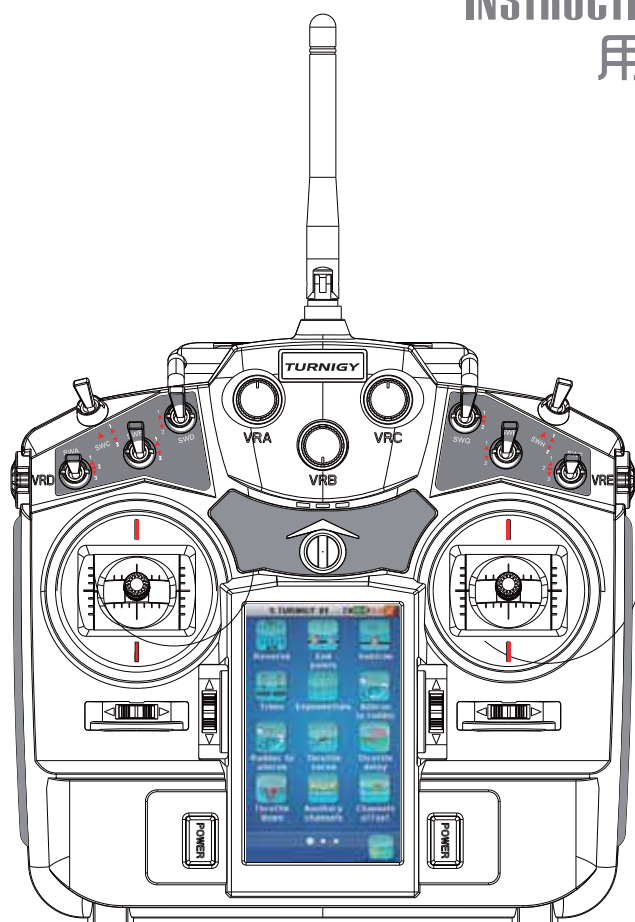


TURNIGY[®]
power systems

TGY-i10

Digital Proportional radio control system

INSTRUCTION MANUAL
用户手册



2.4 HZ **AFHDS 2A**
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AUTOMATIC FREQUENCY
HOPPING DIGITAL SYSTEM

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Digital proportional radio control system **TGY-i10**

目录

1, 简介Introduction.....	3
2, 服务Services.....	3
3, 特殊标志Special symbols.....	4
4, 安全指导Safety guide.....	4-6
5, 2.4G系统2.4GHz System Specifications.....	7
6, 系统特征项System Characteristics.....	8
7, 电池充电注意事项Battery Charging Instructions.....	8
8, 系统简介System Overview.....	9
9, 发射机参数Transmitter specifications.....	10
10, 接收机参数Receiver specifications.....	10
10.01, TGY-APD01 磁感应速度采集模块RPM telemetry (magnetic) module.....	11
10.02, TGY-APD02 光感应速度采集模块RPM telemetry (optical) module.....	11
10.03, TGY-ATM01 温度采集模块Temperature acquisition module.....	11
10.04, TGY-AVT01 电压采集模块Voltage acquisition module.....	11
10.05, TGY-AEV01 i-BUS 串行总线接收机i-bus receiver.....	11
11, 接收机与伺服器连接Receiver and servo connections.....	12
11.01, 飞机模型的安装Airplane model installation.....	13
11.02, 直升机模型的安装Helicopter model installation.....	13
12, 接收机操作说明Receiver Operational Instructions.....	14
12.01, 接口说明Port Setup.....	14
12.02, 对码Binding Setup.....	14
12.03, TGY-AEV01 i-BUS串行总线接收机连接 i-bus Receiver Connection Setup.....	15
12.04, TGY-APD01 磁感应转速采集模块连接 RPM telemetry (magnetic) module Setup.....	15
12.05, TGY-APD02 光感应转速采集模块连接 RPM telemetry (optical) module Setup.....	16
12.06, TGY-ATM01 温度采集模块连接 Temperature telemetry module Setup.....	16
12.07, TGY-AVT01 电压采集模块连接 External voltage telemetry module Setup.....	16
13, 遥控器各部件说明Control Parts Descriptions.....	17
14, 摇杆模式调整Stick mode adjustment.....	18
15, 开机Power On.....	19
15.01 开机异常保护 Boot abnormal protection.....	19
16, 关机Power Off.....	19
16.01 关机异常保护 Shutdown abnormal protection.....	19
17, 开机画面Logo/Information Screen.....	20
18, 主菜单Main menu	21
19, 顶部状态栏System Status.....	21
20, 功能操作General Functions Description.....	22-24
21, 通用功能菜单 General Functions Menu.....	25
21.01, 正逆转Reverse	25
21.02, 最大舵量End points	25
21.03, 记忆微调Subtrim	25
21.04, 微调Trims	26
21.05, 比率及指数 Scaling Exponentials	26
21.06, 副翼方向混控 Aileron to rudder	27

21.07, 方向副翼混控 Rudder to Aileron	27
21.08, 油门曲线Throttle Curve	28
21.09, 油门延迟Throttle Delay	28
21.10, 收油门 Throttle Down	29
21.11, 辅助通道Auxillary Channels	29
21.12, 通道偏移Channels offset	30
21.13, 功能延迟 Function Delay	30
21.14, 通道延迟 Channels Delay	30
21.15, 线性混控Linear mixes	31
21.16, 曲线混控Curve Mixes	31
21.17, 状态Conditions.....	32
21.18, 状态延迟Conditions Delay.....	32
21.19, 逻辑开关Logic switches	33
21.20, 飞机结构Airplane structure	33
21.21, 定时器Timers.....	34
21.22, 教练模式Trainer Mode	34
21.23, 显示舵机Display servos	35
21.24, 模型Models	35-37
21.25, 接收设置RX Setup	37-38
21.26, 系统System	39-44
22, 固定翼机/滑翔机专有序功能菜单.....	45
Airplane/Glider exclusive function menu.....	45
22.01, 副翼功能Aileron function.....	45
22.02, 襟翼功能Flap function.....	45
22.03, 扰流板Spoiler function.....	46
22.04, 升降襟翼 Elevator to Flap	46
22.05, 油门曲线Throttle needle	47
22.06, 蝶形飞Butterfly	47
22.07, 升降功能Elevator function.....	47
22.08, 方向功能Rudder function.....	48
22.09, V型尾翼V-tail.....	48
22.10, 飞机结构 Airplane Structure	49
23, 直升机专有序功能菜单Helicopter exclusive function menu.....	49
23.01, 油门保持Throttle Hold	49
23.02, 油门混控Throttle Mix	49
23.03, 螺距曲线Pitch Curve	49
23.04, 倾斜盘混控Swashplate Mix	50
23.05, 结构 Structure	50
23.06, 倾斜类型Swashplate type	50
23.07, 倾斜盘环Swashplate ring	51
23.08, 定速设定Governor	51
23.09, 陀螺仪Gyroscop	51
23.10, 直升机悬停微调Hover trim.....	52
24, 报警功能说明Warning funtion Overview.....	53
25, 常见故障说明Troubleshooting guide.....	54
26, 功能逻辑关系Function Trees.....	56-57
27, 包装内容Package Contents.....	58
28, FCC声明FCC Statement of Compliance.....	59

Digital proportional radio control system **TGY-i10**

1. 简介 Introduction

感谢您选择我公司出品的TGY-i10十通道2.4G第二代智能遥控系统(AFHDS2A)，该系统可10个通道全面兼容直升机、固定翼、滑翔机，用户按模型结构自行设定。如果这是您第一次使用智能遥控系统，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。

Thank you for choosing the TGY-i10 ten channels 2.4 GHz AFHDS2A intelligent system, which is compatible with helicopter, fixed wing, glider and powered glide systems. System parameters can be set up based on the model owned by the user. If this is your first time to use an intelligent system, this user manual will provide you with the instructions you need to obtain full enjoyment from your new system. Before using your new system, please read all instructions carefully, to ensure your safety.

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2. 服务 Services

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。

If you encounter any problems, while using this system, please refer to the appropriate section of this manual. After consulting this manual, you are unable to solve your problem, please contact your local dealer or connect to consult our service and support website for further assistance.


[Http://www.turnigy.com](http://www.turnigy.com)

3. 特殊标志 Special symbols

当以下标志出现在说明书的时候请注意并且仔细阅读。

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

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


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


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


 **Prohibited**
禁止


 **Mandatory**
强制

4. 安全指导 Safety guide

 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。
Do not use at night or during a lightening storm, as bad weather will adversely affect the control of your system.

 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。
Make sure that the motors are all moving the same direction as the operating direction.

 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。
The shutdown sequence is as follows: 1. Disconnect the receiver battery 2. Switch off the transmitter Failure to follow this procedure may result in uncontrolled movement and damage to the system.

 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。
Please be aware, that the 2.4G R/C system may affect nearby planes or cars after you turn on the transmitter

Digital proportional radio control system TGY-i10



一定要启用防失控功能。

Be sure to set the Fail Safe function.



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 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 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 voltage 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.



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 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.



当模型操作或使用后，请勿触摸发动机、电机、定速设定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。

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.



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。

Please have an overall check about the model before any operation.
Any problem in radio control system or improper installation may cause out of control.
Simple distance test methods:
One hold the model, and the other one carry the transmitter to a proper place to check the servo system condition.
Please stop operation if any exceptional case occurs.
Please check the model memory to make sure the matching is right.



开机时，每次都要检查发射器的油门中位是否是最低。
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。

Turn on the power, please check if the throttle neutral position is in its lowest position while turning on the transmitter every time.
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.

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。(详情见失控保护功能设定P 37)

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.(for more information about this function please reference page 37)

电池:

- (1) 不要短路电池两极。
- (2) 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。

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.

模型保管:

1. 不要把无线电系统或模型放在幼童伸手可及的地方。
幼童可能会不小心操作系统, 这可能会发生危险的情况, 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。

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.

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。

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.

Digital proportional radio control system TGY-i10

5. 2.4G系统 2.4GHz System Specifications



AFHDS2A是第二代增强版自动跳频数字系统的简写。它是一个高度精密的遥控信号传播系统，这个系统能够提供良好的距离，抗干扰能力强并且耗电量低。它是世界领先的遥控制造商研发并测试多年的成果。

AFHDS2A stands for "Automatic Frequency Hopping Digital System 2A". This highly sophisticated radio transmission system will guarantee you a long range, jamming free and long battery life experience. This system is developed by the world's leading manufacturer and has been tested for many years.

参数说明：

频率范围：2.4055-2.475GHz
波段宽度：500KHz
波段个数：140个
发射功率：不高于20dBm (100mW)
发射模式：AFHDS2A (第二代自动跳频率数字系统)
编码方式：GFSK
天线长度：26mm (双天线)
接收机灵敏度：-105dBm

RF specifications:

RF range: 2.4055-2.475GHz
Channel bandwidth: 500KHz
Number of channels: 140
RF power: less than 20dBm (100mW)
RF mode: AFHDS 2A(Automatic Frequency Hopping Digital System2)
Modulation type: GFSK
Antenna length: 26mmx2
RX sensitivity: -105dBm

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。



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.

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飞行在您的视线范围内，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。

The 2.4 GHz radio band has a completely different behavior than previously used lower frequency bands. Always keep your model in sight as a large object can block the RF signal and lead to loss of control and create a dangerous situation. The 2.4 GHz RF signal propagates in a straight line and cannot circumvent objects in its path. Never grip the antenna during operation as it significantly degrades the signal and may cause loss of control and damage to the system.

警告!

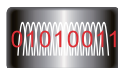
每次使用时，必须先打开发射机，然后再给接收机通电。停止使用时，必须先断开接收机电源，然后再关闭发射机。这样操作可以避免接收机接收到错误信号而导致的伺服器无规律的抖动。这对于电动模型来说尤为重要，因为它有可能导致马达突然转动而致使人员伤亡。多人一起操作的时候 间距至少要20CM以上。



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 servo powered models as it may unexpectedly turn on the motor and lead to injuries or death. A separation distance of at least 20 cm from all persons is required during operation.

6. 系统特征 System characteristics



此系统工作频率范围是2.4055到2.475GHz。整个波段被分为140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，跳频规律不同和使用不同的频点，遥控系统能避免干扰传播信号。

This radio system works in the frequency range of 2.4055 to 2.475GHz. This band has been divided into 140 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。

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



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。

Each transmitter has a unique ID. When binding with a receiver, the receiver saves that unique ID and only accept data from that unique transmitter. This prevents obtaining the wrong signal from another transmitter and insures safety for your 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 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。

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.

7. 电池充电注意事项 Battery charging instructions



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 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 other wise it may lead to loss of control, injuries and death.



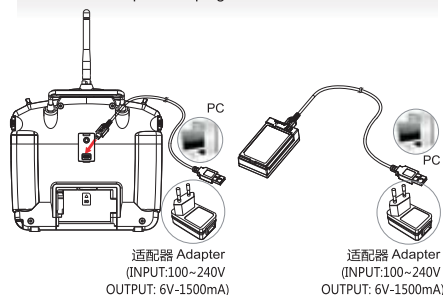
如果您使用的是可充电电池，请确保充电器符合可充电电池规格并且用适当的电流进行充电否则将导致电池过热，失火甚至爆炸。充满电后，请立即断开充电电源。如果长时间不用遥控设备，请将电池从发射机和模型中取出保存，以免有损遥控设备。

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.

7.01 发射机充电

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. 将USB线另一端插入发射机或者充电器充电接口;
4. 将适配器插入插座。

1. Install the battery into the transmitter or charger (close the transmitter battery box cover).
2. Connect the USB cable to the adapter.
3. Insert USB cable to the charge port of transmitter or charger.
4. Insert the adapter into plug seat.



Digital proportional radio control system TGY-i10

8. 系统简介 System Overview

- 采用最新双向遥测系统，并可兼容TGY所有单双向接收机；
- 主页面可实时监控i10电压，模型速度、温度、电压参数，已开启/关闭的功能，模型结构及计时器；
- 系统异常时，弧形动感LED及3D音效将及时提示；
- 3.55英寸WQVGA TFT 240*400像素触控彩屏可快速、方便的设定参数；
- 防止误操作电源开关设计，左右POWER键需同时按方可对i10进行开关机；
- 8个开关，5个旋钮在大多数应用中可以指定不同的功能，其中3个旋钮可按压隐藏；
- 高精度双轴承细摇杆，超薄轻盈时尚机身设计，给用户一种新的体验；
- 双天线结构让2.4G频率调信号在各方向传播顺畅，信号安全性更强；
- 可存储20组模型，兼容SD卡并可与之交换数据；可寄存每组模型接收机的对码状态及模型参数。
- 免费软件在线升级，便捷又简单的方式更新系统。

The transmitter i10 :

- Adopts the latest two-way communication systems to ensure that all of the TGY-brand receivers are compatible with this transmitter
- Home page menu can monitor i10 voltage, speed, temperature, voltage parameters, function conditions (on/off), model structure and timers in real time.
- The flashing LED and 3D audio effect will alert the user when a system exception occurs.
- This parameter is easily set due to the 3.55 inch, 240 by 400 pixels (WQVGA) color TFT-LCD touch screen.
- The power switch design prevents accidental power off or power on conditions. The transmitter can only be turned on/off by pushing both the left and right power buttons at the same time.
- Eight switches and five knobs can be assigned to different functions in most applications. The three knobs can be hidden by pressing them.
- The high-precision double-bearing gimbal and fashionable ultra-thin transmitter ensure a great experience for the user.
- The double antenna structure ensures the 2.4G frequency module transmits in all directions for a safer and better signal.
- The transmitter can store 20 models, including every model binding conditions. It can also store model settings on a SD card.
- Free software and upgrades to the system are available online.

- **兼容直升机、固定翼、滑翔机**，分为固定翼/滑翔机、直升机两种飞机类型，不同飞机结构匹配专有序菜单、用户按模型结构自行设定：

It is compatible with helicopter fixed-wing, glider, and powered glider. Airplane has two type, fixed-wing and helicopter. Different airplane structure is matching with different procedure. Users can set according to airplane structure.

• 通用功能 (General functions)

正逆转Reverse、最大舵量End points、记忆微调Subtrim、微调Trims、指数Exponentials、副翼方向Aileron to rudder、方向副翼 Rudder to aileron、油门曲线Throttle curve、油门延迟Throttle delay、收油门Throttle down、辅助通道Auxiliary channels、通道偏移Channels offset、功能延迟Function delay、通道延迟Channels delay、线性混控Linear mixes、曲线混控Curve mixes、状态Conditions、逻辑开关Logic switches、飞机结构Airplane structure、定时器Timers、教练模式Trainer mode、显示舵机Display servos、模型Models、接收机设置RX setup、系统System

• 固定翼/滑翔机 (Airplane/Glider)

默认结构 (引擎+副翼+升降+方向) Default structure (Engine+Aileron+Elevator+Rudder)

专有序菜单 Exclusive function menu :

副翼功能Aileron function、襟翼功能Flap function、扰流板Spoiler function、升降襟翼Elevator to flap、油门曲线Throttle needle、蝶形飞Butterfly、升降功能Elevator function、方向功能Rudder function、V型尾翼V tail

• 直升机(Helicopter)

默认结构 (固定螺距) Default structure (fixed pitch)

专有序菜单 Exclusive function menu :

油门保持Throttle hold、油门混控Throttle mix、螺距曲线Pitch curve、倾斜盘Swashplate mix、倾斜盘类型Swashplate type、倾斜盘环Swashplate ring、定速设定Governor、陀螺仪Gyroscope

9. 发射机参数 Transmitter specifications

机种参数：

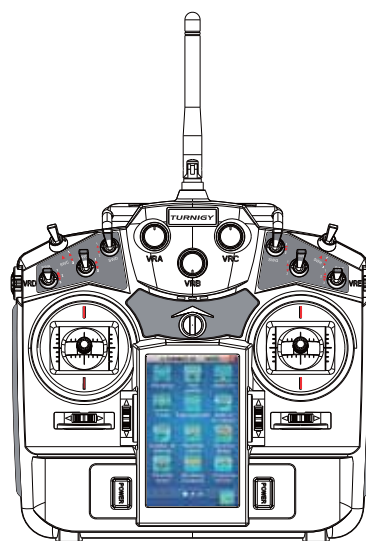
- 通道个数：10
- 适合机种：直升机、固定翼、滑翔机
- 频率范围：2.4055-2.475GHz
- 波段宽度：500KHz
- 波段个数：140个
- 发射功率：不高于20dBm
- 2.4G模式：第二代增强版自动跳频数字系统
- 编码方式：GFSK
- 通道分辨率：1024级
- 低电压报警：有（低于3.75伏时）
- 数据输出：有（USB，HID）
- SD卡接口：有
- 天线长度：26mm（双天线）
- 机身重量：653.5g(含电池)
- 输入电源：3.7伏（1700毫安时）
- 外形尺寸：278.59mm*189.35mm*95.87mm
- 外观颜色：银色
- 认证：CE0678，FCC

Transmitter specifications:

- Channels: 10
- Model type: helicopter/ airplane/ glider
- RF range: 2.4055-2.475GHz
- Bandwidth: 500KHz
- Band: 140
- RF power: less than 20 dBm
- 2.4G system: AFHDS2A
- Code type: GFSK
- Sensitivity: 1024
- Low voltage warning: yes (less than 3.75V)
- DSC port: yes(USB, HID)
- SD port: yes
- ANT length: 26mmx2
- Weight: 653.5g (Include Battery)
- Power: 3.7V (1700mAh)
- Size: 278.59mm*189.35mm*95.87mm
- Color: Silver
- Certificate: CE0678, FCC



MODEL: TGY-i10



10. 接收机参数 Receiver specifications

机种参数：

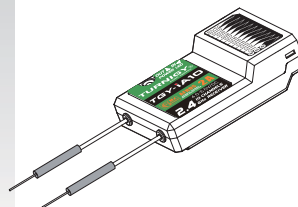
- 通道个数：10
- 适合机种：直升机、固定翼、滑翔机
- 频率范围：2.4055-2.475GHz
- 波段个数：140个
- 发射功率：不高于20dBm
- 接收灵敏度：-105DBm
- 2.4G：第二代增强版自动跳频数字系统
- 编码方式：GFSK
- 天线长度：26mm（双天线）
- 输入电源：4.0-6.5V/DC
- 机身重量：19g
- 外形尺寸：47mm*33.5mm*15mm
- 外观颜色：黑色
- 认证：CE0678，FCC
- i-BUS 接口：有
- 数据采集接口：有

Specifications:

- Channels: 10
- Model type: helicopter/ airplane/ glider
- RF range: 2.4055-2.475GHz
- Band: 140
- RF power: less than 20 dBm
- Sensitivity: -105DBm
- 2.4G system: AFHDS2A
- Code type: GFSK
- ANT length: 26mmx2
- Power: 4.0-6.5V/DC
- Weight: 19g
- Size: 47mm*33.5mm*15mm
- Color: Black
- Certificate: CE0678, FCC
- i-BUS Port: yes
- Date Acquisition port: yes



MODEL: TGY-iA10



Digital proportional radio control system **TGY-i10**

10. 01. 磁感应速度采集模块 RPM Telemetry (magnetic) module

机种参数：	Specifications:
<ul style="list-style-type: none"> ● 适合机种：i系列 ● 采集速度范围：0-16000转/分钟 ● 机身重量：3.9g ● 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 	<ul style="list-style-type: none"> ● Model type: helicopter/ airplane/ glider ● Monitor range of speed: 0-16000RPM ● Weight: 3.9g ● Power: 4.0-6.5V/DC ● Size: 24.4*14*8mm ● Color: Black



10. 02. 光感应速度采集模块 RPM Telemetry (optical) module

机种参数：	Specifications:
<ul style="list-style-type: none"> ● 适合机种：i系列 ● 采集速度范围：0-16000转/分钟 ● 机身重量：3.9g ● 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 	<ul style="list-style-type: none"> ● Model type: helicopter/ airplane/ glider ● Monitor range of speed: 0-16000RPM ● Weight: 3.9g ● Power: 4.0-6.5V/DC ● Size: 24.4*14*8mm ● Color: Black



10. 03. 温度采集模块 Temperature telemetry module

机种参数：	Specifications:
<ul style="list-style-type: none"> ● 适合机种：i系列 ● 采集温度范围：-40-100摄氏度 ● 机身重量：3.9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 	<ul style="list-style-type: none"> ● Model type: helicopter/ airplane/ glider ● Monitor range of temperature: -40-100°C ● Weight: 3.9g ● Power: 4.0-6.5V/DC ● Size: 24.4*14*8mm ● Color: Black



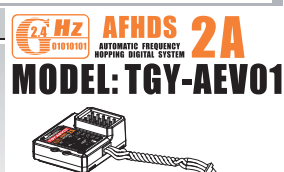
10. 04. 电压采集模块 Voltage telemetry module

机种参数：	Specifications:
<ul style="list-style-type: none"> ● 适合机种：i系列 ● 电压采集范围：4.0-30V/DC ● 机身重量：3.9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 	<ul style="list-style-type: none"> ● Model type: helicopter/ airplane/ glider ● Monitor range of Voltage: 4.0-30V/DC ● Weight: 3.9g ● Power: 4.0-6.5V/DC ● Size: 24.4*14*8mm ● Color: Black



10. 05. i-BUS 串行总线接收机 i-bus receiver

机种参数：	Specifications:
<ul style="list-style-type: none"> ● 通道个数：4 ● 适合机种：i系列 ● 机身重量：6.7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 ● i-BUS 接口：有 	<ul style="list-style-type: none"> ● Channels: 4 ● Model type: helicopter/ airplane/ glider ● Weight: 6.7g ● Power: 4.0-6.5V/DC ● Size: 30*25.6*13mm ● Color: Black ● i-BUS Port: yes



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

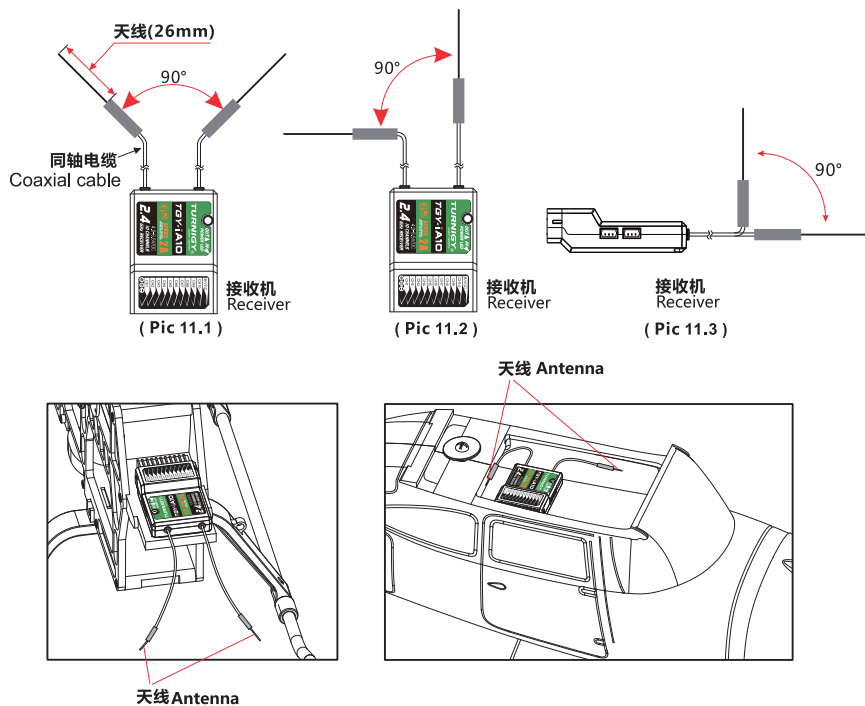


为了让发射及接收距离更远，请注意以下几点：

- 1、尽量保证双天线笔直，否则将会减小控制范围；
- 2、双天线的夹角保持在90°(如图三种方式)，这并不是精确的垂直角度，重要的是尽可能保持天线互相远离；
- 3、天线应该尽可能远离金属导体，至少要有1.5cm左右的距离。轴电缆段不受此限制，但不要过度弯曲；
- 4、尽可能保持天线远离电动机、调速器，和其它的噪声源。

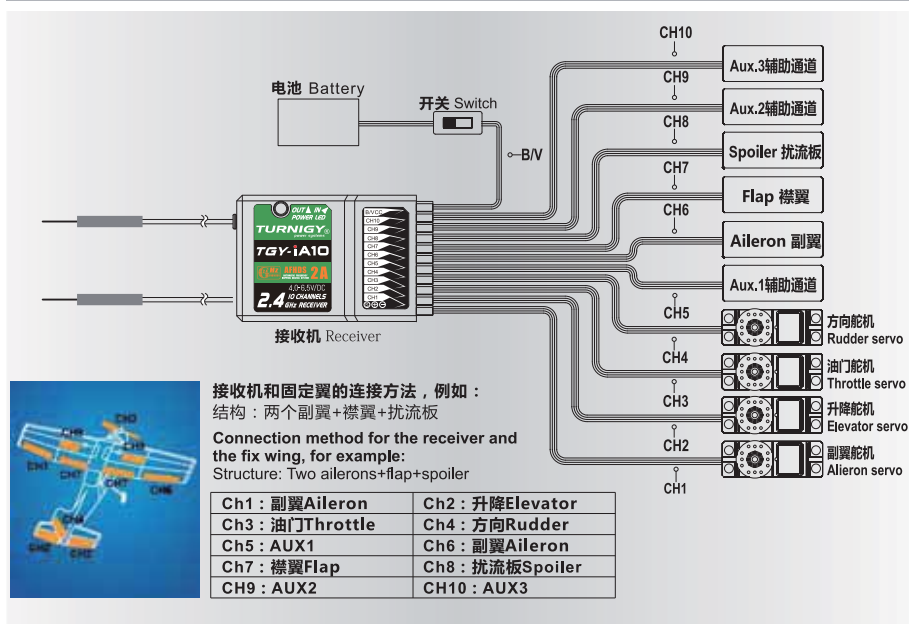
In order to make sure maximum distance between the transmitter and receive can be obtained please follow the directions below:

1. The two antennas must be kept as straight as possible. Otherwise, control range will be reduced.
2. The two antennas should be placed at a 90 degree angle to each other, as illustrated in the three pictures below.
3. The antennas must be kept away from conductive materials, such as metal and carbon. A distance of at least 15 cm is required for safe operation. Conductive materials will not affect the coaxial part of the antenna, but it is important that the coaxials are not bent to a severe radius.
4. Keep antennas away from the motor, speed controller and other noise sources as much as possible.

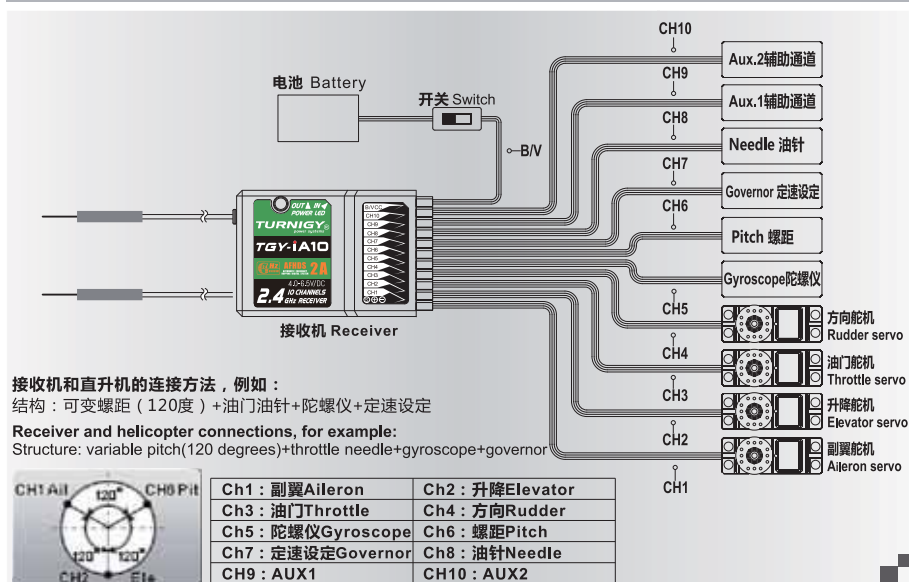


Digital proportional radio control system **TGY-i10**

11.01 飞机模型的安装 Airplane model installation

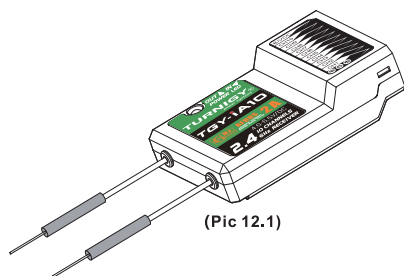


11.02 直升机模型的安装 Helicopter model installation



12. 接收机操作说明 + Receiver operation instruction

12.01 接口说明 Port Setup



CH1-CH10 : 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I-BUS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-CH10: represent relevant channel of transmitter.
Bind,VCC: represent the channel used for matching and input power respectively.
OUT: Represent i-BUS 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.

12.02 对码 Binding Setup

所有的发射机和接收机, 在出厂前都已对码, 无需再次对码, 若您需要与另一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4.0-6.5VDC电源, 按正确极性, 插入CH1-CH10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。

All receivers are bound to their respective transmitter at production time. If you want to bind it with another transmitter, please follow the steps below:

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 CH10 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.



Attention

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。

Notice: The bound 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, you need to restart the transmitter and the receiver.

