Quick Start Guide

SmartStar®-R80 GPS Telescope
#9801 (Pulsar Pink) & #9802 (Astro Blue)
SmartStar®-R80 Telescope
#9501 (Pulsar Pink) & #9502 (Astro Blue)

FEATURES

- Alt-Azimuth Mount– The Cube™-- The only mount of its kind for ultimate rotation
- Includes the GoToNova™ Controller. One of the most intuitive controllers on the market.
- Over 5,000 object database.
- Built-in 32-channel GPS (#9801 & #9802 only)
- Large LCD screen with 4 lines and 21-character wide screen
- Drive motor with 5-speed setting for better control.
- Dual-axis Servomotor
- Aluminum tripod
- 80mm achromatic refractor telescope

PACKAGE CONTENTS

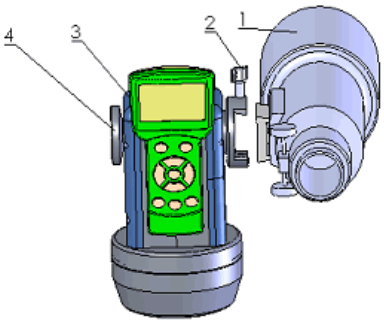
- SmartStar® telescope mount
- Built-in GPS receiver (#9801 & #9802 only)
- 80mm Refractor telescope
- Tripod
- #8405 Hand Controller
- Controller Cable
- 3x Barlow lens
- 45º diagonal
- K 10mm and K 25mm eyepieces

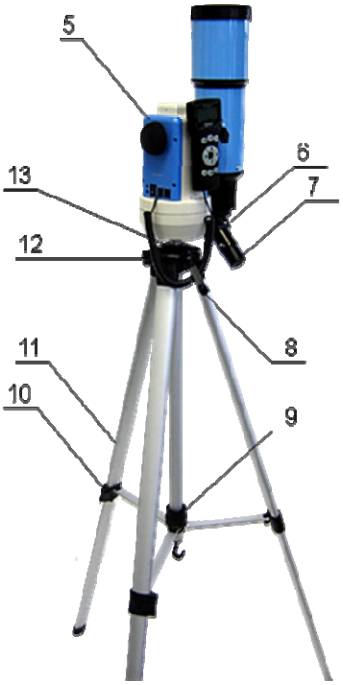
ONLINE CONTENTS *(click under "Support" menu button)* **www.iOptron.com**

- Full manual *(you can refer to the full manual for more details on set-up and operation).*
- Tips for operating
- Reviews and feedback from other customers
- Accessories information *(including AC adapter, carry bag, and more)*

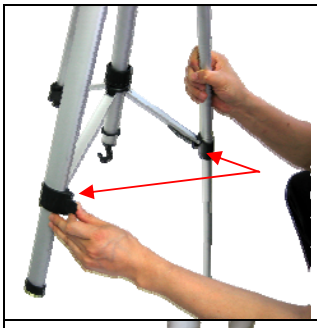
Assembly Terms

1. Telescope tube
2. Dovetail lock
3. Hand controller
4. Altitude lock
5. Mount (shown with GPS)
6. Diagonal
7. Eyepiece
8. Height adjustment handle
9. Center Tripod Lock Knob
10. Leg Locks (3)
11. Tripod
12. Tripod height lock knob
13. Height Extender





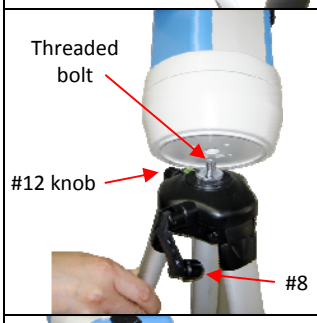
Quick Start Guide for SmartStar®-R80 Telescopes *(with and without GPS)*



Step 1.

Unlock the leg locks #10 (shown by arrows at left).
Extend tripod legs.
Lock the leg locks afterwards.

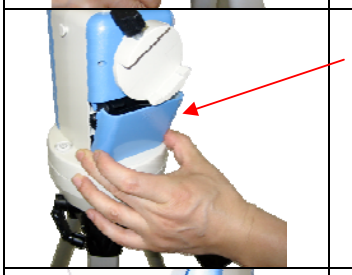
Step 2.
Turn the center tripod lock knob (#9) to secure and stabilize the tripod. Tighten to a firm feel.
Caution: Make sure you loosen the tripod lock knob before collapsing the tripod to store away.



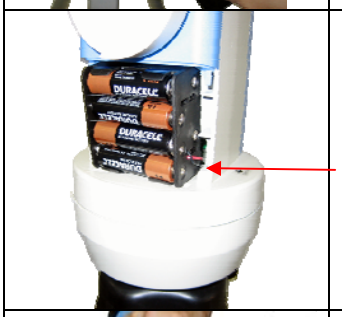
Step 3.
Attach mount to tripod by placing the mount onto the threaded bolt on tripod. Then turn the mount until it is securely fastened to the tripod.

Use height adjustment handle (#8) to adjust the height of the mount. (***Caution: Do not extend beyond 6 inches from top of tripod.***)

Make sure to tighten the tripod height lock knob (#12).



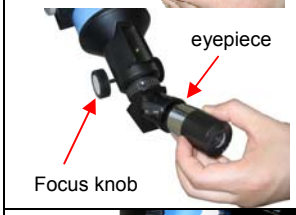
Step 4.
Lift the battery cover. Carefully pull out the battery holder from the compartment. Be sure not to accidentally disconnect the wires.



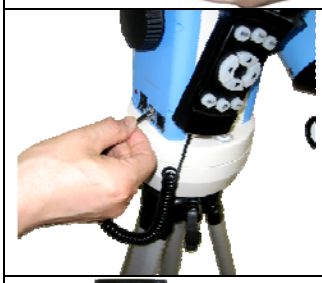
Step 4a.
Insert 8 AA batteries (not included) in the holder. Refer to the diagram on the holder to orient the batteries properly. Replace the holder back into the battery compartment and replace the lid.

For reference: the battery pack fits in with wires on the bottom right. (See arrow in photo). Use only fresh batteries. Using old or low batteries may cause error messages.
An optional AC adapter and 12V car plug cable are also available for purchase at www.iOptron.com.

Step 5.
Attach telescope to mount using dovetail lock knob (#2).

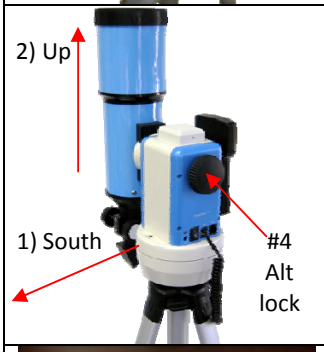


Step 6.
Insert 45º diagonal: Insert the diagonal (#6) into the eyepiece side of the telescope. Tighten the thumbscrews to a firm feel only.
Insert the eyepiece: Remove the supplied K 25mm eyepiece (#7) from its container and slide it into the other end of the diagonal. Tighten the thumbscrews to a firm feel only. Remove the dust cover from the end of optical tube assembly.
Use the focus knob to bring objects into focus. You may need to turn the focus knob quite a few turns to focus your telescope for the first time. Always start observing using a low power eyepiece (such as a K 25mm eyepiece) to get a nice wide field of view. Later you can change to high power if so desired. Higher powered eyepieces have a much narrower field of view. So it's more difficult to locate objects using higher powered eyepieces.



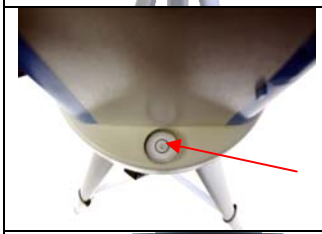
Step 7.
Plug hand controller into any one of HBX port on the mount.

Turn on power. Now you are ready to observe. Use the 4 Arrow keys (▲▼◄►) to rotate the scope Up, Down, Left, and Right. Use the SPEED key to change the slew rate from the slowest (2X) to the fastest (MAX).

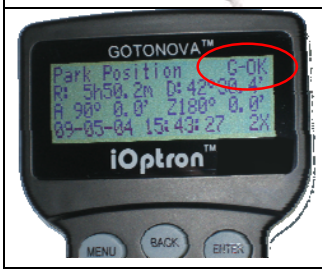


Step 8.
Set telescope to PARK POSITION.

(1) Position the mount so that the "SOUTH" mark is facing south (A compass may be helpful).
(2) The telescope tube should be pointed directly up at the zenith. If it is not perfectly straight then loosen the altitude lock (#4) to adjust telescope.



Step 9.
Level the mount using the bubble on side of mount by adjusting tripod legs. The bubble should be in the middle of the circle. It is also suggested to use additional levels (such as torpedo levels) to assure precise leveling.



Step 10.
Press the I/O power switch ON (controller will light up).

For models with GPS: Wait for controller to say "G-OK" or "Stop" in top right corner —not "G-ON". GPS provides Latitude, Longitude, and current time only.

For models without GPS you will be able to manually enter latitude, longitude, and time in the next steps.

Step 11.
Press the MENU key once.
Scroll (with the ▲/▼ keys) to "Set Up Controller"
Press ENTER.

Scroll to "Set Up Time and Site" in the next screen.
Press ENTER.

<table>
<tr>
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<td>Step 12.
Now “Set Local Time:” is displayed at the top. A blinking cursor is at the second line.
GPS will provide current date and time. If GPS is not available, current date and time can be manually entered at this screen.
Use ▲/▼ keys to change the numbers. Use ◄/► keys to scroll through the fields.
The last field of this screen is for setting “DaylightTime saving”.
Use ▲/▼ keys to switch between “Y” (yes) and “N” (no).
Press ENTER when finished.</td>
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<td>Step 13.
Now “Setup Site Info:” is displayed at the top. A blinking cursor is at the second line. (“Longi” means longitude; “Lat” means latitude.)

GPS will provide the longitude and latitude information. If GPS is not available, these values can be manually entered here.

Use ▲/▼ keys to change the numbers and letters. Use ◄/► keys to scroll through the fields.

The last line of this screen is for setting time zone information (add or subtract 60 minutes (Mins.) per time zone).
<u>Examples: minutes “behind” UT or “ahead” of UT</u>
New York: 300 Mins. “behind” UT
Los Angeles: 480 Mins. “behind” UT
Rome: 60 Mins. “ahead” of UT
Sydney: 600 Mins. “ahead” of UT
Press ENTER when finished.

<u>The mount is now ready to find (GOTO) and track objects.</u></td>
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<td>Step 14. Select and Slew to an object

Press Menu button.
Scroll to “Select and Slew”
Press ENTER.</td>
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<td>Step 15.
Select a category (ex. “Planets, Sun, Moon”) by scrolling with the arrow keys.
Press ENTER.

Then select an object (ex. “Moon”) by scrolling with the arrow keys.
Press ENTER.

The telescope will automatically slew to the object and lock on. It will automatically begin to track once it locks on to the object.</td>
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<td>Step 16. Sync to Target (Use this to center and synchronize the object selected in Step 15).
Press MENU. Scroll to “Sync. To Target”. Press ENTER. Next use the arrow keys (▲▼◄►) to center the object in the eyepiece. Then press ENTER again to synchronize the object with the memory.

To slew to other objects simply repeat steps 14 and 15. You do not need to repeat step 16 except for adjustments as needed.

(Refer to the full online manual for 1-star and 2-star alignments. Sync to Target is the same as 1-star Alignment except that you choose the object to align to.)</td>
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