

Vixen®

3

ASSEMBLY INSTRUCTIONS FOR GP2 PHOTO GUIDER S

GP2ガイドパックS組立説明書



GP2 GUIDE PACK S

PREFACE

Thank you for your purchase of a Vixen GP2 Photo Guider S. Be sure to refer to a "Great Polaris equatorial mount telescope" instruction manual included together with this manual to learn usage of the GP2 Photo Guider S.

⚠ WARNING!

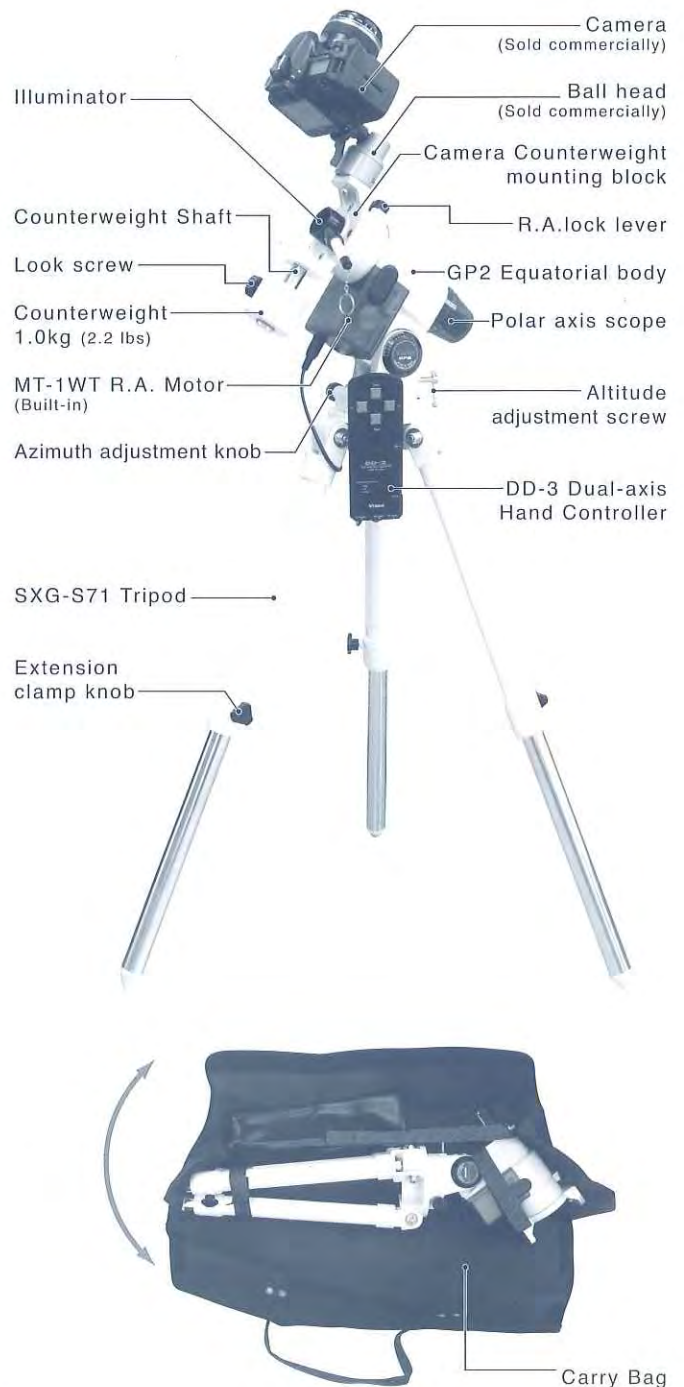
Never look directly at the sun with the telescope, or through the camera attached to this product.
Permanent and irreversible eye damage may result.

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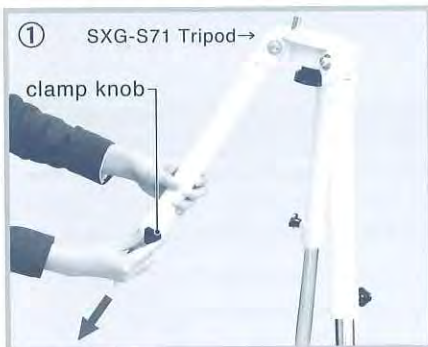
① GP2 Equatorial body	1
② Camera/Counterweight mounting block	1
③ SXG-S71 Tripod	1
④ Counterweight 1.0kg (2.2 lbs)	1
⑤ Counterweight Shaft	1
⑥ DD-3 Dual-axis Hand Controller	1
⑦ Battery Box (for 8 x D-size)	1
⑧ MT-1WT R.A. Motor (Built-in)	1
⑨ Illuminator	1
⑩ Carry Bag	1
⑪ Accessory Case	1
⑫ A set of Allen wrenches 1.27mm, 5mm & 6mm	1
⑬ M6 -16mm Bolt (for fixing the Photo Guide Plate)	4
⑭ 1/4 inch - 15mm Bolt	2
⑮ Assembly instructions (This booklet)	1
⑯ DD-3 instruction manual	1
⑰ GP2 equatorial mount instruction manual	1



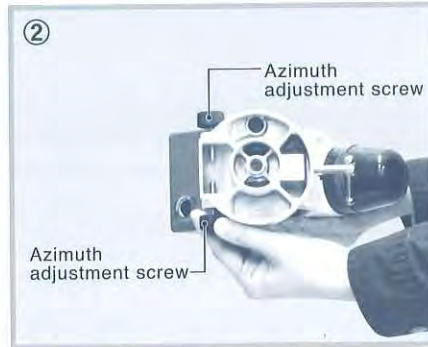
Components



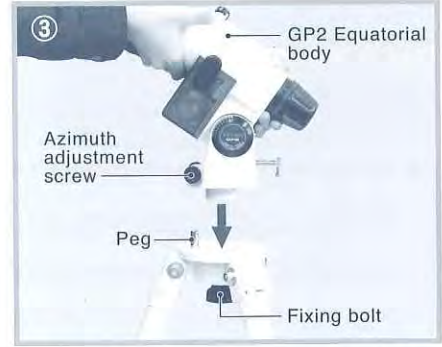
Assembling the GP2 Photo Guider S



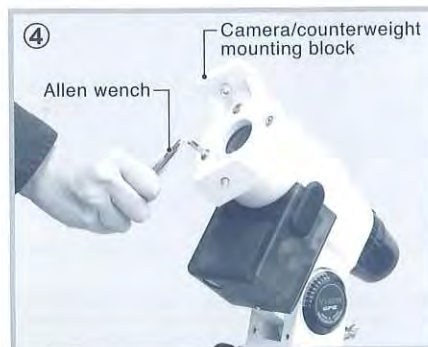
- ① **Setting up the Tripod**
Loosen the extension clamp knob on the tripod leg so that the tripod leg can be adjusted at the desired length. Pull the tripod legs apart until each leg is fully extended. Stand the tripod to be level on the ground at the desired height by readjusting the length of each tripod leg. Tighten the extension clamp knobs securely.



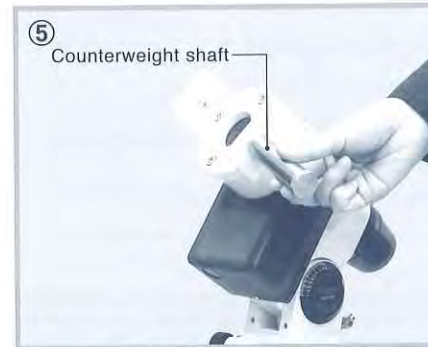
- ② **Loosen the two azimuth adjustment screws fully.**



- ③ **Place the bottom of the equatorial body over the tripod head so that the azimuth adjustment screws are above the peg on the tripod head as shown in the figure. Attach the equatorial body to the tripod head and tighten the fixing bolt by hand. Then tighten the azimuth adjustment screws. (Do not tighten strongly.)**



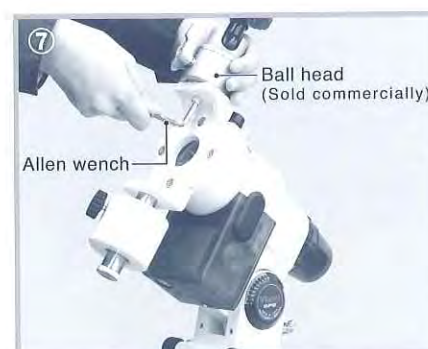
- ④ **Attach the Camera/counterweight mounting block on the head of the equatorial body with the supplied 4 of M6-16mm long bolts. Tighten the bolts securely by using the supplied Allen wrench.**



- ⑤ **Thread the counterweight shaft into one end of the Camera/counterweight mounting block until tight. (Remove the attached 1/4 inch bolt in advance to thread.)**



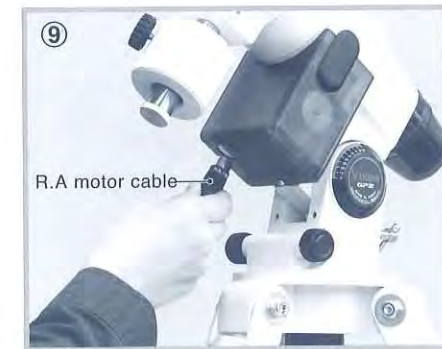
- ⑥ **To install the counterweight 1 kg on the counterweight shaft, remove the safety screw on the end of the counterweight shaft and slide the counterweight on to the center of the shaft. Tighten the lock screw on the counterweight and replace the safety screw in place.**



- ⑦ **Install a commercially available Ball head on the other side of the Camera/counterweight mounting block as shown in the figure.**



- ⑧ **Install the illuminator on the center of the Camera/counterweight mounting block.**



- ⑨ **Connect the R.A. motor cable of the DD-3 hand controller to the built-in R.A. motor on the equatorial body and finish the setting up.**

※ For usage of the DD-3 dual-axis controller, refer to instruction manuals for the DD-3 hand controller.

Specifications

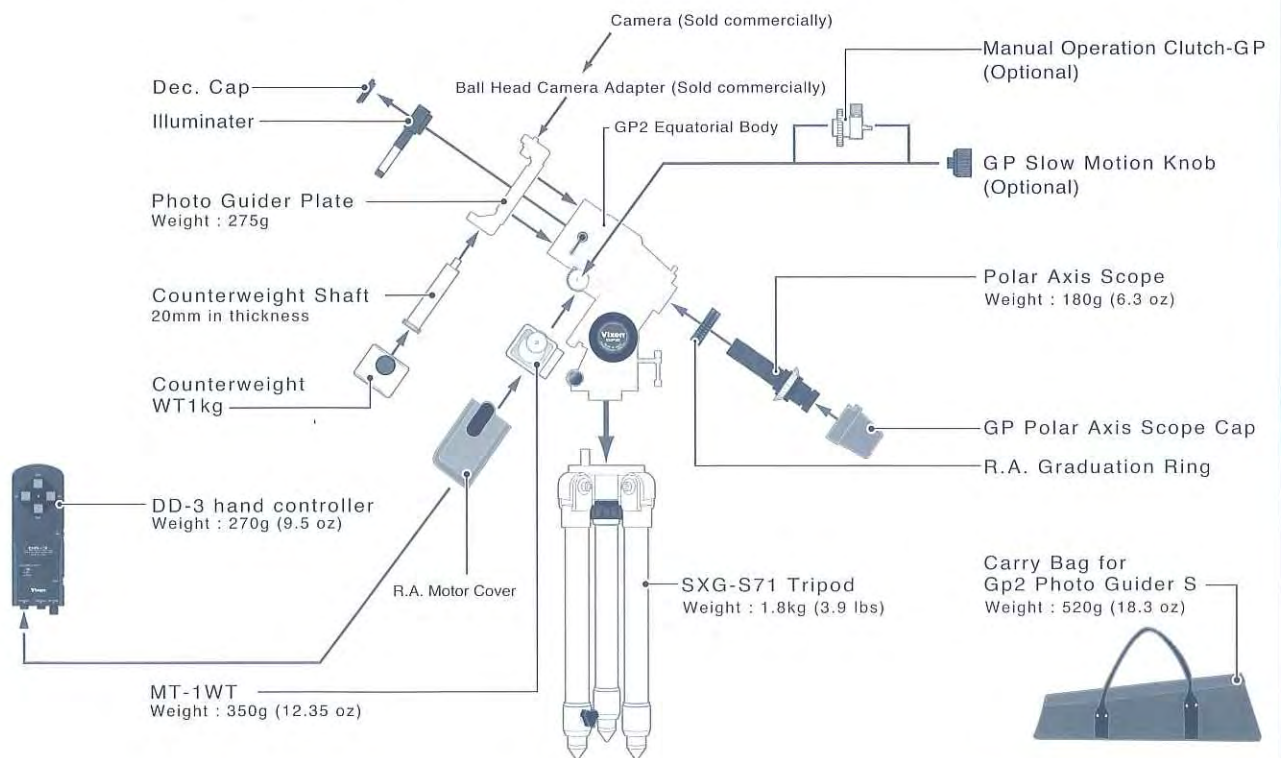
The specifications are subject to change without notice.

■ Equatorial Body & Bas	
R.A. Slow Motion	144-tooth wheel gear whole circle movement
R.A. Graduations	10 minutes increments
Polar Axis Scope	6x20mm with illuminated reticle, usable on both hemispheres (North and South) the reticle pattern is applicable till the year 2025, 3 arc min. setting accuracy
Altitude Range	0 degree to 62 degrees (2-degree increments)
Azimuth Adjustment	Double-screw fine adjustment, about 1-degree per rotation
Altitude Adjustment	Elevation adjustment screw (bolt)
Motor Drive	Auto tracking with DD-3 hand controller, built-in MT-1WT motor for R.A. Power supply : DC12V(8x D-size batteries, not included)
Working Voltage·Power Consumption	DC8~12V About 430mA(at sidereal rate)·950mA(Maximum)
Payload	About 2.5kg (excluding counterweight) (5.5 lbs)
Weight	About 3.1kg (6.8 lbs)
■ Tripod	
Leg Material	Two-section round steel legs (Aluminum is used partly)
Leg Adjustable Length/Height·	About 430~710mm in length or about 425~680mm in height, Setting radius:240~360mm,
Weight	About 1.8kg (3.96 lbs)
■ Other	
Total Weight	About 6kg (13.2 lbs)

GP2 Photo Guider S

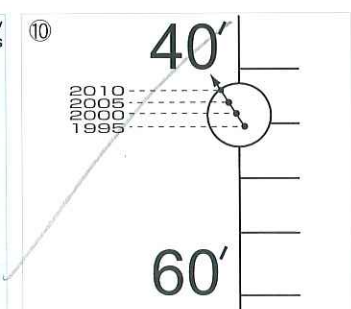
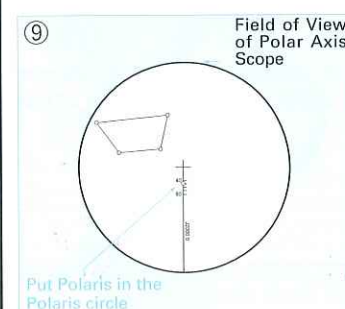
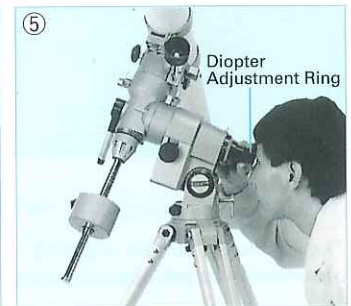
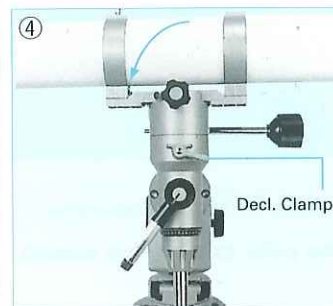
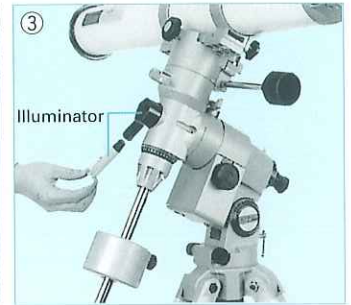
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The components chart includes optional accessories along with the standard accessories.



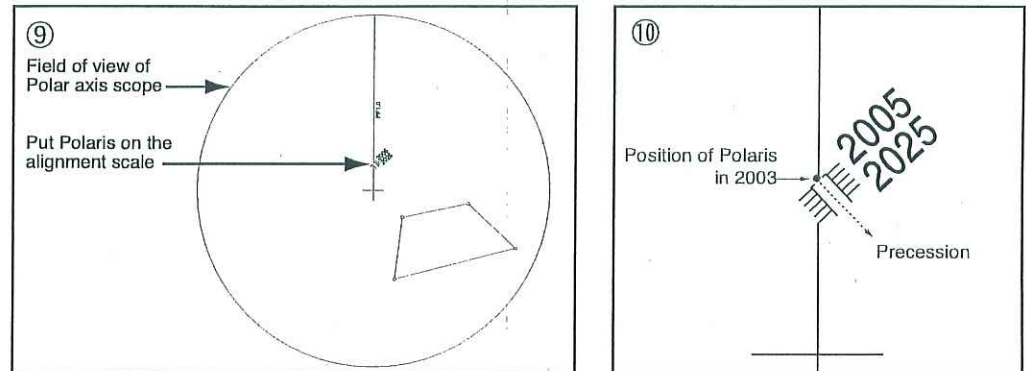
Using a Polar Axis Scope in the Northern Hemisphere

- ① In the Northern Hemisphere, locate Polaris in the sky and point the polar axis of the mount in the direction of Polaris.
- ② Adjust the tripod legs until the bubble level on the left side of the mount indicates the tripod is level.
- ③ Install the polar axis scope illuminator* onto the front of the polar axis and turn on the switch. (Refer to the paragraph «How to use a Polar Axis Scope Illuminator».)
* optional
The GPD2 mount comes as standard with the built-in type illuminator.
- ④ Unfasten the Decl. clamp and turn the optical tube until it is nearly at right angles to the polar axis. If you do not do this, the polar axis scope will be shaded with the Decl. axis and can not be used.
- ⑤ While looking in the polar axis scope, adjust the diopter adjustment ring to focus on the reticle in the field of view.
- ⑥ Look at a map or atlas that shows the longitude of your observing site. Once you know your longitude, find the difference between that and the standard time meridian for your zone. Set the difference on the time meridian offset scale. If your observing site is located in the east of the standard time meridian, set the E side graduation to the time meridian indicator. If in the west, set the W side graduation to the time meridian indicator.
- ⑦ Set "0 hour" on the R. A. and hour graduation ring to the R. A. indicator after loosening the graduation-ring setscrew. Re-tighten the graduation-ring setscrew. (The graduation-ring setscrew should be loosened when observing.)
- ⑧ Unfasten the R. A. clamp and turn the telescope around the polar axis to set the observing date on the date graduation ring to the observing time on the R. A. and hour graduation ring.
- ⑨ Look through the polar axis scope and bring Polaris in the Polaris circle of the reticle by adjusting the azimuth and altitude with the azimuth adjustment knobs and altitude adjustment screw. The Polaris circle indicates the correct position of Polaris relative to the celestial pole.
- ⑩ Owing to a wobble in the earth's axis, the position in of Polaris changes gradually over time. The diagram ⑩ shows the position of Polaris through the year 2005. In order to align the polar axis more precisely, put Polaris on the position indicated on the diagram.



Change of the reticle in the Polar axis scope (GP and GP-DX)

Owing to a wobble in the earth's axis, the position of Polaris changes gradually over time. For that reason the reticle for the Polar axis scope has been replaced with new one as shown below for update.



For the descriptions ⑨ and ⑩ in page 12 of the instruction manual for "Great Polaris" "GP-DX" Equatorial Mount Telescope, please read as follows:

- Look through the polar axis scope and bring Polaris in the alignment scale of the reticle by adjusting the azimuth and altitude with the azimuth adjustment knobs and altitude adjustment screw. The Polaris alignment scale indicates the correct position of Polaris relative to the celestial pole.
- The diagram ⑩ shows the position of Polaris through the year 2025. In order to align the polar axis more precisely, put Polaris on the position indicated on the diagram.