

ZWO 谐波赤道仪 AM5

快速指南



如何组装并使用赤道仪 (以 ZWO TC40 碳纤维脚架为例)

01 组装赤道仪

1.1 展开三脚架



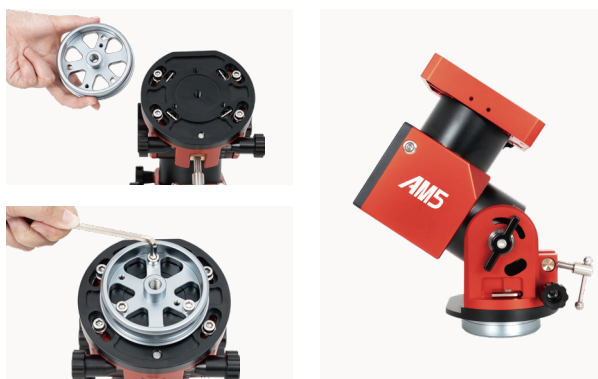
1.3 安装本体到三脚架上

将安装好银色安装盘的AM5放置到脚架上, 正向装入多功能支撑杆 (如下图1所示), 顺时针旋转多功能支撑杆上的旋钮并锁紧, 装上三角支撑盘, 顺时针旋转旋钮并锁紧。



1.2 固定银色安装盘

将三脚架上固定安装盘的三颗 M6 螺钉拆下, 然后将安装盘锁紧到赤道仪上。



02 调节赤道仪高度角

2.1 赤道仪档位介绍

赤道仪 AM5 俯仰角调节分为两个档位, 一档俯仰角范围: 0~60°; 二档俯仰角范围: 30°~90°。当赤道仪处在一档, 最大调节角度只能到 60°; 若需要更大角度需要使用内六角扳手拧松主体两侧【俯仰角档位调节螺丝】, 然后扳动赤道仪和调整【俯仰角微调旋钮】到二档 (俯仰角刻度 90°位置), 完成后拧紧两侧的螺丝, 可实现 30°~90°调节 (调节俯仰角时需保持俯仰角松紧器处于松弛状态下)。建议在赤道仪无负载时调节赤道仪档位。



2.2 连接手柄一档切换到二档 (将俯仰角从 0° 调节到 90°)

- 1) 松开两边的【俯仰角松紧器】, 顺时针旋转【俯仰角微调旋钮】, 使得内六角螺丝【俯仰角档位调节螺丝】从孔位完全可见 (约一档 45° 位置)。
- 2) 使用内六角扳手逆时针方向完全拧松两边的内六角螺丝。



- 3) 扳动赤道仪来滑动和调整【俯仰角微调旋钮】, 使内六角螺丝滑动到孔内滑轨的最下端, 刻度螺丝指示在 90° 处, 同时露出内六角螺丝, 重新拧紧两边的内六角螺丝。



(⚠️ 调好档位后务必将档位螺丝拧紧, 否则容易使设备松动, 且容易损坏档位调节功能)。

若要从二档调至一档, 则按照相反步骤调整即可。

03 调节赤道仪方位角

转动【方位角微调旋钮】, 即可调节方位角。



04 手柄控制赤道仪

4.1 连接手柄

通过水晶头弹簧线将手柄连接至赤道仪本体上的 [HC] 接口。手柄内置 Wi-Fi 热点, 连接后可用 APP 控制赤道仪。



05 如何切换经纬仪赤道仪模式

赤道仪开机后, 信号指示灯显示当前模式颜色。指示灯红色常亮为赤道仪模式, 绿色常亮为经纬仪模式。赤道仪在获取 GPS 和时间信息前, 指示灯只会常亮 5 秒, 然后进入红绿灯切换闪烁状态。

⚠️ 模式切换: 【模式切换前, 先关闭赤道仪电源并卸下负载】

赤道仪模式切换经纬仪模式:

连接手柄控制器, 长按【取消】按键并保持, 将 AM5 开机, 直到指示灯变为绿色后方可松开【取消】按键。

再将 AM5 俯仰角调至 90° (具体操作参考 2.2), AM5 工作模式成功切换为经纬仪模式。

经纬仪切换赤道仪模式:

连接手柄控制器, 长按【取消】按键并保持, 将 AM5 开机, 直到指示灯变为红色后方可松开【取消】按键。

再将 AM5 俯仰角调至所在地理位置纬度值 (具体操作参考 2.2), AM5 工作模式成功切换为赤道仪模式。

备注: 使用赤道仪 App、ASI AIR 或 PC 连接赤道仪进行同步, 否则赤道仪无法正确跟踪及 GoTo。由于赤道仪有刹车结构, GoTo 时可能产生微弱摩擦声, 属于正常现象。



06 通过蓝牙连接赤道仪

AM5 增加了蓝牙功能, 没有手柄也能实现无线控制。

具体方法: 通过赤道仪 App 连接并控制赤道仪。

打开赤道仪 App, 选择【赤道仪设置】, 在【选择设备控制方式】中, 选择【Bluetooth】蓝牙连接, 按照提示操作即可。连接成功后, AM5 本体上 BT 蓝色指示灯会熄灭。



注意事项

- 1、请根据主镜大小和重量谨慎选择合适的脚架以及是否需要配平衡重锤, 赤道仪不加重锤可能会出现望远镜重心偏离脚架的情况, 请提前测试望远镜转向各个方位的重心变化, 避免赤道仪侧翻, 造成设备损坏或人身伤害。
- 2、在赤道仪使用结束后, 请将赤道仪归零位, 再断开电源, 否则下次启动时可能零位不准, GoTo 时造成设备损坏或人身伤害; 如果打开赤道仪电源时, 不在零位, 请先归零位, 再做其他操作。
- 3、赤道仪使用环境温度应为 -20°C 至 40°C, 请勿在此温度区间外使用, 以免造成运行异常, 导致设备损坏。若长期不使用, 请放置包装箱内保存。
- 4、请勿使用具有腐蚀性溶液清洁赤道仪, 以免腐蚀表面氧化层, 损坏赤道仪; 同时应避免将赤道仪长期暴露在阳光下暴晒, 以免导致外观氧化层脱色。
- 5、请勿私自尝试拆卸赤道仪本体, 否则有可能造成赤道仪损坏, 降低赤道仪的精度, 甚至造成人身伤害。



扫码下载赤道仪 App



扫码查阅说明书



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ZWO Harmonic Mount AM5 Quick Guide



Tripod used here: ZWO carbon fiber tripod TC40 (optional accessory of ASI Mount)

01 Mount installation

1.1 Unfold the tripod



1.3 Install the AM5 onto the tripod

Place the AM5 (with the silver mounting plate attached) onto the tripod, insert the multi-function support rod as shown in figure below (figure 1), rotate the knob on the rod clockwise to tighten it, then fit the tripod spreader and rotate its knob clockwise to lock it in place.



1.2 Install the silver mounting plate

Remove the three M6 screws from the silver mounting plate on the tripod, and then lock the mounting plate tight onto the mount.



02 How to adjust the mount latitude

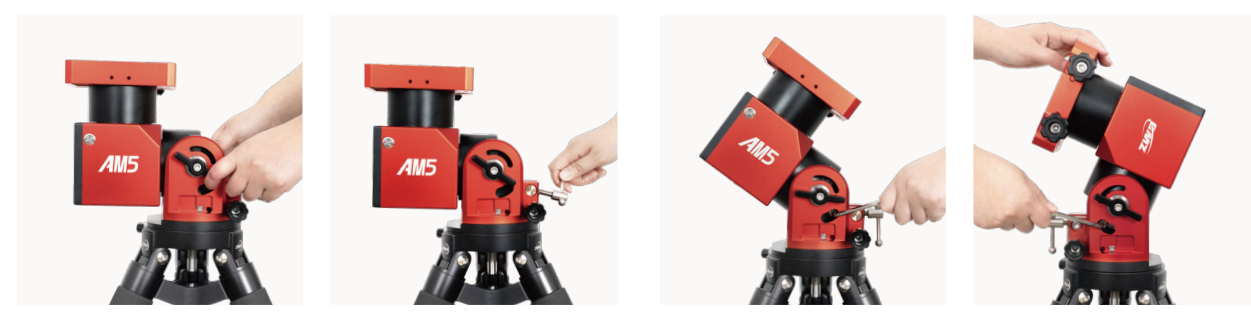
2.1 Two latitude gears

The AM5 mount's altitude scales can be divided into two gears, with a range of 0 to 60 degrees for the first gear and 30 to 90 degrees for the second gear. When the mount is in its first gear, the maximum adjustment angle can only reach 60 degrees; To get a larger altitude angle, you need to use a hex wrench to loosen the "altitude gear position adjustment screws" on both sides of the mount body. Then, you can pivot the mount and adjust the "altitude fine-tuning knob" to the second gear (at the 90-degree mark on the altitude scale). After the adjustment, tighten the screws on both sides. The adjustment range of 30 to 90 degrees are available now. Just make sure the altitude tensioner is in a loosen state when you are adjusting the altitude angle. It is recommended to switch the mount's gear when it is not carrying any weight.



2.2 Adjust the latitude from the first gear to the second gear (Adjust the latitude angle from 0° to 90°)

- 1) Loosen the "altitude tensioner" on both sides. Rotate the "altitude fine-tuning knob" clockwise until the hexagonal screw (the "altitude gear position adjustment screw") is fully visible from the hole (approximately at the first gear, 45° position).
- 2) Loosen both hex screws on the sides completely by turning counterclockwise with a hex wrench.



- 3) Move the mount head to slide and adjust the "altitude fine-tuning knob". Slide the hex screw to the bottom end of the sliding rail in the hole, with the scale screw indicating 90°. At the same time, retighten the hex screws on both sides.



- (⚠ Note: After adjusting the altitude gear, be sure to tighten the gear screws firmly, otherwise the equipment may become loosen and the gear adjustment function can be easily damaged.
- To adjust from the second gear to the first gear, simply reverse the steps outlined above.

03 How to adjust the azimuth scale

Rotate the Azimuth fine adjustment knobs in opposite directions to each other to adjust the azimuth scale of the AM5. It is best to keep the knobs slightly done up to prevent wobble.



04 How to control mount via hand controller

4.1 Connect mount with hand controller

Connect the handle to AM5 body via the spring wire with the RJ45 connector at the [HC] port. The handle has a built-in Wi-Fi hotspot, which, when connected, allows for APP control of AM5.



05 How to switch the equatorial /alt-azimuth mode

After the mount is powered on, the signal indicator light displays the color of the current mode. The indicator light being constantly red signifies the equatorial mount mode, while a constant green indicates the altitude-azimuth (alt-az) mode. Before the mount acquires GPS and time information, the indicator light will remain on for only 5 seconds and then proceed to a flashing state, alternating between red and green.

⚠ Mode switching: [Before switching modes, turn off the mount and remove any load.]

To switch from equatorial mode to altitude-azimuth mode:

Connect the hand controller. Long-press and hold the [CANCEL] button, then turn on the AM5. Wait until the indicator light turns green before release the [CANCEL] button. Next, adjust the AM5's altitude angle to 90° (for specific operations, refer to section 2.2). The AM5 has now successfully switched to altitude-azimuth mode.

To switch from altitude-azimuth mode to equatorial mount mode:

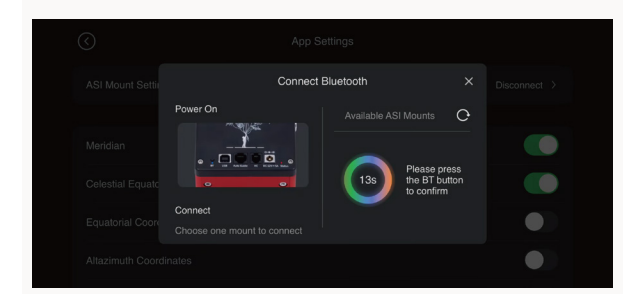
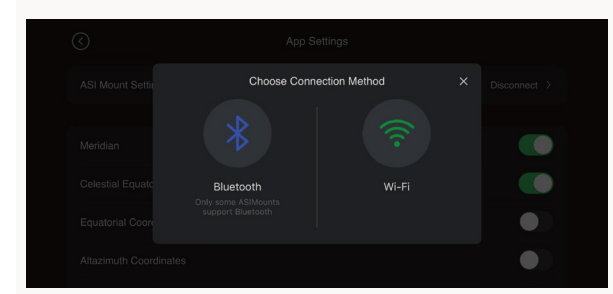
Connect the hand controller. Long-press and hold the [CANCEL] button, then turn on the AM5. Wait until the indicator light turns red before release the [CANCEL] button. Next, adjust the AM5's altitude angle to match the latitude value of your location (for specific operations, refer to section 2.2). The AM5 has now successfully switched to equatorial mount mode.

Note: Use ASIMount, ASIAIR, or a PC to connect to mount for synchronization; otherwise, the mount will not be able to track or GoTo objects correctly. Since mount has a braking structure, a faint friction noise may occur during GoTo, which is normal.



06 How to control the AM5 via Bluetooth/Wi-Fi

The AM5 has added Bluetooth functionality, allowing for wireless control even without a hand controller. Specific method: Connect and control the mount through the 'ASI Mount APP'. Open the 'ASI Mount APP', select 'Mount Settings', in the 'Choose Connection Method', choose 'Bluetooth' for the Bluetooth connection, and follow the prompts to proceed. After a successful connection, the BT blue indicator light on the AM5 body will turn off.



Precautions

1. Cautiously choose whether to use a counter weight based on the size and weight of your OTA. The barycenter of your OTA may deviate from the tripod if no counter weight attached, so please do test the barycenter in all directions to prevent rolls over in certain directions.
2. Remember to return to zero position when you complete the image session for the night. Make sure the mount is parked at zero position before use next time.
3. The operating temperature of AM3 Mount is -20°C ~ 40°C. If the ambient temperature is beyond this range, do not use it to prevent the mount from being damaged. Also please store it in the original packing box if you intend to leave it unused for an extended period of time.
4. Do not use any corrosive solutions to clean the mount to prevent corrosion of oxide layer on the surface; Meanwhile, do not expose the mount to the sun for prolonged periods, as this may cause the appearance to discolor;
5. Do not attempt to disassemble the mount without ZWO's authorization. It may damage the mount, or reduce its accuracy, or even cause possible personal injury.