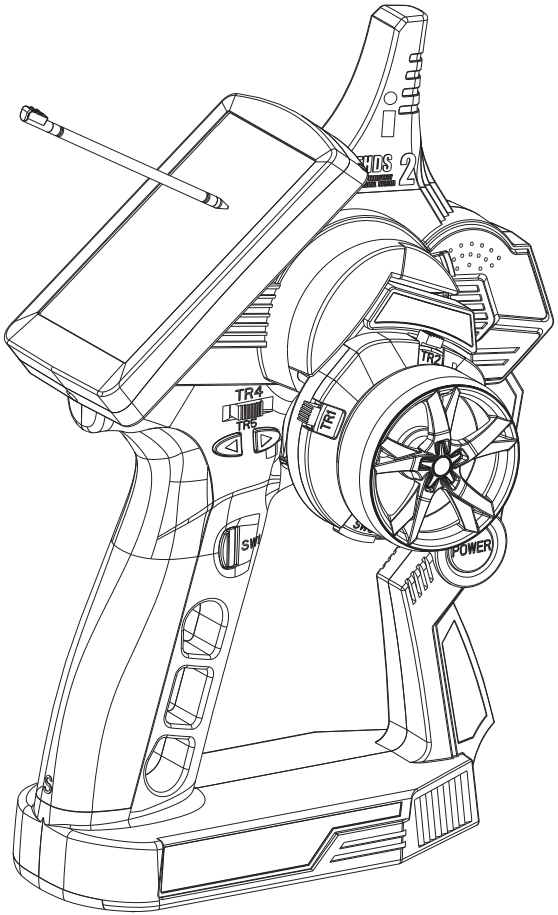
FLY SKY

FS-iT4

Digital propotional radio control system

INSTRUCTION MANUAL

用户手册



2.4 Hz 010101101 AFHDS 2 AUTOMATIC FREQUENCY HOPPING DIGITAL SYSTEM

http://www.flysky-cn.com

WARNING:
This product is suitable for 15 years old and above
本产品不适合15岁以下儿童使用

15+

CE FC

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1. Introduction 简介

Thank you for choosing the Fly Sky FS-iT4 4 channels 2.4GHz AFHDS 2 computerized digitalproportional R/C car and boat system. If it's your first use of a computerized radio system, this user manual will bring you easily to a new world of fun and sophistication. In all cases, please read carefully and completely this user manual as it contains all information to keep you safe.

感谢您选择富斯出品的FS-iT4四通道2.4G可编程AFHDS第二代遥控系统，该系统可兼容车船两种模式。如果这是您第一次使用可编程遥控系统，这本使用手册将很快地带给您一个有趣又高端的全新世界。因此，为了确保您安全使用本产品，请仔细地完整阅读这本使用手册。

2. Services 服务

If you encounter any problem during use, please refer to this manual. If the problem still persists, please contact your local dealer or connect to our service and support website:

http://www.flysky-cn.com

如果您使用时遇到任何问题，请参照此说明书。如果您的问题仍然未能解决，请直接联系当地经销商或者我们网站上的客服人员.

http://www.flysky-cn.com

3. Special symbols 特殊标志

Please pay attention to the following symbols when they appear in the manual and read carefully.

当以下标志出现在说明书的时候请注意并且仔细阅读。

Danger: Not following these instructions may expose the user to serious injuries or death.

如果使用者不按照说明方法操作，有可能导致使用者严重受伤，甚至致命的危险。

Warning: Not following these instructions may expose the user to serious injuries.

如果使用者不按照说明方法操作，有可能导致使用者严重受伤。

Attention: Not following these instructions may expose the user to minor injuries and even to serious injuries.

如果使用者不按照说明方法操作，有可能导致使用者外伤，甚至严重受伤。

Prohibited 禁止

Mandatory 强制

4. Safety guide 安全指导

Do not use it in the night or a lighting storm as the bad weather will make the remote control out of control.

请不要在夜晚或者雷雨天使用此产品，因为恶劣的天气环境有可能导致遥控设备失控。

Make sure moving direction of all motors be same with the operating direction. If not, please adjust direction first.

操控时, 请先确认模型所有舵机的动作方向与操控方向一致。如果不一致，请调整好正确的方向。

The shutdown sequence must be to first disconnect the receiver battery then to switch off the transmitter. If the transmitter is switched off while the receiver is still powered, it may lead to uncontrolled movement or engine start and may cause an accident.

关闭时，请务必先关闭接收机电源,然后关闭发射机，如果关闭发射机电源时接收机仍然在工作，将有可能导致遥控设备失控或者引擎继续工作而引发事故。

In particular, the 2.4G R/C system will affect the plane or the car nearby after you turn on the transmitter.

特别要注意,如果附近有汽车正在运行或飞机正在飞行, 开机后2.4 GHz RC系统可能会影响到他们。

Be sure to set the Fail Safe function.

一定要启用防失控功能.

Do not operate outdoors on rainy days, run through puddles of water or use when visibility is limited. Should any type of moisture (water or snow) enter any component of the system, erratic operation and loss of control may occur.

不要在户外雨天,有水的地方或当能见度有限的时候使用。可能水分(水或雪)会进入到系统内部,不稳定的运行和失控可能发生。

Do not operate in the following places.
-Near other sites where other radio control activity may occur.
-Near people or roads.
-On any pond when passenger boats are present.
-Near high tension power lines or communication broadcasting antennas.
Interference could cause loss of control. Improper installation of your Radio Control System in your model could result in serious injury.

不要操作在以下的地方。
基站附近或其他无线电活跃的地方；
人多的地方或道路附近。
有客船的水域。
高压电线或通信广播天线附近。
干扰可能导致失控。安装不正确,无线电控制系统可能导致模型发生严重的伤害。

Do not operate this R/C system when you are tired, not feeling well or under the influence of alcohol or drugs.
Your judgment is impaired and could result in a dangerous situation that may cause serious injury to yourself as well as others.

当你感到疲倦, 饮酒或吸毒后，不舒服的影响下，不要操作这个R / C系统。
判断力下降,而且可能发生危险的情况下, 对自己或他人可能造成严重的伤害。

Do not touch the engine, motor, speed control or any part of the model that will generate heat while the model is operating or immediately after its use.These parts may be very hot and can cause serious burns.

当模型操作或使用后,请勿触摸发动机、电机、调速器或任何可能发热的部分,这些部分可能非常热,会造成严重的烧伤。

Always perform a operating range check prior to using.
Problems with the radio control system as well as improper installation in a model could cause loss of control.(Simple range test method) Have a friend hold the model, or clamp it down or place it where the wheels or prop cannot come in contact with any object. Walk away and check to see if the servos follow the movement of the controls on the transmitter. Should you notice any abnormal operation, and do not operate the model. Also check to be sure the model memory matches the model in use.

总是在操作模型之前进行全面的检查。
无线电控制系统出现问题以及不正确安装, 都有可能导致模型失控,简单的距离测试方法:
一个人把持模型,或者提起来让轮子与地面无法接触,另一个人持发射机走开,检查该伺服系统运转情况。测试时要注意到若有异常出现,请不要操作模型。也检查模型的记忆, 以确保模型的匹配是适当的。

Turn on the power:
Turning on the power switches,Always check the throttle trigger on the transmitter to be sure it is at the neutral position.
When making adjustments to the model, do so with the engine not running or the motor disconnected. You may unexpectedly lose control and create a dangerous situation.

开机时，每次都要检查发射器的油门中位是不是处于中间位置。
当发射机作出调整时,可能模型的引擎没有运行或电机没有连接。可能会发生失控或意外事故的情况。

Fail safe function
Before running (cruising), check the fail safe function.
Check Method; Before starting the engine, check the fail safe function as follows:
(1) Turn on the transmitter and receiver power switches.
(2) Wait at least 30 seconds, then turn off the transmitter. (The transmitter automatically transfers the fail safe data to the receiver every 5 seconds.)
(3) Check if the fail safe function moves the servos to the preset position when reception fails.
The fail safe function is a safety feature that minimizes set damage by moving the servos to a preset position when reception fails. However, if set to a dangerous position, it has the opposite effect. When the reverse function was used to change the operating direction of a servo, the fail safe function must be reset.

防失控功能;
检查操作步骤如下:
(1) 打开发射机和接收机,启动发射机防失控功能,并设定在正确的位置.
(2) 至少等待30秒钟,然后关掉发射机电源开关。(发射机每5秒会自动发送防失控的数据到接收机)。
(3) 检查在无接收时,接收机会不会使伺服系统处于预定的位置。
这个功能是一个安全功能,接收失败时,预置伺服系统到预定位置,可以最大限度地减少伤害.然而,如果设置为一个不当的位置,会有相反的效果,必须重置伺服系统操作的位置。

Battery :
(1) Do not make the battery short circuit.
(2) Do not drop the battery or expose it to strong shocks or vibrations.The battery may short circuit and overheat; electrolyte may leak out and cause burns or chemical damage.

电池:
不要短路电池两极。
不要把电池放置在有强烈冲击和振动的地方。电池可能会发生短路或过热;电解液泄漏出来,可能引起烧伤或化学损坏。

Storage:
1 Do not leave the radio system or models within the reach of small children.
A small child may accidentally operate the system. This could cause a dangerous situation and injuries.
2 Do not store your R/C system in the following places.
- Where it is extremely hot or cold.
- Where the system will be exposed to direct sunlight.
- Where the humidity is high.
-Where vibration is prevalent.
-Where dust is prevalent.
-Where the system would be exposed to steam and condensation.
Storing your R/C system under adverse conditions could cause deformation and numerous problems with operation.
Notice:
do not expose plastic parts to fuel, motor spray, waste oil or exhaust.The fuel, motor spray, waste oil and exhaust will penetrate and damage the plastic.

存储:
1 不要把无线电系统或模型放在幼儿伸手可及的。
小孩子可能会不小心操作系统,这可能发生危险的情况,造成伤害。
2 不要储存你的R / C系统在以下的地方:
极热或冷的地方。
直接暴露于强光下。
在高湿度环境。
振动频繁的地方。
灰尘多的地方。
在潮湿或者过于寒冷的地方.
存储你的R / C系统在不利条件下,可能会导致变形和许多操作问题。
注意:
请勿放置在燃料,电动机喷雾,废油或排气旁边。燃料,电动机喷雾,废油和排气将渗透和损害塑料。

5. 2.4GHz System 2.4G系统

AFHDS2 (automatic frequency hopping digital system 2)， is developed by FLYSKY for all the Radio Control model lovers and is patented by FLYSKY at home. The system is specially developed for all the Radio control models, that offers super active and passive anti-jamming capabilities,very low power consumption and higher receiver sensitivity. With extreme rigorous testing byengineers and professional players for years, FLYSKY AFHDS2 is now considered to be one ofthe best systems available in the market.

AFHDS2（第二代自动跳频系统），这个系统是富斯公司全新专为模型爱好者自主研发，并具有自主知识产权的一套数字无线系统。它是专门针对模型产品而研发的，它具有超强的主动和被动抗干扰能力及极低的使用功耗和极高的接收灵敏度，是目前市面上最好的系统之一。此系统经过研发人员极端严格的测试及专业玩家的验证，模型爱好者完全可以放心使用！

RF specifications:
RF range: 2.4000-2.4835GHz
Channel bandwidth: 500KHz
Number of channels: 160
RF power: less than 20dBm (100mW)
RF mode: AFHDS 2(Automatic Frequency Hopping Digital System2)
Modulation type: GFSK
Antenna length: 26mm
RX sensitivity: -105dBm

参数说明：
频率范围： 2.40-2.4835GHz
波段宽度： 500KHz
波段个数： 160个
发射功率： 不高于20dBm (100mW)
发射模式： AFHDS2(第二代自动跳频率数字系统)
编码方式： GFSK
天线长度： 26mm
接收机灵敏度： -105dBm

Danger:

Misuse of this radio system can lead to serious injuries or death. Please read completely this manual and only operate your radio system according to it.

警告!

错误使用遥控设备将可能导致严重的伤害甚至死亡。请在使用前完整阅读这本使用手册，并且在使用过程中严格按照此手册的说明操作。

The 2.4GHz radio band has a completely different behavior than previously used lower frequency bands. Keep always your model in sight as a large object can block the RF signal and lead to loss of control and danger. The 2.4GHz RF signal propagates in straight lines and cannot get around objects on its path. Never grip the transmitter antenna when operating a model as it degrades significantly the RF signal quality and strength and may cause loss of control and danger

该2.4G无线电波段完全不同于之前所使用的低频无线电波段。使用时要保持您的模型产品行驶在您的视线范围内，因为大的障碍物将会阻断无线电频率信号从而导致遥控失控和危险。2.4G无线电频率信号是沿直线传播的，它不能绕过障碍物进行传播。在使用过程中，严禁紧握发射机天线，否则将会大大减弱无线电传播信号的质量和强度， 导致遥控设备失控和危险。

Danger:

Always turn on the transmitter first then the receiver. When turning off the system, always turn off the receiver first then the transmitter. This is to avoid having the receiver on itself as it may pick a wrong signal and lead to erratic servo movements. This is particularly important for electric powered models as it may unexpectedly turn on the motor and lead to injuries or death.

警告!

每次使用时,必须先打开发射机，然后再给接收机通电。停止使用时，必须先断开接收机电源，然后再关闭发射机。 这样操作可以避免接收机接收到错误信号而导致的伺服器无规律的抖动。这对于电动模型来说尤为重要， 因为它有可能导致马达突然转动而致使人员伤亡。

System Characteristic 系统特征

This radio system works in the frequency range of 2.4000 to 2.4835GHz. This band has been divided into 160 independent channels. Each radio system uses 16 different channels and 160 different types of hopping algorithm. By using various switch-on times, hopping scheme and channel frequencies, the system can guarantee a jamming free radio transmission.

此系统工作频率范围是2.4000到2.4835GHz。整个波段被分为160个独立频点。每套遥控系统使用16个不同频点和160种不同的跳频算法。通过开机时间不同，跳频规律不同和已经不同的频点，遥控系统能避免干扰传播信号.

This radio system uses a high gain and high quality multidirectional antenna. It covers the whole frequency band. Associated with a high sensitivity receiver, this radio system guarantees a jamming free long range radio transmission.

此系统采用高质量的增益天线，覆盖整个波段带宽。配合高灵敏度接收机，系统能有效的避免远距离传播信号的干扰。

Each transmitter has a unique ID. When binding with a receiver, the receiver saves that unique ID and can accepts only data from that unique transmitter. This avoids picking another transmitter signal and dramatically increases interference immunity and safety.

每台发射机有一个唯一的ID码， 当和接收机对码之后， 接收机保存这个唯一的ID码并且只接受从这个ID码发射机发出的信号。 这样可以避免接收到别的发射机信号，大大增强抗干扰能力和安全性。

This radio system uses low power electronic components and a very sensitive receiver chip. The RF modulation uses intermittent signal transmission thus reducing even more power consumption. Comparatively, this radio system uses only a tenth of the power of a standard FM system.

此系统使用低功率电子元件和高灵敏度接收机芯片。无线电频率模块采用间歇性信号传播，因此大大降低了发射功率。比较而言，此系统功耗仅为FM版本的十分之一。

This system uses the two-way communication, which could control the working state of current model better and make the operation more enjoyable and safer than before.

此系统采用信息回传功能，此功能更好的掌握当前模型的工作状态。从而增添了操控乐趣以及更加安全控制模型

6. Battery charging notes 电池充电注意事项

If your transmitter or receiver uses any type of rechargeable batteries, please check them before each flight and make sure they are in good shape and fully charged otherwise it may lead to loss of control, injuries and death.

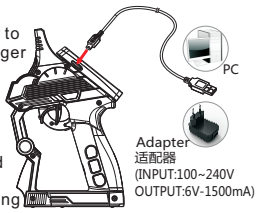
如果您的发射机或者接收机使用任何种类的可充电电池，请在每次飞行前检查电池，确保电池完好无损并且满电，否则有可能导致失控或者人员伤亡。

If you are using rechargeable batteries, make sure to use a suitable charger with the right charging current set otherwise it may lead to battery overheating, fire or explosion. Disconnect the battery from the charger as soon as it is fully charged. If you don't plan to use your radio system for a long period of time, remove the batteries from the transmitter and the model as it may damage them.

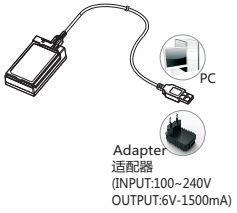
如果您使用的是可充电电池，请确保充电器符合可充电电池规格并且用适当的电流进行充电否则将导致电池过热，失火甚至爆炸。充满电后，请立即断开充电电源.如果长时间不用遥控设备，请将电池从发射机和模型中取出保存，以免有损遥控设备。

6.01: Transmitter charger

1. Install the lipo battery to the transmitter or charger with correct direction, then close the battery cover.
2. Connect cable USB with adapter.
3. Connect opposite end of cable USB to the transmitter or the charging interface of the charger.
4. Insert the adapter into socket.



1. 将锂电池按方向装入发射机或者充电器(合上发射机电池盖).
2. USB连上适配器
3. 插入发射机或者充电器充电接口
4. 将适配器插入插座



7. Transmitter specifications 发射机参数

Transmitter specifications:

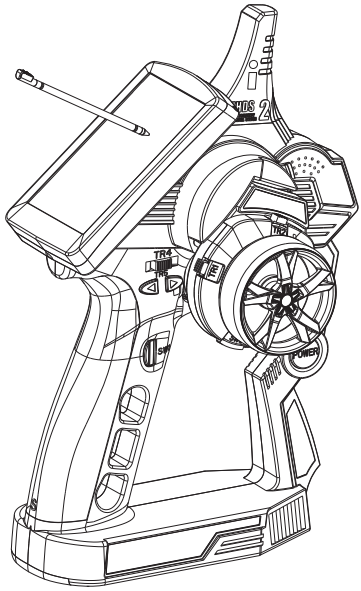
- Channels: 4
- Model type: car/boat
- RF range: 2.4-2.48GHz
- Bandwidth: 500KHz
- Band: 160
- RF power: less than 20 dBm
- 2.4G system: AFHDS 2
- Code type: GFSK
- Sensitivity: 1024
- Low voltage warning: yes(less than 3.7V)
- DSC port: yes(USB HID)
- ST range: 90
- TH range: 45(F: 30;B:15)
- Charger port: yes
- Power: 3.7V(1200mAh)
- Weight: 347g
- ANT length: 26mm
- Size: 157*116*258mm
- Color: black
- Certificate: CE0678, FCC

机种参数

- 通道个数：4个通道
- 适合机种：车/船
- 频率范围：2.4-2.48GHz
- 波段宽度： 500KHz
- 波段个数： 160个
- 发射功率： 不高于20dBm
- 2.4G模式： 第二代自动跳频数字系统
- 编码方式： GFSK
- 通道分辨率： 1024级
- 低电压报警： 有（低于3.7伏时）
- 数据输出： 有（USB，HID）
- 方向盘转动角度：90度（左右各45度）
- 油门转动角度：45度（前进30度，后退15度）
- 充电接口： 有
- 天线长度： 26毫米
- 机身重量： 347克
- 输入电源： 3.7伏（1200毫安）
- 外形尺寸： 157*116*258mm
- 外观颜色： 黑色
- 认证： CE0678, FCC

2.4 Hz 01010101 AFHDS 2 AUTOMATIC FREQUENCY HOPPING DIGITAL SYSTEM

MODEL: FS-iT4



8. Receiver specifications 接收机参数

SPECIFICATIONS :

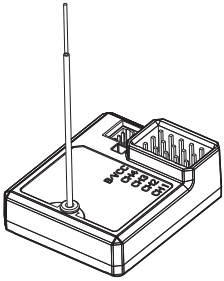
- Channels: 4
- Model type: car/boat
- RF range: 2.40-2.48GHz
- Band: 160
- RF power: less than 20 dBm
- 2.4G system: AFHDS2
- Code type: GFSK
- Power: 4.5-6.5V DC
- Weight: 15g
- ANT length: 26mm
- Size: 35.4*29.6*13mm
- Color: black
- Certificate: Ce0678, FCC
- RX Sensitivity: -105 dBm
- AS-Bus PORT: yes
- Data Acquisition port: yes

机种参数：

- 通道个数： 4
- 适合机种： 车、船
- 频率范围： 2.40-2.48GHz
- 波段个数： 160个
- 发射功率： 不高于20dBm
- 接收灵敏度：-105dBm
- 2.4G： 第二代自动跳频数字系统
- 编码方式： GFSK
- 天线长度： 26毫米
- 机身重量： 15克
- 输入电源： 4.5-6.5V DC
- 外形尺寸： 35.4*29.6*13毫米
- 外观颜色： 黑色
- 认证： CE0678,FCC
- AS-Bus接口： 有
- 数据采集接口： 有

2.4 Hz 01010101 AFHDS 2 AUTOMATIC FREQUENCY HOPPING DIGITAL SYSTEM

MODEL: FS-iR4



8.01. Speed acquisition module 磁感应速度采集模块

SPECIFICATIONS :

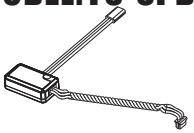
- Model type: car/boat
- Monitor range of speed16000RPM
- Power: 4.0-6.5V DC
- Weight: 10g
- Size: 24.4*14*8mm
- Color: black

机种参数：

- 适合机种： 车、船
- 采集速度范围： 0-16000转/分钟
- 机身重量： 10克
- 输入电源： 4.0-6.5V DC
- 外形尺寸： 24.4*14*8毫米
- 外观颜色： 黑色

2.4 Hz AFHDS 2

MODEL: FS-SPD01



8.02. Speed acquisition module 光感应速度采集模块

SPECIFICATIONS :

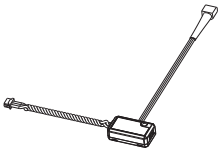
- Model type: car/boat
- Monitor range of speed16000RPM
- Power: 4.0-6.5V DC
- Weight: 10g
- Size: 24.4*14*8mm
- Color: black

机种参数：

- 适合机种： 车、船
- 采集速度范围： 0-16000转/分钟
- 机身重量： 10克
- 输入电源： 4.0-6.5V DC
- 外形尺寸： 24.4*14*8毫米
- 外观颜色： 黑色

2.4 Hz AFHDS 2

MODEL: FS-SPD02



8.03. Temperature acquisition module 温度采集模块

SPECIFICATIONS :

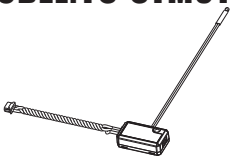
- Model type: car/boat
- Monitor range of temperature: 0-100°C
- Power: 4.0-6.5V DC
- Weight: 10g
- Size: 24.4*14*8mm
- Color: black

机种参数：

- 适合机种： 车、船
- 采集温度范围：-40-100度
- 机身重量： 10克
- 输入电源： 4.0-6.5V DC
- 外形尺寸： 24.4*14*8毫米
- 外观颜色： 黑色

2.4 Hz AFHDS 2

MODEL: FS-STM01



8.04. Voltage acquisition module 电压采集模块

SPECIFICATIONS :

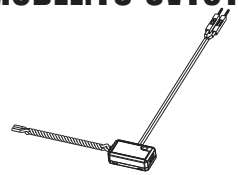
- Model type: car/boat
- Monitor range of Voltage: 4.0-30V DC
- Power: 4.0-6.5V DC
- Weight: 10g
- Size: 24.4*14*8mm
- Color: black

机种参数：

- 适合机种： 车、船
- 电压采集范围： 4.0-30V DC
- 机身重量： 10克
- 输入电源： 4.0-6.5V DC
- 外形尺寸： 24.4*14*8毫米
- 外观颜色： 黑色

2.4 Hz AFHDS 2

MODEL: FS-SVT01



8.05. Serial bus receiver 串行总线接收机

SPECIFICATIONS :

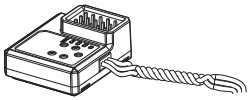
- Channels: 4
- Model type: car/boat
- Weight: 12g
- Power: 4.0-6.5V DC
- Size: 30*25.6*13mm
- Color: black
- ASbus PORT: yes

机种参数：

- 通道个数：4
- 适合机种： 车、船
- 机身重量： 12克
- 输入电源： 4.0-6.5V DC
- 外形尺寸： 30*25.6*13毫米
- 外观颜色： 黑色
- ASbus接口： 有

2.4 Hz AFHDS 2

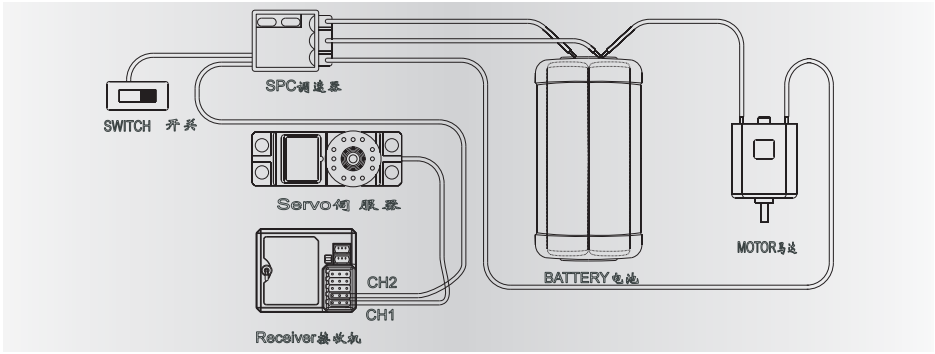
MODEL: FS-SEV01



9. Receiver and servo connections 接收机与伺服器连接

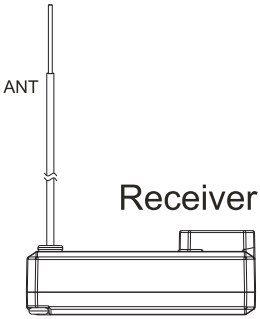
9. 01. Installation when a motor controller is used:

带马达模型的安装连接



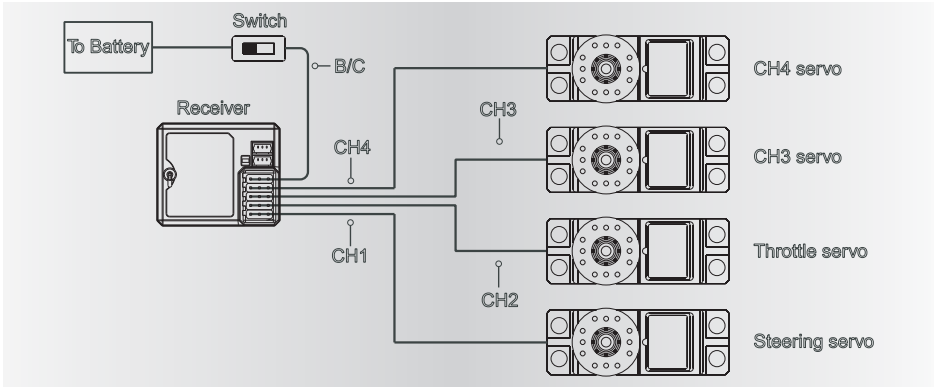
Remark: to guarantee a long range, place the antenna of the receiver vertically away from any metal part.

注意: 为保证良好的遥控距离,请将接收机天线与模型机身垂直放置并远离金属物体。

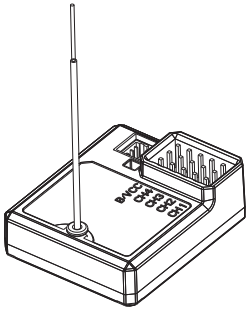


9. 02. Installation for gas powered models:

发动机模型的安装



10. FS-iR4 operation instruction FS-iR4接收机操作说明



port instruction 接口说明

CH1-CH4： 表示接收机的相应通道；
BIND,VCC： 表示用于对码和输入电源的通道；
OUT： 表示输出PPM数据的ASbus接口，用于连接串行总线接收机，扩展通道；
IN： 表示各种传感器数据的输入接口，数据采集模块可随意串接；

CH1-CH4: represent relevant channel of transmitter.
BIND,VCC: represent the channel used for matching and input power respectively.
OUT: represent ASbus port of outputting PPMS data and be used for connecting the serial bus receiver to expand channels.
IN: Represent input ports of all kinds of sensor data, and data acquisition modules can be connected in serial optionally.

Binding 对码

所有的发射机和接收机，在出厂前都已对码好,无需再次对码，若您需要与另的发射机进行对码和使用，请按以下方法操作：

1. 发射机装上电池，打开电源；
2. 进入主界面，选择“接收机设置”功能。点触“对码”进入对码状态
3. 用产品包装所配的对码线,插入接收机B/VCC 通道;
4. 使用6VDC电源，按正确极性，插入CH1-CH4的任一通道，即可进入对码状态，此时LED灯闪烁；
5. 成功对码后，发射机会自动退出对码状态；
6. 拔掉对码线，重启接收机LED常亮，此时即可插入舵机及其它数据采集模块，检测其工作是否正常；
7. 如果对码失败，可重复以上动作，重新对码。

注意：

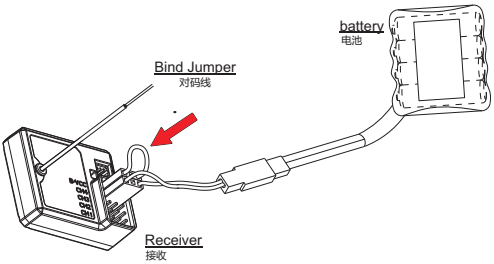
配对好的发射机与接收机，当发射机或接收机因误操作而进入对码状态后，会出现不能遥控的现象，一般情况下，关闭电源重开机即可恢复正常，倘若还是不行，则需要重新对码。

All receivers are already bound to their respective transmitter at production time. If you want to bind it with another transmitter, please operate as follows:

1. Install the battery in the transmitter, and turn on the power.
2. Open the main menu, and select "RX setup" function in the second page, then touch "Bind with a receiver" to enter bind mode.
3. Insert the standard bind cable into the power supply channel.
4. Connect the 6VDC power connector to any channel from CH1 to CH4 with correct polarity to enter bind mode. The receiver LED will flash at this time.
5. The transmitter will exit the bind mode automatically after having successfully bound with the transmitter.
6. Pull off the bind cable and restart the receiver. Please connect the servos and other telemetry modules to the receiver to check if everything operates normally.
7. If anything is wrong, please repeat the above steps to bind again.

Notice:

The binded transmitter and receiver will work abnormally if the transmitter or the receiver enters the binding state by mistake.In other words, the receiver cannot be controlled by the transmitter. If so, just need to restart the transmitter and the receiver. If it still doesn't work, please bind the transmitter with the receiver again.

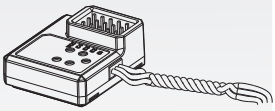


FS-SEV01 serial bus receiver connection instruction　　串行总线接收机连接说明

串行总线接收机，最多可串联4个模块，共18个通道；按键K1-K4分别对应C1-C4,用于对相应通道的设定；

操作说明：

1、FS-SEV01接收机的“IN”端口对应接收机的“OUT”端口；
2、FS-SEV01接收机的“OUT”端口，用于串接后级的FS-SEV01接收机，以串联的方式使用。
3、将此总线接收机插入接收机，打开已配对的发射机，接收机电源，LED点亮；
4、操作发射机触控屏，选择接收机设定的主菜单，进入到舵机设定界面；
5、选择需要扩展的通道，此时，总线接收机的LED熄灭；
6、用对码线上的胶针，按下需要的，相应通道的按键，LED自动点亮，表示设定成功；
7、插入舵机，检查设定是否成功；
8、重复以上操作即可完成总线接收机4个通道的设定；
9、当需要更多的通道扩展时，只需要在第一级总线接收机的“OUT”端口，串接新的总线接收机即可，设定的操作方法相同。



注意：当总线接收机的负载过重，电流较大时，请将主接收机的电源分支出来并联接入，单独供电加大负载的能力，否则可能会因电流过大，烧坏串联的线材。

Serial bus receiver can connect 4 modules with 18 channels in serial at most. Button K1 and K2 correspond to C1 and C2 respectively.

Operation:

1. “IN” port of FS-SEV01 receiver corresponds to “Out” port of receiver.
2. The “OUT” port of FS-SEVO1 receiver is used to connect post level FS-SEV01 receiver。
3. Insert the bus receiver to receiver, and then switch on the matched transmitter and receiver. The LED will be on.
4. Select main menu of receiver setup to enter the interface of servo setup.
5. Select channel which need to be expanded, meanwhile LEDof bus receiver is off.
6. Push relevant channel button by plastic needle of matching line. The setup is successful if LED flashes automatically.
7. Insert servo to check.
8. Set up 4 channels of bus receiver as above steps.
9. Just connect a new bus receiver with “OUT” port of first stage bus receiver if more channel needed. Set up the new one as above steps.

Notice:

when the load of serial bus receiver is excessive and electric current is higher than usual, please supply power directly to the serial bus receiver or it will break cables.

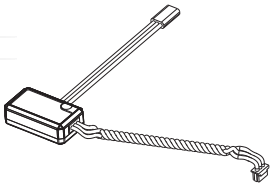
Data telemetry connection　　数据采集模块连接

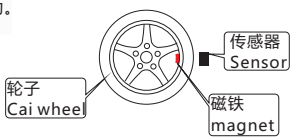
采集模块的操作使用说明：

FS-SPD01：磁感应转速采集模块

操作使用说明：

1、将所配的3PIN插头，一端插入速度采集模块的“OUT”位置，另一端插入接收机的“IN”位置或接另外的感应器的“IN”位置，如上图所示；
2、将图3的传感器放在磁铁的旁边，磁铁固定在需要测试的轴向转动的地方。如：模型车的轮毂内侧，如下图所示，传感器与磁铁尽可能的靠近些。
3、打开发射机，接收机电源，在显示屏的接收机窗口内，会发现并显示 “Motor speed 2：0RPM”,试着转动轮子，转速的值会发生变化，则表示安装成功。





Data telemetry operation instruction

FS-SPD01: revolving speed module.

Operation:

1. Insert one end of standard 3 PIN plug into “OUT” port of speed acquisition module, and insert the other end into “IN” port of receiver or other sensor, as picture above.
2. Put the sensor beside the magnet as shown in Figure 3; fix the magnet to the position of axle which needs to test. e.g.: As following picture shows, put the sensor to the magnet as close as possible in the inner wheel hub of car.
3. Switch on transmitter and receiver. “Motor speed 2:0RPM” will be shown in receiver window in display screen. Speed value changes as turning wheel, which means installation is successful.

采集模块的操作使用说明：

FS-SPD02：光感应转速采集模块

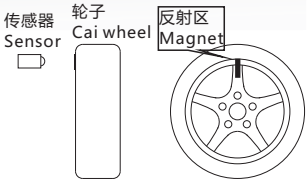
操作使用说明：

1、将所配的3PIN插头，一端插入速度采集模块的“OUT”位置，另一端插入接收机的“IN”位置或接另外的感应器的“IN”位置，如上图所示；

2、将图2所示，传感器与反射贴纸固定在轮子的侧面平面上，保持贴纸平整，并与传感器垂直；（备注：贴纸与轮子的颜色反差要大）传感器和贴纸距离要保持适中。

3、打开发射机，接收机电源，在显示屏的接收机窗口内，会发现并显示“Motor speed 2：0RPM”,试着转动轮子，转速的值会发生变化，则表示安装成功。

备注: 也可安装在模型车的从动齿轮上,采用相同的方法采集齿轮的转速.



Telemetry module

FS-SPD02: optical rotation speed telemetry module

Operation:

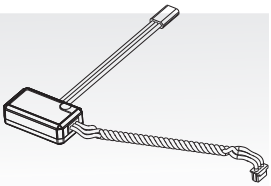
1. Connect one end of the standard 3 PIN plug to the "out" port of the speed telemetry module and the other end to the "in" port of the receiver or the previous sensors “in” port as pictured above.
2. As picture 2 shows, affix the sensor and the reflection decals on the flat surface of the side of any rotating part (gear, car wheel…). Keep decals flat and perpendicular to the sensor. (Remark: high color contrast between decals and rotating part gives better result). Maintain sufficient safety distance between the sensor and the decals to avoid any damage.
3. Switch on the transmitter and the receiver. “Motor speed 2: 0RPM” will be displayed in the main screen. The speed displayed will follow the speed of the rotating part monitored by the rotation speed sensor, indicating a successful installation.

Remark: You can also fix it to the driven gear of the model car. Use the same method to collect RPM data of gear.

FS-STM01：温度采集模块连接

操作使用说明：

1. 将所配的3PIN连接线，一端插入温度采集模块的“OUT”位置，另一端插入接收机的“IN”位置或接另外的感应器的“IN”位置；
2. 将温度的传感器本体，使用海棉双面贴粘在适当的位置（如：马达，电池本体上），并与被测试物表面紧贴；
3. 打开发射机，接收机电源，在显示屏的接收机窗口内，会发现并显示“Temperature 1：25.0℃”，表示安装成功，25.0℃即为采集到的温度数据。



FS-STM01: Temperature telemetry connection

Operation:

1. Insert one end of standard 3 PIN plug into “OUT” port of temperature module, and insert the other end into “IN” port of receiver or other sensor, as picture above.
2. Adhere temperature sensor to proper place (such as motor and battery) tightly by sponge double stick.
3. Switch on transmitter and receiver. “Temperature 1:25 0℃” will be shown in receiver window in display screen, which means installation is successful, and 25 0℃ is the temperature collected.

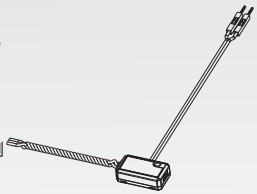
FS-SVT01：外部电压采集模块连接

操作使用说明：

1、将所配的3PIN连接线，一端插入电压采集模块的“OUT”位置，另一端插入接收机的“IN”位置或接另外的感应器的“IN”位置；

2、打开发射机，接收机电源，在显示屏的接收机窗口内，会发现并显示“Ext.voltage4:0V”，表示安装成功；

3、将用于检测的红黑线插针分别插入电池的插头内，红色线为正极，黑色线为负极，如图所示；在显示屏的接收机窗口内，显示“Ext.voltage4:12.40V”，表示已检测到外部的电池电压为：12.40V。



注意：用于检测的红黑线，不能接反，否则会损坏接收机。

FS-SVT01: External voltage telemetry connection

Operation instruction:

1. Insert one end of standard 3 PIN plug into “OUT” port of external voltage module, and insert the other end into “IN” port of receiver or other sensor, as picture above.
2. Switch on transmitter and receiver. “Ext.voltage4:12.40V” will be shown in receiver window in display screen, which means the installation is successful.
3. Insert red and black contact pin into battery port respectively. The red one is positive pole and the black one is negative pole. As shown: “Ext.voltage4:12.4v” is shown in the receive widow in display screen, which means the tested voltage is 12.4v

Attention: the polarity of red and black line can not be reversed, or the receiver will be damaged.

注意 **Notice:**

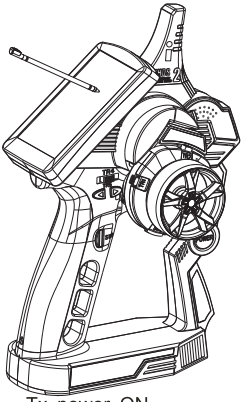
请不要将采集模块的"IN"和“OUT”接反,否则发射机将无法识别到该模块及相连的后面的模块的编号.

Don't make IN port and OUT port oppositely, or it will cause that the transmitter can't distinguish each telemetry module and its following telemetry module(s).

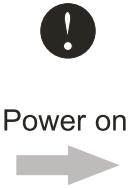
11. Power on 开机

1. Connnect all parts
2. Switch on the transmitter
3. Connect the receiver battery
4. The receiver red LED indicator is solid indicating the presence of a correct signal
5.When the error rate of transmitter is less than 5%, the signal of receiver is stable.
6. Use the radio system

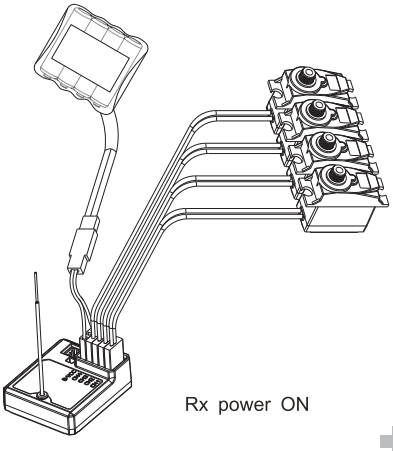
1. 连接好所有部件
2. 打开发射机
3. 接通接收机电源
4. 接收机红色指示灯常亮说明信号连接正常.
5.发射机的误码率小于5%,接收信号强度稳定(TX/RX电量充足时)
6. 操作系统可以使用



Tx power ON



Power on



Rx power ON

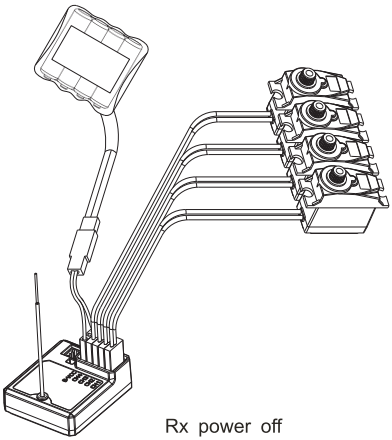
12. Shut down 关机

1. Cut off power source of receiver
2. Turn off the transmitter.

Attention: transmitter cannot be turned off if the power source of receiver is not cut off.

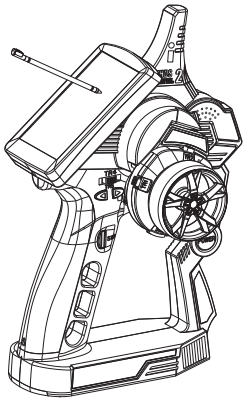
1. 断开接收机电源
2. 关闭发射机

注：未断开接收机电源，发射机电源是无法关闭的。



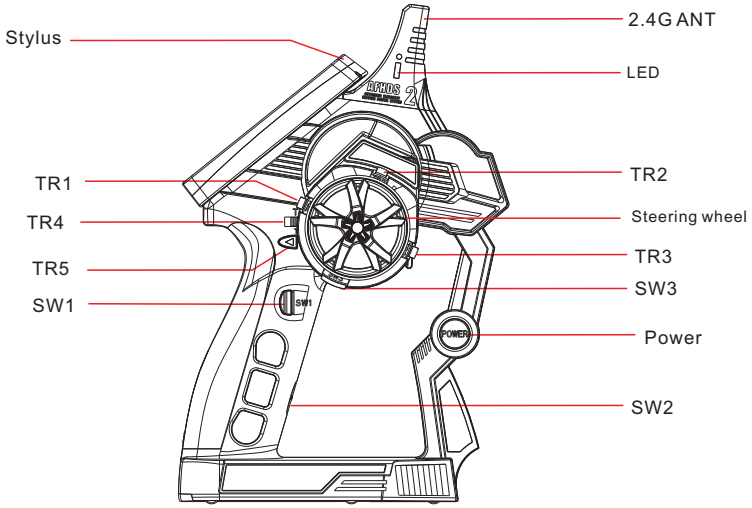
Rx power off

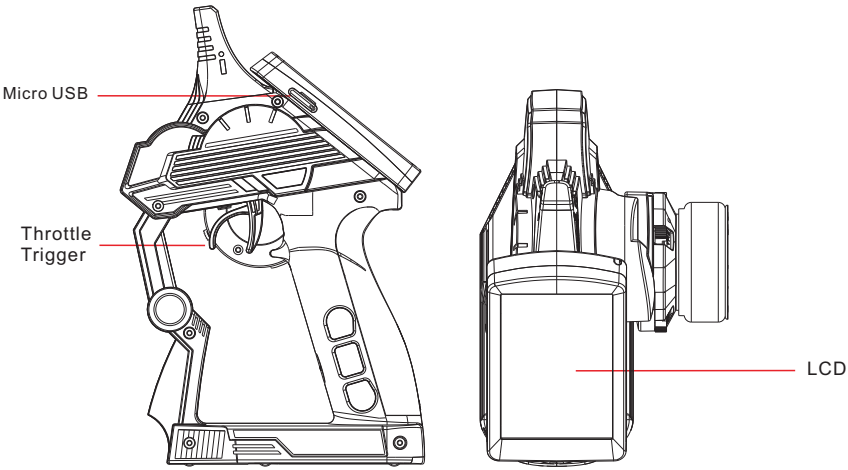
Shut down



Tx power off

13. Definition of key functions 按键定义

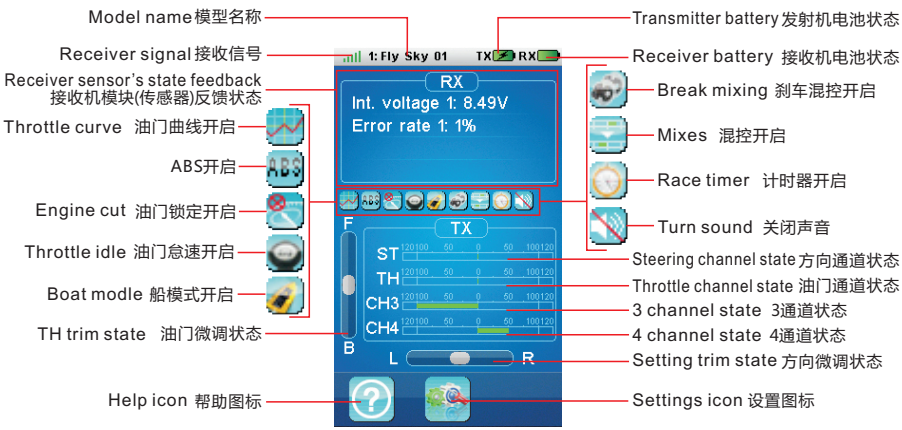




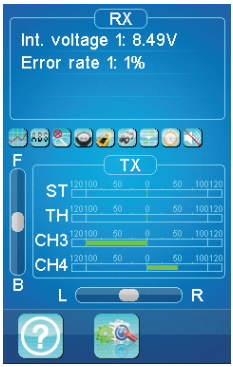
14. Main screen 开机画面

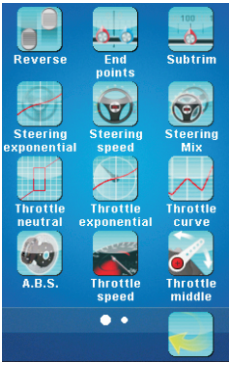
开机画面显示了富斯公司的标志, 两秒后进入到主菜单. 主菜单显示的具体内容如下图

The screen display the logo of FLYSKY. Entering the main menu after two seconds . the main menu is as the following picture:

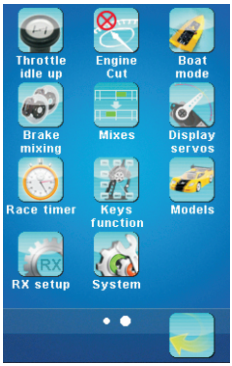


15. Main menu 主菜单





Main menu page 1
主菜单第一页



Main menu page 2
主菜单第二页

The main menu can be accessed by touching the settings icon at the bottom of the main screen.

The main menu is organized in horizontal pages. Each page contains up to 12 icons representing 12 different functions.

The white balls in the bottom tray indicate which menu page is displayed. The big white ball represents the currently displayed page.
To display the next page, touch the current page anywhere on its right part and slide it to the left.
To display the previous page, touch the current page anywhere on its left part and slide it to the right.
To enter a function, simply touch its corresponding icon.

To return to the main screen, touch the back button in the bottom tray.

点触屏幕下方的设置图标 进入主菜单。

主菜单有两个平行页面组成，每个页面包含最多12个图标，分别代表12个不同的功能。

屏幕底部的白色球体表示显示的菜单页面，大的白色球体代表当前显示的页面。
点触当前页的任何位置由右向左滑动可显示下一页。
点触当前页的任何位置由左向右滑动可显示上一页。
点触相对应的图标可进入该功能。

点触底部的文件盘上的返回图标 可返回主屏幕。

16. Top tray 顶部状态栏

The top tray of the screen constantly displays the main status of the whole system.
屏幕顶部一直显示整个系统的主要状态。

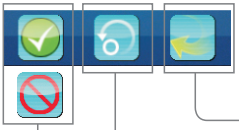
displays the status of the receiver battery. If the voltage is too low, an audible alarm rings and this symbol blinks. See further how to set up the receiver battery alarm voltage.
显示接收机电池的状态。如果电压太低，可听见警报，并且这个图标将闪烁。如何设置接收机电池低电压报警将在后文说明。

displays the status of the remote control battery. If the voltage is too low, an audible alarm rings and this symbol blinks.
显示发射机电池的状态。如果电压太低，可听见警报，并且这个图标将闪烁。

displays the number and the name of the currently selected model.
显示当前选定的模型编号和名称。

displays the signal strength received by the vehicle. The strongest signal is represented with 5 bars. When the signal strength is lower or equal to two bars, an audible alarm rings.
显示模型接收到信号的强度。最强信号是5格，当信号强度等于或低于2格，将听到警报。

17. Functions interface 功能操作



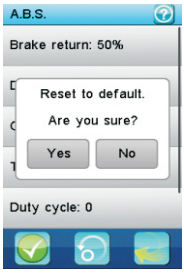
All functions use a set of standard user interface objects.
The bottom tray can contain the following buttons:
所有的功能使用一套标准的用户界面对象。
屏幕底部包含以下图标：

The back buttons returns to the previous screen
返回图标用于返回上一页面

The default button sets back the current page parameters to their default values.
默认图标可将当前页参数恢复到默认值。

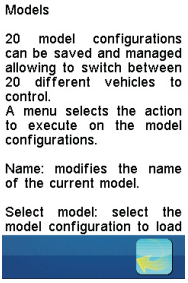
These 2 buttons respectively enable and disable the current function.
这两个按钮代表当前功能开启和关闭。

Yes No 的意义



Yes: 返回到默认值
No：无操作

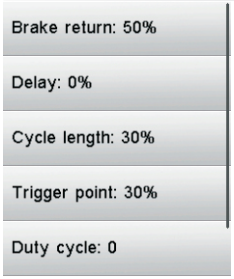
Yes: reset to default the current displayed function
No: no operation



A title bar displays the name of the current function or menu.
标题栏显示当前功能或菜单。

A white exclamation mark on the right of a title bar indicates that contextual help is available. Touch it and it will be displayed.
点触标题栏右边的问号可获得操作提示。

To scroll down a help page, touch it anywhere on its bottom part and slide it up.
To up down a help page, touch it anywhere on its top part and slide it down.
To return to the calling function, touch the back button in the bottom tray.
点触下方任意地方向上滑动，帮助页面将会向下滚动。
点触下方任意地方向下滑动，帮助页面将会向上滚动。
点触页面下方的返回图标回到上一功能。



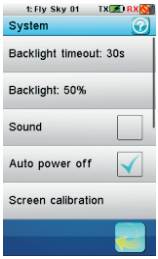
A vertical menu allows to select one option among several.
可以选择垂直方向的菜单其中一个选项。

This example selects the ABS parameter to set. The right gray vertical bar indicates the lengths of the menu and the current position in it.
To scroll down a vertical menu, touch it anywhere on its bottom and slide it up.
To scroll up a vertical menu, touch it anywhere on its top and slide it down.
To select one of the menu items, simply touch it.

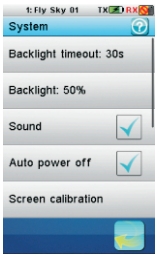
此示例显示为设定ABS参数。右边灰色竖条说明菜单的长度和当前位置。
点触下方任意地方向上滑动，垂直方向的菜单向下滚动。
点触上方任意地方向下滑动，垂直方向的菜单向上滚动。
点触选定的菜单项即可完成选择。

Some menus are a set of radio buttons that will modify a multi-value parameter.
The blue ball indicates the currently selected value. To select another value, simply touch it.

由一套单选按键组成的菜单可以选择多值参数配置。
蓝色球体代表当前选择的选项，如需选择其它的选项，只需点击该选项。



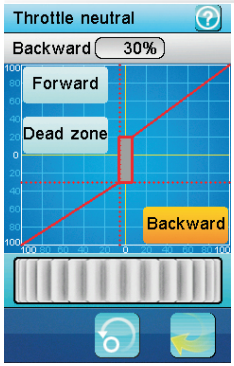
Sound is disabled
关闭声音



Sound is enabled
开启声音

Some menu items embed a check box.
To toggle a check box, simply touch it.

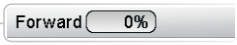
一些菜单项包含复选框。
点触该复选框即可关闭或开启该功能。



Most of functions are set using a dialog bog.
A dialog box contains a set of different objects.
Touching a button will execute or select the function associated to it.

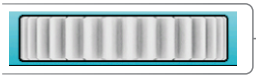
大部分功能是通过对话框设置的。
对话框包含一套不同的对象。
点触一个按钮将执行或选择相对应的功能。

This example contains the following objects:
此图包含了以下内容：



-The value of the selected parameter is displayed in the value box on the top of the dialog box.
被选择的参数数值将会显示在对话框上端的数值框内。

-The 3 buttons “Forward”, “Dead zone” and “Backward” select the parameter to modify. To activate a button, simply touch it. The selected option is highlighted in yellow.
前进、死区和后退按钮是选择需调整的参数。点触按钮即可激活该功能。被选中功能的图标显示为黄色。

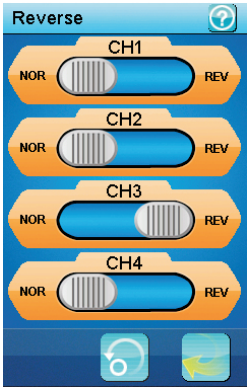


-The wheel at the bottom allows to modify the value of the selected parameter. To decrease the parameter value, touch the wheel anywhere on the right and slide it to the left. To increase the parameter value, touch thewheel anywhere on the left and slide it to the right.
页面底部的转轮用于调整被选参数数值。向左滑动转轮可减少参数值，向右转动滑轮可增加参数值

17.01: Reverse 正逆转

The reverse function individually reverses the direction of operation of the servos on the 4 channels.
This dialog box contains 4 big check boxes, one for each channel.
To toggle the reverse state of a channel, just touch it.
In this example, only the third channel is reversed, the other channels operate normally.

正逆转功能可分别逆转4个通道的舵机操作方向
对话框包含4个大的复选框，每一个复选框代表一个通道。
点触任一复选框即可实现该通道方向逆转
如右图所示，只有第3通道是反向的，其它通道是正常操作的。

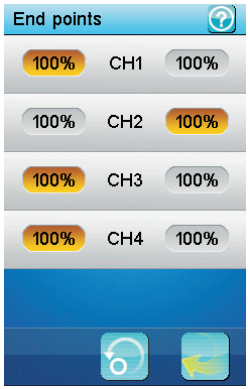


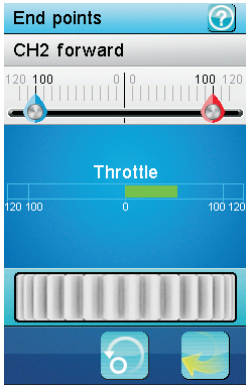
17.02: End points 舵机最大行程

The end points function individually adjusts the low and high travel limit of each servo on the 4 channels. Set the end points according to your model mechanics.
To choose the side of the channel 1 end point to set (steering), move the steering wheel to the desired low or high side. The selected side will be highlighted in yellow.
To choose the side of the channel 2 end point to set (throttle), move the throttle trigger to the desired low (brake) or high (acceleration) side. The selected side will be highlighted in yellow.
To choose the side of channels 3 or 4 end point to set, use its corresponding trim or switch to control it. A trim switch or push button has to be previously associated with that channel to be able to control it.
In this example, the throttle trigger was moved to it acceleration side thus selecting the high side end point of the channel 2.
To modify the selected end point, simply touch the corresponding channel button.
The red needle represents the selected side. Use the wheel to move it and modify the end point value.
The position of the corresponding channel is displayed in real time
In this example, the acceleration side of the throttle is selected and the throttle trigger is half accelerating.

舵机最大行程可分别调节4个通道的舵机高低行程限制。按照模型的结构调节舵机最大行程。
转动方向盘至1通道高低端可设置该通道单侧方向舵机最大行程。被选中的一侧会呈现黄色。
移动油门扣机至刹车端或加速端可设置第2通道单侧油门舵机最大行程。被选中的一侧即会呈现黄色。
使用相关微调或按钮可设置设定第3、4通道的单侧舵机最大行程。但微调或按钮必须先同控制它的通道相关联。

如图所示：油门扳机移动到加速端，即选择了第2通道的舵机最大行程高点。
点触相关通道按钮即可调整所选择的舵机最大行程。
红色指针代表选定的位置。移动转轮调节舵机最大行程数值。
相关通道的位置即时呈现。
该图显示为选择油门加速，油门扣机处于50%加速状态。



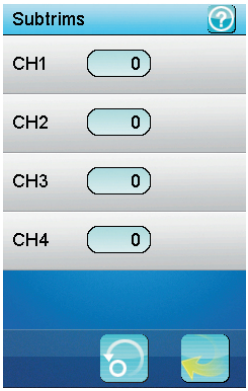


17.03: Sub trims 记忆微调

The sub trims function individually adjusts the center position of each servo of the 4 channels. This is particularly useful when the servo mechanics doesn't allow an adjustment fine enough.
Touch the channel which sub trim must me adjusted

Use the wheel to move the red needle and modify the sub trim value of the selected channel.
The position of the corresponding channel is displayed in real time

In this example, the channel 2 (throttle) has been selected and the throttle trigger is half braking.
The sub trim of each channel can be assigned to a trim switch.

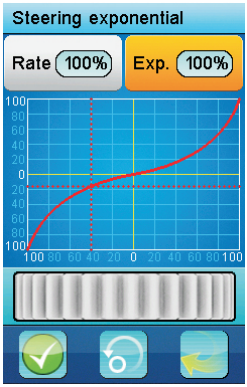


记忆微调功能可分别调节4个通道舵机的中位。当舵机调节不能满足需要时，该功能的调节作用就尤为明显。
点触通道即可进行记忆微调
用转轮移动红色指针来调节所选择通道的记忆微调数值。
相关通道位置即时呈现。

如图所示： 2通道（油门通道）被选中，油门扣机处于50%刹车状态。
每个通道的记忆微调可分配给一个微调开关来控制。

17.04: Steering exponential 方向指数

The steering exponential function modifies the transfer curve between the steering wheel and the channel 1.
Once activated, 2 buttons select which parameter value to modify:
Rate: adjust the slope of the curve. The smaller is the slope, the shorter is the throw of the corresponding servo.
Exp.: adjust the linearity of the curve. A value of 0 corresponds to a perfectly linear curve. A positive value decreases the sensitivity near the neutral position and increases it on the extreme sides. A negative value increase the sensitivity near the neutral position and decreases it on the extreme sides The vertical dotted line displays in real time the position of the steering wheel.The horizontal dotted line displays in real time the steering position after the exponential function.
In this example, the exponential function is activated, the selected parameter is exponential and is set to its maximum value.
The horizontal dotted line shows a steering wheel 20% under the neutral position
but the horizontal dotted line indicates that the resulting servo throw is less than 10% showing the efficiency of the exponential function.
The activation of the steering exponential function can be assigned to a push button.The steering rate can be assigned to a trim switch
The steering exponential can be assigned to a trim switch.



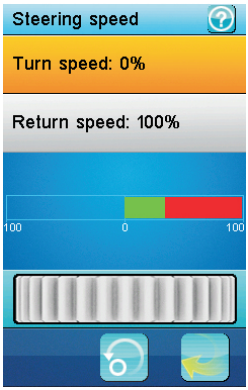
方向指数功能调节方向舵和1通道之间的转换曲线。
该功能一旦被激活，则有2个按钮用来选择需要修正的参数数值。

比率：该功能用于调整曲线的倾斜度。倾斜度越小，对应的舵机的抛物线越短。
曲线：该功能用于调节曲线的线性。数值是0时，曲线是线性的。正值会减少中位附近的灵敏度，增加两端的灵敏度。负值则增加中位附近的灵敏度，减少两端的灵敏度。
垂直方向的点线显示方向舵的即时位置。
水平方向的点线显示指数功能调整后的方向舵的位置。

如图所示：指数功能被激活，选定的参数是指数参数，并被调到最大值。
竖直方向的点线表示方向在中位以下20%的位置，在这种设定下舵机在中位以下不到10%的位置，舵机位置由水平方向的点线表示。
方向指数功能的开启或关闭可分配给一个按键来控制。
方向比率功能可分配给一个微调开关来控制。
方向指数功能可分配给一个微调开关来控制。

17.05: Steering speed 方向速度

If the steering servo throws too fast to an extreme position or returns too fast to its neutral position, it may result in a loss of control of the vehicle.
The steering speed function limits the maximum angular speed of the steering servo.
2 buttons select which speed to limit.
Turn speed: limits the angular speed of the servo toward its extreme side.
Return speed: limits the angular speed of the servo toward its neutral position.
The status of the channel 1 (steering) is displayed in real time. The red bar graph shows the position of the steering wheel and the green bar graph the position of the steering servo.
In this example, the turn speed parameter is selected and is set to its slowest speed. The steering wheel is completely turned to the right (in red) but the steering servo (in green) due to its low turn speed is late and just passed a third of its maximum throw.
The steering turn speed can be assigned to a trim switch.
The steering return speed can be assigned to a trim switch.

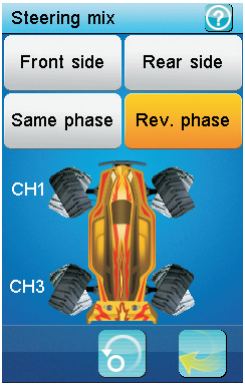


快速将控制转向的舵机推到两端位置或回到中位，可能导致车失控。
方向速度功能可以限制方向舵机最大角速度。
2个按钮选择需要限制的速度。
转向速度：限制舵机到两端位置的角速度。
回转速度：限制舵机到中位的角速度。
显示第一通道（方向）的即时状态。红色条线图表示转轮的位置，绿色条线图表示方向舵机的位置。

如图所示：选定转向速度并将其参数值设定在最小值，此时转向速度最慢。当方向盘完全转向右边，方向舵机仅仅是通过了最大值的1/3。
转向速度可分配给一个微调开关来控制。
回转速度可分配给一个微调开关来控制。

17.06: Steering mix 方向混控

There are 4 different types of steering control.
Front side: the channel 1 controls the front steering.
Rear side: the channel 1 controls the rear steering and is reversed
Same phase: the channel 1 controls the front steering and the channel 3 the rear steering. The channel 3 is a copy of the channel 1.
Reverse phase: the channel 1 controls the front steering and the channel 3 the rear steering. The channel 3 is a reversed copy of the channel 1.
4 buttons select the 4 steering types.
A car picture displays in real time the steering servo and if needed the channel 3 servo.The light gray wheels represent the wheels position when the steering wheel is fully turned to the right.
The dark gray wheels represent the actual wheels position.
In this example, the reverse phase type is selected and the steering wheel is half turned to the left.
The steering mode function can be assigned to a push button. The next mode is selected each time the push button is pressed.

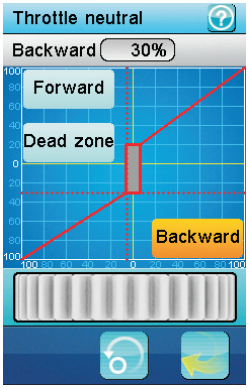


4个不同的模式组成方向控制。
前面：1通道控制前面方向。
后面：1通道控制后面方向，且此通道是反向的。
同向转动：1通道控制前面方向，3通道控制后面方向。3通道复制了1通道的数据
反向转动：1通道控制前面方向，3通道控制后面方向。3通道反向复制了1通道的数据

4个按钮可以选择4种方向模式。
屏幕上的车即时显示方向舵机的方向混控状态，如有需要也将显示3通道舵机的方向混控状态。
浅灰色车轮代表方向舵完全转向右边时车轮的位置。
黑色车轮代表车轮的实际位置。

如图所示：选择反向转动模式时，方向盘只向左转了一半。
方向混控功能可分配给一个按键来控制。按下该按键可选择下一个方向模式。

17.07: Throttle neutral 油门死区

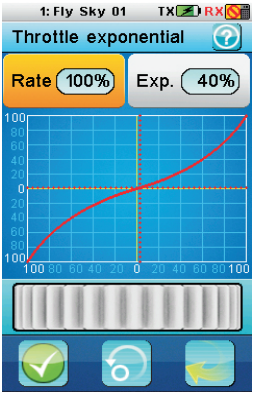


The throttle neutral function defines the behavior of the throttle near its neutral position.
3 buttons select which parameter to adjust.
Dead zone: defines the width of a zone around the neutral position of the throttle trigger where the trigger will have no effect and will be read as neutral. This is to compensate any inaccuracy of the throttle trigger neutral point or to ease the control for beginners.
Forward: some engine throttles, especially on gas powered cars, do not have any effect near the neutral position and begin only to accelerate after a given point. The forward parameter adjusts this point and let the servo to jump directly to it at any slight acceleration of the throttle trigger.
Backward: some brakes do not have any effect near the neutral position and begin only to brake after a given point. The backward parameter adjusts this point and let the servo to jump directly to it at any slight brake of the throttle trigger.
The vertical dotted line displays in real time the position of the throttle trigger.
The horizontal dotted line displays in real time the position of the throttle servo after the throttle neutral function has been applied.
In this example, the dead zone is set to 25%, the forward to 20% and the selected parameter, backward, is set to 30%. The throttle trigger is braking slightly.

油门死区功能定义为油门中位附近的操作。
3个按钮选择需要调节的参数。
死区：决定油门扣机中位附近死区的宽度。扣机在这个区域内不起作用，该区域仍然被认作是扣机中位。此功能用于提高油门扣机中位点的精确度，有利于初学者更好的控制扣机。
向前：发动机油门特别是油动车的发动机油门，在中位附近不起作用，只有到达给定的位置后才能加速。向前可调整参数到需要的位置，使舵机直接可以调整到该位置，则轻微的推动油门扳机就可以实现加速。
后退：刹车在中位附近不起作用，只有到达给定的位置后才能刹车。后退可调整参数到需要的位置，使舵机直接可以调整到该位置，则轻微的推动油门扳机就可以实现刹车。
垂直的点线表示油门扣机的即时位置。
水平的点线表示油门中位功能应用后油门舵机的即时位置。

如图所示：选定的参数，死区是25%，向前是20%，向后是30%。轻推油门扣机即可刹车。

17.08: Throttle exponential 油门指数

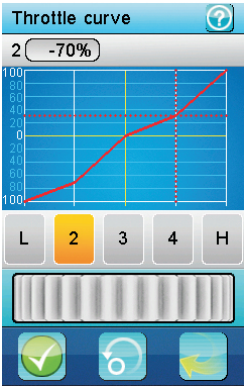


The throttle exponential is identical to the steering exponential but applies to the channel 2.
The activation of the throttle exponential function can be assigned to a push button.
The throttle rate can be assigned to a trim switch.
The throttle exponential can be assigned to a trim switch.

油门指数同方向指数相同，但仅适用于2通道。
油门指数功能的开启或关闭可分配给一个按键来控制。
油门比率功能可分配给一个微调开关来控制。
油门指数功能可分配给一个微调开关来控制。

17.09: Throttle curve 油门曲线

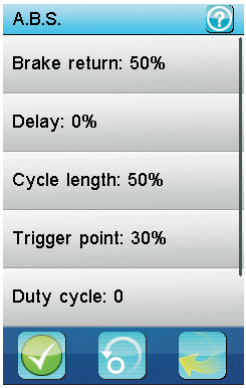
The throttle curve defines a 5 points broken-line transfer curve between the throttle trigger and the throttle servo.
5 buttons select one on the 5 points to adjust.
Each point can be independently adjusted from 0% (full brake) to 100% (full throttle).
The vertical dotted line displays in real time the throttle trigger position.
The horizontal dotted line displays in real time the position of the throttle servo after the
throttle curve function has been applied.
In this example, the second point is selected and set to 15% and the curve is defined to compensate a throttle servo that is too fast in the first middle and slower in the second middle. Similarly, this curve compensates a brake that isn't efficient enough in the first middle and too efficient in the second middle.The activation of the throttle curve function can be assigned to a push button.

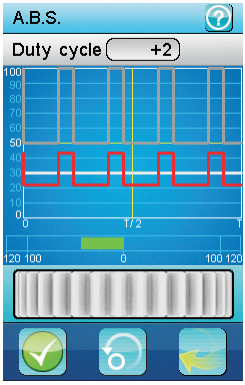


油门曲线可分别调节油门扣机和油门舵机之间的5点曲线。
5个按键分别选择在5点位置上的调节。
每个点分别可以从0%（完全刹车）调整到100%（完全加油）。
垂直的点线显示油门扣机即时位置。
水平的点线显示油门曲线功能应用后油门舵机的即时位置。
如图所示：当前选择第二个点并设置到15%。加速曲线意味着油门舵机在第一个中点变慢第二个中点变快（因为在实际操作中，油门舵机在第一个中点太快第二个中点太慢）。同样刹车曲线意味着油门舵机在第一个中点变快第二个中点变快（因为在实际操作中，刹车在第一个中点太慢第二个中点太快）。
油门曲线功能的开启或关闭可分配给一个按键来控制。

17.10: A.B.S. 自动刹车

The automatic brake system (A.B.S.) pulses the brakes to avoid blocking the wheels and losing control of the vehicle.
A first menu selects which one of the 6 parameters to modify.
Brake return: determines how much the brakes will be released at each pulse. 100% completely releases the brakes and the servo returns to its neutral position at each pulse. 0% disables the function.
Delay: if not 0%, inserts a delay between the ABS triggering and the activation of the brakes pulses. 100% inserts a delay of around 2 seconds.
Cycle length: determines the length of a brake-release cycle. 20% is the shortest cycle length (around 100ms) and 100% is the longest (around 500ms).
Trigger point: the ABS function is performed only if the brakes are applied over this threshold. 100% activates the ABS only at full brake.
Duty cycle: set the proportion of the time the brakes are applied and the time the brakes are released. The lowest value (-4) releases the brakes only 10% of the time and the highest value (+4) releases the brakes 90% of the time.
Steering mix: a positive value (N) will activate the ABS only if the steering wheel is within the specified range around the neutral position. A negative value (E) will activate the ABS only is the steering wheel is outside of that same range around the neutral position.
Once a parameter is selected, a second dialog box allows to modify it.
The dark gray curve represents the ABS function at full brakes.
The red curve represents the actual ABS function.
The white line represents the trigger point beyond which the ABS function is performed.
The bar graph at the bottom displays the channel 2 (throttle) in real time.
In this example, the duty cycle parameter is selected and is set to +2 mostly releasing the
brakes all the time. The brakes are applied at 43%, above the trigger point set to 30%.
The activation of the ABS function can be assigned to a push button.
The ABS brake return can be assigned to a trim switch.
The ABS delay can be assigned to a trim switch.
The ABS cycle length can be assigned to a trim switch.
The ABS trigger point can be assigned to a trim switch.
The ABS brake return can be assigned to a trim switch.
The ABS duty cycle can be assigned to a trim switch.





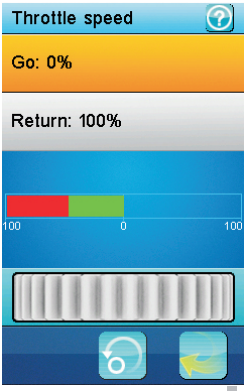
自动刹车系统用脉冲刹车以避免车轮受阻或者车辆失控。
第一个菜单的六个参数中选择需要修改的参数
松刹车：设置一次脉冲刹车中刹车的比例。100%表示在每次脉冲刹车中完全刹车同时舵机回到中位。0%则表示没有自动刹车功能。
延时：若不是0%，则会在自动刹车触发点和激活刹车脉冲之间嵌入一个延迟，若为100%，则嵌入的延时大约为2秒。
周期：设置松刹车周期时间。最短的周期时间是20%（大概100毫秒），最长的周期时间是100%（大概500毫秒）。
触发点：如果刹车超出了触发点，自动刹车功能将启用。如果触发点为100%，则全刹车状态下自动刹车功能开启。
工作周期：设置刹车应用时间和松刹车时间的比例。最低值（-4）时，松刹车只用10%的时间，最高值（+4）时，松刹车则用90%的时间。
方向混控：如果方向盘在中位附近指定范围内，数值（中）将会激活自动刹车功能。如果方向盘超出中位附近指定范围内，数值（外）将会激活自动刹车功能。一旦选定一个参数，可在第二个对话框内修改此参数。
深灰色曲线代表自动刹车功能在全刹车状态。
红色曲线代表实际的自动刹车功能状态。
白色的线代表触发点超出该线，自动刹车功能启动。
底部的条线图代表2通道（油门）的即时状态。
如图所示：选择工作周期参数，并将松刹车（大部分时间为松刹车）设置到+2。刹车在43%的力度，超出触发点。触发点设置到30%。
激活自动刹车功能可分配给一个按键来控制。
自动刹车松刹车功能可分配给一个微调开关来控制。
自动刹车延时功能可分配给一个微调开关来控制。
自动刹车周期功能可分配给一个微调开关来控制。
自动刹车触发点功能可分配给一个微调开关来控制。
自动刹车工作周期可分配给一个微调开关来控制。

17.11: Throttle speed 油门速度

The throttle speed is identical to the steering speed but applies to the channel 2.

The throttle go speed can be assigned to a trim switch.
The throttle return speed can be assigned to a trim switch.

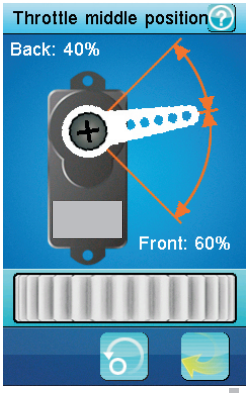
油门速度同方向速度相同，但仅适用于2通道。
加油速度功能可分配给一个微调开关来控制。
返回速度功能可分配给一个微调开关来控制。



17.12: Throttle middle point 油门中位

On some models, the travel of the throttle is not equal to the travel of the brakes. This function set the position of the middle point between the throttle and the brakes.
In this example, the brakes have a travel of 40% and the throttle 60% (half more).

一些模型的油门行程同刹车行程是不对等的。
此功能设置油门和刹车中位的位置。
如图所示：刹车行程是40%油门行程是60%（超过一半）



17.13: Throttle idle up 油门怠速

This function offset the neutral position of the throttle. On a gas powered car, it can be useful to set the throttle idle up to a positive value to increase the engine idle speed when it's not warmed up yet.
In this example, the throttle trigger it at its neutral position but due the throttle idle up that is activated and set to 20%, the throttle servo is at 20%.
The activation of the throttle idle up function can be assigned to a push button.
The throttle idle up value can be assigned to a trim switch.

此功能调整油门中位。使用油动车时，在车还没完全预热时设置油门怠速到正数值来增加引擎的怠速速度。
如图所示：油门扣机在中位，然而油门怠速功能被激活并设置到20%，油门舵机也设置到20%。

油门怠速的开启或关闭可分配给一个按键来控制。
油门怠速数值调节可分配给一个微调开关来控制。

17.14: Engine cut 油门锁定

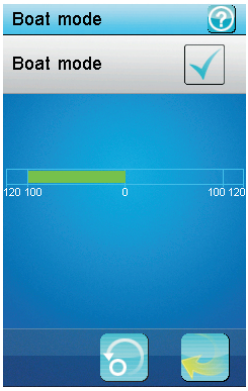
When activated, the engine cut ignores the throttle trigger position and set the throttle to a predefined position. It can be used to turn of the ignition of a gas powered vehicle.
In this example, the throttle trigger is at full throttle but since the engine cut function is activated and set to -90%, the throttle servo brakes slightly.
The activation of the engine cut function can be assigned to a push button.

此功能被激活后，油门扣机无法控制舵机，此时油门舵机回到预先设定的位置。此功能常用于油动车熄火装置。
如图所示：虽然油门扣机在完全加油状态下，但是油门锁定功能已被激活并设置-90%，油门舵机依然完全刹车。
油门锁定的开启或关闭可分配给一个按键来控制。

17.15: Boat mode 船模式

When the brake side operation is unnecessary with a boat and some other vehicle, it can be disabled.
In this example, the throttle trigger is at its neutral position but since the boat mode is activated, the throttle servo is at its low end point.

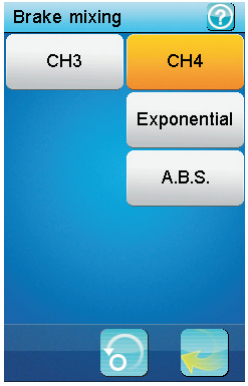
刹车功能对于船和一些车是无用的，此功能开启后刹车功能被取消。
如图所示：油门扣机在中位，然而船模式激活，油门舵机在最低点。



17.16: Brake mixing 刹车混控

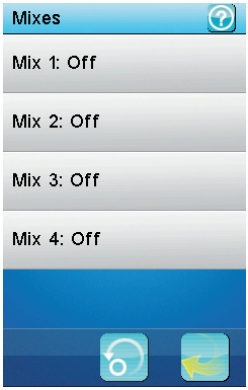
This function is used when the brakes are controlled by 2 or 3 independent servos. The channels 3 and / or 4 can be activated separately and are used as slave channels of the throttle. Only the brake side has an effect on the slave channels. Touch the CH3 and / or CH4 buttons to enable or disable the required channel to be part of the mix.
Once a channel is activated, 2 other buttons, Exponential and A.B.S. are displayed under the activated channel to set independent exponential and A.B.S. functions. This function allows to control up to 3 channels with 3 independent exponential and 3 independent A.B.S. functions to control the brakes. The use exponential and A.B.S. functions is identical to the original throttle exponential and A.B.S.
In this example, only the channel 4 is part of the brake mix and the channel 3 is not affected.
The activation of the channel 3 exponential function can be assigned to a push button.
The activation of the channel 3 ABS function can be assigned to a push button.
The activation of the channel 4 exponential function can be assigned to a push button.
The activation of the channel 4 ABS function can be assigned to a push button.
All the parameters of the channels 3 and 4 exponential and ABS function can be assigned to a trim switch each.

此功能开启后，刹车功能由两个或三个舵机分别控制。3通道和4通道可分别激活，用做油门的辅助通道。只有刹车对辅助通道有影响。
点触3通道或4通道按钮可以选择需要的通道作为混控通道。当开启一个通道时，屏幕上会显示指数和自动刹车按钮。此时可分别设置指数和自动刹车。
此功能最多控制三个通道，可使用3个指数和3个ABS功能控制刹车。指数和自动刹车的用法跟油门指数和自动刹车功能的用法相同。
如图所示：只有4通道是刹车混控的一部分，3通道不受影响。
3通道的指数功能的开启或关闭可分配给一个按键来控制。
3通道的自动刹车功能的开启或关闭可分配给一个按键来控制。
4通道的指数功能的开启或关闭可分配给一个按键来控制。
4通道的自动刹车功能的开启或关闭可分配给一个按键来控制。
3通道和4通道的指数和自动刹车功能的所有参数都可分配给一个微调开关来控制。



17.17: Mixes 混控

4 independent mixes can be applied between any master and slave channel.
Each mix, when activated, will let the slave channel be influenced by its master channel.
A fraction of the master channel, eventually negative, is added to the slave channel.
Furthermore, the slave channel can be shifted up or down by a given value.
The first menu selects the mix to modify.
The second menu selects the parameter of the previously selected mix to modify.
Master channel: select the channel that will influence the slave channel.
Slave channel: select the channel that will be influenced by the master channel.
Low side mix: set how much influence the master channel will have when on its low side (left side for the steering channel and brake side for the throttle channel). A negative value will influence the slave channel on the opposite direction. 50% adds half of the master to the slave.
0% doesn't influence the slave.
Low side mix: same as the low side mix but on the high side of the master channel (right side for the steering channel and acceleration side for the throttle channel).
Offset: adds the offset value to the slave channel. A negative value will shift the slave channel toward its low side.
When modifying the low side mix, the high side mix or the offset, the master channel (at the top) and the slave channel (at the bottom) are displayed in real time.
In this example, the first mix is activated, the throttle is the master, the channel 4 is the slave and the low side mix is set to 50% thus having the channel 4 being added half of the value of the throttle when braking.
The activation of each of the 4 mixes function can be assigned to a push button.
The low side of each mix can be assigned to a trim switch.
The high side of each mix can be assigned to a trim switch.
The offset of each mix can be assigned to a trim switch.

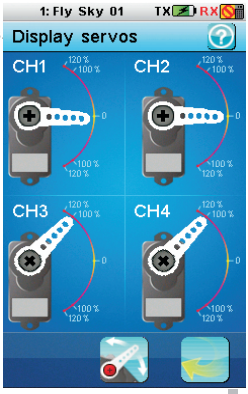


4个独立的混控可以应用于任意的主通道（混控通道）和从通道（被混控通道）之间。
激活任意混控，从通道将会受到主通道的影响。主通道的一部分（可调为负值）将被加到从通道。此外，从通道将会根据给出的数值上下偏移。
第一个菜单选择需修整的混控。
第二个菜单选择需要修改的参数。
主通道：选择通道对从通道产生影响。
从通道：选择通道可被主通道影响。
低端混控：设置主通道低端对从通道的影响值（方向通道左端是低端，油门通道刹车端是低端）。负值将反向作用于从通道，50%时，主通道只对从通道作用一半，0%，主通道对从通道不起作用。
高端混控：和低端混控作用一样，设置主通道高端对从通道的影响值（方向通道右端是高端，油门通道加速端是高端）
偏移：添加偏移值到从通道。负值可使从通道转换到其低端。
当调节低端混控，高端混控或者偏移时，主通道（顶部）和从通道（底部）将即时显示。
如图所示：第一个混控被激活，油门是主通道，4通道是从通道，低端混控设置到50%。
当刹车时，4通道将增加油门数值的一半。
任一混控功能的开启或关闭可分配给一个按键控制。
低端混控功能可分配给一个微调开关控制。
高端混控功能可分配给一个微调开关控制。
混控功能的调节可分配给一个微调开关控制。

17.18: Display servos 显示舵机

This function displays in real time the position of the 4 servos.
The test button  let the 4 servos to move slowly between their respective end points.

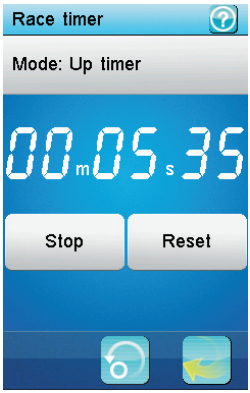
This allows to test the consistency of the mechanics of the model.



此功能显示4个舵机的即时位置。
点触测试按钮  让4个舵机在其最大行程内缓慢移动，可测试模型机械的一致性。

17.19: Race timer 计时器

When the brake side operation is unnecessary with a boat and some other vehicle, it can be disabled.
In this example, the throttle trigger is at its neutral position but since the boat mode is activated, the throttle servo is at its low end point.
The race timer allows to measure time durations in 4 different modes. Touch the mode button to select the race timer mode.
Up timer: this timer starts to count up from 0. It can be only started, stopped or reset to zero.
In this example, the up timer is started.

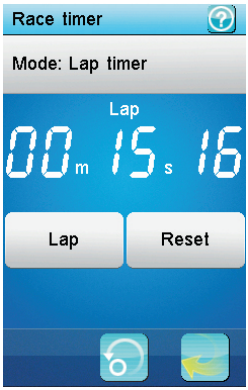


计时器可测量4种不同模式下的时间。点触模式按钮选择计时器模式。
正向计时器：从0开始计时。可进行开始，停止和复位三种操作。
如图所示：计时器已开始计时。

Down timer: when the down timer is stopped, the wheel sets the start time from 1 to 99 minutes.
Once started, the down timer counts down toward zero. Once zero is reached, it counts up like an up timer. Resetting a down timer sets it back to its start time.
In this example, the down timer is set to 5 minutes but is still stopped.

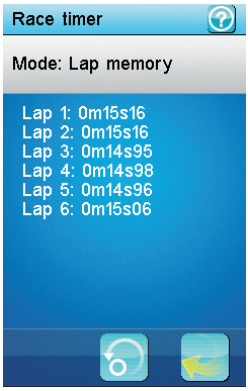
倒数计时器：当倒数计时器停止时，可用转轮从1分钟到99分钟设置倒数开始时间。一旦开始，计时器向0开始计时。一旦达到0，则和正向计时器一样计时。复位倒数计时器使倒数计时时间返回到开始设定的时间。
如图所示：倒数计时器设定到5分钟，此时倒数计时器是停止状态。

Lap timer: the lap timer is an up timer. Once started, the start button becomes the lap button. Each time the lap button is touched, the time elapsed since the last lap or the timer start is displayed for 3 seconds and recorded in the lap memory. To avoid glitches, the minimum lap time is 3 seconds.
In this example, the lap button was just touched and the last lap time is displayed for 3 seconds.



圈数计时器：圈数计时器是一个正向计时器。一旦开始，开始按钮变成了圈数按钮，每次点触圈数按钮，上一圈或第一圈用时时间将显示3秒并记录在圈数计时器列表内。为了避免差错，每圈最少时间是3秒。
如图所示：点触圈数按钮，上一圈用时将会显示3秒。

Lap memory: this mode displays the list of the last 100 recorded lap times. If the lap timer is still running and a push button is assigned to the race timer lap function, the lap memory is updated each time that push button is pressed and displayed in real time. Touching the default button erases the lap memory. A confirmation is requested.
In this example, 6 laps of around 15 seconds each have been recorded.



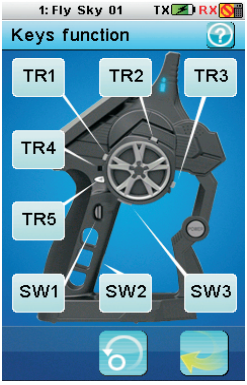
The race timer start/stop/lap function can be assigned to a push button.
The race timer reset function can be assigned to a push button.

圈数记时器列表：这个模式显示最近100圈用时记录。如果每圈计时器依旧工作，同时一个按键被分配给圈数计时器功能，每次按下该按键，圈数记忆将被更新并显示即时时间。点触默认键刷新圈数记忆，点触确认按钮完成该操作。
如图所示：完成6圈，每一圈用时15秒左右，每圈用时都有记录。
记时器开始、停止、圈数可分配给一个按键控制。
记时器复位功能可分配给一个按键控制。

17.20: Keys function 按键功能

A function can be independently assigned to each trim switch and push button.

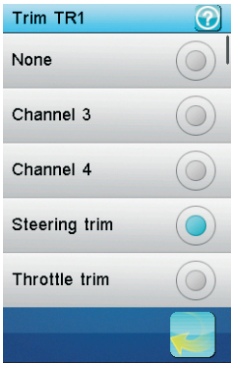
To assign a function to a trim switch or push button, touch its corresponding button in the Keys function dialog box. A menu displays all the available functions for the selected trim switch or push button.



每个功能可以单独通过微调开关和按键控制。
在按键功能对话框里点触相关按钮。菜单将会显示被选择微调开关或按键所有可用的功能。

This is the beginning of the trim switch functions list menu.

此图显示的是微调开关功能菜单的上面



This is the beginning of the push button functions list menu.

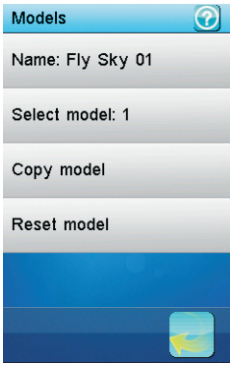
此图显示的是按钮菜单功能的上面

17.21: Models 模型

20 model configurations can be independently saved and managed allowing to instantly switch between 20 different vehicles to control.

A menu selects the action to execute on the model configurations

可以保存20个独立的模型数据，支持20款不同车型的转换。
可从模型菜单选项中选取需要设置的选项



Name:
modifies the name of the current model.

名称：
修改当前模型的名称

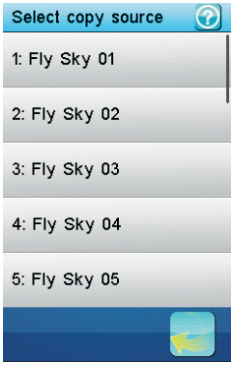
Select model:
select the model configuration to load and use. In this example, the first model is selected. Simply touch another model menu item to load and use it.

选择模型：
选择可以使用的模型数据

如图选择了第一个模型。点触其它模型菜单项即可选择和使用该项。

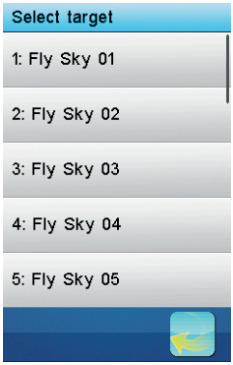
Copy model:
copies a model configuration to another. The target configuration is lost and replaced by the source configuration.
The first menu selects the source model configuration to copy from.

复制模型：
复制一个模型数据到另一个模型，目标数据将丢失，取而代之的是来源模型数据。点触确认按钮完成该操作。
第一个菜单选择来源模型数据



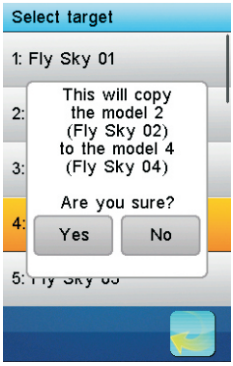
The second menu selects the target model configuration to copy to.

第二个菜单选择需要复制的目标模型数据。



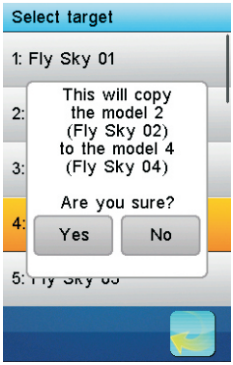
Since the target model configuration is overwritten by the source model configuration, a confirmation is requested.
In this example, after touching the Yes button, the model configuration 4 will be lost and replaced by the model configuration 2.

来源模型数据写入到目标模型，点触确认按钮即可完成。
如图所示：点触确认按钮后，模型4的所有数据将丢失，被模型2的数据代替。



Reset model:
reset all the current model configuration settings to their default. A confirmation is requested.
In this example, the first model is selected and will be reset to its default configuration after having touched the Yes button.

模型复位：
将所有目前模型设置复位到默认状态，点触确认按钮即可完成。
如图所示：第一个模型被选定。点触确认按钮后，第一个模型将会复位到默认状态。



17.22: RX setup 接收设置

Set up the receiver.
RX setup menu are like the picture 1.
Bind with a receiver: the transmitter enters in bind mode. Once the receiver correctly bound, press the back button to return to normal operation.(picture 3)
RX battery monitor:
monitors the receiver battery voltage.(picture 2)
External sensor: do not monitor the receiver power supply voltage but use an external sensor instead. This is useful when the receiver is powered by an ESC. Connect the external sensor directly to the main battery.
Low voltage: set the minimum voltage when the battery is almost empty.(picture 4)
Alarm voltage: set the voltage under which an audible alarm rings and the receiver battery icon in the top tray blinks.
High voltage: set the maximum voltage when the battery is full.

设置接收机
接收设置主菜单如图1所示。
对码：发射机进入对码模式。一旦对码成功，自动退出对码模式。点触返回按钮取消对码(如图3)。
电池检测：检测接收机电池的电压(如图2)。
外部传感器：当复选时，用外部传感器来检测电池电压，不使用接收机内部电压传感器。当接收机使用电子调速器供电时，可用外部传感器。
直接连接这个外部传感器到主电池。
低电压：设置电压值，当电池电压低于该数值时，显示电池处于没电状态。
警报电压：设置电压值，低于此电压可以听见警报并且屏幕顶部上方的接收机电池标识开始闪动(如图4)。
高电压：设置电压值，当电池电压为该电压值时，显示电池处于满电状态。

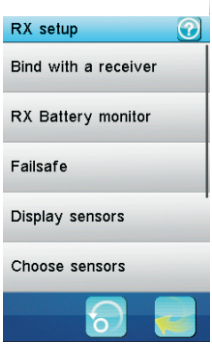


图1

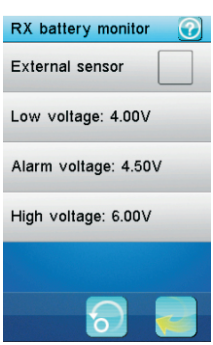


图2

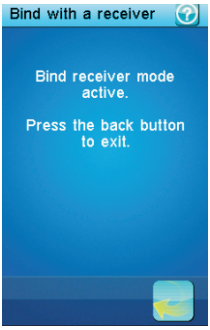


图3

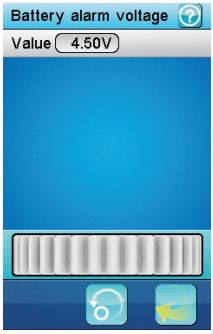


图4

Failsafe: in case of a loss of signal, the receiver can be configured to set one or several servos to a predefined position.
The first menu displays the current setting of the 4 channels. “Off” means that in case of a loss of signal, the corresponding servo will keep its last received position.In this example, only the throttle is set to half brake in case of a loss of signal. The other 3 servos will keep their previous position.

失控保护：
万一接收机丢失信号，接收机将设置一个或多个舵机到预先设定的位置。
第一个菜单显示当前4个通道的设置。“关闭”意味万一接收丢失信号，相关联的舵机将保持最后收到位置。
如图6所示，万一丢失信号，只有油门设置到半刹车状态。其它3个舵机将保持它们之前的位置。

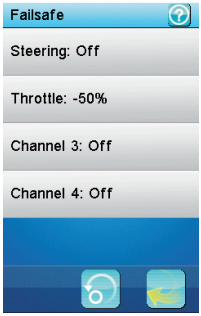


图5

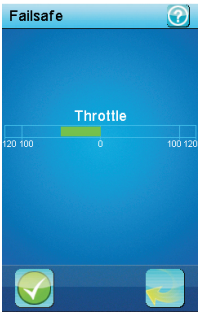


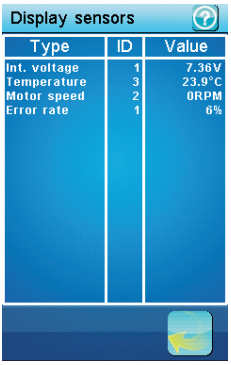
图6

Touch a channel to set its failsafe behavior.
If activated, set the channel to the desired position using the corresponding steering wheel, throttle trigger, trim or push button then while maintaining that position, touch the back button. The position of the servo is then memorized.
In this example, the failsafe on the channel 2 (throttle) is activated and set to half brake the vehicle.

设置方法：
点触一个通道设置失控保护功能。
如果激活，使用相应方向盘、油门扣机、微调或按键设置通道到需要的位置，然后保持该位置并点触返回按钮。舵机的位置将保存。
如图5所示，2通道（油门）的失控保护功能被激活，并设置到半刹车状态

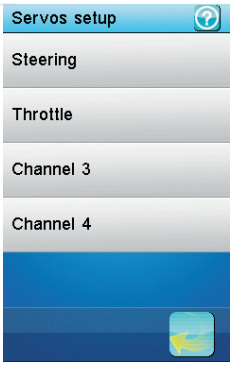
Display sensors:
display the type, ID and value of all connected sensors. receiver can connect 15 sensors at most.

传感器列表：
显示所有连接上的传感器类型、编码和数值。
接收机最多可连接15个传感器



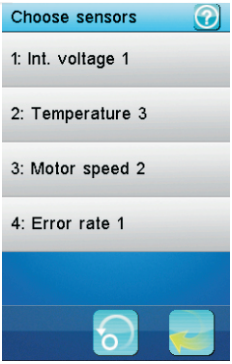
Servos setup:
if servos are connected on the external serial interface, this function attributes a channel to each servo. Choose the channel to attribute.

舵机设置：
如果舵机连接到外部串行的接口，该功能能为每个舵机分配一个通道。
选择需分配的通道。



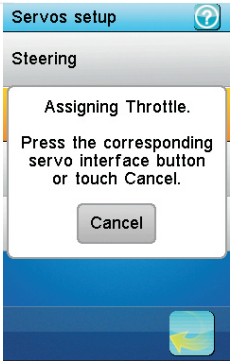
Choose sensors:
the main screen can display the value of up to 5 sensors. This function selects which sensors to display.
Select the main screen slot to attribute (1 to 5). The currently attributed sensor is displayed.

选择传感器：
主显示屏最多可以显示4个传感器的数值。此功能可选择需显示的传感器。
选择需设置的主显示屏的位置（1至4）。显示当前分配的传感器。



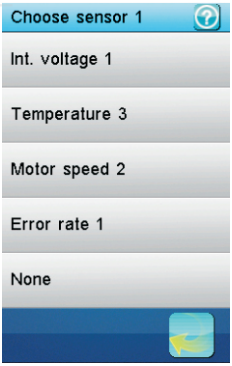
Press the interface setup button corresponding to the desired servo or touch Cancel to return.

按下与所需舵机相关的串行接收机设置按键或点触返回按钮。



The next menu lists all available sensors. Touch the desired sensor or press the back button to cancel.

接下来的菜单列出所有可使用的传感器。点触需要的传感器或点触返回按钮取消。



If an interface setup button is pressed, a message box indicates what assignment was made.

如果按下串行接收机设置按键，则有信息框显示将要执行的任务。

17.22: RX setup 接收设置

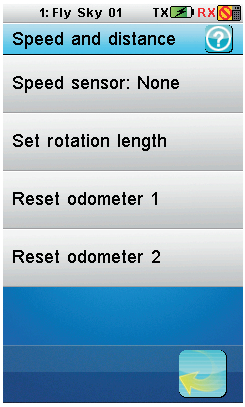


图1

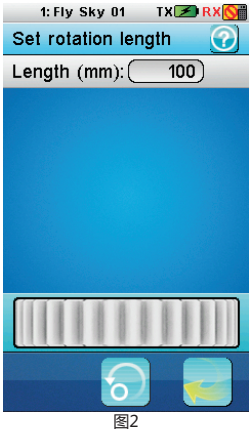


图2

速度与距离

若转速传感器与接收机连接，该功能可设置虚拟速度和里程表传感器,如图1所示.

传速传感器

选择转速传感器.如果没有选择,该功能将被禁用.

每圈长度

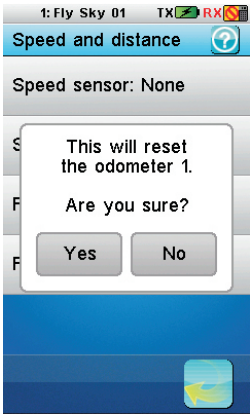
设置旋转一圈车辆的行程.该距离用于计算虚拟速度和里程表传感器.

点击“每圈长度”，设置模型车每圈的能走的距离（单位：毫米），点击返回即可，如图2所示。

Speed and distance:
As shown in picture 1, if a rotation speed sensor is connected to the receiver, this function set up the virtual speed and odometers sensors.

Speed sensor:
Select the rotation speed sensor to use. If none is selected, this function is disabled.

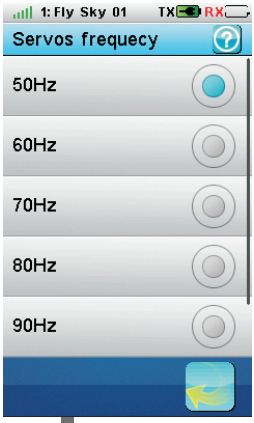
Set rotation length:
Set the vehicle travel distance corresponding to one rotation speed sensor. This distance is used to control the virtual speed and odometers sensors.
Touch “Set rotation length” to set distance traveled by the vehicle in one revolution of wheel or gear. (Unit: mm)
As shown in picture 2, touch back button to go back.



里程表清零

点击 “复位里程表1”或“复位里程表2” ，可用于清零相应的里程表内的数值。
里程表1：可作为单次里程表，记录每次使用时模型车跑的里程。
里程表2：可作为总里程表，累计记录所有的里程。

Reset odometer:
Touch "Reset odometer 1" or “Reset odometer 2" to reset the corresponding odometer.
Odometer 1: it is used for recording the distance traveled by the vehicle one time
Odometer 2: it is used for recording total distance traveled by the vehicle.



舵机频率选择

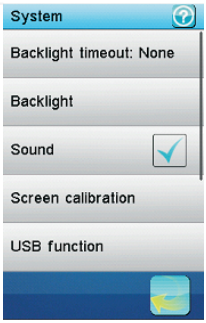
点击所需频率的数值，机器将自动保存设置并返回上一层菜单，设置成功；
再次点击“舵机频率”菜单，可查看当前设置的频率；点击确认键返回；

Servo frequency selection
Touch the required frequency to set a new servos frequency or touch the back button to keep the current servos frequency.

17.23: System 系统

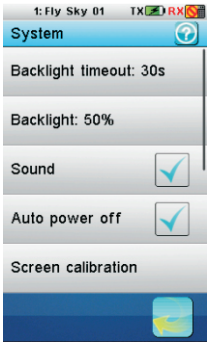
The system menu sets various system wide parameters

系统菜单设置不同的系统范围的参数。



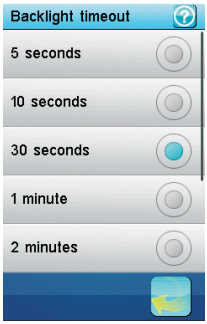
声音：
开启或关闭发射机声音
自动关机
开启此功能后，若当五分钟内没有操作发射机时，发射机将自动报警，报警时间会持续五分钟，然后机器将自动关闭。
报警的同时LED会闪烁指示，点击“自动关机”可取消自动关机功能。

Sound:
Turn on or turn off the sound of the transmitter.
Auto power off:
After five minutes of no operation, the transmitter will sound an alarm and flash its LED. After five more minutes of no operation, the transmitter with automatically shut down. Touch "Auto power off" to cancel automatic power off function.



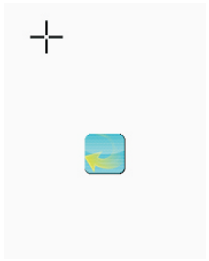
Backlight timeout: set how much time the LCD backlight will stay on if no key is pressed and the screen is not touched. The longer the LCD backlight stays on, the shorter the battery of the transmitter lasts.

背光逾时：
设置在无任何操作的情况下屏幕背光的持续时间。屏幕背光持续的时间越长，发射机电池的使用时间越短。



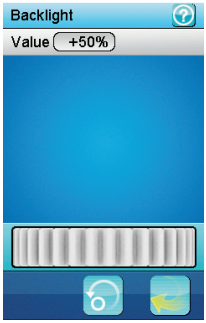
屏幕校准：
若触摸屏不够准确，可以使用此功能进行校准。就是用手写笔依次准确的点触，屏幕四角出现的十字的中心点，来校准触摸屏，

Screen Calibration
This function can be used to calibrate if touch screen is not accurate enough. Touch the appearing cross center point constantly to calibrate.



Backlight: adjust the level of the backlight. A high brightness can be useful in a very bright environment like a sunny weather. The brighter the backlight is, the shorter the battery of the transmitter lasts.

背光：
调整背光的亮度。在阳光明媚的天气可以使用高亮度的背光。背光越亮，发射机电池持续的时间越短。



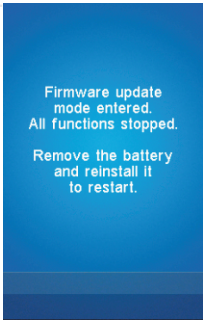
Language:
the user interface can be displayed in several languages.

语言：
用户界面可用多种语言显示。

17.23: System 系统

Firmware update:
the internal software (firmware) of the transmitter can be updated using the USB interface connected to a PC computer. Once this function is activated, all functions of the transmitter stop. To avoid any loss of control of the vehicle, turn its receiver off before entering this mode. A confirmation is requested.
When the firmware is updating, never disconnect the USB cable or remove the battery or the transmitter will become unusable.

固件更新：
发射机的内部软件（硬件）可以通过USB接口连接电脑进行升级。一旦这个功能被激活，发射机所有的功能将停止。进入这种模式前请关闭接收机，避免车辆失控。点触确认按钮即可实现硬件升级。
当硬件升级时，不要断开USB线或拔下电池，否则发射机将不能使用。



Factory reset:
reset the whole configuration of the transmitter to its default. All model configurations and other settings are lost and reset to their default.
A confirmation is requested.

恢复出厂设置：
恢复发射机所有的数据到默认值。即所有模型的数值和其他设置将丢失，并恢复到默认状态。点触确认按钮即可恢复出厂设置。

USB function:
Description:
None: the USB interface can be used only to charge the battery of the transmitter.
FS-iT4 emulator: when connected to a computer, the transmitter acts as a standard HID with 4 axes (one for each channel) and 3 switches (SW1, SW2 and SW3) and can be used as the main controller in any compatible simulation software.
Operation:
1. Connect the transmitter to the computer by the Micro USB cable.
2. Switch on the transmitter, then touch "system"-----"USB function"------"FS-IT4 simulator". After that, the computer will automatic identify the HID.
3. In the computer control panel, double click "game controller" --------"FS-IT4 emulator" to test whether the simulating function is ok.

About FS-iT4
Touch 'About FS-iT4', and the version of the current firmware will be shown like the picture on the right. Touch the "OK" button to go back.

关于FS-iT4
此功能用于机器的版本查询。点击"About FS-iT4"，如右图所示，显示当前版本号；点击确认键返回。

USB功能
功能说明：
无：仅提供发射机电池充电功能。
FS-iT4模拟器： 当发射机与电脑连接后，发射机即作为一个标准的HID设备,其拥有四个轴向（每一个轴向相当于一个通道）和三个按键(SW1, SW2 和 SW3)，并可应用于任何与之兼容的模拟软件。
操作方法：
1，将Micro USB线连接发射机与电脑。
2，打开发射机电源，点击：
系统------USB功能------FS-IT4模拟器，电脑会自动识别到人机接口设备；
3，在电脑的控制面板内，
双击"游戏控制器"------"FS-iT4 emulator"菜单，可测试发射机的模拟功能是否正常。

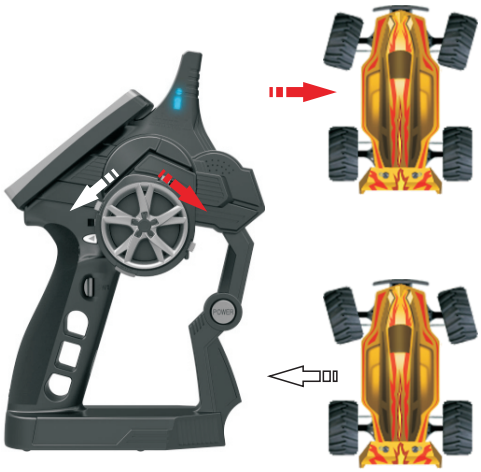
18: Transmitter function notes 发射机功能说明

18. 01 Steering control: 方向控制

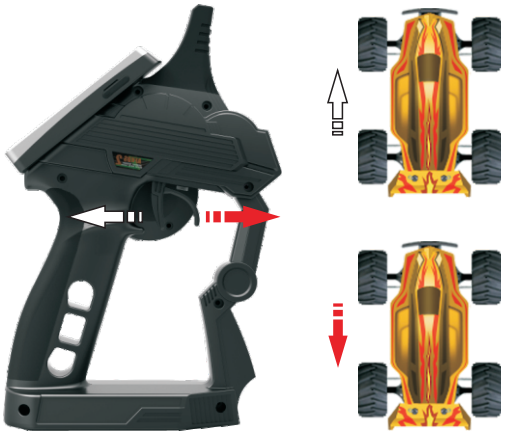
Function explanation:
This function is to control the direction, When the steering turn to right then the front wheel will t urn to right (see the picture), When the steering turn to left then the front wheel will turn to left (see the picture).
Operation:
Adjust the dual rate of the steering by adjusting the D/R knob.

功能说明：
此功能是进行方向控制,当方向舵往右旋转时车子前轮会跟着往右（如图），当方向舵往左旋转时车子前轮会跟着往左(如图）。

操作方法:
开机后，通过方向舵进行方向控制，方向舵动作大小依据实际情况进行比率调整。方向舵大小动作量可通过D/R进行大小舵量的调整。



18. 02 Throttle control: 油门控制



Function explanation:
This function is to control the throttle speed, When pull thethrottle trigger back, Car will accelerate forward (see the picture),When push the throttle trigger , The car will put on
the brakes or acceleratesback (according to the different ESC) (see th picture)
Operation:
To control it by pushing and pulling back the throttle trigger after power on.

功能说明：
此功能是进行油门（速度)控制,当油门扣机往后打时车子会向前加速(如图),当油门扣机往前推时车子会时生刹车或加速后退(依据不同的调速器)如图).

操作方法:
开机后，通过油门扣机进行前后运行的控制。

18.03: alarm function description 报警功能说明

声音报警

1，发射机电量不足,电压低于3.75V时,系统发出慢的警报声响。
2，接收机电量不足,低于设定的报警电压时,系统发出“叭，叭”声响。
3，误码率超过60%时,系统发出“嘟，嘟”声响。
4，计时到达时,系统发出闹铃“Bi，Bi，Bi，Bi”声响三次。
5，自动关机报警时，系统发出“嘟，嘟，嘟”的声响。
6，发射机电量严重不足,电压低于3.7V时,系统发出快的警报声响,当电压低于3.65V时,发射机将自动关机。

Audible alarm

1. When the transmitter battery is low and the voltage is lower than 3.75 V, the system will make alarm which sounds slowly.
2. If the voltage is lower than setting data due to low battery of receiver, the system will make a sound "Ba,Ba".
3. When the error rate is more than 60%, the system will make a sound "Du,Du".
4, When the timer goes off, the system will make a sound ''Bi, Bi, Bi, Bi'" thrice.
5. Before the transmitter is turned off automatically , the system will make a sound "Du Du Du".
6. When the transmitter's battery voltage is lower than 3.7 V, the system will make alarm which sounds quickly. When the voltage is lower than 3.65 V, the transmitter will be turned off automatically.

LED报警

LED报警与声音报警功能同步，但关闭声音报警，LED报警不会关闭。有以下几种情况：
1,LED常亮：各项功能状态正常。
2,LED慢闪：
发射机电量不足
3,LED快闪：
发射机电量严重不足
误码率超过60%
接收机电量不足
自动关机报警
4,LED不亮：关机状态。

LED indicator alarm:

LED indicator alarm function synchronizes with audible alarm function. It has no effect on LED indicator after turning off the audible alarm. Please check as follows:
1.The LED remains on: all functions are normal
2.The LED flashes slowly: the transmitter battery is low.
3.The LED flashes quickly:
The battery of the transmitter is very low.
Error rate is more than 60%
The battery of receive is low
the transmitter will turn itself off soon
4.LED indicator is off: power off

18.03: Problem solving 常见故障说明

常见故障说明

1,发射机不能开机
电池安装不到位
电池电量不足
开机时屏幕会闪一下,然后又关闭.表示电量不能维持系统长时间开机,开机瞬间就马上关闭
电池弹片氧化,接触不良
2,遥控距离不够
发射机或接收机天线摆放位置不对
附近有无线电干扰
电池电量不足
有障碍物遮挡,屏蔽掉部分信号
3,发射机不能遥控接收机
发射机或接收机误进入对码状态,重开机即可,必要时需重新对码
4,多人同时比赛时,发射机有时收不到接收机反馈回来的数据
两台发射机间的距离太近,尽可能保持5米以上,
5,发射机屏幕内不显示采集模块的编号
采集模块的数据线插错位置
数据线插头松脱,破损,断线
6,转速采集的数据不稳定
转速传感器位置摆放不当,偏离太远
7,电脑找不到模拟器
发射机USB模拟器没有打开

Problem solving

1.Transmitter does not start up
The battery is not properly installed.
Battery is empty
The screen flashes when the transmitter is powered on, and then the transmitter turn itself off immediately. It indicates the electric quantity can't support system for a long time and the transmitter will be turned off once it is powered on.
The battery shrapnel is oxidized and loose contact.
2.Remote control distance is not enough
The wrong position of transmitter antenna or receive antenna.
Nearby radio interference
Battery is empty
Obstacle screens off part of the signal
3.The transmitter can't control the receiver
The transmitter or receiver enters into the bound status by accident. The problem can be solved by powering on again or binding again if necessary
4.The transmitter may not accept the data sent by the receiver sometimes when many people race at the same time.
The distance between two transmitters is too close. Please keep more than 5 meters as far as possible.
5.The item number of acquisition module does not appear in the transmitter screen.
The data cable of acquisition module is connected to the wrong places
The plug of data cable is damaged.
6.The unstable data of speed acquisition
The position of speed sensor is not proper, which drifts too far.
7.The simulator can not be checked on the computer.
The USB simulator function of transmitter is not activated.

21. Packaging content 包装内容

NO:	Model	Sum	Remarks
1	4 channel 2.4G transmitter (FS-iT4) 4 通2.4G发射机 	1	
2	4 channel 2.4G receiver (FS-iR4) 4 通2.4G接收机 	1	
3	FS-BA1200 锂电池 	1	
4	手柄软胶L grip L 	1	
5	USB cable Micro USB线 	1	
6	手写笔 Stylus 	1	
7	User manual 说明书 	1	CD

NO:	Model	Sum	Remarks
8	FS-SEV01 串行总线接收机 ASBUS 	1	Optional 可选的
9	FS-SPD01 磁感应转速采集模块 magnetic telemetry sensor 	1	Optional 可选的
10	FS-SPD02 光感应转速采集模块 optical telemetry sensor 	1	Optional 可选的
11	FS-STM01 温度采集模块 temperature telemetry sensor 	1	Optional 可选的
12	FS-SVT01 外部电压采集模块 external voltage telemetry sensor 	1	Optional 可选的
13	Adapter 电源适配器  USB cable 标准USB线  FS-BC101 充电器 charger 	1	Optional 可选的

22. FCC Statement FCC 声明

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. (Example use only shielded interface cables when connecting to computer or peripheral devices).

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.

Digital propotional radio control system