



## SmartStar® CubePro™ GOTO AltAz Mount with GPS

#8200

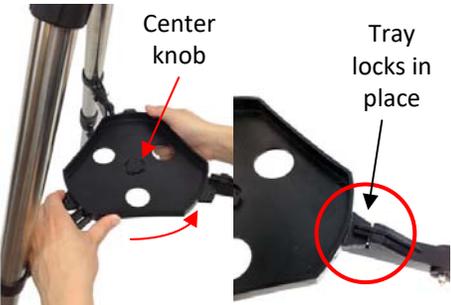
### Features:

- **Grab 'N Go** altazimuth mount – The CubePro™: the only mount of its kind for ultimate rotation
- Metal worms and ring gears
- 8 lb payload for various scopes and cameras, with 3.1 lb mount head
- Go2Nova® 8408 hand controller with Advanced GOTO NOVA® GOTO Technology
- 150,000+ object database with 60 user-defined objects
- Large LCD screen with 4 lines and 21-characters hand control with backlit LED buttons
- Dual-axis servomotor with optical encoder
- 9 speed for precise mount moving control
- Built-in 32-channel Global Positioning System (GPS)
- Altazimuth/equatorial (AA/EQ) dual operation (need a wedge for EQ operation)
- Vixen-type dovetail saddle
- 3lbs counterweight and stainless steel CW shaft included
- Operate on 8 AA batteries (not included)
- 3/8" threads to fit on camera mount
- 100~240V AC power adapter included, *optional* 12V DC adapter (#8418) available
- Serial port for both hand controller and main board firmware upgrade
- Latest ASCOM and iOptron Commander for mount remote control
- RS232-RJ9 serial cable for firmware upgrade and computer control
- Sturdy 1.25" stainless steel tripod
- *Optional* StarFi™ WiFi adapter #8434 for mount wireless control

### Package Contents (may change without notice):

- The CubePro™ telescope mount with built-in GPS
- Go2Nova® 8408 hand controller
- Controller cable
- 12V AC/DC adapter
- 1.25" tripod with stainless steel tripod legs
- 3 lbs counterweight and stainless steel CW shaft
- RS232-RJ9 serial cable
- Two year limited warranty

## Quick Start Guide:

 <p><b>Step 1. Set up tripod</b></p> <p>1. Extend tripod legs to full extension and lock knobs.</p>	 <p>2. Stand Tripod upright. Then press down to lock center arms in place.</p>	 <p>Center knob</p> <p>Tray locks in place</p> <p>3. Place tray on center knob and turn tray until it locks in place. <i>(The tray will turn underneath the center knob)</i></p>
 <p>AZ Lock Screw</p>	<p><b>Step 2. Attach the mount</b></p> <p>Attach mount to tripod using Azimuth Lock Screw.</p>	
	<p><b>Step 3a. Install batteries</b></p> <p>Note: you may use 8 AA batteries (Step 3) or the AC adaptor (Step 5) to operate the mount.</p> <p>Lift the battery cover. Carefully pull out the battery holder from the compartment. Be sure not to accidentally disconnect the wires.</p>	
	<p><b>Step 3b.</b></p> <p>Insert 8 AA batteries <i>(not included)</i> in the holder. Refer to the diagram on the holder to orient the batteries properly. Replace the holder back into the battery compartment and replace the lid.</p> <p>For reference: the battery pack fits in with wires on the bottom right <i>(See arrow in photo)</i>. Use only fresh batteries. Using old or low batteries may cause error messages.</p>	
 <p>Dovetail lock knob</p>	<p><b>Step 4. Attach telescope</b></p> <p>Attach telescope to mount using dovetail lock knob (#2). <i>(Picture shows 90mm refractor. However all scopes will attach in the same manner.)</i></p>	

 <p>Plug in AC adaptor here</p>	<p><b>Step 5. Plug in hand controller and AC adaptor.</b></p> <p>Plug hand controller into either one of the two HBX ports on the mount. Next plug in AC adaptor. (Or use batteries—see step 3). Turn on power (the red light should go on).</p> <p>At this point you can begin observing manually. Use the 4 Arrow keys (▲▼◀▶) to rotate the scope Up, Down, Left, and Right. Use the NUMBER key to change the slew rate: 1 is the slowest (1X) and 9 the fastest (MAX). (Note: The default slew speed is 64X). The next steps show you how to set up the telescope and controller for automatic slewing and tracking.</p>
	<p><b>Step 6. Set up telescope for auto-observing.</b></p> <p>Level the mount using the bubble on side of mount by adjusting tripod legs. The bubble should be in the middle of the circle, or stay at the same position while rotating the mount in azimuth direction.</p>
 <p>2) Up</p> <p>1) South</p> <p>Alt lock</p>	<p><b>Step 7. Zero Position of altazimuth (AA) operation</b></p> <p>Set telescope to Zero Position.</p> <ol style="list-style-type: none"> <li>1. Position the mount so that the “SOUTH” mark is facing south (A compass should be helpful);</li> <li>2. The telescope tube should point directly up at the zenith. If it is not perfectly straight then loosen the altitude lock to adjust telescope.</li> </ol>
	<p><b>Step 8. Power on the mount</b></p> <p>Turn on the mount and wait for controller to display “OK” in top right corner, which means the GPS has connected to the satellites. The “ON” indicates the mount has GPS installed but the link to satellites has not been established. GPS provides latitude, longitude, and current universal time (UTC) only.</p>
	<p><b>Step 9. Set Time and Site</b></p> <p>Press the <b>MENU</b> key once.</p> <p>Scroll (with the ▲/▼ keys) to “<b>Settings</b>” and press <b>ENTER</b>. Select “<b>Set Time and Site</b>” menu and press <b>ENTER</b>.</p>
	<p>Use the ◀ or ▶ key to move the cursor. Use the number key to change the date and time in first line.</p> <p>The second line is for setting UTC offset (time zone information). For example:</p> <ul style="list-style-type: none"> <li>• New York/Boston is UTC - 300 Minutes</li> <li>• Los Angeles is UTC - 480 Minutes</li> <li>• Rome is UTC + 060 Minutes</li> <li>• Sydney is UTC + 600 Minutes</li> </ul> <p>Use ▲/▼ key to adjust the DST (Daylight Saving Time) to “Y” if during the DST. Change to “N” when it is end.</p>

	<p><b>Step 10. Set zero position in hand controller</b></p> <p>Press <b>Menu</b> button.</p> <p>Scroll to “<b>Zero Position</b>” and press <b>ENTER</b>. Select “<b>Set Zero Position</b>”, confirm your mount is set at zero position according to <b>Step 7</b>, press <b>ENTER</b>.</p>
	<p><b>Step 11. Select and Slew to an object</b></p> <p>Press <b>Menu</b> button.</p> <p>Scroll to “<b>Select and Slew</b>”. Press <b>ENTER</b>.</p>
	<p><b>Step 12.</b></p> <p>Select a category (ex. “<b>Solar System</b>”) by scrolling with the arrow keys. Press <b>ENTER</b>.</p> <p>Then select an object (ex. “<b>Moon</b>”) by scrolling with the arrow keys. Press <b>ENTER</b>. The hand controller may display if the moon is above the horizon (☾). Press <b>ENTER</b> to confirm the selection.</p> <p>The telescope will automatically slew to the object and lock on. It will automatically begin to track once it locks on to the object.</p>
	<p><b>Step 13. Sync to Target</b> (<i>Use this to center and synchronize the object selected in Step 12</i>).</p> <p>Press <b>MENU</b>. Scroll to “<b>Sync. To Target</b>”. Select the target you would like to Sync to and press <b>ENTER</b>.</p> <p>Next use the arrow keys (▲▼◀▶) to center the object in the eyepiece. Then press <b>ENTER</b> again to synchronize the object with the memory.</p> <p>To slew to other objects simply repeat steps 11 and 12. You do not need to repeat step 13 except for adjustments as needed.</p> <p><i>(Refer to the full online manual for 1-star and 2-star alignments. Sync to Target is similar to 1-star Alignment except that you choose the object to align to.)</i></p>