

teleskopy.pl



Installation Sky-Watcher AZ-EQ5 is a computerized parallormal assembly equipped with GoTo SynScan controller, drive in both axes with encoders and a stable tripod. The Sky-Watcher AZ-EQ5 is based on the larger AZ-EQ6 model and is a thorough modification of the well-known and proven HEQ-5 model. Compared to the AZ-EQ6, this is a much lighter and more portable assembly, which guarantees the load capacity suitable for advanced astrophotographic applications. The assembly capacity of AZ-EQ5 is 15kg. Thanks to the use of certain innovative solutions, this is one of the most interesting proposals in this price range. The most important features that distinguish the new assembly include the presence of special hybrid engines as well as the possibility of using the assembly in the paralactic and azimuthal modes. AZ-EQ5 has a USB port (as opposed to older structures using the RS-232 port), it is equipped with an autoguid port as well as a port enabling the control of reflex cameras. As in the case of the AZ-EQ6 in the azimuthal mode, we can replace the counterbalance rod with an additional saddle that secures the telescope. In this way two optical tubes can be used at both ends of the same axis at the same time (dovetail mount in Vixen standard is used). Care was taken

for ergonomics - bolts and adjustment knobs are large, comfortable, any adjustments to the position of the polar axis can be made manually using a small force. From the control side, the system of double encoders monitoring the movements of the telescope in both axes, regardless of the drive, deserves attention. This system (the so-called Freedom Find technology) allows you to manually rotate the telescope in both axes without having to set the GoTo system again. The SynScan driver was used in the latest version 4. The database contains 42,000 objects. GoTo system settings are made on 3 stars, but also in the simplified case you can set the system using two stars or even one object (eg a planet). The montage allows you to track objects with both star speed and solar and moon speed. The assembly work can be further improved by using the PEC function (correction of periodic error) or PAE (improving the accuracy of homing on the object). A special marker was placed on the coil of the RA axis, which allows to precisely determine its location and significantly improve the use of the PEC function. The characteristics are stored in internal memory and can be used at any time (this system is also referred to as PPEC - Permanent Period Error Correction) The system has functions to improve the setting of the polar axis. Built-in USB port allows you to control the installation using a computer without the need for any additional adapters. The RS-232 cable connected to the set allows you to update the software. SynScan allows you to optionally connect a GPS module that provides precise information about the coordinates and the time of observation. The assembly weighs 14 kilograms and is additionally equipped with two counterbalances weighing 3.5kg each. Additional accessories that may be useful to the user include, among others, an optional polar scopes or a 12V power supply (as standard, the mounting is equipped with a cable that allows connecting to the cigarette lighter socket). For every assembly equipped with the Syn-Scan GO-TO system, we recommend an additional GPS module, enabling automatic and maintenance-free adjustment of the geographical coordinates of the place and the exact time of each observation.

Characteristics

- Possibility of working in equatorial and azimuthal systems
- correction of periodic error PPEC (Permanent Periodic Error Correction)
- belt transmission is used - it gives a very smooth work characteristic, eliminates the clearances known from classical transmissions, the system works more quietly
- the ability to control the SLR from the cable release port on the head
- high precision engine controllers
- two saddles with double dovetail fasteners (Vixen and Losmandy)
- corrected power socket
- set the polar axis with a telescope or with the GoTo system
- double encoder system

Technical parameters

- Mounting type: Azimuth / Parallax
- Carrying capacity: 15 kg without counterweight
- Geographic width: 0 to 90 degrees
- Azimuthal adjustment: +/- 15 °
- Weight: 7.7 kg (without tripod and counterweight)
- Counterweight: 2 x 3.5 kg
- Tripod: stainless steel, mounting diameter 100 mm
- Weight of the tripod: 6.1 kg
- Counterweight bar: diameter 18 mm, length 162 mm + 120 mm
- Supply voltage: DC 11 - 16 V / 3A
- Engines: Hybrid stepper motors, 1.8 step step
- RA drive transmission: 135: 1 squeegee gear, backlash-free gear reduction on toothed belt 72:12
- Total ratio: 810: 1
- Controller: Microcontroller of stepper motors divided into microchips up to 1/32
- Drive resolution: 5,184,000 microths per revolution
- Guidance accuracy: 0.25 of a second arc
- Maximum travel speed: 4.2 degrees / second
- Tracking speed: star, moon, solar
- Tracking modes: parallax / azimuthal
- Autoguidation speed: 0.125 / 0.25 / 0.5 / 0.75 / 1x
- PEC correction: 1200 segments
- GoTo system: SynScan, Manual driver in V4 version
- Facilities database: 42000+
- Objects catalogs: Messier, NGC, IC, SAO, Caldwell, Double stars, Variable stars, Named stars, Planets
- Guidance on objects: FreedomFind, from the remote control and manually without loss of alignment
- GO-TO homing accuracy: 5 minutes RMS arc
- AUX auxiliary encoder resolution: 5144 imp / rev. (about 4.2 minutes of arc)
- Autoguidera port: ST-4
- DSLR shutter release port: minijack 2.5 mm
- Assembly alignment modes: 1, 2, 3 stars (EQ), 2 stars (AZ)
- Weight of the packed assembly: 11 kg + 12 kg (two boxes)
- Package sizes: 47 x 45 x 31 cm + 89 x 28 x 34 cm (two boxes)

Equipment

- two saddles fixing the universal standard Losmandy / Vixen
- retractable counterbalance rod
- two counterweights 3.5 kg
- SynScan V4 manual driver
- power cable to the cigarette lighter socket

Warranty 2 years