

22. 固定翼机/滑翔机专有程序功能菜单 Airplane/glider exclusive function menu

22.01 副翼功能 Aileron function

功能说明:

此功能是针对模型副翼功能进行调整,可达到最佳控制效果。

副翼功能可调节飞机2个副翼舵量的比例;当结构没有副翼或2个副翼联动、没有襟翼且没有升降舵时,没有此功能,主菜单中没有此功能图标;如果飞机结构有两个襟翼或升降舵,调节对应的数值比例大于0%,即可当副翼功能使用。此功能可分别在5个状态下设定。

点触副翼功能下需设置下面或上面,滑动转轮调节相应数值。

如图22.1所示:飞机结构有2个副翼,2个襟翼,2个升降舵,点触选择了副翼下、上调节数值为80%,副翼2下、上面均为80%,襟翼下、上面均为10%,升降舵下、上面均为10%,升降舵2下、上面均为10%,在这种设定下飞机2个副翼舵量为80%,2个襟翼和2个升降舵均当副翼功能使用,舵量均为10%。

Function Details :

This function is used to adjust aileron function of models and give it best control.

Aileron function can be used to adjust the proportion of the 2 **ailerons** end points. If the structure does not have the **aileron**, 2 **aileron** linkage, flap or elevator, then there is no this function, and no icon will be displayed. It also can be used as **aileron** function if the airplane structure has 2 flaps or elevators, meanwhile the corresponding value be adjusted exceed 0%. This function can be set in 5 conditions respectively.

Select desired **upside** or **downside** and move the wheel to modify the corresponding value.

For this example: The airplane structure has 2 **ailerons**, 2 flap and 2 **elevator**. Setting the value as the picture 22.1, in this situation, the end points of the two **ailerons** are 80%, and the 2 flaps and 2 **elevators** are regarded as **aileron** function, which the end points both are 10%.



(Pic 22.1)

22.02. 襟翼功能 Flap function

功能说明:

当飞机结构副翼,襟翼或者升降只有一个或者一个以下时没有此功能,主菜单中没有此功能图标,如果飞机有副翼、襟翼、升降两个以上时,则此功能存在。

如果飞机结构有两个副翼,调节对应的数值比例大于0%,即可当襟翼功能使用;使用襟翼功能需要点触选择一个开关(SwA-SwH)来控制开启或关闭,或选择一个摇杆或旋钮(Ail、Ele、Thro、Rud、VRA-VRE)来控制数值大小。此功能可分别在5个状态下设定。

点触襟翼功能下需设置襟翼的下面或上面进行设置,滑动转轮调节相应数值。

如图22.2所示:飞机结构有2个襟翼,2个副翼,点触选择了襟翼下面调节数值为80%,襟翼2上数值为80%,副翼下、上面均为10%,副翼2下、上面均为10%,在这种设定下飞机2个襟翼舵量为80%,2个副翼当襟翼功能使用,舵量为10%。

Function Details :

This function is not available when aircraft structure has **aileron**, flap or only one **elevator** or less than one **elevator**, so there is no icon in the main menu. If aircraft has more than 2 **ailerons**, flaps and **elevators**, this function exist

The up/down travel of each flap can be adjusted independently at each servo according to the wing type. If the **structure** does not have an **aileron**, 2 **ailerons** linkage, flap or **elevator**, then this function is not available, and no icon will be displayed. It can be used as flap function, if the airplane structure has 2 **ailerons**, the corresponding value must be adjusted to more than 0%. The flap function can be assigned to a switch (SwA-SwH) to enable and disable it; it also can be assigned to a stick or a knob (Ail, Ele, Thro, Rud, VRA-VRE) to adjust the value. This function can be set in 5 conditions respectively.

Select desired **upside** or **downside** and move the wheel to modify the corresponding value.

For this example: The airplane structure has 2 flaps and 2 **ailerons**. Setting the value as the picture, in this situation 22.2, the end points of the two flaps are 80% and the 2 **ailerons** are regarded as flap function, which the end points are all 10%.



(Pic 22.2)

22.03 扰流板 Spoiler function

功能说明:

扰流板主要是在飞机降落时使用的,用于增加飞机与地面的压力,以及达到快速制动的效果。

扰流板可调节飞机的2个扰流板功能能量的比例;当结构没有扰流板或2个扰流板联动时,没有此功能,即没有此功能图标;使用扰流板功能需点触选择一个开关(SwA-SwH)来控制,或选择一个摇杆或旋钮(Ail、Ele、Thro、Rud、VRA-VRE)来控制数值大小。此功能可分别在5个状态下设定。

点触扰流板功能选择下面或上面进行设置,滑动转轮调节相应数值。

如图22.3所示:飞机结构有2个扰流板,点触选择了扰流板下面、上面调节数值至80%,扰流板2下面、上面调节数值至75%,在这种设定下飞机2个扰流板舵量分别为80%、75%。

Function Details:

Spoiler will be used when aircraft is landing. It is used to increase pressure between aircraft and land so as to brake quickly

Spoiler function can be used to adjust the proportion of the 2 **spoilers**' end points. If the structure does not have **spoiler** or 2 **spoiler** linkage, then there is no this function, and no icon will be displayed. The **spoiler** function can be assigned to a switch (SwA-SwH) to enable and disable it, or be assigned to a stick or a knob (Ail, Ele, Thro, Rud, VRA-VRE) to adjust the value. This function can be set in 5 conditions respectively.

Select desired **upside** or **downside** and move the wheel to modify the corresponding value.

For this example: The airplane structure has 2 **spoilers**. Setting the value as the picture 22.3, in this situation, the end points of the 2 **spoilers** are 80% and 75%.



(Pic 22.3)

22.04 升降襟翼 Elevator to flap

功能说明:

当飞机结构有**升降舵**和**襟翼**时，用于调节飞机对应混控能量的比例，默认均为10%。飞机升降使襟翼跟着下降或者上升，最常用于飞行时做翻筋斗动作可使翻筋斗动作半径变小，增加动作的观赏性。在大多数情况下，当升降舵上升时襟翼就会下降；当结构没有**升降**或**襟翼**将没有**升降混控到襟翼**功能，即没有此功能图标。此功能可分别在5个状态下设定。

点触左下角开启按钮激活**升降混控到襟翼**功能，点触需设置的**低端比率**或**高端比率**进行设置，滑动转轮调节相应数值；可点触选择一个开关(SwA~SwH、LSw)来控制此功能的**开启**或**关闭**。

如图22.4、22.5所示：点触开启按钮激活了**升降舵**和**襟翼**功能，点触选择**低端比率**调节数值至80%，**高端比率**调节数值至-60%，在这种设定下飞机**升降摇杆**打到最下边，**升降功能**应用后**通道输出**的位置显示在左边100，而**襟翼功能**显示在左边80；**升降摇杆**打到最上边，**升降功能**显示在右边100，而**襟翼功能**显示在左边60。



升降舵摇杆打到最下边 The elevator to the topside (Pic 22.4)
升降舵摇杆打到最上边 The elevator to the bottom (Pic 22.5)

Function Details:

When aircraft has **elevator** and **flap**, **elevator to flap function** is used to adjust the proportion of the corresponding mix end point, which default value is 10%. The airplane can fly up or down, which makes the flap move up or down accordingly. It is commonly used for turning somersaults during the flight. In most circumstances, the flap goes down when the elevator goes up. It is the pre-programmed mix of elevator and flap. The position of the corresponding channel is displayed in real time. If the structure does not have **Elevator** or **flap**, then this function is not available, and no icon will be displayed. This function can be set in 5 **conditions** respectively.

Touch the open button in the lower-left corner to activate the **elevator to flap** function, Select desired **upside** or **downside** and move the wheel to modify the corresponding value. The function can be assigned to a **switch**(SwA-SwH, LSw) to enable and disable it. Touch the open button in the lower-left corner to activate the elevator to flap function. Touch the low side rate or high side rate to set. Adjust the corresponding value by moving the wheel. The function can be assigned to a **switch** (SwA-SwH, LSw).

For this example: Activate the **elevator** function and the **flap** by touching the open button and set the value as shown in pictures 22.4 and 22.5. Push the **elevator** to the topside, the **elevator** and the **flap** function are displayed as shown in picture 22.4. Push the **elevator** to the bottom, the **elevator** and the **flap** function are displayed as shown in picture 22.5.

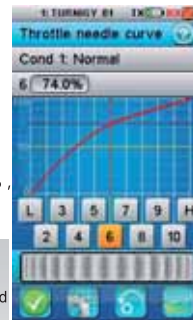
22.05 油针曲线 Throttle needle

功能说明:

当飞机结构有**引擎**并带有**油针**时，依据引擎动力输出特征进行**油针曲线**的设定，设定后**油针**位置将受**油门摇杆**影响，呈曲线变化，从而达到最佳控制效果。此设置可以调节**油针曲线**的11个点(L,2~10,H)从0.0%调整到100.0%，水平的点线显示**油门摇杆**的即时位置，垂直的点线显示此功能应用后**油针**输出的即时位置；当结构没有**引擎**或有**引擎**没有**油针**时将没有**油针曲线**功能，主菜单中没有此功能图标。此功能可分别在5个状态下设定。

激活开启按钮后点触需设置的点进行设置，滑动转轮调节相应数值。

如图22.6所示：点触开启按钮激活了**油针曲线**功能，点触**开启**按钮激活了**油针曲线**功能，调节2点数值至20.0%，3点数值至36.5%，4点51.5%，5点64.0%，6点74.1%，7点80.0%，8点85.5%，9点90.0%，10点95.0%，在这种设定下**油门摇杆**在中位以下（即L,2~6点）油门输出相对**油门摇杆**在中位以上（即6~10, H点）加油较快。



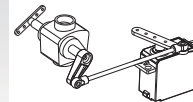
(Pic 22.6)

Function Details:

If the airplane structure has both an **engine** and a **needle**, set the **throttle needle** according to the features of **engine** power output. After that, the needle position effected by **throttle stick** will be presented with curve distribution, which can achieve a best flight effect. The 11 points (L, 2~10, H) of **throttle curve** can be adjusted from 0% to 100%. The horizontal dotted line displays in real time the throttle stick position, and the vertical dotted line displays in real time the position. If the structure does not have an **engine** or **engine** does not have a **needle**, then this function is not available, and no icon will be displayed. This function can be set in 5 **conditions** respectively.

Select the desired point and move the wheel to modify the corresponding value.

As shown in picture 22.6: Activate the **throttle needle** function by touching the open button. Setting the value as shown in picture 22.6. Point 2 is set to 20.0%, point 3 to 36.5%, point 4 to 51.5%, point 5 to 64.0%, point 6 to 74.1%, point 7 to 80.0%, point 8 to 85.5%, point 9 to 90.0% and point 10 to 95.0%. In this situation, when the position of the throttle is below the neutral, that is (L,2~5), the acceleration of the **throttle needle** output is faster than its position above the neutral (that is 6-10, H point).



(Pic 22.7)

Digital proportional radio control system TGY-i10

22.06 蝶形飞 Butterfly

功能说明:

当飞机结构有1个副翼、1个襟翼、1个扰流板、1个升降时，设定对应动作的比率，默认为+30%。此功能可同时移动副翼、襟翼、扰流板和升降，常用于使飞机进行急速下降动作或限制飞机在垂直俯冲时的速度增加。它可以通过开关及摇杆来进行开关或比率控制。以达到最佳飞行效果。当结构没有副翼、襟翼、扰流板、升降中其中一个将没有蝶形飞功能，即没有此功能图标。此功能可分别在5个状态下设定。

点触进入蝶形飞功能，点触需设置的部件进行设置，滑动转轮调节相应数值；可点触选择一个开关(SwA~SwH、LSw)来控制此功能的开启或关闭，或选择一个摇杆或旋钮(Ail、Ele、Thro、Rud、VRA~VRE)来控制数值大小。

如图22.8所示：调节副翼、副翼2、襟翼、扰流板、升降数值至20%，选择Vra旋钮来控制数值大小并调至最右边，进入显示舵机功能，此时CH1副翼、CH6副翼2通道显示为左边20，其它均为右边20，以达到限制速度的作用。



(Pic 22.8)

Vra旋钮调至最右边
Vra to the far right
(Pic 22.9)

Function Details:

If the airplane structure has 1 aileron, 1 flap, 1 spoiler and 1 elevator, it can be used to adjust the rate of the corresponding motion (the default rate is +30%). This function allows powerful brake operation by simultaneously raising the left and right ailerons and lowering the flaps (camber flap, brake flap). It can be controlled by a switch or stick to achieve the best flight effect. If the airplane structure does not have any one of the aileron, flap, spoiler or elevator, then there is no this function, and no icon will be displayed. This function can be set in 5 conditions respectively.

Select the function and then adjust the relative parameter by touching the corresponding icon. Adjust the corresponding value by moving the wheel. Select a switch(SWA~SWH、LSW) by touching it to enable or disable this function or select a stick or knob (Ail、Ele、Thro、Rud、VRA~VRE) to control the value.

For this example, adjust the aileron, aileron2, flap, spoiler and elevator to 20% and select the knob to control the value. To the servo display function and then CH1 (aileron) and CH6 (aileron2) are displayed as picture 22.8 to limit the speed.

22.07 升降功能 Elevator function

功能说明:

此功能可调节飞机的2个升降功能舵量的比率，默认为100%；当结构没有升降或2个升降联动时，没有此功能，即没有此功能图标；此功能可分别在5个状态下设定。

点触升降功能下需设置升降的下面或上面进行设置，滑动转轮调节相应数值。

如图22.10所示：飞机结构有2个升降，点触选择了升降下面、上面调节数值至80%，升降2下面、上面调节数值至75%，在这种设定下飞机2个升降舵量分别为80%，75%。

Function Details:

This function can adjust the proportion of the 2 elevators end points and the default is 100%. There is no this functions if the airplane does not have the elevator or 2 elevator linkage. The function icon will not be shown on the screen. This function can be set in 5 conditions respectively.

Select the desired "Down" or "Up" and move the wheel to adjust the corresponding value.

For this example: The airplane has 2 elevators. Adjust the Down and Up value to 75%. In this situation, the elevators end points as shown in picture 22.10.



(Pic 22.10)

22.08 方向功能 Rudder function

功能说明:

此功能用于调节飞机当前状态下的2个方向舵功能舵量的比率，默认为100%；当结构没有方向或2个方向舵联动时，没有此功能，即没有此功能图标；此功能可分别在5个状态下设定。

点触方向功能下需设置方向的下面或上面进行设置，滑动转轮调节相应数值。

如图22.11所示：飞机结构有2个方向，点触选择了方向下面、上面调节数值至80%，方向2下面、上面调节数值至75%，在这种设定下飞机2个方向舵量分别为80%，75%。

Function Details:

Rudder function is used to adjust the proportion of the 2 rudders end points and the defaults are 100%. There is no function if the airplane does not have the rudder or 2 rudder linkage. The function icon will not be shown on the screen. This function can be set in 5 conditions respectively.

Select the desired "Down" or "Up" and move the wheel to adjust the corresponding value.

For this example: The airplane has 2 rudders. Adjust two rudders' value as picture 22.11. In this situation, the rudder end points will be 80% and 75%.



(Pic 22.11)

22.09 V型尾翼 V-tail

功能说明:

此功能是通过V型尾翼来控制模型的升降和方向的，默认CH2为飞机左边尾翼，CH4为右边，当尾翼同相转动时作升降功能用，反相转动时作方向功能用；此设置调整对应混控功能的比例，建议升降和方向功能比例之和不能大于100%，默认均为50%，当结构有V形尾翼且只有一个升降和方向功能才有此功能，更多或者更少将没有V形尾翼功能，即没有此功能图标。

点触V形尾翼下需设置的升降或方向比率进行设置，滑动转轮调节相应数值。

如图22.12, 22.13所示：飞机结构有V形尾翼，点触选择了升降比率调节数值至60%，方向调节数值至40%，在这种设定下方向摇杆打到最左边时，CH2通道位置显示在左边40，CH4显示在右边40，打右边则反之，升降摇杆打到最上边或最下边时，CH2、CH4通道位置显示右边60或左边60，即达到升降功能。

Function Details:

This function is used to control elevator and rudder of models with V-tails. CH2 is a left V-tail by default and CH4 is right V-tail. When both V-tails move in the same direction, they act as elevators and when both V-tails move in the opposite direction, this function lets users adjust for left and right rudder angle changes at elevator and rudder operation of a V-tail airplane. V-tail is when 2 servos are used together to control rudder movement as Elevators. In addition to each rudder side moving up and down together, each side moves in opposite directions when moving as Elevators. It is better that the sum of the rudder proportion and elevator proportion is no more than 100%. The defaults are 50%. The position of the corresponding channel displays in real time while moving the stick.

Select the elevator rate or rudder rate to set and move the wheel to adjust the corresponding value.

For this example: The airplane structure with the V-tail, will adjust the value as shown in pictures 22.12 and 22.13. Move the rudder stick to the far left, then CH2 channel displays at the position of 40 on the right. On the contrary, move the rudder stick to the far right, then CH4 displays at the position of 40 on the left. Moving the elevator stick to the topside or the bottom, both of the CH2 and CH4 display at the position of 60 on the right or on the left at the same time, then the elevator function.



方向摇杆打到最左边
The rudder to the far left
(Pic 22.12)

升降摇杆打到最上边
The elevator stick to the topside.
(Pic 22.13)

22.10. 飞机结构 Airplane structure

功能说明:

此功能可根据飞机的结构自行设定的模型结构。

飞机结构当设置模型类型为固定翼/滑翔机时，有引擎、油针、副翼、两个副翼、襟翼、两个襟翼、扰流板、两个扰流板、升降、两个升降、方向、两个方向、V型尾翼可供选择，当选择10个以上飞机部件时，将提示“超过了最大通道数”；(如图22.16)因为2个方向和V型尾翼不可能同时存在，所以选择2个方向时，V型尾翼自动隐藏。默认固定翼/滑翔机类型飞机部件为引擎、副翼、升降、方向的教练机；

Function Details:

This function can be set according to the airplane structure.

There are engine, throttle needle, aileron, two aileron, flap, two flap, spoiler, two spoiler, rudder, two rudder, V-tail to choose if the mode type is fix wing or glider. There will be a reminder "Maximum number of channels reached." if the airplane parts selected is more than 10. Because the two rudders and V-tail can not exist at the same time, the V-tail will be hidden automatically when two rudders is selected. The default type is Fix wing/glider with engine, aileron, elevator and rudder.



(Pic 22.14)
飞机结构清单
airplane list



(Pic 22.15)
超过最大通道数
Maximum number
of channels reached



(Pic 22.16)

默认固定翼/滑翔机类型飞机
Default airplane/glider type

Digital proportional radio control system TGY-i10

23. 直升机专有程序功能菜单 Helicopter exclusive function menu

23.01. 油门保持 Throttle hold

功能说明:

此功能用于锁定油门通道处于设定位置，默认比率为10.0%。即开启此功能时油门已锁定。它常用于练习自旋着陆。

点触进入油门保持进行设置，滑动转轮调节相应数值，可点触选择一个开关 (SwA~SwH, LSw) 来控制此功能的开启或关闭。

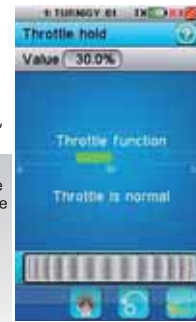
如图23.1所示：油门保持数值设定为30.0%，选择SwA向上为开启，油门通道即时显示至30，并提示油门已保持，拨动油门摇杆，通道将保持在30。

Function Details :

This function is used to maintain the throttle channel position as preset position. The default rate is 10.0%. Throttle will be in preset position after this function is applied. It is commonly used to practice auto-rotation landing.

Touch the throttle hold and move the wheel to modify the corresponding value. This function can be assigned to a switch (from SwA to SwH, LSw).

For this example: Throttle hold value is set to 30% and push the SwA upward to enable this function. The channel position is displayed at 30 in real time. Throttle value will not be changed while moving the throttle stick.



油门摇杆打到任意位置
Throttle stick to any position
(Pic 23.1)

23.02. 油门混控 Throttle mix

功能说明:

此功能是针对一些特别功能进行的预编程混控，可对副翼，升降，方向三个通道混控，默认值如图所示。此功能可分别在5个状态下设定。例如直升机前进时为了不降高度和保持速度，从而在控制升降的同时自动增加设定比率的油门输出，便可实现。

激活开启按钮后点触需设置通道的下面或上面，滑动转轮调节相应数值。

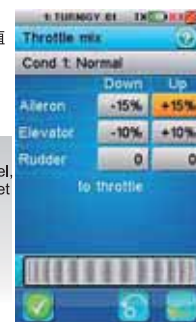
如图23.2所示：副翼下面数值设定为-15%，上面为15%，其它不设定。

Function Details :

This function is the pre-programmed mix for some special functions and it can mix aileron channel, elevator channel and rudder channel. The default is as shown in picture 23.2. This function can be set up in 5 conditions. For example, in order to not reduce the height and maintain speed, control the elevator and increase the throttle output automatically.

Select the desired Down or Up and move the wheel to modify the corresponding value.

As shown in the picture 23.2: The value of the aileron downside is set as -15% and the value of the upside is 15%.



(Pic 23.2)

23.03. 螺距曲线 Pitch curve

功能说明:

此功能用于调整可变螺距直升机的螺距，呈曲线变化，以达到最佳的飞行效果。此设置可以调节螺距曲线的11个点 (L, 2~10, H) 从0%调整到100%，垂直的点线显示油门摇杆的即时位置，水平的点线显示此功能应用后螺距曲线输出的即时位置；当结构为固定螺距时将没有螺距曲线功能，主菜单中没有此功能图标。此功能可分别在5个状态下设定。

激活开启按钮后点触需设置的点进行设置，滑动转轮调节相应数值。

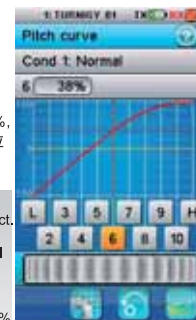
如图23.3所示：点触开启按钮激活了螺距曲线功能，调节2点数值至-72%，3点数值至-43%，4点至-15%，5点10%，6点38%，7点63%，8点85%，9点97%，其它点数值默认不调节，在这种设定下油门摇杆在中位以下（即，2~5点），螺距曲线输出相对油门摇杆在中位以上（即6~10, H点）变化较快。

Function Details :

This function is used to adjust the pitch of the helicopter with the variable pitch to achieve the best flight effect. It will be presented with curve distribution. This function can be set up in 5 conditions respectively, and the 11 points (L, 2~10, H) of throttle curve can be adjusted from 0% to 100%. The horizontal dotted line displays in real time the throttle stick position and the vertical dotted line displays in real time the position of pitch curve output after this function. This function icon will not be shown if the structure is fix pitch.

Select the desired point and move the wheel to modify the corresponding value.

For this example: The pitch curve function is activated. Point 2 is set to -72%, point 3 to -43%, point 4 to -15% and point 5 to 10%, point 6 to 38%, point 7 to 63%, point 8 to 85% and point 9 to 97%. Other points are not adjusted. In this situation, when the position of the throttle is below the neutral, that is (L, 2~5), the acceleration of the pitch curve output is faster than its position above the neutral (that is 6-10, H point).



(Pic 23.3)

23.04. 倾斜盘混控 Swashplate mix

功能说明:

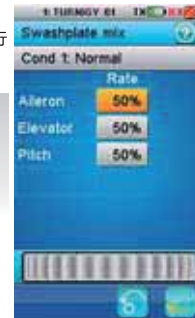
此功能是对直升机副翼、升降、螺距的行程进行调整的一项功能参数设定，以达到最佳的飞行效果。此功能可分别在5个状态下设定。

点触需设置的点进行设置，滑动转轮调节相应数值。

Function Details:

This function is the pre-programmed mix control of the helicopter **aileron**, **elevator** and **pitch**. Adjust the motion range of these three functions to achieve the best flight effect. This function can be set in 5 **conditions** respectively.

Select the desired point and move the wheel to modify the corresponding value.



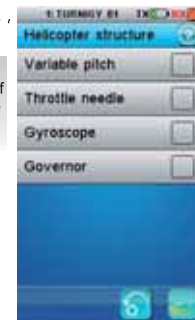
(Pic 23.4)

23.05. 结构 structure

当设置模型类型为直升机时，有固定螺距、可变螺距、油门油针、陀螺仪、定速设定可供选择，其它可变螺距可选择6种倾斜类型。默认直升机类型飞机部件为固定螺距的4通道直升机。

Function Details:

There are **fixed pitch**, **variable pitch**, **throttle needle**, **gyros copeand governor** for your option if the airplane structure is set as helicopter. The variable pitch has 6 swash plate types. The default type is the 4-channel **fixed pitch helicopter**.



模型类型为直升机
Model type is helicopter
(Pic 23.5)

23.06. 倾斜类型 Swashplate type

功能说明:

此功能可根据飞机的结构自行设定你的模型结构。倾斜类型可选择7个不同类型直升机倾斜盘结构,用于对应市面已有的7种直升机倾斜盘结构类型。

点触进入倾斜类型进行选择，默认为固定螺距。

Function Details:

This function is used to set your model structure And it offers 7 types of swash plate structure Touch the Swash plate type to select desired type. It defaults to fixed pitch.



(Pic 23.6)

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23.07. 倾斜盘环 Swashplate ring

倾斜盘环是对倾斜盘做行程输出设定限制，以达到最佳的飞行效果。激活开启按钮后滑动转轮调节相应数值。

This function is to set limitation for the swash plate travel to achieve the best flight effect. Move the wheel to modify the corresponding value.



(Pic 23.7)

23.08. 定速设定 Governor

定速设定是一个新功能，主要是针对有定速控制功能的直升机，锁定螺旋桨转速。当飞机结构有**定速设定**时此功能默认为CH7。此功能还需定速器一起配合才能实现。此功能可分别在5个状态下设定。

点触进入**定速设定**进行设置，滑动转轮调节相应数值。

This new function is mainly used for maintaining the propeller speed. The default channel is CH7. It can be set in 5 conditions respectively. Move the wheel to modify the corresponding value.



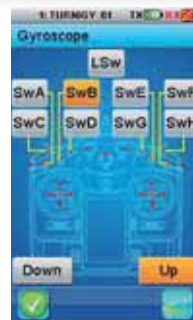
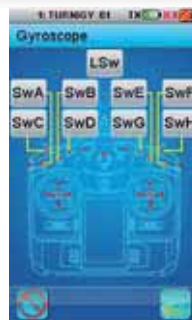
(Pic 23.8)

23.09. 陀螺仪 Gyroscope

此功能用于调整**陀螺仪**的感度，感度越高，**陀螺仪**修正的越多，直升机敏感度就更强和或不易响应。当飞机结构有**陀螺仪**时此功能默认为CH5。此功能可分别在5个状态下设定。在直升机模式下，通过Hover adjust分配一个旋钮，用于微调螺距，时飞机保持悬停。

点触进入**陀螺仪**进行设置，滑动转轮调节相应数值。

This function is used for adjusting the gyro sensitivity in current conditions. The higher the sensitivity is, the more correction the gyro provides and the "softer" or less responsive the helicopter feels. The default channel is CH5 and this function can be set in 5 conditions respectively, to maintain a hover, assign a knob for adjusting the pitch in helicopter mode. Move the wheel to modify the corresponding value.



(Pic 23.9)

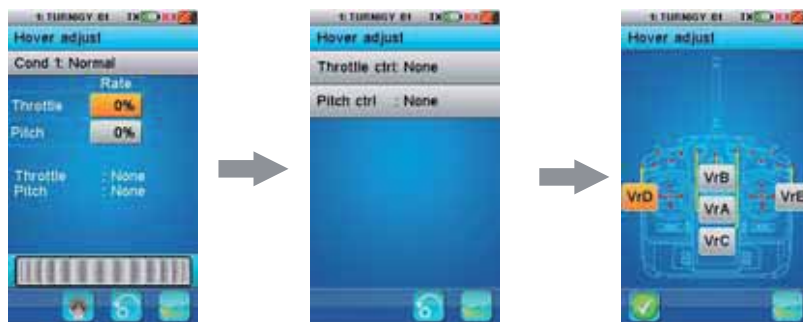
23.10. 直升机悬停微调 Hover trim

功能说明:

此功能在直升机模式下，通过Hover adjust分配一个旋钮，用于微调螺距时飞机保持悬停。

Function Details:

To maintain a hover, assign a knob for adjusting the pitch in helicopter mode.



(Pic 23.10)

24. 报警功能说明 Warning function introduction

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" three times.
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.

25. 常见故障说明 Troubleshooting guide

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。

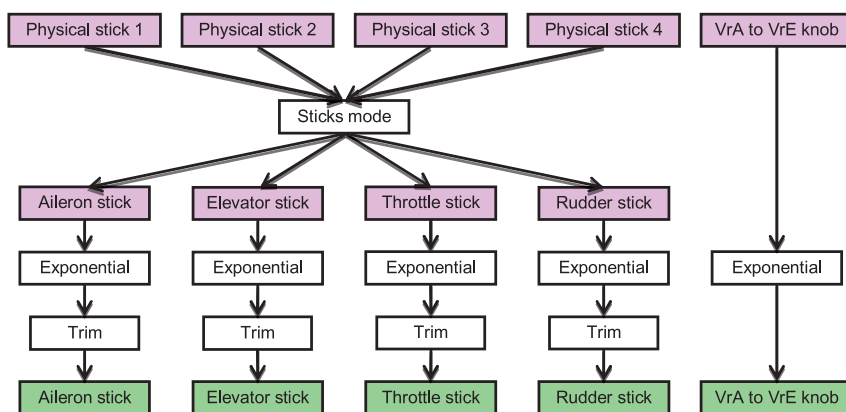
Problem solving

- 1.The transmitter can not be turned on
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 blocks 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 place,
The plug of data cable is damaged.
- 6.Unstable data 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.

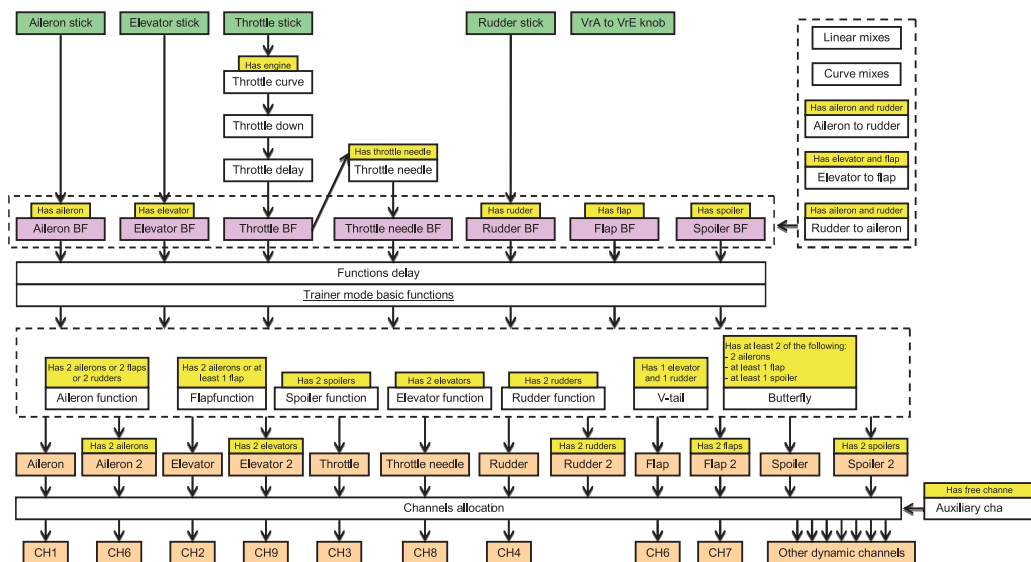
Digital proportional radio control system TGY-i10

26. 功能逻辑关系 Function tree

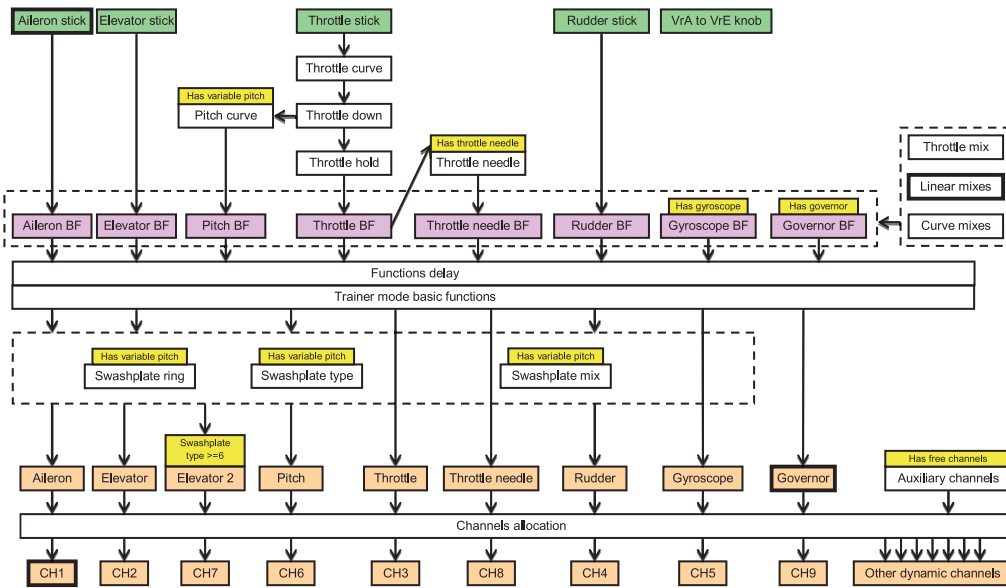
输入处理 Input processing



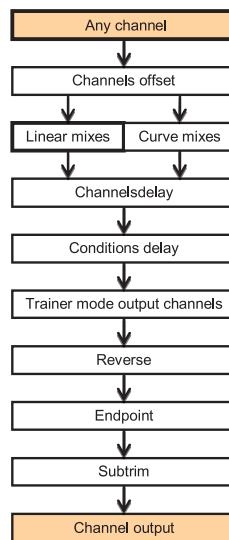
固定翼运行处理 Airplane processing



直升机运行处理 Helicopter processing




输出处理 Output processing



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

27. 包装内容 Packaging content

NO:	Model	Sum	Remarks
1	10通2.4G发射机 10 Channel 2.4G Transmitter (TGY-i10) 	1	
2	10 通2.4G接收机 10 Channel 2.4G receiver (TGY-iA10) 	1	
3	锂电池 TGY-BA1700 	1	
4	Micro USB线 USB cable 	1	
5	手写笔 Stylus 	1	
6	说明书 User manual 	1	
8	TGY-AEV01 i-BUS 串行总线接收机 i-bus receiver connection instruction 	1	
9	TGY-APD01 磁感应转速采集模块 Data telemetry connection 	1	
10	TGY-APD02 光感应转速采集模块 RPM telemetry (optical) module connection 	1	
11	TGY-ATM01 温度采集模块 Temperature telemetry module connection 	1	
12	TGY-AVT01 外部电压采集模块 External voltage telemetry module connection 	1	
13	电源适配器 Adapter  USB cable 标准USB线  充电器 Charger 	1	可选的 Optional
14	教练线 Trainer cable 	1	

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 television 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 device 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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.

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power systems

Digital proportional radio control system

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