.5mm hexagonal screwdriver;

6

Steering wheel base detached;

7

FPC wire detached

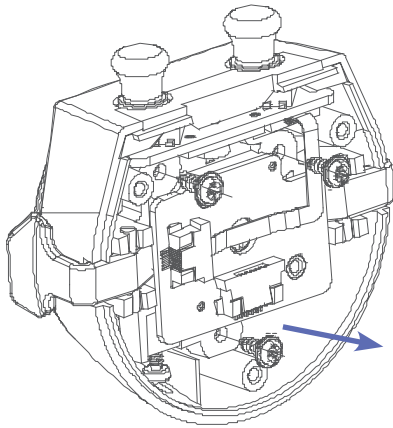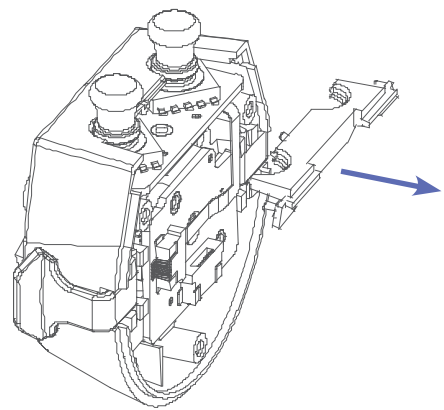FPC wire detached, then remove the steering wheel base;
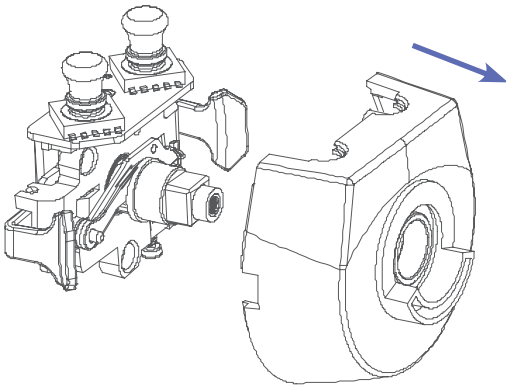
8

▶ Remove the screws(PWA2.1*6mm);

9

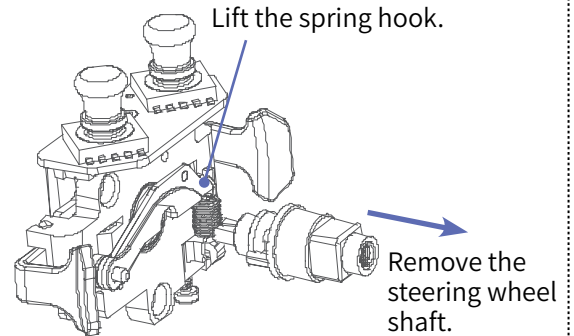
▶ Remove the cap;

10

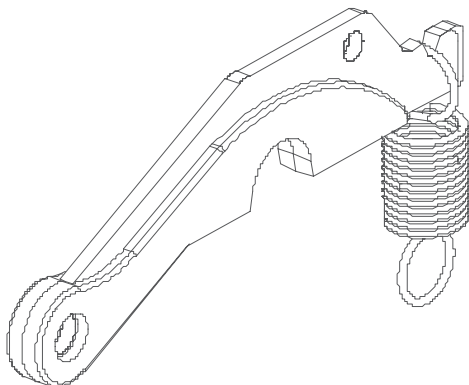▶ Remove the upper steering wheel pad cover;

11

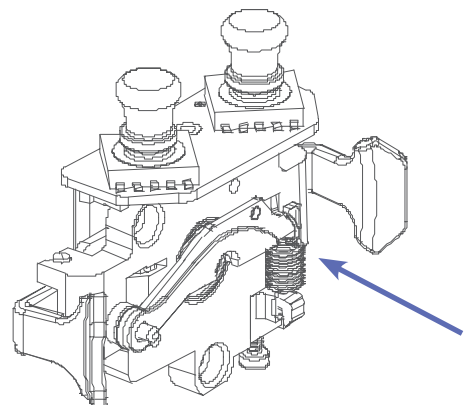Lift the spring hook.

Remove the steering wheel shaft.

▶ Lift the spring hook with one hand and remove the steering wheel shaft with the other hand;

12

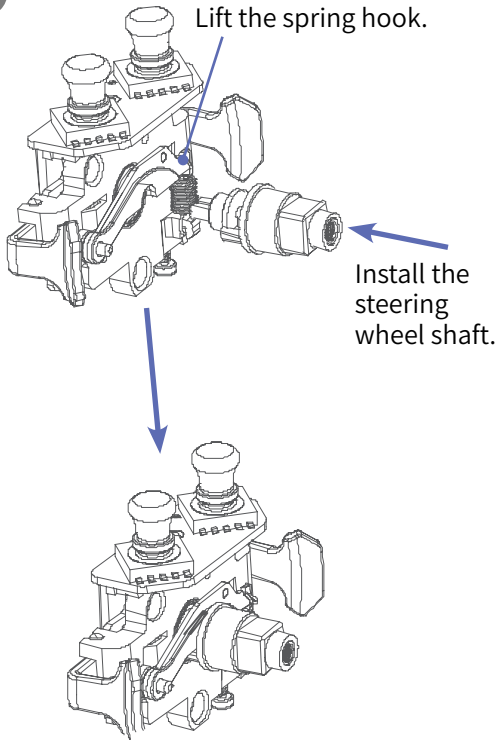▶ Remove the spring hook and the spring component, then replace the spring;

13

▶ Install the spring component;

14
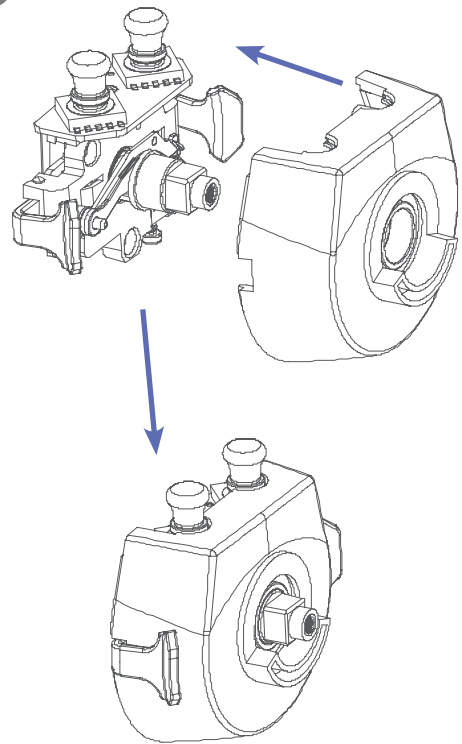
Lift the spring hook.

Install the steering wheel shaft.

▶ Lift the spring hook with one hand and install the steering wheel shaft with the other hand;

15

▶ Install the upper steering wheel pad cover;

16
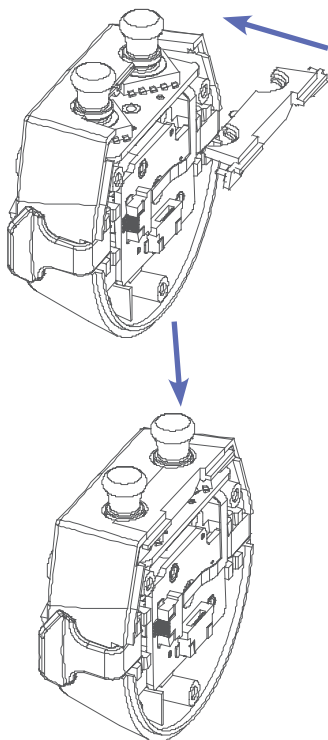
▶ Install the cap；

17
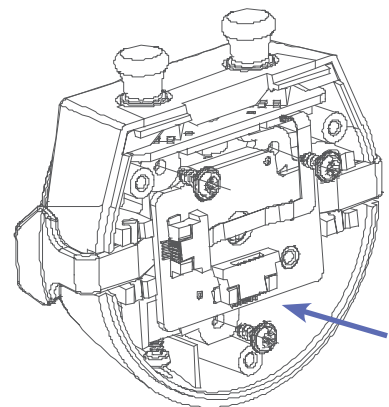
▶ Lock the screws(PWA2.1*6mm);

18
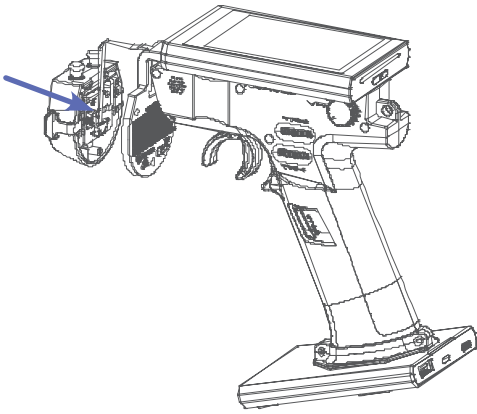
Connect the FPC wire;

19

Lock the screws(HB2*9mm);

20
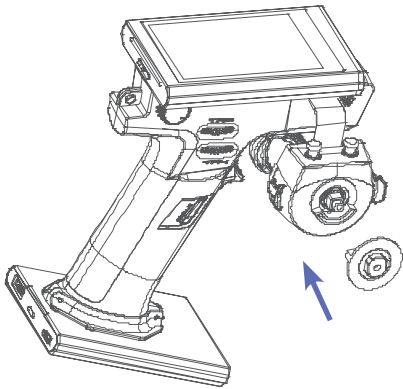
Install the brake pad;

21

Use the mounting slot of the steeringwheel with brake pad adjustment hole to place over the protruding connector of the brake pad, then press the steering wheel to fix it;
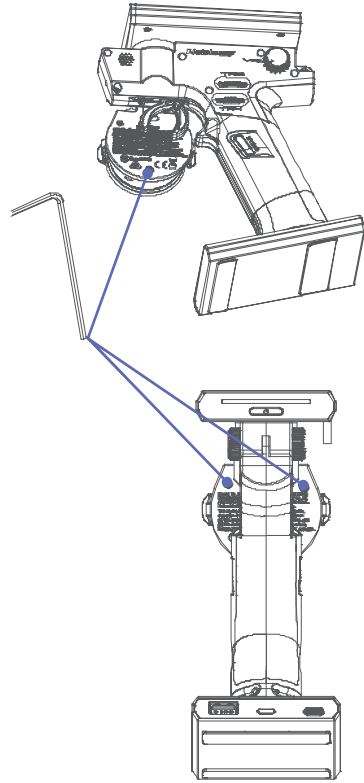
22
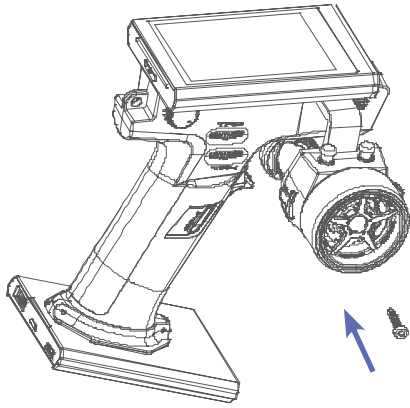
▶ Insert the screw(HM3*12) into the screwhole used to secure the steering wheel, then align a metric 2.5mm hexagonal screwdriver with the hexagonal hole in the head of the screw, hold the side of the steering wheel with one hand and turn the screwdriver clockwise with another hand until the screw is secured;

23

▶ Complete the steering wheel spring replacement.

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12. Certification

12.1 DoC Declaration

Hereby, [ShenZhen FLYSKY Technology Co., Ltd.] declares that the Radio Equipment [Noble NB4 Pro+(Noble NB4 Pro+)] is in compliance with RED 2014/53/EU.

The full text of the EU DoC is available at the following internet address: www.flyskytech.com/info_detail/10.html

12.2 CE Warning
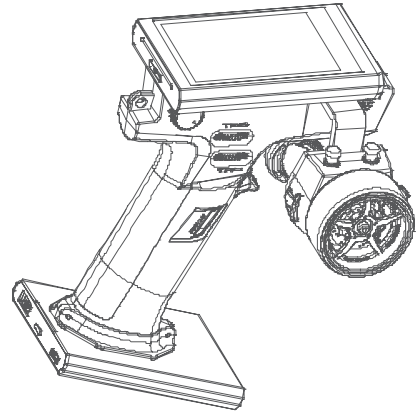
The ce warns that the installation of the antenna used in this transmitter must be kept in distance from all the personnel and shall not be used or used with any other transmitter. The end user and the installer must provide antenna installation instructions and transmitter operating conditions to meet the requirements for rf exposure compliance.

12.3 Environmentally friendly disposal

Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

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12.4 FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or televison reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Caution!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

1. Move all your channels to the desired position.

2. Select [All channels] and then [Yes] in the confirmation box.

CAUTION

Risk of explosion if the battery is replaced an incorrect disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion; leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas; battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

12.5 ISED Compliance Statements

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) L'appareil ne doit pas produire de brouillage;

(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé.

12.6 RF Exposure Compliance

This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

These requirements set a SAR limit of 4 W/kg averaged per ten gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the limbs.
Cet équipement est conforme aux limites d'exposition aux radiations FCC /IC CNR-102 établies pour un environnement non contrôlé.

Le dispositif portatif est conçu pour répondre aux exigences d'exposition aux ondes radio établie par le développement énergétique DURABLE. Ces exigences un SAR limite de 4 W / kg par 10 g de tissu. La valeur SAR la plus élevée signalée en vertu de cette norme lors de la certification de produit à utiliser lorsqu'il est correctement porté sur le membres.

12.7 CE SAR Statement

This equipment complies with Directive 2014/53/EU radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The portable device is designed to meet the requirements for exposure to radio waves established by European Union market(France). These requirements set a SAR limit of 4W/kg averaged over ten gram of tissue. The highest SAR value 1.95W/kg reported under this standard during product certification for use when properly worn on the limbs.

Figures and illustrations in this manual are provided for reference only and may differ from actual product appearance. Product design and specificatiions may be changed without notice.

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