

Digital proportional radio control system TGY-i10

12.03 TGY-AEV01 i-BUS 串行总线接收机连接说明 i-bus Receiver Connection instruction Setup

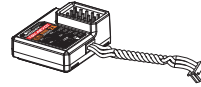
功能说明：

此功能是为了应对某些模型通道太多而做的，当通道不够时可采用此配件来增加通道输出。

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.TGY-AEV01 i-BUS接收机的“IN”端口对应接收机的“OUT”端口；
2. TGY-AEV01 i-BUS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。



(Pic 12.3)

Function Details：

The system is able to support many channels. This allows the user of the system to change to a different output channel should signal strength be insufficient

i-BUS receiver, can connect 4 modules with 18 channels in serial at most. Button K1 and K4 correspond to C1 and C4 respectively.

Operation instruction:

- 1.TGY-AEV01 i-BUS The “IN” port of TGY-SEV01 receiver corresponds to “OUT” port of receiver.
2. TGY-AEV01 i-BUS The “OUT” port of TGY-SEV01 receiver is used to connect post level TGY-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 LED of 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.



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。

Danger

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.

12.04 TGY-AP001 磁感应转速采集模块 RPM telemetry (magnetic) module setup

功能说明：

此功能是为了检测到模型的转速而设定的，用户可通过发射机来观察监测模型的转速，当用户需要监测转速时可使用此配件。

操作使用说明：

1. 将所配的3 PIN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，如图12.4所示；
2. 如图12.5所示，将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，如直升机的齿轮上面，传感器与磁铁相距两毫米以内，**磁铁**的南极或北极与传感器保持平行。
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，转速的值会发生变化，则表示安装成功。



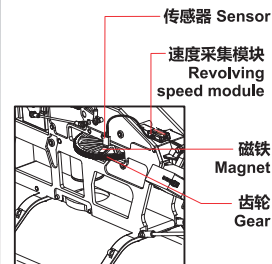
(Pic 12.4)

Function Details：

This function allows the user to monitor turning speed via the transmitter. This is a very useful function when determination of turning speed is required

Operation:

1. Insert one end of standard 3 PIN plug into “OUT” port of **RPM telemetry (magnetic) module**, and insert the other end into “IN” port of receiver or other sensor, as shown in the picture 12.4.
2. As shown in the picture 12.5: Inside hub of the model, the distance between sensor and magnet is less than 2mm. The North Pole or the south pole of the **magnet** has to be paralleled with sensor.
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.



(Pic 12.5)

12.05 TGY-AP002 光感应转速采集模块 RPM Telemetry (optical) module setup

功能说明

此功能是为了能检测到模型的转速而做的，用户可通过遥控器来观察和监测模型的转速，当用户需要监测转速时，可使用此配件。

操作使用说明

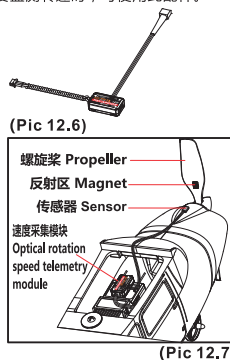
1. 将所配的3PIN插头，一端插入速度采集模块的“OUT”位置，另一端插入接收机的“IN”位置或接另外的感应器的“IN”位置，如图12.6所示；
2. 如图12.7所示，将传感器与反射贴纸固定在测试的轴向转动，如安装在飞机的螺旋桨上，保持贴纸平整，并与传感器垂直，传感器和贴纸距离要保持适中。
3. 打开发射机，接收机电源，在显示屏的接收机窗口内，会发现并显示“Motor speed 2: 0RPM”，试着转动，转速的值会发生变化，则表示安装成功。

Function Details :

This function allows the user to monitor turning speed via the transmitter. This is a very useful function when determination of turning speed is required

Operation instruction :

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 shown in the picture 12.6.
2. As shown in the picture 12.7: Affix the sensor and the reflection decals on the flat surface of the side of any rotating part. Keep decals flat and perpendicular to the sensor. 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.



(Pic 12.6)

(Pic 12.7)

12.06 TGY-ATM01 温度采集模块连接 Temperature telemetry module connection setup

功能说明：

此功能是为了监测模型重要部件（马达，电池，调速器）温度而做的，用户可通过遥控器来观察和监测重要部件的温度，必要时可设定报警。当用户需要检测重要部件温度时可使用此配件。

操作使用说明：

1. 将所配的3 PIN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，如图12.8所示；
2. 将温度的传感器本体，使用海绵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°C”，表示安装成功，25.0°C 即为采集到的温度数据。

Function Details :

This function allows the user to monitor the temperature of important operating parts of the system. This will ensure that the user can be aware of any severe temperature changes which would adversely affect system operation. The system will automatically set an alarm if the temperature is outside of safe operating norms

Operation instruction :

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 shown in the picture 12.8.
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°C” will be shown in receiver window in display screen, which means installation is successful, and 25.0°C is the temperature collected.

12.07 TGY-AVT01 电压采集模块连接 External voltage telemetry module connection setup

功能说明：

此功能是为了监测模型电池电压的，用户可通过遥控器来观察和检测电池的电压情况，必要时可进行设定报警。用户需要观察和监测电池电压时可使用此配件。

操作使用说明：

1. 将所配的3 PIN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，如图12.9所示；
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12.9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。

注意：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。

Function Details :

This function allows the user to monitor the battery voltage of the system. This will ensure that the user can be aware of any severe voltage changes which would adversely affect battery operation. The system will automatically set an alarm if the voltage is outside of safe operating norms

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 shown in the picture 12.9.
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 in the picture 12.9 “Ext.voltage4: 12.40V” is shown in the receive widow in display screen, which means the tested voltage is 12.40V.

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

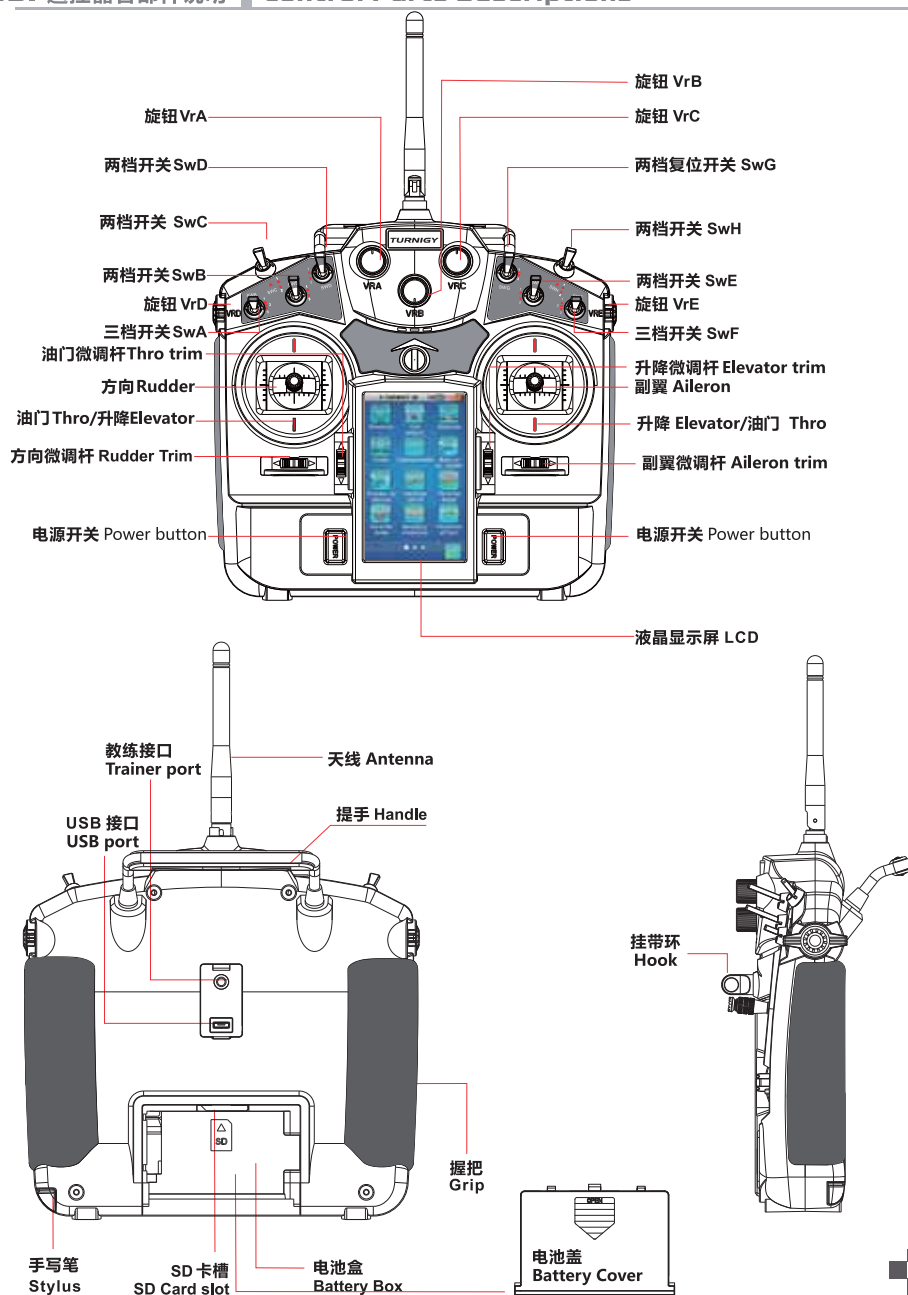
Notice: Be sure the IN and OUT ports are connected correctly. Improper connections will cause the transmitter to be unable to distinguish between telemetry modules.



(Pic 12.9)

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13. 遥控器各部件说明 Control Parts Descriptions



14. 摇杆模式调整 Stick mode adjustment

功能说明：

此功能是针对不同用户的不同操作习惯而设定的，用户可通过以下操作方式进行调整

将发射机默认摇杆模式调整为1、3、4；

步骤如下：

- 1、点触系统选择**摇杆模式**，可见摇杆模式默认为**模式2** (如图14.1)；
- 2、**模式4**调整：由**模式2**切换为**模式4**即可 (如图14.2)；
- 3、**模式1、3**调整
 - 1)、切换为**模式1**或**模式3** (如图14.3, 14.4)；
 - 2)、打开发射机的**电池盖**，取下**电池**；
 - 3)、拨下发射机**左右握把**；
 - 4)、用**内六角螺丝刀**卸下锁住发射机后盖的**6颗螺丝** (如图14.5)，并妥善放置；
 - 5)、轻轻地拨下发射机后盖**电线插头**，即可看到和 (图14.6) 一样的布局；
 - 6)、用小型**十字螺丝刀**卸下**总成8颗螺丝**，并妥善放置；
 - 7)、将**左右总成座**互换位旋转180度，排好电线，并锁紧螺丝；
 - 8)、将发射机后盖**电线插头**小心地插入主板，重新合上发射机的后盖，并锁紧螺丝；
 - 9)、装上**左右握把**，装入**电池**，盖上**电池盖**；
 - 10)、打开发射机点触显示**舵机**检查通道及方向是否正确，拨动**微调杆**检查**微调**及方向是否正确。



(Pic 14.1)



(Pic 14.2)



(Pic 14.3)



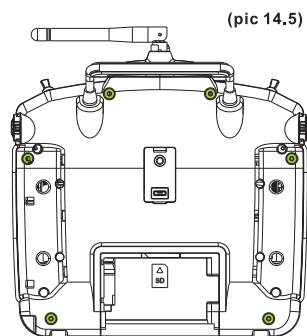
(Pic 14.4)

Stick Mode Adjustment

The mode can be changed based on user preferences

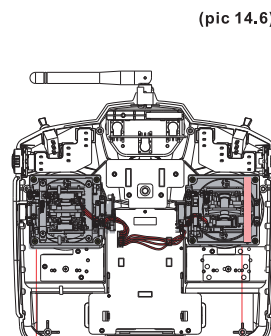
The instructions for changing default mode 2 are detailed below:

1. Touch system option to select the stick mode as shown in picture 14.1.
2. Change mode to 4.
3. Adjustment of mode 1 and mode 3 as shown in pictures 14.3 and 14.4
 - 1). Change mode 1 and mode 3 to mode 1 or mode 3.
 - 2). Open the battery box and remove the battery.
 - 3). Remove the transmitters left and right grips.
 - 4). Use the inner hexagonal screwdriver to remove the six screws on the back of the transmitter and put them in a safe place as shown in picture 14.5.
 - 5). Disconnect the transmitter back cover plug carefully and you will see the layout as shown in picture 14.6.
 - 6). Remove the eight screws with a small cross screwdriver and put them in a safe place.
 - 7). Switch the left and right gimbal, rotate 180 degrees, adjust the wire and then lock the screw.
 - 8). Insert the transmitter back **cover wire** to main board. Then close the back cover and lock the **screw**.
 - 9). Install the **left and right grip**, and then install the battery. After that, close the battery cover.
 - 10). Turn on the transmitter to ensure the channel and direction are working correctly by touching the servo display. Check the trim direction by sliding the trim.



(pic 14.5)

6颗螺丝
six screws



(pic 14.6)

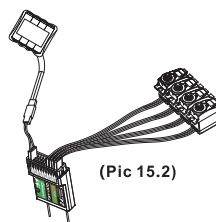
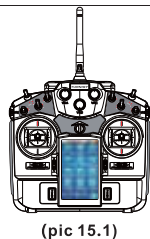
右总成座 right gimbal 8颗螺丝 eight screws 左总成座 left gimbal

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15. 开机 Power On

1. 连接好所有部件，
2. 按住两个电源开关，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。

1. Connect all parts,
2. Press the two power buttons to power on the unit. 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.



15.01 开机异常保护 Boot Abnormal Protection

如果开机时遇到如图所示界面时,说明有如下情况出现需解决后才能正常开机

- 1.开关没有复位(往上).

- 2.油门操纵杆没有最低

If the screen looks like picture 15.1.1, there is a system problem. You must resolve the problem before restarting the system

1. The switch is not reset. (You need to push switch up.)
2. Thro Stick (Push to lowest setting)



(pic 15.1.1)

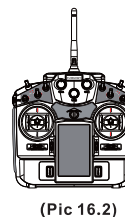
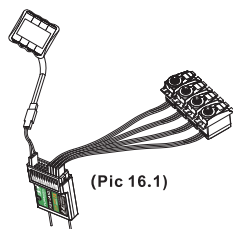
16. 关机 Power off

1. 断开接收机电源，
2. 按住两个电源开关，关闭发射机。

1. Cut off power source of receiver,
2. Press the two power buttons to power off the unit. Switch off the transmitter.

注：未断开接收机电源，发射机电源是无法关闭的。

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



16.01 关机异常保护 Shutdown Abnormal Protection

如果关机时遇到如图所示保护界面时，说明接收机还没有关闭，您需先关闭接收机后，才能关闭发射机。

If the screen looks like picture 16.1.1 you need to turn off the receiver first and then turn off the transmitter



(Pic 16.1.1)

17. 开机画面 Logo/Information Screen

开机画面显示了公司的标志，两秒后画面自动进入到主菜单。主菜单显示的具体内容如下图：

The TGY logo will be shown on the screen when first switching on the transmitter. After two seconds the main menu will be displayed.



(Pic 17.1)



(Pic 17.2)

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18. 主菜单 Main menu



(Pic 18.1)



(Pic 18.2)



(Pic 18.3)



(Pic 18.4)

点触屏幕下方的设置图标  进入主菜单。

主菜单有三个平行页面组成，每个页面包含最多12个图标，分别代表12个不同的功能。

主菜单图标默认为26个，具体数量会根据飞机结构的不同发生变化，最少21个，最多或33个

- 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。

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 main menu has 26 icons by default, but may have as few as 21 or as many as 33, depending on the model of the aircraft

- 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.

19. 顶部状态栏 System Status



屏幕顶部一直显示整个系统的主要状态。

The System Status of the screen constantly displays the main status of the whole system.

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。

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 status of the remote control battery. If the voltage is too low, an audible alarm rings and this symbol blinks.

显示当前选定的模型编号和名称。

Displays the number and the name of the currently selected model.

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。

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.

- | | |
|--|---|
|  充电中 Charging |  电量饱满 Fully charged |
|  充电完成 Charging is complete |  电量低 (需要充电) Low battery (Needs charging) |
|  RX 表示接收机没有连接 Receiver disconnected | |
|  RX 表示接收机电量饱满 Receiver battery fully charged | |
|  RX 表示发射机收不到接收机的电流、电压返回信号,此时请检查外部传感器的连接是否正确。 No signals of current and voltage of receivers(Needs checking the connection of sensors) | |