

NUCLEUS-NII

TILTA WIRELESS LENS CONTROL SYSTEM



—— 原力NII无线跟焦系统 ——

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注意事项和警告

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配件要求

- 充电环境温度高于 40 °C 或低于 5 °C可能导致电池性能下降、膨胀、漏液、过热等损坏。
- 切勿将电池存储在超过60°C的环境下。理想的存储环境温度为 22 °C 至 28 °C。
- 电池必须使用TILTA官方提供的充电设备进行充电。对于使用非TILTA 官方提供的充电设备进行充电所造成的一切后果,TILTA将不予负责。

操作环境

- 本设备内含强磁,为避免产生磁化影响,请远离磁卡、IC卡、植入性医疗设备(如心脏起搏器)、硬盘、RAM 芯片等易受干扰设备。
- 请在温度为 -20 °C 至 45 °C之间的环境中使用电池。温度过高将会引起电池异常膨胀、着火,甚至爆炸。在低温环境下使用之前,建议先在常温环境中将电池充满电量,以延长电池使用寿命。
- 请勿将设备放置在易燃、可燃物(如地毯和木制品)附近充电。请时刻留意充电过程,谨防发生意外。
- 请在干燥的环境下存储设备,理想的设备存放环境湿度不高于 40%。

电池安全

⚠【警告】本设备配有不可拆卸的内置电池,请勿自行更换电池,以免损坏电池或设备。

- 禁止在强静电或者磁场环境中使用电池,以免引起设备内部电路故障。
- 请勿将电池暴露在高温处或发热设备的周围,如日照、取暖器、微波炉、烤箱或热水器等。电池过热可能引起爆炸。
- 请勿拆解或改装电池、插入异物、或浸入水或其它液体中,以免引起电池漏液、过热、起火或爆炸。
- 电池内部电解液具有强腐蚀性,如果不小心接触到皮肤或眼睛,请立即用清水冲洗至少 15 分钟并马上就医。
- 请勿把电池扔到火里,否则会导致电池起火和爆炸。
- 请勿跌落、挤压或穿刺电池。避免让电池遭受外部大的压力,从而导致电池内部短路和过热。
- 请勿使用已经损坏的电池。
- 切勿将电池彻底放完后长时间存储,以避免电池进入过放状态而造成电芯损坏,将无法恢复使用。
- 务必将电池彻底放电后,再将电池废置于指定的电池回收箱。电池是危险化学品,严禁弃置于普通垃圾箱。相关细节,请遵循当地电池回收和废置的法律法规。如电池无法彻底放电,请勿将电池直接弃置于电池回收箱,应联系专业电池回收公司做进一步的处理。

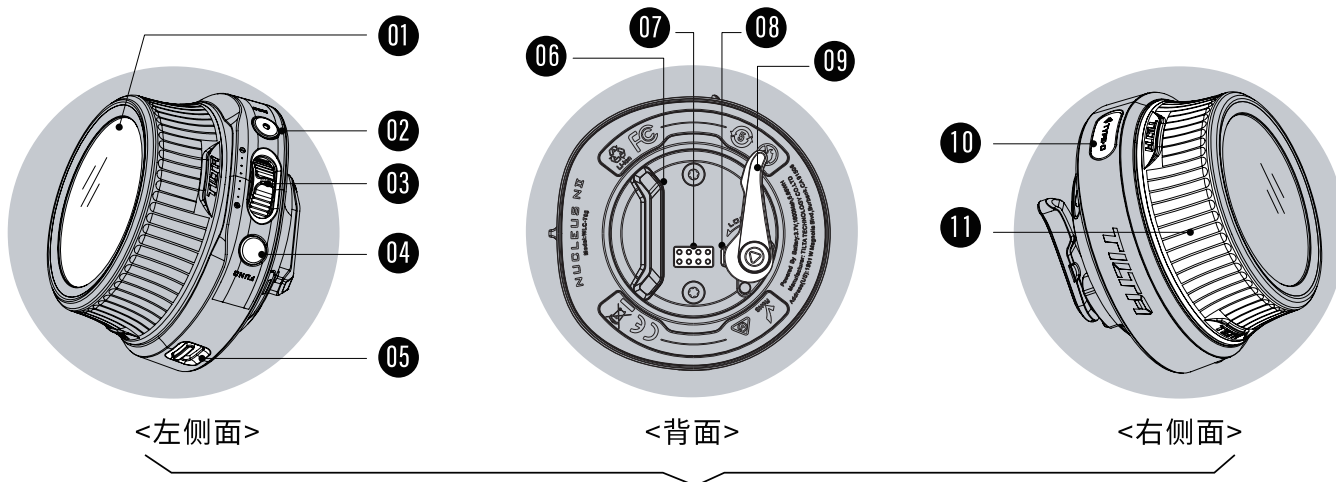
维护和保养

- 请保持设备清洁,无沙尘等异物。使用干净、干燥的布料及时清理产品上的异物。
- 请勿使设备及其配件受到强烈的冲击或震动,以免损坏设备及其配件,导致设备故障。
- 如果设备碰撞硬物或设备受到外界的强烈撞击造成屏幕部分破碎,切勿触摸或试图移除破碎的部分,请立即停止使用并及时联系TILTA售后服务。

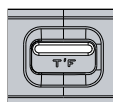
温馨提示

- 设备在工作状态中会产生轻微发热,此为正常现象。

02 认识原力N II控制手轮



- 01** 1.6寸圆形触摸屏
镜头及相机参数显示/调整
- 02** 【REC】键
01 单击：REC录制启停功能
02 开/关机
长按3S：开/关机
长按8S：强制关机
- 03** 拨杆
上下拨动，可控制一路电机
- 04** 【FUNC】功能键
01 打标记
02 行程校准
- 05** 限位开关
切换TF/DF档（TF档：全面覆盖TILTA无线控制系统；DF档：兼容DJI稳定器跟焦电机控制）
- 06** NATO接口
外接拓展设备
- 07** 电子触针
可与DJI RS 2/RS 3 PRO稳定器通讯
- 08** 安全销
具备NATO防脱功能
- 09** 扳扣
锁紧NATO结构
- 10** Type-C接口
充电/固件更新
- 11** 手轮
转动控制电机



↑ 向上拨为打开TF档（TILTA Focus模式，手轮限定转动角度<360°）

↓ 向下拨切换为DF档（手轮旋转无角度限制）

产品特点



圆形触摸屏
灵性交互设计/350ppi



TYPE-C
支持PD快充



内置大容量电池/超长续航
不间断工作超7小时/智能待机

规格参数

- 材质：铝合金+塑胶
- 尺寸：73*72*53mm
- 重量：175g
- 颜色配置：黑色

电池使用须知

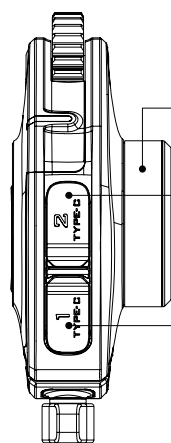


手轮内置电池容量
3.7V 1800mAh 6.66Wh

- (1) 工作温度：充电：0℃~45℃；放电：-10℃~60℃
- (2) 存储温度：-5℃~45℃

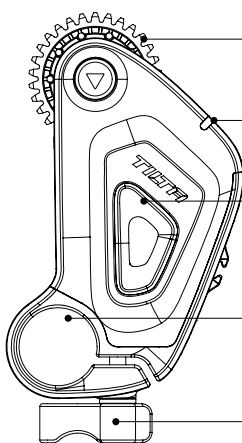
- (3) 运行湿度：45±20%(Max.)
- (4) 质保期：12个月且循环次数少于500次

03 认识原力N II跟焦电机



<左侧面>

- 01 驱动马达
- 02 Type-C接口2
支持PD输入和相机通信
- 03 Type-C接口1
支持PD输入输出



<背面>

- 04 镜头驱动轮
0.8M直齿轮
- 05 指示灯
- 06 配对按键
单击:切换颜色 双击:进入配对模式
长按3S:行程校准
- 07 15mm管夹
外接15mm圆管
- 08 手扭
锁紧15mm圆管

规格参数

- 材质:铝合金+塑胶
- 尺寸:83*46*31mm
- 重量:80g
- 颜色配置:黑色

指示灯灯语

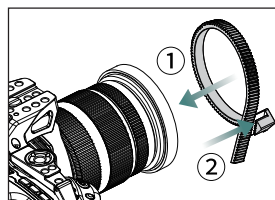
○ 白灯:电机无配对状态

配对完成后电机根据手轮的设置对应显示以下颜色,以区分手轮控制端对应的电机频道

- 紫色:Focus
- 绿色:Iris
- 蓝色:Zoom
- 黄色:其他

装配电机于镜头上

(1) 安装镜头跟焦环



将①跟焦环扣在镜头上,按指示方向②扣紧完成装配。

注: 套装内附带的可调式跟焦环或TILTA无缝镜头跟焦环(另购),使镜头适配于0.8模数齿轮的跟焦环系统。

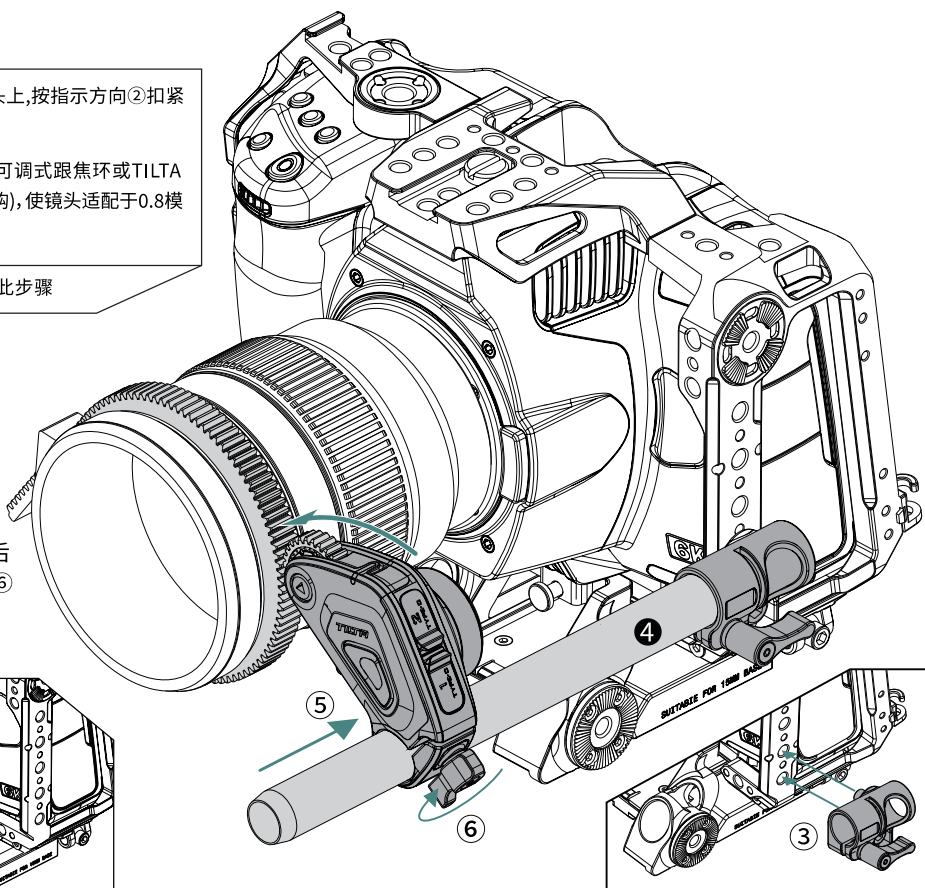
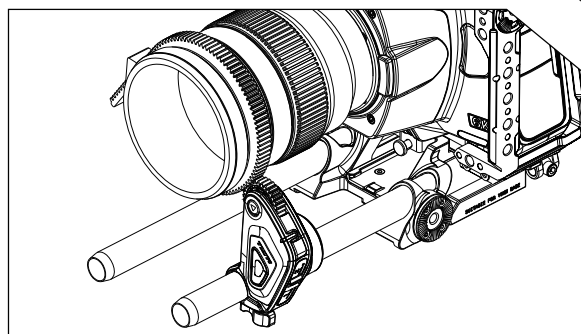
注意:如果镜头自带0.8模数的齿轮环可忽略此步骤

(2) 安装双孔导管适配器和15mm导管

将③导管适配器安装在笼子侧臂的1/4螺纹孔上,锁紧螺丝;再将15mm导管④锁紧在导管适配器上,便于装配电机。

(3) 安装电机

将⑤电机安装在15mm导管上,调整电机的角度后将M0.8齿轮搭在可调式跟焦环上,锁紧导管手扭⑥即可完成装配。



注: 套装内附带双孔导管适配器和15mm导管,可根据需求另购TLTA导管适配配件装配电机,如左图。

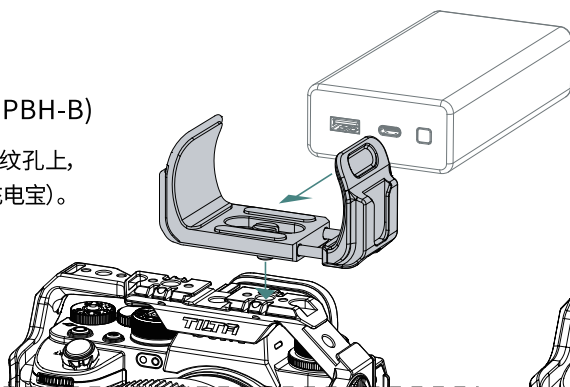
04 跟焦电机供电及录制线连接

跟焦电机供电说明

可搭配TILTA的移动电源支架或NP-F供电底板(另购)来装配供电设备,再通过Type-C接口(PD协议)为跟焦电机供电。

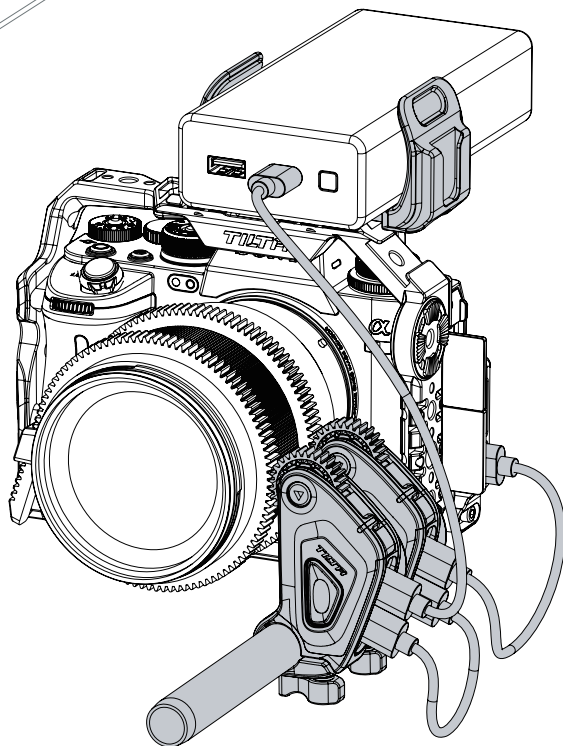
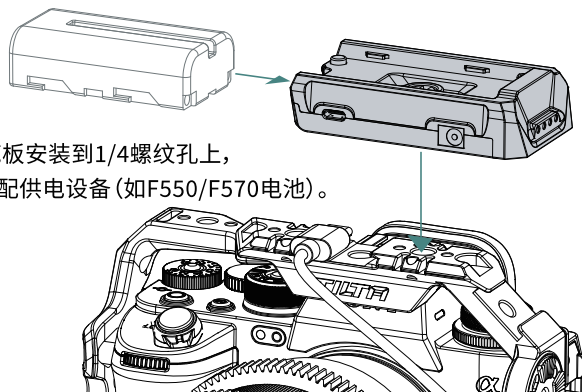
安装移动电源支架 (TA-UPBH-B)

将移动电源支架安装到1/4螺纹孔上,拧紧螺丝后装配供电设备(如充电宝)。



安装NP-F供电底板 (TA-BTP2-F970-B)

将NP-F供电底板安装到1/4螺纹孔上,拧紧螺丝后装配供电设备(如F550/F570电池)。

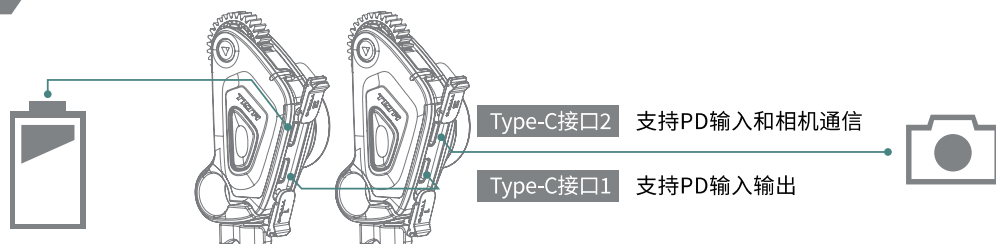


多个电机同步供电

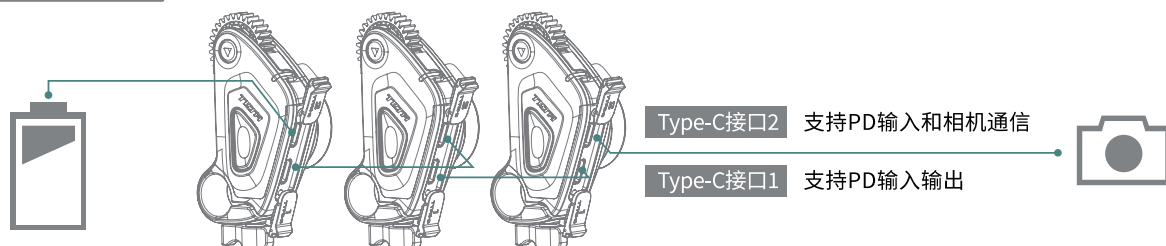
多个电机同时使用时,可使用Type-C (PD协议) 接口串连,同步供电。

多电机串联时,接口2输入--接口1输出;在最后一个电机时,接口1输入--接口2连接录制线,控制相机。

2个电机串联时:



多个电机串联时(≥3个):



录制线连接说明

录制线一端连接电机Type-C接口2,一端连接相机,再通过手轮即可控制相机录制功能和参数。

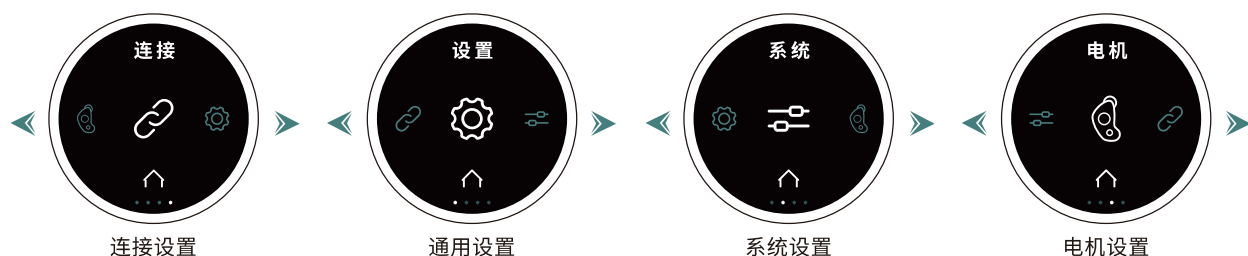
05 认识手轮UI主界面

原力N II控制手轮UI由三大主屏和四项设置菜单组成

三大主屏分别为相机控制界面、电机参数界面、焦点距离界面

四项设置菜单分别为连接设置、通用设置、系统设置、电机设置

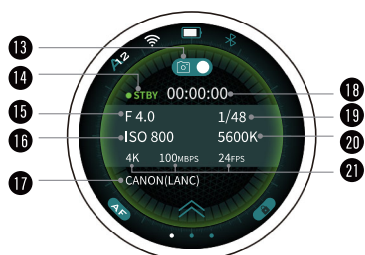
开机后,控制手轮会进入[电机参数界面],在此界面下,左右滑动屏幕可切换三大主屏,自屏幕底部向上滑动可进入四项设置菜单,左右滑动选择需要的设置菜单并点按中心图标,进入详细的设置界面。



自下向上滑-进入菜单选项

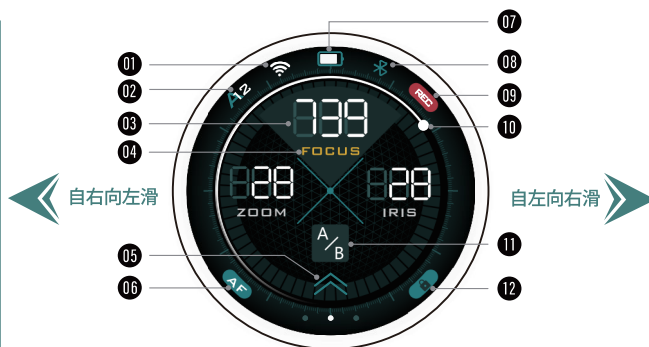


相机控制界面-REC



相机控制界面-STBY

- 13 相机参数锁定按键
- 14 REC(录制)/STBY(待机)标识
- 15 光圈参数信息
- 16 感光度参数信息
- 17 相机通讯协议信息
- 18 本次录制/待机时间
- 19 快门参数信息
- 20 色温参数信息
- 21 分辨率/码率/帧率



电机参数界面

- 01 WIFI状态
- 02 通讯频道
(A:自动搜索标识 M:手动搜索标识 数字:频道序号)
- 03 电机参数(0-999)
- 04 电机指示
(Focus电机指示 / Zoom电机指示 / Iris电机指示)
- 05 自下向上滑动进入菜单选项
- 06 AF/MF切换按键
- 07 电量信息
- 08 蓝牙状态
- 09 录制状态标识
- 10 手轮位置
- 11 打点图标 [标记点(Mark) 起始/终止点(Range)]
- 12 触摸屏锁定按键



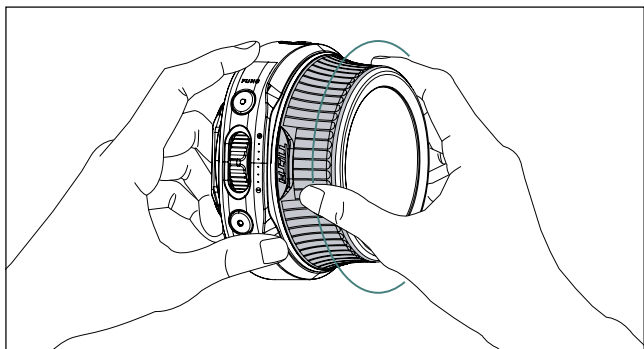
焦点距离界面

- 22 焦点位置
- 23 镜头品牌
- 24 镜头型号
- 25 光圈信息
- 26 焦距信息
- 27 打点图标

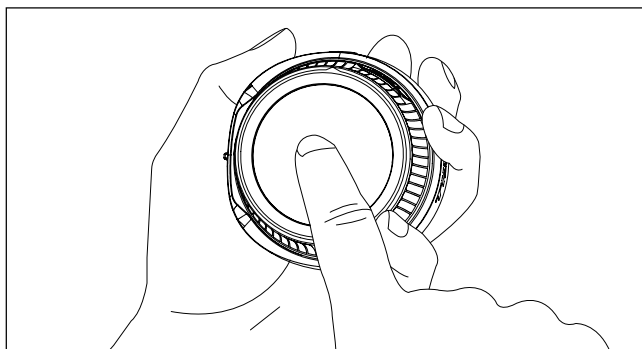
06 手轮的使用

(一)单独使用

原力N II控制手轮可单独使用。
通过旋转手轮或调整拨杆控制跟焦电机。



通过触摸屏可控制部分相机参数。



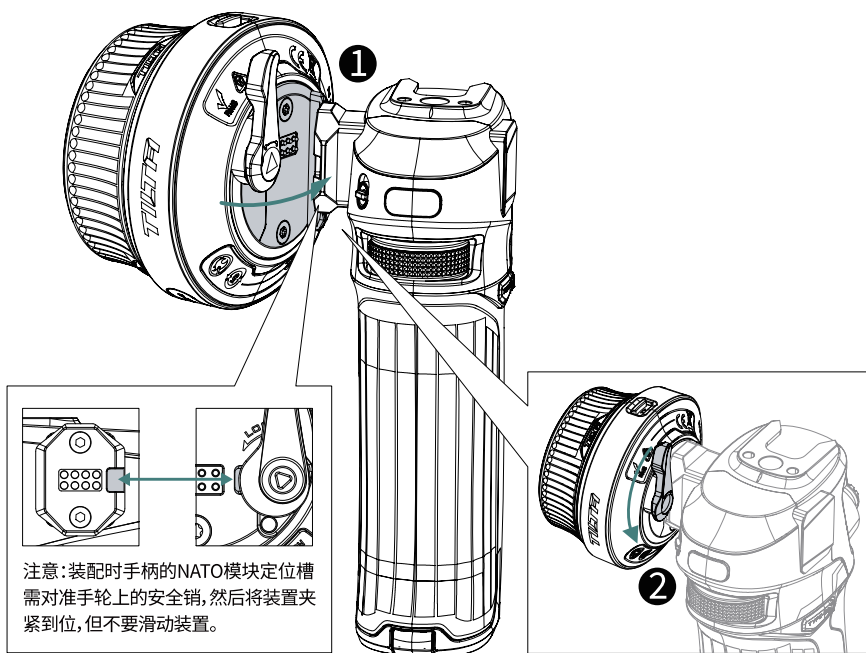
(二)在其他设备上拓展

原力N II 控制手轮采用标准NATO规格快装接口,可装配在任意NATO拓展位上。
(如带NATO结构的机身兔笼/稳定器侧边/稳定器提壶手柄侧边/监视器兔笼侧边等)

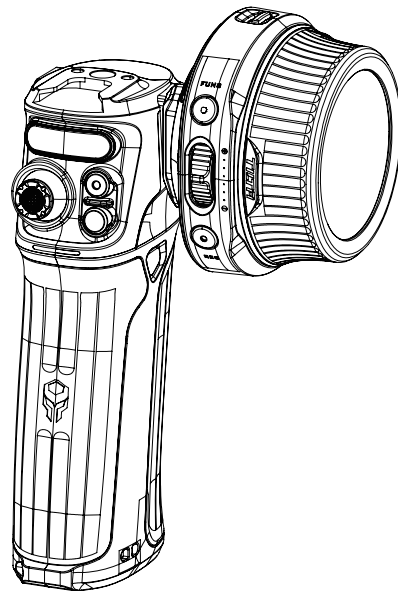
注: 装配和拆卸时,都需注意手轮背面的电子触针,防止外力损坏。

搭配原力N II 多功能控制手柄使用(如图)

手轮可通过NATO结构装配在手柄上,锁紧扳扣完成装配。



装配组合图



Thank you for purchasing a TILTA product.

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By using this product, you are deemed to have carefully read the disclaimer and warnings, understood, agreed, and accepted all the terms and content of this statement. You promise to take full responsibility for the use of this product and any consequences that may arise. You commit to using this product only for legitimate purposes and agree to this term as well as any related regulations, policies, and guidelines set by TILTA.

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WARNING & PRECAUTION

Before using this product, please strictly follow the instructions below. Our company assumes no responsibility for any consequences caused by improper operation or misuse.

ACCESSORY REQUIREMENTS

- Charging at temperatures higher than 40°C (104°F) or lower than 5°C (41°F) may result in decreased battery performance, swelling, leakage, overheating, and other damage.
- Do not store the battery in an environment exceeding 60°C (140°F). The ideal storage temperature is 22°C (71.6°F) to 28°C (82.4°F).
- The battery must be charged with the charging equipment provided by TILTA. TILTA will not be responsible for any consequences resulting from charging with non-TILTA official equipment.

OPERATING ENVIRONMENT

- This device contains strong magnets. To avoid magnetic interference, please keep it away from magnetic cards, IC cards, implantable medical devices (such as pacemakers), hard drives, RAM chips, and other devices that may be affected.
- Use the battery in an environment with a temperature between -20°C (-4°F) and 45°C (113°F). Excessive temperatures can cause the battery to swell abnormally, catch fire, or even explode. Before using the device in a low-temperature environment, it is recommended to fully charge the battery at room temperature to extend its service life.
- Do not place the device near flammable or combustible materials (such as carpets and wooden products) while charging. Always pay attention to the charging process to prevent accidents.
- Store the device in a dry environment, with an ideal storage humidity not exceeding 40%.

BATTERY SAFETY

⚠ [WARNING] This device is equipped with a non-removable built-in battery. please do not attempt to replace the battery yourself, as this may damage the battery or the device.

- Do not use the battery in environments with strong electrostatic or magnetic fields, as this may cause internal circuit failures in the device.
- Do not expose the battery to high temperatures or place it near heat-generating devices, such as sunlight, heaters, microwaves, ovens, or water heaters. Overheating the battery may cause it to explode.
- Do not disassemble or modify the battery, insert foreign objects, or immerse in water or other liquids, as this may cause the battery to leak, overheat, catch fire, or explode.
- The electrolyte inside the battery is highly corrosive. If it accidentally comes into contact with your skin or eyes, rinse immediately with clean water for at least 15 minutes and seek medical attention.
- Do not throw the battery into fire, as this can cause it to catch fire and explode.
- Do not drop, squeeze, or puncture the battery. Avoid subjecting the battery to external pressure, which may cause internal short circuits and overheating.
- Do not use damaged batteries.
- Do not store the battery for an extended period after it has been completely discharged, to avoid entering a deep discharge state that can cause damage to the battery cells, rendering it unable to be used again.
- Be sure to fully discharge the battery before disposing of it in a designated battery recycling bin. Batteries are hazardous chemicals and must not be disposed of in regular trash bins. For details, please follow the local laws and regulations regarding battery recycling and disposal.
- If the battery cannot be fully discharged, do not dispose of it directly in a battery recycling bin; instead, contact a professional battery recycling company for further processing.

MAINTENANCE & CARE

- Please keep the device clean and free of sand, dust, and other foreign objects. Use a clean, dry cloth to promptly clean any debris on the product.
- Do not subject the device and its accessories to strong impacts or vibrations, as this may damage them and cause device failure.
- If the device collides with a hard object or the screen is broken due to a strong external impact, do not touch or attempt to remove the broken parts. Instead, immediately stop using the device and promptly contact TILTA customer service.

NOTE

- The device will generate slight heat during operation, which is normal.