Sky-Watcher USA's Star Adventurer mount is small, light, and accurate — plus, it won't break the bank, by Mike Reynolds

Here have been many times when I wanted a lightweight, portable equatorial mount to use with a small telescope, Hydrogen-alpha (Hα) instrument, or camera when I was traveling. Those occasions when I braved taking a larger equatorial mount, especially when flying, were challenging to say the least. My wife would look at me like I was crazy: one suitcase for our clothes and three for the mount, tripod, accessories, and tools. When the airline's luggage scale readout maxed out, I knew I was in more trouble.

A small, reliable mount for observing is always a nice piece of hardware to have if you're like me and enjoy escaping for an evening or week-end. Or perhaps you have a telescope and want to do some grab-and-go observing while still tracking what you see.

Sky-Watcher USA's Star Adventurer mount provides a highly portable option when you want to do some grab-and-go observing while still tracking what you see. The author attached his Canon DSLR and zoom telephoto lens to the mount, which carried the combo with little effort. See page 221.

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The mount is a DC servo type, the aluminum alloy wheel gear measures 3.4 inches (86 millimeters) in diameter with 144 teeth, and the brass worm gear is 0.5 inch (13mm) in diameter. I note these specs to support my conclusions about the quality, no plastic parts here.

Beyond the basics

As for mounting options, several are possible. You can use a 2-inch ball-head adapter for a camera-lens combination, allowing you to do tracked imaging with your camera. Sky-Watcher USA has additional ball-head adapters available so you can image with two cameras if you wish. I am thinking ahead to the 2017 total solar eclipse, and this might just be one of my imaging setups: two cameras with lenses of different focal lengths on a reliable GEM like the Star Adventurer.

Other optional setups include using a telescope with the Fine-Tuning Mounting Accessory or a telescope side by side with a camera on a ball-head. The manufacturer built a nice slow-motion adjustment into the Fine-Tuning Mounting Accessory. A counterweight and shaft can be used to balance a heavy telescope.

Low-battery and motor-error indicators are also a part of the system. Mount tracking rates include sidereal, 0.5x, 2x, 6x, and 12x sidereal, solar, and lunar. You also can do time-lapse photography at various speeds. You can select these with an easy-to-see and easy-to-use control called the Mode Dial. This dial also turns the mount off, and with a built-in LED, the selected mode was visible in the dark.

You can use the mount either north or south with ball-head adapter. That accessory allows you to easily attach a DSLR camera. The mount derives its power from either four AA batteries or a 5-volt USB port. The specifications noted up to 72 hours of continuous use with one set of AA batteries.

Testing

I tested several instruments on the Star Adventurer mount, including a 3.2-inch Explore Scientific refractor, a 3.2-inch Daystar SolaRedi Hα telescope, and a Canon SD Mark II DSLR with different lenses. The specs provided by Sky-Watcher USA note that the Star Adventurer can carry a maximum payload of 11 pounds (5kg). All three of the instruments I mounted on the Star Adventurer were under that maximum. The SolaRedi was the heaviest at a bit over 8 pounds (3.6kg). And for each instrument, the mount performed admirably.

In the field, alignment was quick, made so with the integrated polar scope and its illuminated reticle. The rest of the setup was also fast. I tested the drive under different uses, from simple imaging through my DSLR to high-magnification observing. For such a light "grab-and-go" mount, I found the tracking to be quite good with few periodic errors.

The bottom line

Sky-Watcher USA's Star Adventurer is a solid, compact, and lightweight tracking mount with a wide array of excellent features and options. For an observer or imager like myself, ease of setup and simple operation really prove helpful. I know the airlines will appreciate the small features — as will my wife. © 2015 Kalmbach Publishing Co. This material may not be reproduced in any form without permission from the publisher: www.Astronomy.com

PRODUCT INFORMATION

Sky-Watcher USA Star Adventurer Type: Equatorial mount Tracking rates: Sidereal, 0.5x, 2x, 6x, and 12x sidereal, solar, and lunar Power: USB or four AA batteries Payload: 11 pounds (5 kilograms)

Included: Polar scope with illuminator; DSLR interface for automatic shutter control; Astro Package comes with declination bracket; Photo Package comes with ball head adapter

Price: $339 for Astro Package, $319 for Photo Package

Contact: Sky-Watcher USA 475 Alacal Avenue Torrance, CA 90503 (T) 310.803.5953 (W) www.skywatcherusa.com

The various options also will let you perform vertical and horizontal rotation time-lapse photography.

Other nice-sounding feature is the DSLR Shutter Control Cable, which connects to a 2.5mm three-segment stereo jack built into the mount. When you use it, the cable provides a preprogrammed camera shutter control interface for time-lapse photography. You will need the cable specific to your DSLR camera, ones for Canon, Nikon, Olympus, and Sony cameras are available. I was not able to try this particular component.

You can download firmware upgrades to your computer at no cost. You’ll find the latest version at www.skywatcherusa.com. Once you are on the Sky-Watcher USA site, click the “Support Center” link. The mount connects directly to your computer with a mini USB cable.

Explore Scientific’s ED80 refractor weighs 7.5 pounds (3.2 kilograms), well within the payload limit of the Star Adventurer mount. See page 221.

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