

## **AMH Hand Controller User Guide**

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.

FCC ID:2AC7Z-ESP32MINI1

### 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.

### **RF exposure warning**

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.

The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

**NOTE:** Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### **IC RSS-Gen antenna statement**

*This radio transmitter (IC: 8853A-C8) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated.*

*Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.*

*Le présent émetteur radio (IC: 8853A-C8) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au*

*gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.*

Radiation Exposure Statement:

The equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

Déclaration d'exposition aux radiations:

L'équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. L'équipement ne doit pas être situé ou fonctionner en conjonction avec une autre antenne ou un autre émetteur.

[www.ic.gc.ca/canset/0501/searching.htm](http://www.ic.gc.ca/canset/0501/searching.htm) ID: 2A5710A010

**Canada, Industry Canada (IC) Notices**

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

**Radio Frequency (RF) Exposure Information**

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has been evaluated for and shown compliant with the IC Specific Absorption Rate ("SAR") limits when operated in portable exposure conditions.

**Canada, avis d'Industry Canada (IC)**

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**Informations concernant l'exposition aux fréquences radio (RF)**

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce dispositif a été évalué pour et démontré conforme à la Taux IC d'absorption spécifique ("SAR") des limites lorsqu'il est utilisé dans des conditions d'exposition portatifs.



### **Light Indicator:**

You can learn the status of the AM5 mount through the light colors once you connect the hand controller to AM5 and power them.

Red: Equatorial Mode

Green: Altazimuth mode

Light on: High sidereal tracking rate

Light off: Low sidereal tracking rate

### **1. Directional Control Joystick:**

The joystick knob can be pushed to multiple directions. Pressing down on it switches between high and low slew speeds. There are 1, 2, 4, 8x sidereal rate at low speed, 20 to 1440x sidereal rate at high speed.

How to switch between high and low speed: The default mode is at low tracking speed. Press down on the joystick to switch to high tracking rate. Press again to switch back to low tracking

rate.

## **2. Tracking Button:**

Press the button, backlight up: AM5 is now in tracking.

One press again, backlight off: Cancelling tracking.

## **3. Cancel Button:**

**Cancel:** One press to cancel GOTO or other functions. Long press for 3 seconds to go to zero position.

**Equatorial/Azimuth Mode Switching:** When AM5 Mount power is off, long press the cancel button to activate the mount again along with the switch function. To enter Altazimuth mode, press cancel button until the light indicator turns green. (How to identify the current mode of the mount: After boot, Light Indicator red means Equatorial mode; Light indicator green means Azimuth mode.)

**WiFi:** The WiFi function has been integrated in the hand controller, which allows a wireless connection between the hand controller and ZWO ASIMount APP or ASIAIR.

If you forget the hand controllers WiFi password, you can press and hold the tracking and cancel buttons, unplug its cable and then re-plug in, keep pressing the buttons for 3 seconds until the indicator light flashes. The hand controller WiFi password will be restored to the default setting: 12345678.