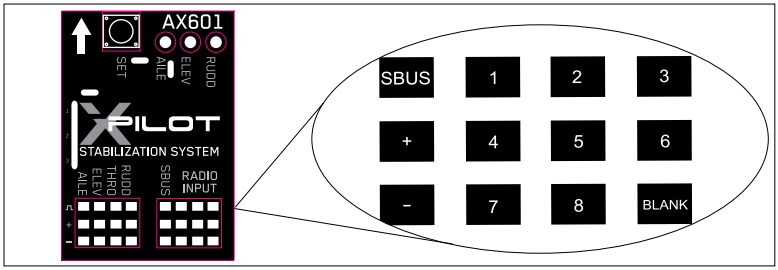
SETUP INSTRUCTION

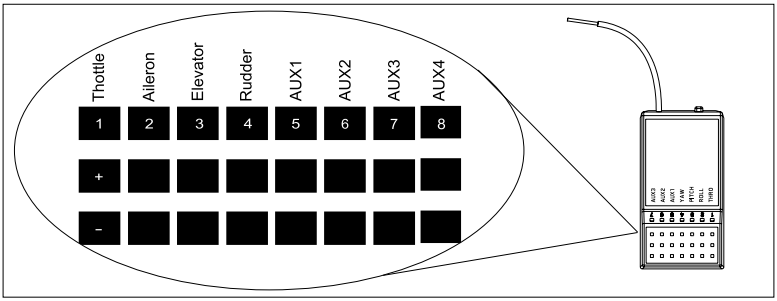
1. Connect Xpilot system to your vehicle following below instruction.

NOTICE: Cables are paired by colors.

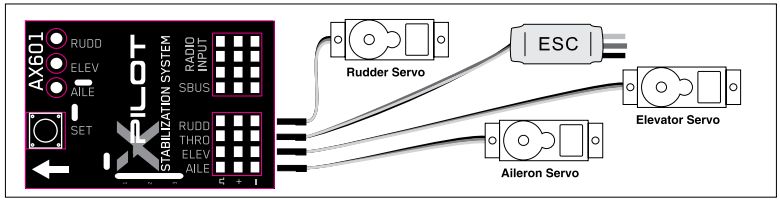
Port **SBUS** -- Only for sBus receiver connection
Port **+** -- Anode of Receiver
Port **-** -- Cathode of Reveiver
Port **1** -- Throttle
Port **2** -- Aileron
Port **3** -- Elevator
Port **4** -- Rudder
Port **5** -- Manual/Auto Mode Switch
Port **6** -- Reserved
Port **7** -- Reserved
Port **8** -- Reserved

NOTICE: If you use a receiver with different channel assignment from example as shown, follow your receiver channel assignmet to connect the cables.
For example, if your receiver assigns Throttle as third channel, then you should connect CH 1 of Xpilot to the third channel of receiver.



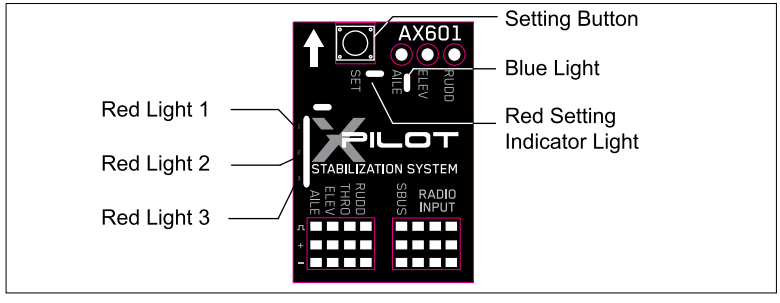


Port **RUDD** -- Rudder Servo
Port **ELEV** -- Elevator Servo
Port **THRO** -- ESC
Port **AILE** -- Aileron Servo



2. Calibrate servo direction and all surfaces to central position while transmitter sticks and servo is in neutral position.

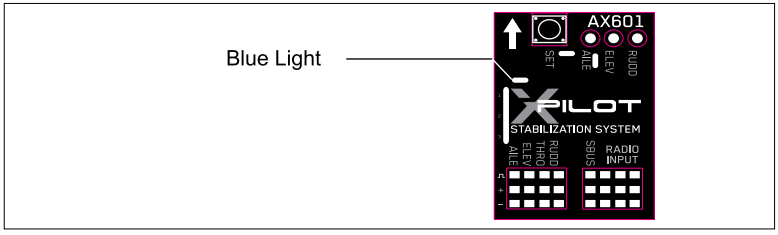
STICKS AND SERVOS ENDPOINT CHECKING



Each time before using Xpilot on a vehicle, you must check and make sure its endpoint and reaction are correct on ground. Follow below steps to do the setting:
1. Holding the Setting button and connect battery of receiver. The Red indicator light will react according to action of the Setting button.
2. Blue light beside "AILE" will be on -- Release the Setting button -- Red light 1 on -- Enter sticks endpoint calibration mode -- Gradually move stickers to max position then to min position, to calibrate endpoint.
3. After finished, hold the Setting button for 3 seconds until Red light 1 off and Red light 2 on, to enter servo direction checking and horizontal calibration mode.
4. Observe to ensure the transmitter setting and servo surface reaction are all correct under auto pilot status.
NOTICE: You should keep the tail horizontally with fuselage to ensure it can fly in horizontal level in the air.
5. Move two stickers to right down corner position -- Red ligh 1,2,3 on -- System will save settings after 7 seconds -- Red lights off and Blue light will blink -- means setting saved.

NOTICE: Keep your vehicle still when system is saving settings.
6. Now you can replug the receiver battery to enter normal start mode.

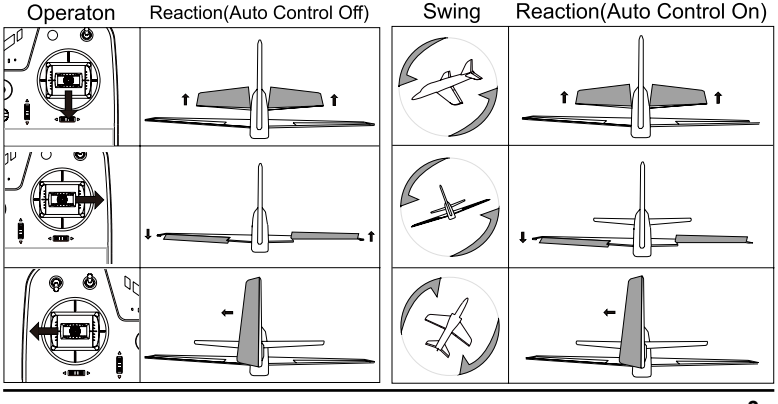
POWER ON THE SYSTEM



Each time when you power on the system to normal work mode, the system will automatically in lock with a Blue light flashing at left side. Follow below steps to unlock the system:
1. Keep your vehicle stay still.
2. Keep transmitter stickers at neutral.
3. Keep trottle at lowest position.
4. The Blue light beside at left side will turn to solid, which means system is unlock. If the blue light keeps flashing, put your vehicle in a windless environment to keep it really stay still.

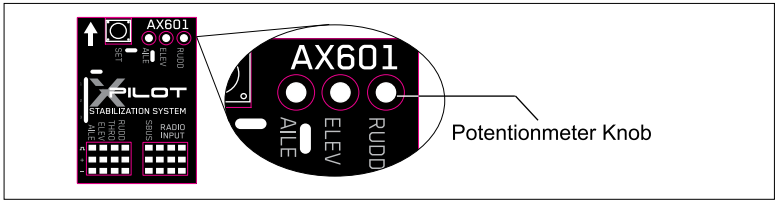
CHECK BEFORE FLIGHT

Place your vehicle in neutral position to check if the gyro is working fine. Keep auto control off, move stickers(except trottle channel) to see if all servo surfaces react correctly as below left diagram(left throttle for example). Then keep auto control on, swing you vehicle to check if all servo surfacess react correctly as below right diagram.



POTENTIONMETER ADJUSTMENT

Potentionmeter allows you to adjust servo reaction feeling. To adjust the potentionmeter, turn it counter-clockwise to min direction, turn it clockwise to max direction.

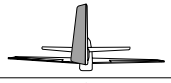
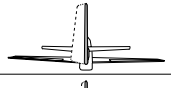
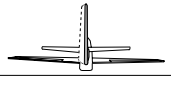


TAKE OFF

When Xpilot is under auto control mode, it will keep vehicle horizontal leading not able to lift up. Thus during taking off process, you should keep holding pitch channel up(pitch sticker in lowest position).

PORT 5 INSTUCTION

Port 5 of Xpilot system is to switch Xpilot between manual control mode(flight control off) and auto control mode(flight control on). This function allows 3 levels, which means normally it should be connected with a receiver channel that is assigned to a 3-level-switch control stick.

		Manual control
		Auto control (Larger servo rate self-center)
		Auto control (Smaller servo rate self-center)

SBUS CONNECTION

When both sBus signal and receiver signal input at the same time, system will automatically block receiver signal and only listen to sbus signal.

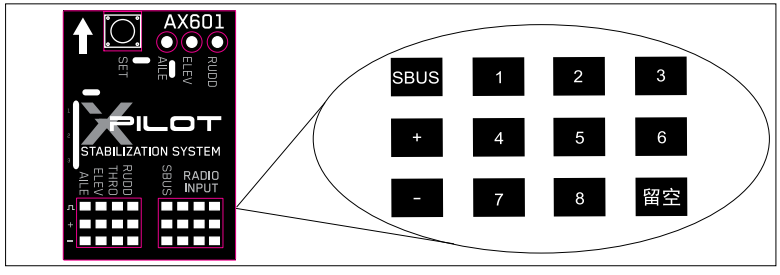
连接说明

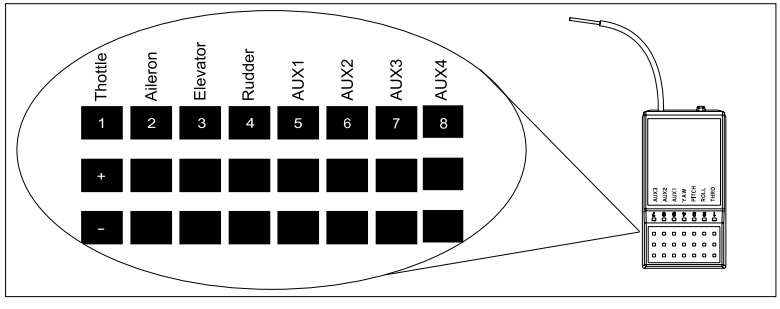
1. 按照以下步骤将飞控与飞机相连接。

注意：连接线根据颜色进行配对。

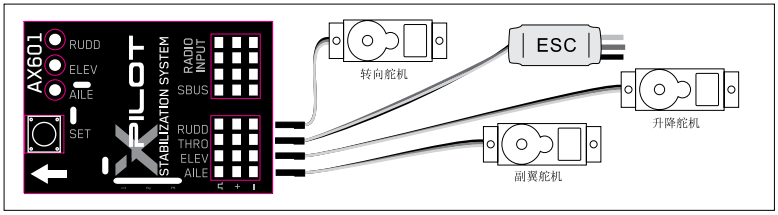
端口 **SBUS** -- 只有在使用 sBus 数据线时使用该端口
端口 **+** -- 接收机正极　　端口 **-** -- 接收机负极
端口 **1** -- 油门通道　　端口 **2** -- 副翼通道
端口 **3** -- 升降舵通道　　端口 **4** -- 方向舵通道
端口 **5** -- 手动 / 自动模式开关　　端口 **6** -- 预留
端口 **7** -- 预留　　端口 **8** -- 预留

注意：如果你的接收机通道定义与下图示例不同，则按照你的接收机通道定义连接。例：如果你的接收机油门通道定义在第三通道，则需要将飞控板端口 1 连接到接收机第三通道。



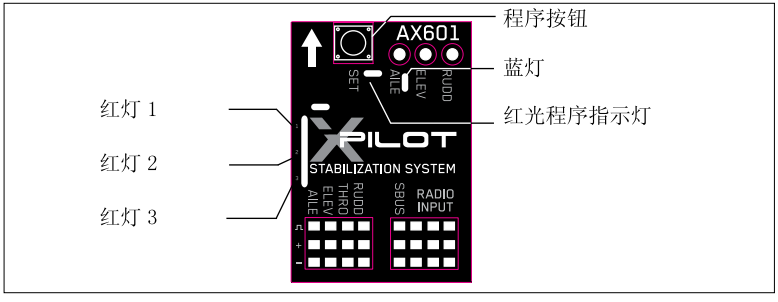


端口 **RUDD** -- 转向舵机　　端口 **THRO** -- 电调
端口 **ELEV** -- 升降舵机　　端口 **AILE** -- 副翼舵机



2. 保持遥控器摇杆在中间位置，校准每个舵机使每个舵面保持在中央位置。

摇杆和舵机行程校准



每次在飞机上使用 Xpilot 飞控板时，必须在地面按照以下步骤检查校准每个舵机的行程以及反应是否正常：

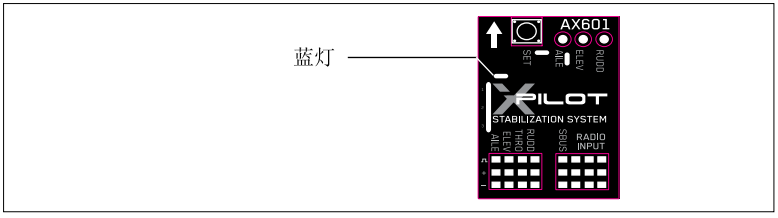
1. 按住程序按钮并接通电调电源。红光程序指示灯会反映程序按钮是否正常工作。
2. 随后“AILE”旁的蓝灯会亮起 -- 放开程序按钮 -- 随后红灯 1 亮起 -- 现在系统进入行程校准程序 -- 摇动各摇杆到最大范围和最小范围以校准行程。
3. 完成以上步骤后，按住程序按钮 3 秒直到红灯 1 灭，红灯 2 亮起 -- 放开程序按钮 -- 现在系统进入舵面方向检测和水平面校准程序。
4. 观察并调整遥控器和舵面以确保每个舵面的反应与遥控器操作一致，以及当遥控器无操作时各舵面处于中央位置。

注意：进行以上操作时需要确保飞机处于水平位置（机头与机尾与地面平行），以保证飞机在飞控板控制下能进行水平飞行。

5. 完成以上步骤后，将遥控器的两个摇杆同时移动至右下角位置 -- 红灯 1,2,3 会同时亮起 -- 松开摇杆 -- 系统现在进行状态保存 -- 大约 7 秒后红灯灭，蓝灯闪烁 -- 系统已成功保存，现在可以重新插拔电调电源进入正常工作模式。

注意：状态保存时必须使飞机处于静止水平，否则红灯常亮，系统无法保存。

启动系统



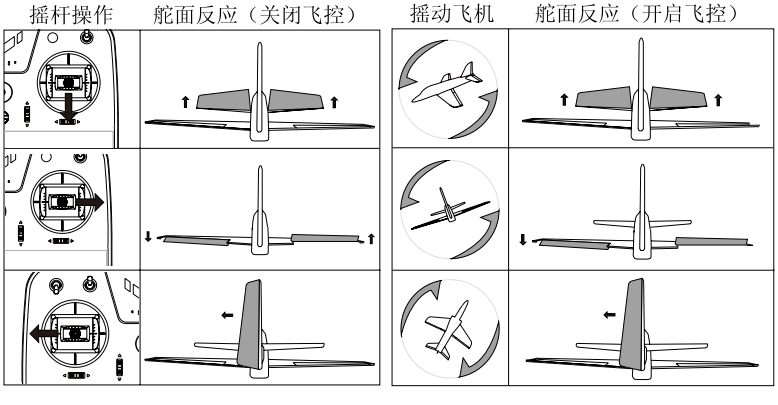
每次当启动飞控系统时，系统会因为安全因素自动处于锁定状态，左侧蓝灯会一直闪烁。按照以下步骤进行解锁：

1. 保持飞机处于静止状态。
2. 保持遥控器摇杆处于自然位置。
3. 保持油门摇杆处于最低位置。
4. 左侧蓝灯会变常亮，表示飞控系统已解锁。

注意：如果蓝灯仍一直闪烁，则很可能飞机仍没有处于静止状态（步骤 1），将飞机放置于无风的环境下重新进行以上步骤。

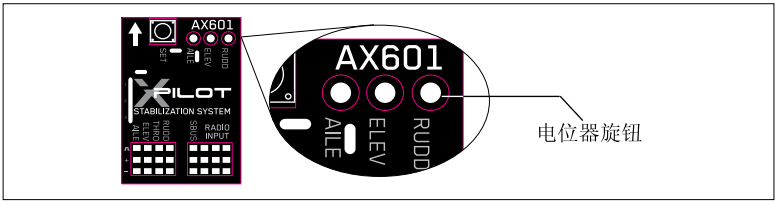
起飞前检查

将飞机放置于平面上观察飞控板是否处于正常工作状态。在飞控处于关闭状态下，移动各摇杆（除油门摇杆）以观察各舵面是否正常反应（如下图左）。然后保持飞控处于开启状态，甩动飞机以观察各舵面方向是否正确反应（如下图右）。



电位器调节

电位器用于调整舵面反应灵敏度。逆时针调整将降低灵敏度；顺时针调整将提高灵敏度。

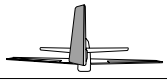
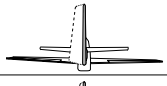
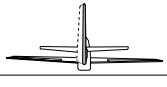


起飞

在飞控板处于自动控制状态下会控制飞机进行平行飞行。所以当起飞时必须控制升降舵面时飞机处于拉升状态（即将升降摇杆移至最低位置）。

端口 5 说明

飞控板上的端口 5 是用于控制飞控板的开关。该功能允许 3 档控制，一般需要将端口 5 连接到定义在遥控器三档开关的对应接收机通道。

		手动控制模式（飞控板处于关闭状态）
		自动控制模式 (较大舵面反应量)
		自动控制模式 (较小舵面反应量)

SBUS 连接说明

当 sBus 数据线和普通接收器数据线（即 10pin 数据线）同时连接时，系统会默认屏蔽普通接收机数据线信号，只听从 sBus 数据线的信号。