TILTA

Nucleus Auto Focus Adapter (E to PL) User Guide

E-PL自动对焦转接环拓展使用指南

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Package Contents

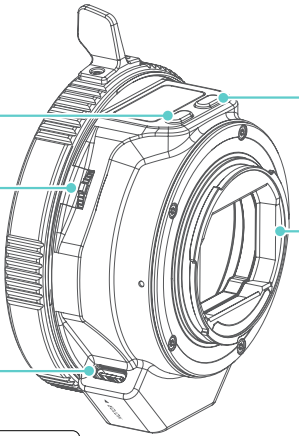
Nucleus Auto Focus Adapter Base Kit (E to PL)

Nucleus Auto Focus Adapter	×1	15mm Rod Adapter	×1
Aluminum Rod 15*100mm – Black	×2	3mm Allen Key	×1
Nucleus 7 Pin to USB-C Power Cable (36cm)	×1	Dual USB-C Control Cable for Nucleus Auto Focus Adapter	×1

Nucleus Auto Focus Adapter Dual Nano II Motor Kit (E to PL)

Nucleus Auto Focus Adapter	×1	15mm Rod Adapter	×1
Aluminum Rod 15*100mm – Black	×2	3mm Allen Key	×1
Nucleus Nano II Motor	×2	Tilta F970 Battery Plate V2 – Black	×1
Dual USB-C Control Cable for Nucleus Auto Focus Adapter	×1	USB-C Power Cable (30cm)	×1

Overview of the Nucleus Auto Focus Adapter (E-PL)



Menu/Back

Confirm

Control Wheel

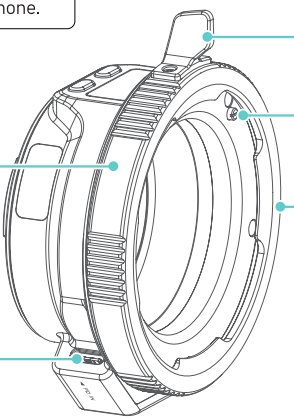
Toggle Up : Move up
Toggle Down: Move down
Single Press: Confirm

E Mount

USB-C Output Port

15V 3A, Maximum Power 45W.

This USB-C output port is only for connecting an external motor. Do not connect it to a computer or phone.



Locking Lever

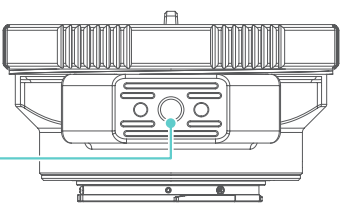
Mounting Alignment Screw

Locking Ring

PL Mount

USB-C Input Port

External power input;
15V 3A, maximum power 45W;
supports PD protocol.



1/4"-20 Thread with Locating Points

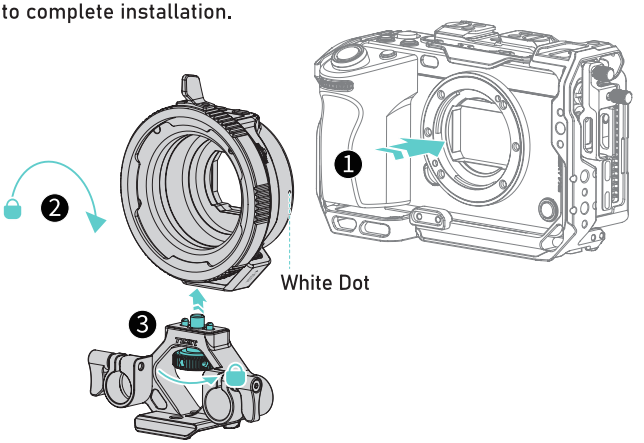
Installation and Power Supply Instructions

Installing the Nucleus Auto Focus Adapter

(1) Make sure the camera is powered off. Align the mounting mark on the adapter's E mount (white dot) with the mounting mark on the camera body.

(2) After inserting the adapter into the camera body's E mount, rotate it clockwise until you hear a “click”. Check and confirm that the adapter is fully locked.

(3) Align the 15mm Rod Adapter with the 1/4"-20 thread on the bottom of the adapter, then tighten the screw to complete installation.

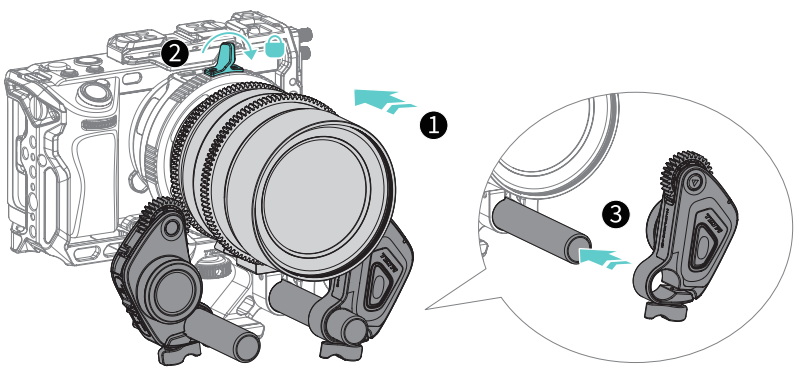


Installing the Lens and Motor

(1) Make sure the locking-ring is in the unlocked position. Align the mounting alignment screw on the adapter's PL mount with the mounting alignment notch on the lens.

(2) After inserting the lens into the adapter, lock the ring and check that the lens is fully secured.

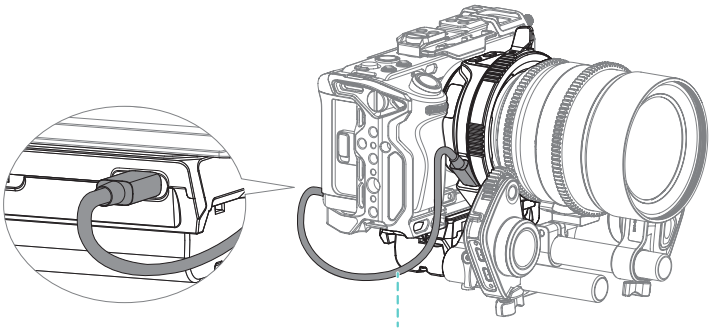
(3) Install the rods into the rod adapter and tighten the knobs to secure them. Slide the motors onto the rods, adjust them to the desired position, then tighten the knobs to complete installation.



Motor Power Supply

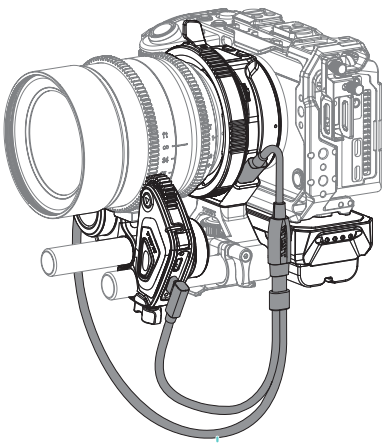
Adapter Power Supply

Install an F550/F570 battery onto the NP-F battery plate, then use the dual USB-C male power cable to power the adapter.



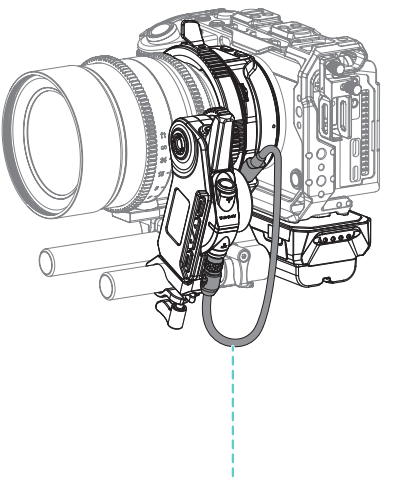
USB-C Power Cable

Nano II Motor Power Supply



Dual USB-C Control Cable for Nucleus Auto Focus Adapter

M II Motor Power Supply

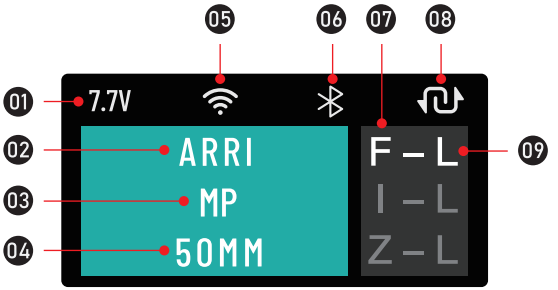


Nucleus 7 Pin to USB-C Power Cable

Only port 1 on the N II motor can be used to connect to the adapter.

Usage Introduction

Main Screen Overview



After the motor is properly connected to the adapter, the corresponding motor icon (such as the "F" motor shown on the left) will be highlighted.

01 Voltage Display	04 Focal Length	07 Motor ID (F/I/Z)
02 Lens Brand	05 Wireless Network	08 Camera Communication Status
03 Lens Series	06 Bluetooth	09 Motor Direction (L: Left / R: Right)

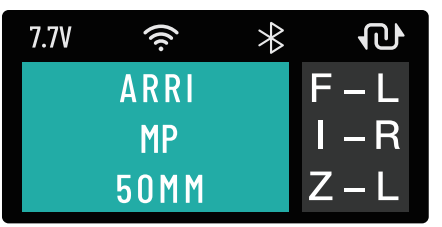
Motor Direction Settings

(1) Double-press the [Confirm] button to enter the "F" motor direction setting.

(2) Toggle the [Control Wheel] up or down to select L (Left) or R (Right), depending on whether the motor is installed on the left or right side of the camera.

(3) Double-press the [Confirm] button again to switch to the next motor ("I" → "Z") and continue as needed.

After the directions for all motors (F, I, Z) are set, the system will save them automatically. No manual confirmation is required.



Quick Start Calibration

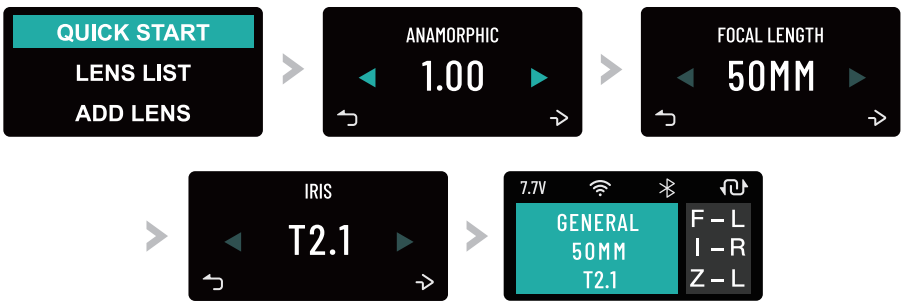
Press the [Menu] button to enter the “Menu”, then press the [Confirm] button to enter “Quick Start” > “Anamorphic Ratio” page.

(1) Toggle the [Control Wheel] up or down to adjust the anamorphic ratio value, then press the [Confirm] button to enter the “Focal Length” page.

(2) Toggle the [Control Wheel] up or down to adjust the focal length value for a prime lens, then press the [Confirm] button to enter the “Aperture” page.

- **Note: During quick start calibration, the “Focal Length” page only supports prime lenses.**

(3) Toggle the [Control Wheel] up or down to adjust to the maximum aperture value, then press the [Confirm] button to save and return to the main screen.



Setting the Lens Focus Speed

If the focusing speed feels too fast or too slow, adjust it as follows:

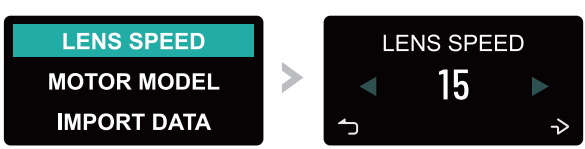
(1) Camera settings:

Go to the camera menu: “MENU” > “Focus” > “AF/MF,” then set “AF Transition Speed” and “AF Subject Shift Sensitivity”.

(2) Adapter settings:

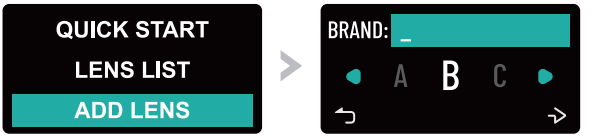
Press the [Menu] button to enter the “Menu”. Toggle the [Control Wheel] up or down to select “Lens Speed”, then press the [Confirm] button to enter the “Lens Speed” page.

Toggle the [Control Wheel] up or down to set the lens focusing speed, then press the [Confirm] button to save and return to the previous page.



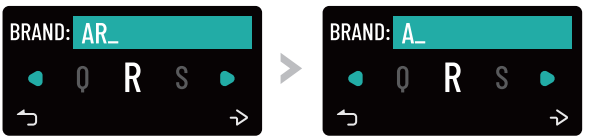
Precise Lens Data Calibration

Press the [Menu] button to enter the “Menu”. Toggle the [Control Wheel] up or down to select “ADD Lens”, then press the [Confirm] button to enter the “ADD Lens” page.



Lens Brand

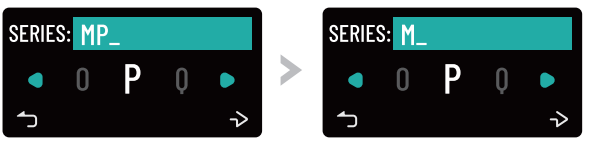
Toggle the [Control Wheel] up or down to switch characters. As shown, press the [Control Wheel] to enter “R”, quickly double-press the [Control Wheel] to delete “R”, then press the [Confirm] button to save and proceed to the next page.



Enter “R” Delete “R”

Lens Series

Toggle the [Control Wheel] up or down to switch characters. As shown, press the [Control Wheel] to enter “P”, quickly double-press the [Control Wheel] to delete “P”, then press the [Confirm] button to save and proceed to the next page.



Enter “P” Delete “P”

Circle of Confusion

Toggle the [Control Wheel] up or down to adjust the value, then press the [Confirm] button to save and proceed to the next page.

Lens Format	4/3 Format	APS-C Format	Medium Format	Full Frame
Circle of Confusion Diameter	0.013 mm	0.025 mm	0.050 mm	0.035 mm (Default)

Note: The circle of confusion diameters for different lens formats are listed below. Select the corresponding parameter according to the actual format used.

Anamorphic Ratio

Toggle the [Control Wheel] up or down to adjust the value, then press the [Confirm] button to save and proceed to the next page.

Unit of Measurment

Toggle the [Control Wheel] up or down to switch units (imperial/metric), then press the [Confirm] button to save and proceed to the next page.

Focal Length

Prime Lens

Toggle the [Control Wheel] up or down to adjust the value. As shown, press the [Control Wheel] to enter “25”, then press the [Confirm] button to save and proceed to the next page.

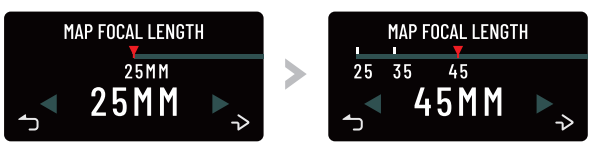
Zoom Lens

Enter the focal length range. The “Z” motor will unlock automatically. Rotate the zoom ring to the starting end of the zoom range and ensure it is aligned with the mark. Calibrate the values sequentially from small to large—the more values calibrated, the higher the zoom positioning accuracy.

(1) Toggle the [Control Wheel] up or down to adjust the value. As shown, press the [Control Wheel] to enter “25”, then rotate the zoom ring to continue calibrating values.

- **Note: When the scale pointer turns red, the current value has been successfully calibrated. Double-press the [Control Wheel] to delete the currently calibrated value.**

(2) After calibration is complete, press the [Confirm] button to save and proceed to the next lens setting.



Lens Focus

Enter the focus page. The “F” motor will unlock automatically.

(1) Rotate the focus ring to the infinity end of the focus scale and make sure it is aligned with the scale mark. As shown, press the [Control Wheel] to calibrate “INF”.

- **Note: When the scale pointer turns red, the current value has been successfully calibrated. Double-press the [Control Wheel] to delete the currently calibrated value.**

(2) Rotate the focus ring to the starting end of the focus scale. Toggle the [Control Wheel] up or down to adjust the value. As shown, press the [Control Wheel] to enter “1’2””.

(3) Rotate the focus ring to continue calibrating values from the starting end to infinity—the more values calibrated, the higher the focusing accuracy.

(4) After calibration is complete, press the [Confirm] button to save and proceed to the next page.

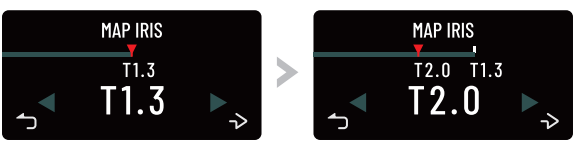
Aperture Settings

Enter the aperture page. The “I” motor will unlock automatically. Rotate the aperture ring to the maximum aperture (smallest value) and ensure it is aligned with the scale mark. Calibrate values sequentially from the maximum aperture (smallest value) to the minimum aperture (largest value)—the more values calibrated, the higher the aperture control accuracy.

(1) Toggle the [Control Wheel] up or down to adjust the value. As shown, press the [Control Wheel] to enter “T1.3”, then rotate the aperture ring to continue calibrating values.

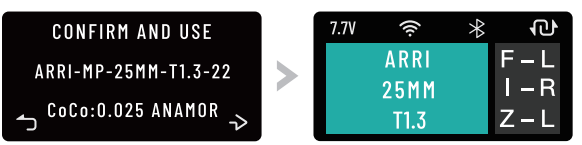
- **Note: When the scale pointer turns red, the current value has been successfully calibrated. Double-press the [Control Wheel] to delete the currently calibrated value.**

(2) After calibration is complete, press the [Confirm] button to save and enter the data confirmation page.



Data Confirmation

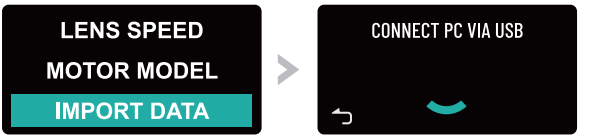
Review the calibrated lens values as shown below. After confirming that the values are correct, press the [Confirm] button to save and return to the main screen.



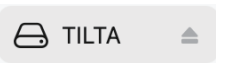
Importing Data

Use a data cable to connect the adapter's USB-C input port to the corresponding port on the computer.

Press the [Menu] button to enter the "Menu". Toggle the [Control Wheel] up or down to select "Import Data", then press the [Confirm] button to enter the "Import Data" page.



The computer will automatically recognize and display a USB drive named "TILTA".



Importing Lens Data

Copy the lens data to the "TILTA" USB drive.

- **Note: Lens data must be placed in a newly created folder in the root directory of the USB drive, such as the "DZO" folder shown.**

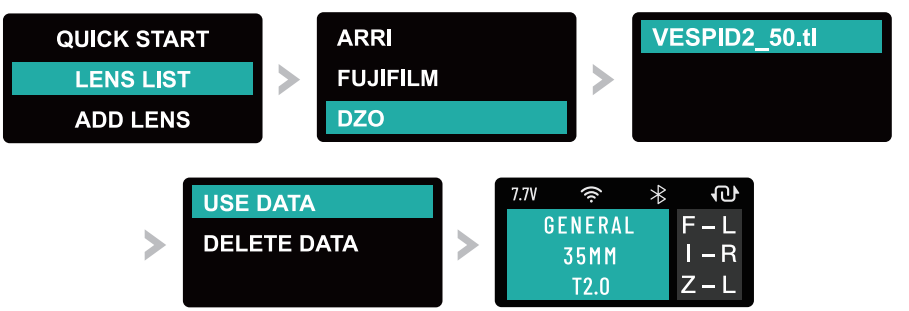
Changing Lens Data

(1) Press the [Menu] button to enter the "Menu". Toggle the [Control Wheel] up or down to select "Lens List", then press the [Confirm] button to enter the "Lens List" page.

(2) Select the lens brand name you want to change to, then press the [Confirm] button, such as "DZO" shown in the example.

(3) Select the lens series you want to change to, then press the [Confirm] button, such as "VESPID2_50.tl" shown in the example.

(4) Select "Use Data" then press the [Confirm] button to save and return to the main screen.



Importing Firmware Update Files

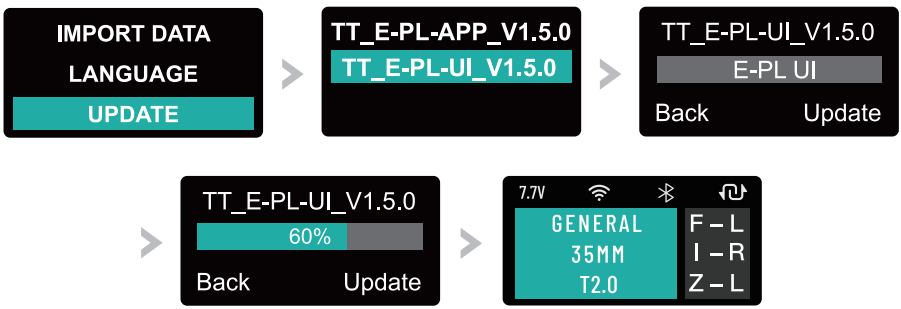
Copy the firmware update file to the “TILTA” USB drive.

- **Note: The firmware update file must be placed in the root directory of the USB drive, such as the “TT_E-PL-UI_V1.5.0.bin” file shown.**

Adapter Update

(1) Press the [Menu] button to enter the “Menu”. Toggle the [Control Wheel] up or down to select “Update”, then press the [Confirm] button to enter the “Update” page.

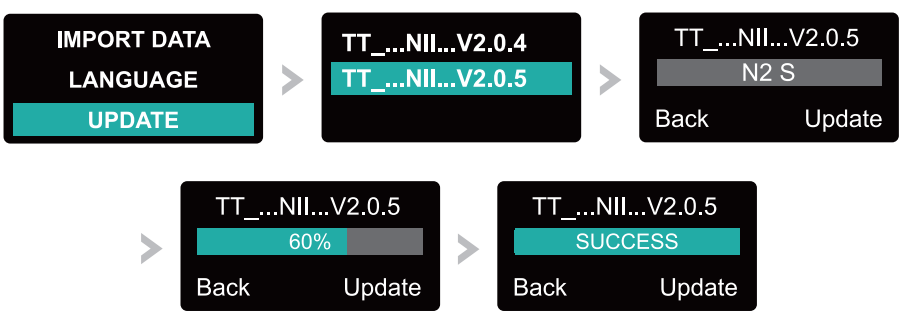
(2) Toggle the [Control Wheel] up or down to select the file to update, such as “TT_E-PL-UI_V1.5.0.bin”, then press the [Confirm] button to start the update. After the update is complete, the system will automatically return to the main screen.



N II Motor Update

(1) With the N II motor powered off, press and hold the function button on the motor while using a USB-C cable to connect the motor's port 2 to the adapter's output port. The motor status light will start flashing green, indicating that update mode has been entered.

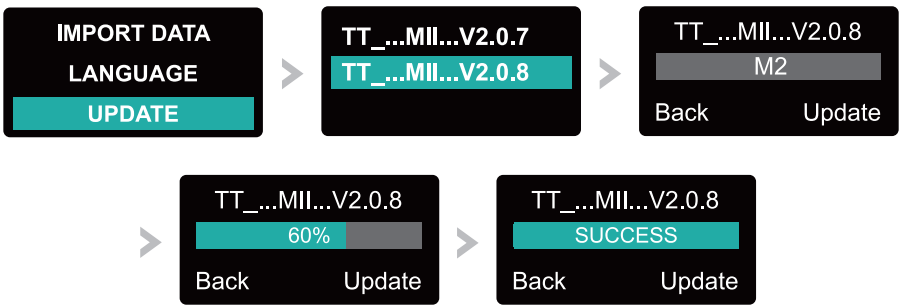
(2) On the adapter's “Menu” > “Update” page, toggle the [Control Wheel] up or down to select the file to update, such as “TT_...NII...V2.0.5.bin”, then press the [Confirm] button to start the update and wait for it to complete.



M II Motor Update

(1) With the M II motor powered off, press and hold the [▲] and [▼] buttons on the motor while using the 7 Pin to USB-C Power Cable to connect the motor to the adapter's output port. The motor screen will display the update page (as shown below), indicating that update mode has been entered.

(2) On the adapter's "Menu" > "Update" page, toggle the [Control Wheel] up or down to select the file to update, such as "TT_...MII...V2.0.8.bin", then press the [Confirm] button to start the update and wait for it to complete.



免责声明

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物品清单

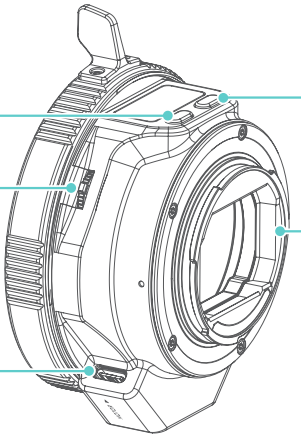
E-PL自动转接环简易套装

E-PL自动对焦转接环	×1	15mm导轨支架	×1
15*100mm黑色导轨	×2	3mmL型内六角扳手	×1
原力7Pin转Type-C电源控制线（36cm）	×1	E-PL自动转接环Type-C一分二控制线	×1

E-PL自动转接环 原力N II马达套装

E-PL自动对焦转接环	×1	15mm导轨支架	×1
15*100mm黑色导轨	×2	3mmL型内六角扳手	×1
原力N II电机	×2	NP-F供电底板-黑色	×1
E-PL自动转接环Type-C一分二控制线	×1	双头Type-C公头供电线（30cm）	×1

认识E-PL自动对焦转接环



菜单/返回

拨轮

向上拨动：上移
向下拨动：下移
单　　击：确认

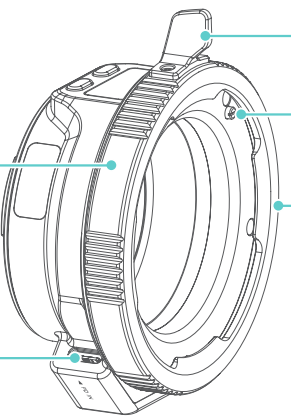
确认

E卡口

Type-C输出接口

15V 3A 最大功率45W。

此 Type-C 输出接口仅用于外接电机，禁止连接电脑、手机。



锁紧拨手

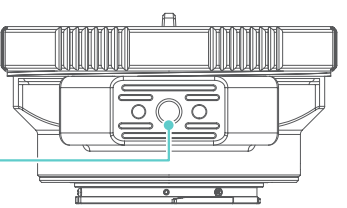
安装定位螺丝

锁定环

PL卡口

Type-C输入接口

外接电源15V 3A
最大功率45W,支持PD协议。



1/4”定位螺纹孔

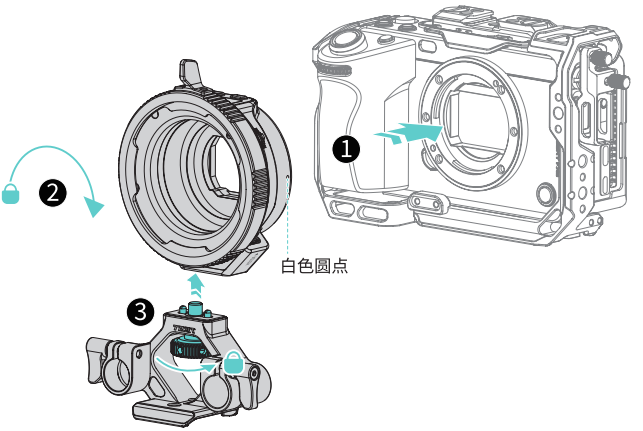
安装与供电说明

安装E-PL自动转接环

(1)确认相机处于关机状态，将转接环E-卡口的安装标记点（白色圆点）与机身的安装标记点对齐。

(2)转接环插入机身E卡口后，顺时针旋转至听到“咔哒”声，检查并确认转接环处于完全锁紧状态。

(3)将转接环支架对准转接环底部的 1/4" 定位螺纹孔，锁紧螺丝完成。

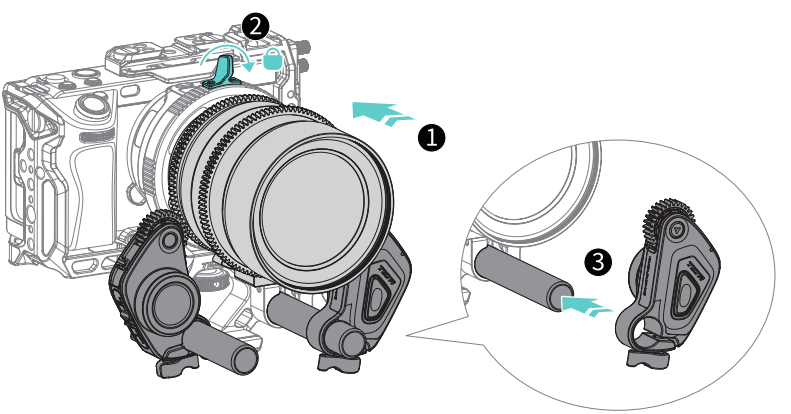


安装镜头和电机

(1)确认锁定环扳手处于解锁状态，将转接环PL卡口的安装定位螺丝与镜头的安装定位缺口对齐。

(2)镜头插入转接环后，锁紧拨手，检查并确认镜头处于完全锁紧状态。

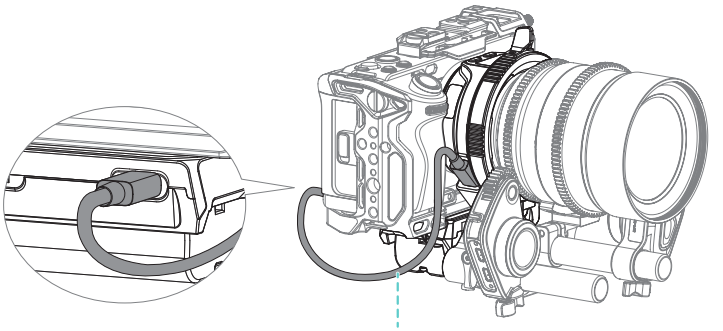
(3)安装导轨到转接环支架，锁紧旋钮固定，将电机沿导轨滑入，调整至所需位置，锁紧旋钮完成。



电机供电

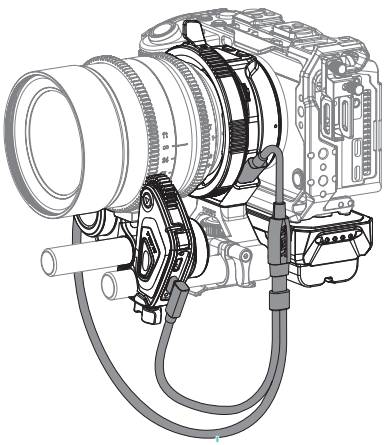
转接环供电

NP-F供电底板安装（F550/F570）电池,使用双头Type-C公头供电线为转接环供电。



双头Type-C公头供电线

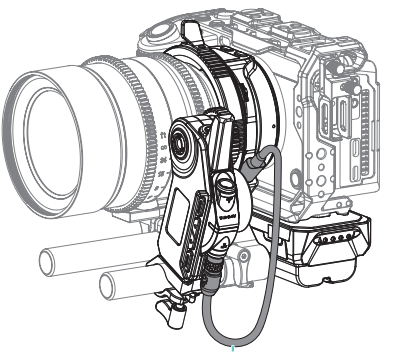
N II电机供电



Type-C一分二控制线

N II 电机仅 C1 接口用于连接转接环。

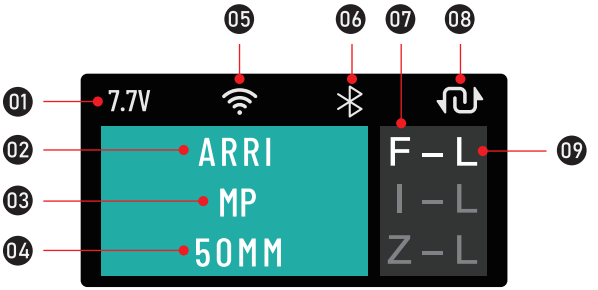
M II电机供电



原力7Pin转Type-C电源控制线

使用介绍

主屏介绍



电机与转接环正确连接后，对应电机图标（如左图“F”电机）将高亮显示。

01 电压显示
02 镜头品牌
03 镜头系列
04 焦段
05 无线网络
06 蓝牙
07 电机编号（F/I/Z）
08 相机通讯状态
09 电机方向（L：左/R：右）

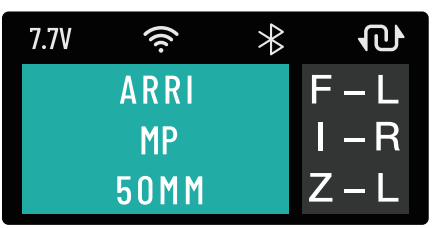
电机方向设置

（1）双击【确认】键，进入 “F” 电机方向设置。

（2）上下拨动【拨轮】，根据电机安装在相机的左侧或右侧选择 L（左） 或 R（右）。

（3）再次双击【确认】键，切换至下一电机（“I”→“Z”）继续设置。

所有电机（F、I、Z）方向设置完成后，系统将自动保存，无需手动确认。



快速标定镜头数据

单击【菜单】键，进入“菜单”设置，单击【确认】键，进入“快速开始”-“变宽比例”页面。

(1) 上下拨动【拨轮】，调整变宽比例数值，点击【确认】键进入“镜头焦段”页面。

(2) 上下拨动【拨轮】，调整定焦镜头焦段数值，点击【确认】键进入“光圈”页面。

▸注：快速标定镜头数据时，“镜头焦段”页面仅支持定焦镜头。

(3) 上下拨动【拨轮】，调整至最大光圈数值，单击【确认】键保存并返回主页面。

设置镜头对焦速度

若感觉对焦速度过快或过慢，可按以下步骤调整：

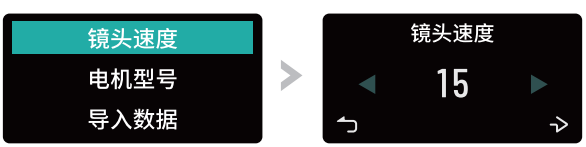
(1) 相机设置：

进入相机菜单：“MENU”-“对焦”-“AF/MF”页面，设置“AF过渡速度”和“AF摄体转移敏度”。

(2) 转接环设置：

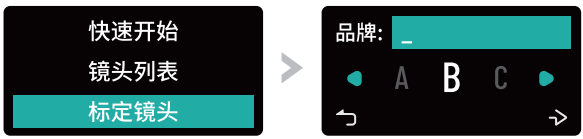
单击【菜单】键，进入“菜单”设置，上下拨动【拨轮】选择“镜头速度”，单击【确认】键，进入“镜头速度”页面。

上下拨动【拨轮】设置镜头对焦速度，单击【确认】键保存并返回上一页。



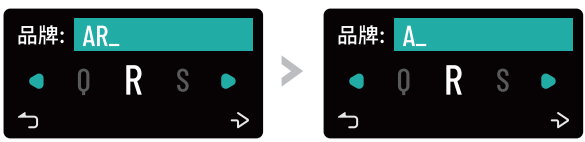
精准标定镜头数据

单击【菜单】键，进入“菜单”设置，上下拨动【拨轮】选择“标定镜头”，单击【确认】键，进入“标定镜头”页面。



镜头品牌设置

上下拨动【拨轮】切换字符。如图，单击【拨轮】输入“R”，快速双击【拨轮】删除“R”，单击【确认】键保存并进入下一项镜头设置。



输入“R”　　删除“R”

镜头系列设置

上下拨动【拨轮】切换字符。如图，单击【拨轮】输入“P”，快速双击【拨轮】删除“P”，单击【确认】键保存并进入下一项镜头设置。

输入“P”　　删除“P”

弥散圆设置

上下拨动【拨轮】调整数值，单击【确认】键保存并进入下一项镜头设置。

▸ 注：不同镜头画幅对应的弥散圆直径如下，请根据实际使用画幅选择对应参数。

镜头画幅	4/3 画幅	APS-C 画幅	中画幅	全画幅
弥散圆直径	0.013 mm	0.025 mm	0.050 mm	0.035 mm（默认）

变宽比例设置

上下拨动【拨轮】调整数值，单击【确认】键保存并进入下一项镜头设置。

单位设置

上下拨动【拨轮】切换单位（英制/公制），单击【确认】键保存并进入下一项镜头设置。

镜头焦段设置

定焦镜头

上下拨动【拨轮】调整数值，如图，单击【拨轮】输入“25”，单击【确认】键保存并进入下一项镜头设置。

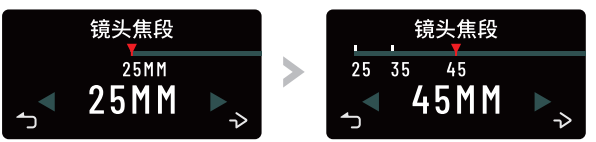
变焦镜头

进入焦段设置，“Z”电机自动解锁，转动变焦环至变焦刻度起始端，确保与刻度标记对齐，从小到大依次标定数值——数值越多，变焦定位精度越高。

（1）上下拨动【拨轮】调整数值，如图，单击【拨轮】输入“25”，转动变焦环继续标定数值。

- 注：刻度指针变红时表示当前数值标定成功，双击【拨轮】可删除当前标定的数值。

（2）标定完成，单击【确认】键保存并进入下一项镜头设置。



镜头对焦设置

进入对焦设置，“F”电机自动解锁。

(1) 转动对焦环至对焦刻度无限远端，确保与刻度标记对齐，如图，单击【拨轮】标定“INF”。

▸ 注：刻度指针变红时表示当前数值标定成功，双击【拨轮】可删除当前标定的数值。

(2) 转动对焦环至对焦刻度起始端，上下拨动【拨轮】调整数值，如图，单击【拨轮】输入“1′2″”。
(3) 转动对焦环继续标定起始端至无限远端区域的数值——数值越多，对焦精度越高。
(4) 标定完成，单击【确认】键保存并进入下一项镜头设置。

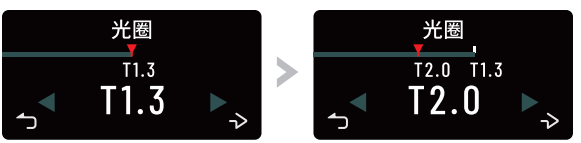
光圈设置

进入光圈设置，“I”电机自动解锁，转动光圈环至最大光圈（数值最小），确保与刻度标记对齐，从最大光圈（数值最小）到最小光圈（数值最大）依次标定数值——数值越多，光圈控制精度越高。

(1) 上下拨动【拨轮】调整数值，如图，单击【拨轮】输入“T1.3”，转动光圈环继续标定数值。

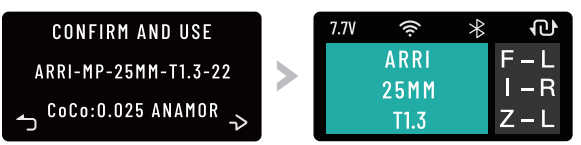
▸ 注：刻度指针变红时表示当前数值标定成功，双击【拨轮】可删除当前标定的数值。

(2) 标定完成，单击【确认】键保存并进入数据确认页面。



数据确认

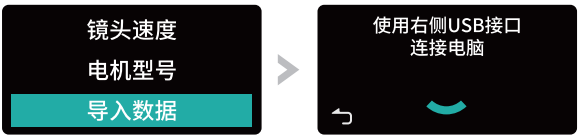
查看标定的镜头数值，如下图，确认数值无误后，单击【确认】键保存并返回主页面。



导入数据

通过数据线将转接环Type-C输入接口连接到电脑的相应接口。

单击【菜单】键，进入“菜单”设置，上下拨动【拨轮】选择“导入数据”，单击【确认】键，进入“导入数据”页面。



此时，找到电脑端自动识别并显示名为“TILTA”的U盘驱动器。

导入镜头数据

将镜头数据拷贝到“TILTA”的U盘驱动器。

- 注：镜头数据要放在U盘根目录下的新建文件夹中，如图，文件夹“DZO”。

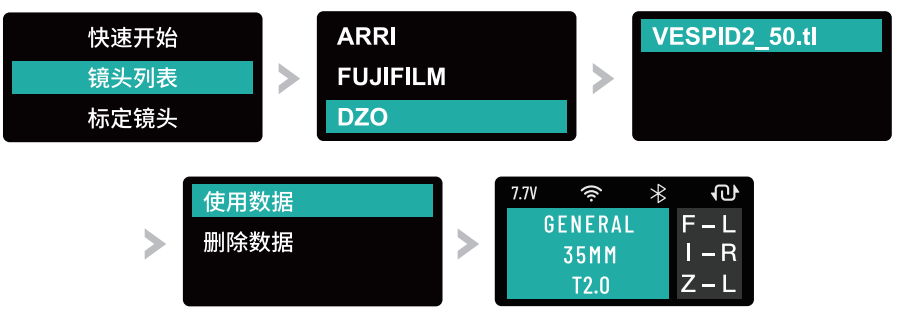
更换镜头数据

(1) 单击【菜单】键，进入“菜单”设置，上下拨动【拨轮】选择“镜头列表”，单击【确认】键，进入“镜头列表”页面。

(2) 选择所需要更换的镜头品牌名称，单击【确认】键,如图“DZO”。

(3) 选择所需要更换的镜头系列，单击【确认】键,如图“VESPID2_50.tl”。

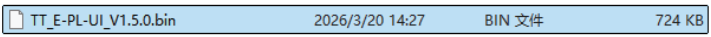
(4) 选择“使用数据”，单击【确认】键保存并返回主页面。



导入固件升级文件

将固件升级文件拷贝到“TILTA”的U盘驱动器。

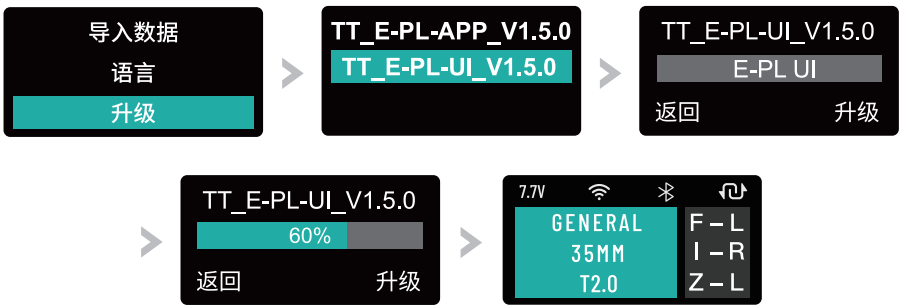
注：固件升级文件要放在U盘根目录下，如图，文件“TT_E-PL-UI_V1.5.0.bin”。



转接环升级

(1) 单击【菜单】键，进入“菜单”设置，上下拨动【拨轮】选择“升级”，单击【确认】键，进入“升级”页面。

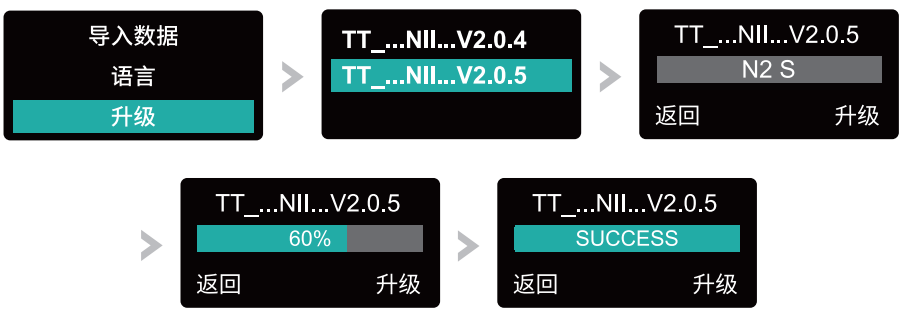
(2) 上下拨动【拨轮】选择要更新的文件，如“TT_E-PL-UI_V1.5.0.bin”，单击【确认】键开始升级，升级完成后自动返回主界面。



NII电机升级

(1) 在关机状态下按住NII电机的功能键，同时用双头Type-C线连接电机C2接口和转接环输出接口，电机状态灯开始闪烁绿色，表示已进入升级模式。

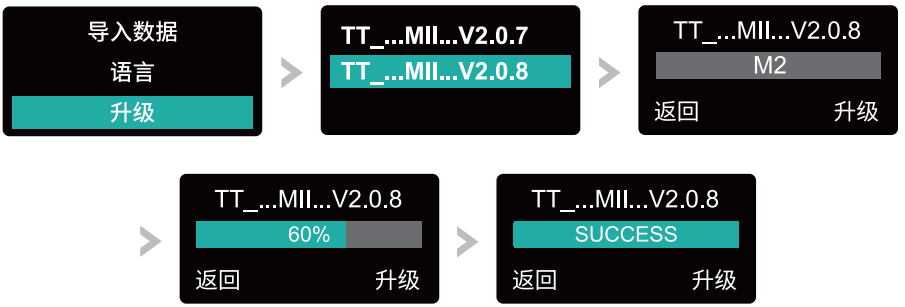
(2) 转接环的“菜单”-“升级”页面下，上下拨动【拨轮】选择要升级的文件，如“TT_...NII...V2.0.5.bin”，单击【确认】键开始升级，等待升级完成。



MII电机升级

(1)在关机状态下按住MII电机的【▲】和【▼】键，同时用7Pin转Type-C电源控制线连接电机和转接环输出接口，电机屏幕显示升级页面（如下图），表示已进入升级模式。

(2)转接环的“菜单”-“升级”页面下，上下拨动【拨轮】选择要升级的文件，如“TT_...MII...V2.0.8.bin”，单击【确认】键开始升级，等待升级完成。



保修说明 / Warranty Information

致敬爱的用户：感谢您选择TILTA的产品，请保存好您的保修卡，以便维修或需时提供。

Dear Valued Customer: Thank you for choosing TILTA products. Please keep your warranty card safe for future repairs or service requests.

产品型号 / Product SKU:

_____

产品名称 / Product Name:

_____

保修条款 / Warranty Terms:

- 本产品机械部件及电子附件保修期为一年（人为损坏除外）。
- The warranty covers electronic accessories for 1 year and mechanical parts for 2 years (excluding damage caused by human error).

- 一切人为损坏、自行拆机、拆封标、使用不当等一切外表的损坏及在非TILTA官方授权维修认定点进行维修，改造等造成的损坏，不在保修范围内。
- Damage caused by human error, self-disassembly, removal of seals, improper use, any external damage, or repairs and modifications conducted at unauthorized service centers are not covered under warranty.

扫码进入微信小程序

Scan the code to enter WeChat mini programs

扫码进入官网

Scan the QR code to enter the Tilta website

更多操作说明请扫描图中二维码，输入相关产品型号，获取产品电子版说明书。

For more operational instructions, please scan the QR code in the image and enter the relevant product model to access the electronic version of the user manual.

制 造 商： 深圳市铁头科技有限公司

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服务热线： 4006 1998 67

Manufacturer : Shenzhen Tilta Technology Co., Ltd.

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Address (Germany) : Lise–Meitner–Allee 13, Bochum, North Rhine–Westphalia 44801

Address (United kingdom) : Room 3, Unit 11, Woodland Business Park, Ystradgynlais, Swansea SA91JW

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https://eu.tilta.com/
https://tilta.uk/