By Alan Dyer

GEAR REVIEW

TESTING TWO SKY-WATCHER MOUNTS

Two new mounts from Sky-Watcher provide grab-and-go portability — one with no-frills manual controls, the other with computerized GoTo and WiFi.

SkyNews has reviewed many Sky-Watcher mounts over its 25 years. Here we test two of their latest, using units I purchased from random stock at All-Star Telescope.

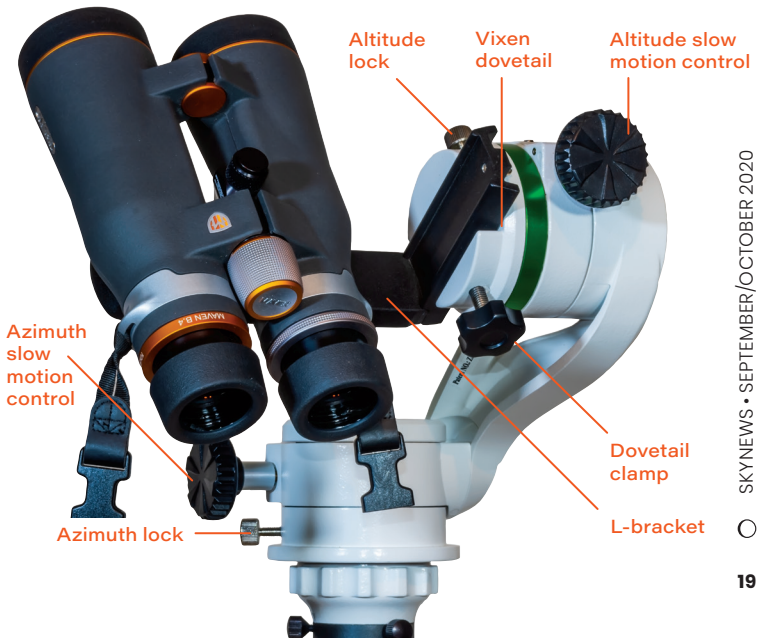
The AZ5 manual mount

The new AZ5 is an alt-azimuth mount for manually scanning around the sky. The mount is ideal for pairing with 80mm or lightweight 100mm refractors, or up to a 127mm Cassegrain telescope. Like the AZ-GTi, it accepts Vixen-standard mounting plates.

The AZ5 is a solid mount. The tripod is the same one used on Sky-Watcher's mid-sized equatorial mounts, so it is sturdy. And hefty! The total weight of the tripod and mount head is 9 kilograms (19.8 pounds). The height to the middle of the head is 120 centimetres (48 inches) with the tripod collapsed, or it can be raised to 155 centimetres (61 inches) with the legs fully extended.

Damping time with the big refractor was two seconds; with my 4.4 kg (9.7 lb) 80mm refractor it was a superb one-second damping. In all, I found the AZ5 a solid alt-azimuth mount for a serious beginner or an experienced observer looking for a grab-and-go package. →

Binocular mounting: With its legs extended, the AZ5 is good for binoculars, using an L-bracket, such as this one from Orion Telescopes. However, any tripod-mounted binocular is best kept to targets below 45° altitude.



The AZ-GTi GoTo mount

By comparison, this compact computerized mount comes on a smaller tripod that is so light (at 4 kilograms or nearly 9 pounds) the entire assembly can be lifted with one hand. I thought it might be too shaky, but not so. With the 76mm refractor I tested it with, vibrations damped down in just 1.5 seconds. The AZ-GTi is rated to handle up to 5 kilograms (11 pounds), the same as the AZ5. The tripod legs are 69 centimetres (27 inches) long (they'll fit inside a large piece of luggage), but can extend another 53 centimetres (21 inches). The mount head has a standard 3/8-inch bolt hole on the bottom so it can be mounted on any camera tripod.

Though the AZ-GTi can be used with a hand controller (it should be a current SynScan V5 model), the AZ-GTi does not come with one. Instead, it has WiFi built-in to connect to using a mobile device (phone or tablet) and then to control the telescope with the free SynScan Pro app (for Apple iOS and Android). I tested the iOS version. I found it connected quickly and stayed connected reliably.

Finding and tracking objects requires a two- or three-star alignment. With either option, you use the slew buttons to centre the first alignment star. I preferred the North-Level option as it conveniently slewed itself to the first alignment star.

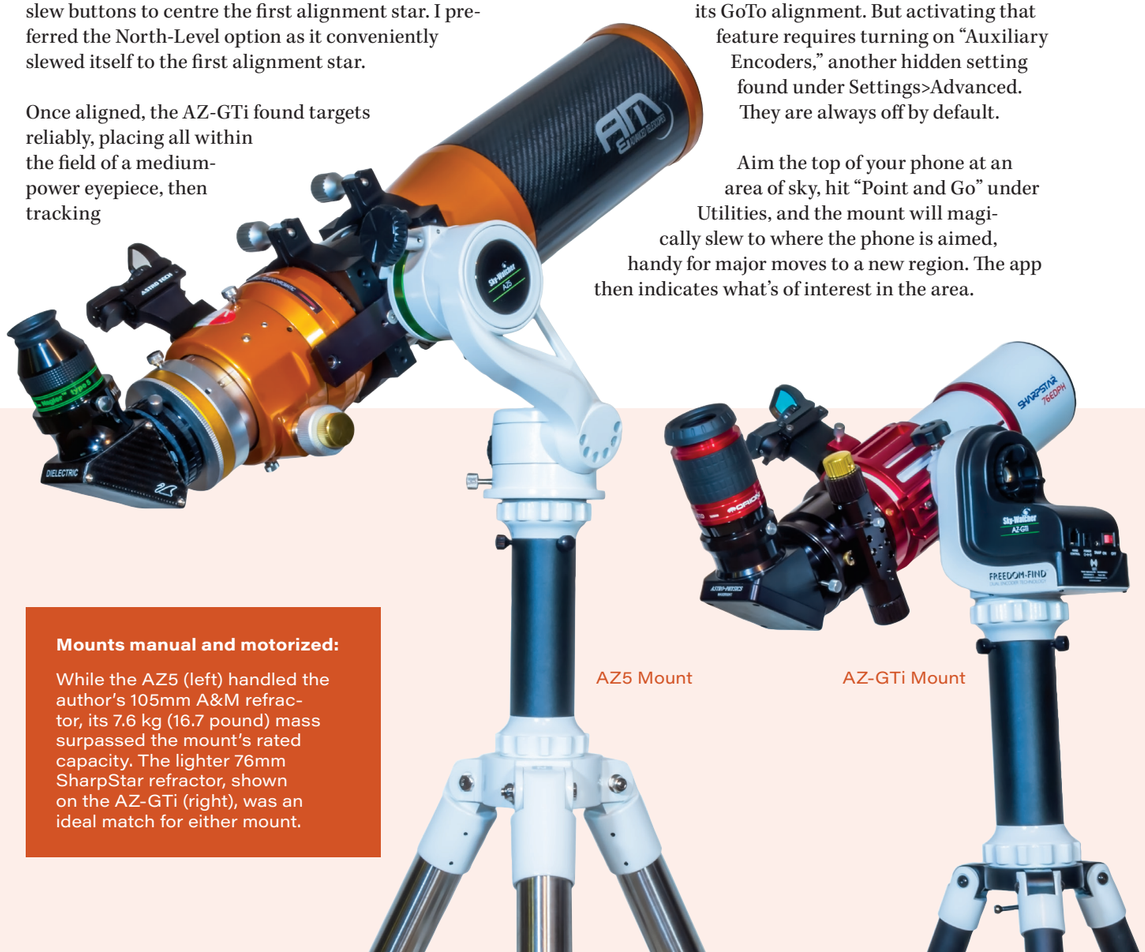
Once aligned, the AZ-GTi found targets reliably, placing all within the field of a medium-power eyepiece, then tracking them for hours. The mount can be hibernated, then woken up later, perhaps to find daytime sky objects without another alignment. (The SolarQuest is a variation of the AZ-GTi just for finding and following the Sun.)

The SynScan Pro app contains all objects from the Messier, NGC, IC and Caldwell deep-sky lists, a good selection of double stars, the planets, as well as comets with entries it can update from a download. Nice! A list of "Tonight's Best" (hidden under the Utilities menu) provides a good tour of two or three dozen deep sky objects and double stars.

While the app works well, it does not provide narration, images or a sky map. For those, you can simultaneously control the AZ-GTi using either the SkySafari or Luminos apps running on the same device by connecting them using the "SynScanLink" choice in their telescope control options. This worked on iOS, despite the app's Help screen claiming it would not.

The AZ-GTi includes Sky-Watcher's "Freedom Find" to manually move the mount without losing its GoTo alignment. But activating that feature requires turning on "Auxiliary Encoders," another hidden setting found under Settings>Advanced. They are always off by default.

Aim the top of your phone at an area of sky, hit "Point and Go" under Utilities, and the mount will magically slew to where the phone is aimed, handy for major moves to a new region. The app then indicates what's of interest in the area.

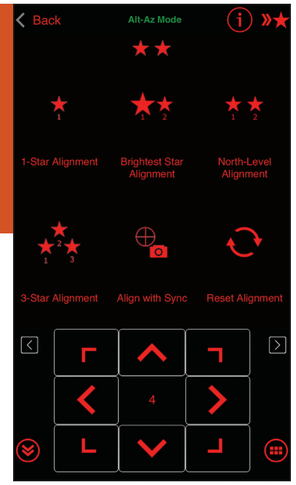


Mounts manual and motorized:

While the AZ5 (left) handled the author's 105mm A&M refractor, its 7.6 kg (16.7 pound) mass surpassed the mount's rated capacity. The lighter 76mm SharpStar refractor, shown on the AZ-GTi (right), was an ideal match for either mount.

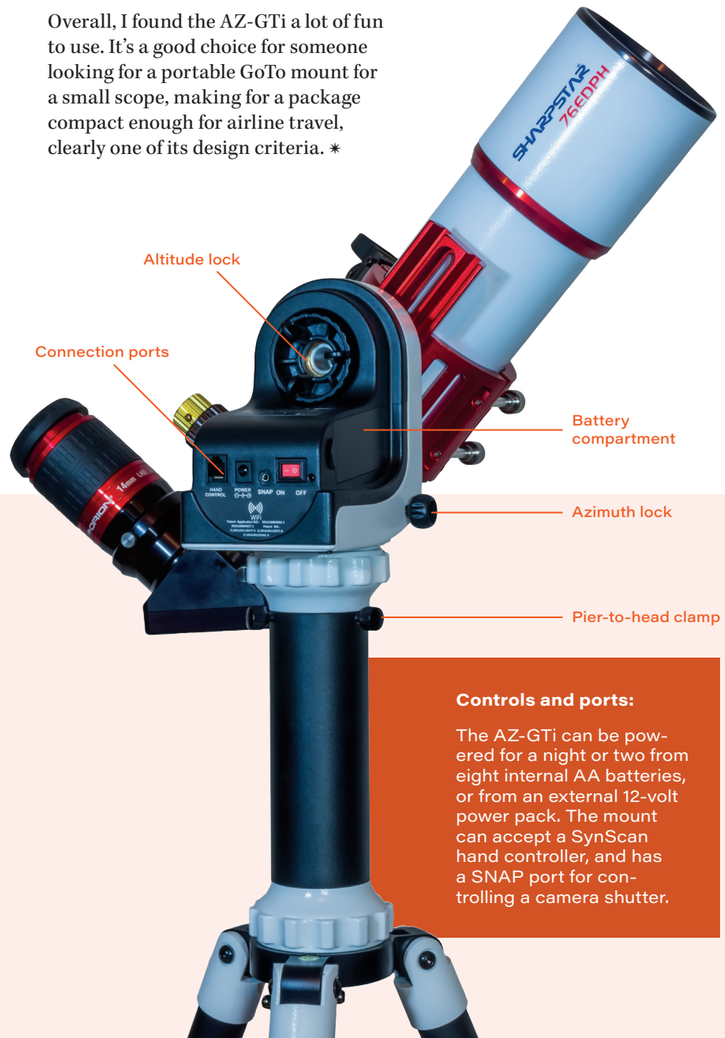
SynScan Pro App:

When aligning using one of several methods, there's no need to enter location, date and time as the app gets those from your device. Once aligned, objects can be called up from lists, to command the mount to "GoTo."



One mechanical downside I encountered, true of the AZ5 as well, is that if you try to turn the head in azimuth by hand with the lock engaged, the bolt that clamps the mount to the tripod's pier is likely to twist loose, so the whole head then spins and wobbles. Fixing this requires removing the head from the pier and re-tightened the bolt, which is an annoyance.

Overall, I found the AZ-GTi a lot of fun to use. It's a good choice for someone looking for a portable GoTo mount for a small scope, making for a package compact enough for airline travel, clearly one of its design criteria. ✷



Controls and ports:

The AZ-GTi can be powered for a night or two from eight internal AA batteries, or from an external 12-volt power pack. The mount can accept a SynScan hand controller, and has a SNAP port for controlling a camera shutter.