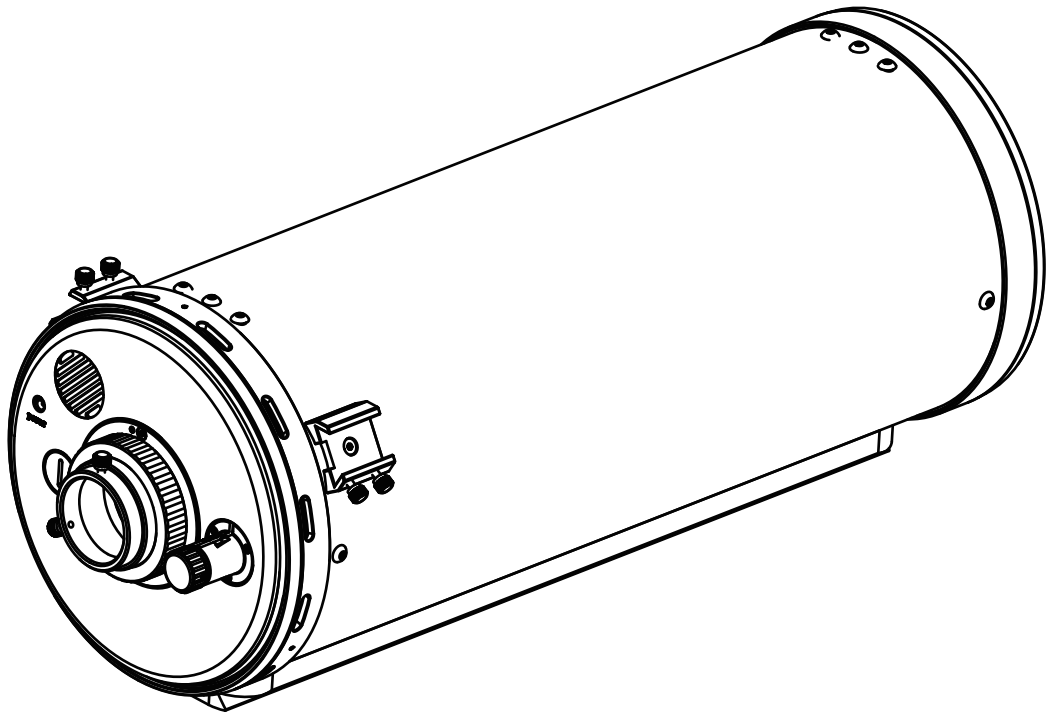
INSTRUCTION MANUAL

SKYMAX 200DX



202604V2

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PART I:PRODUCT COMPONENT DESCRIPTION

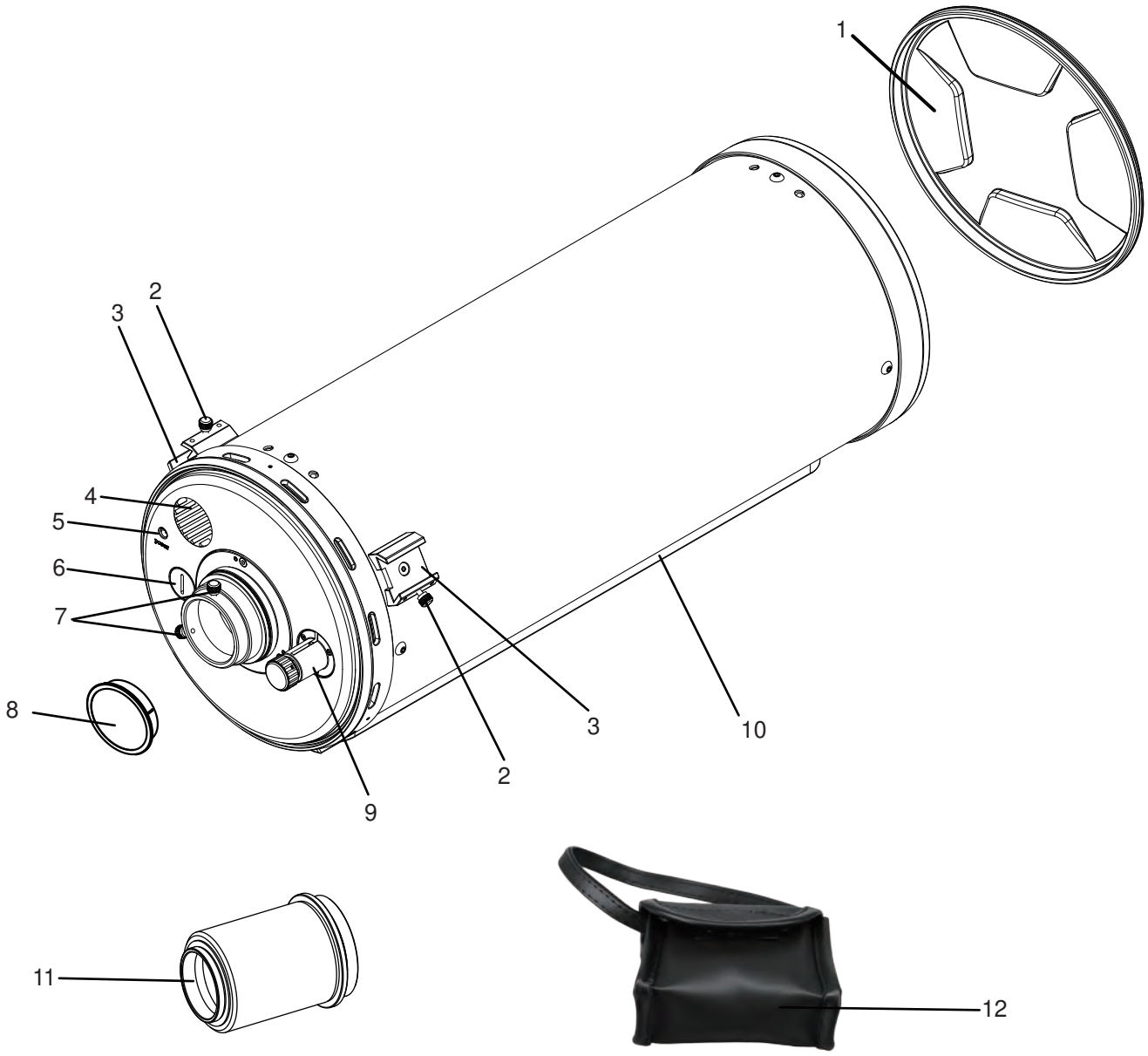


Fig.1

1. Lens Cover
2. Finderscope Locking Screw
3. Finderscope mounting Base
4. Fan
5. Power Port
6. Belt Adjustment
7. Locking Screws
8. Dust Cover
9. Focus Knob
10. Dovetail
11. M48X0.75 Camera Adapter
12. Battery Compartment Assembly

PART II: SPECIFICATIONS OF THE SKYMAX 200DX

2.1 Product List:

Name	Description
OTA	200mm Maksutov Telescope
Camera Adapter	M48X0.75 Camera Interface, Back Focus 55mm
Battery Compartment Assembly	8-AA Batteries

2.2 Product Specifications:

Effective Aperture	200mm
Focal Length	2000mm
Focal Ratio	F/10
Seconday Mirror Diameter	70mm
Obscuration Ratio (Diameter)	47%
Image Height	44mm
OTA Length	66.5cm
OTA Weight	12kg
Objective Lens Coating	Broadband AR Coating
Focusing Method	Helical Focuser,With Focus Indicator
Reducer (Optional)	0.7X

PART III:TELESCOPE INSTALLATION

1. Remove dust Cover， unscrew lens cover(Fig.2.1).
2. Fix the OTA to the mount with the dovetail plate on the mount (Fig.2.2).

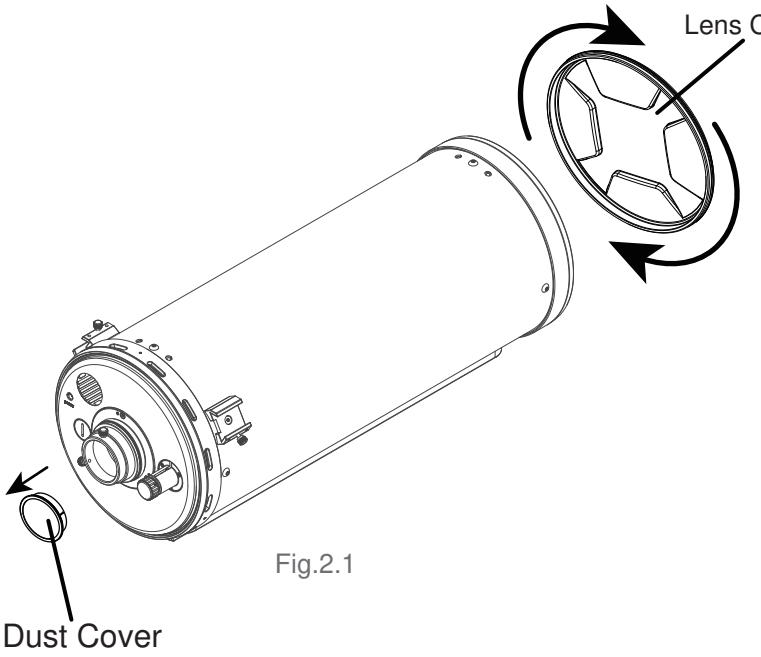


Fig.2.1

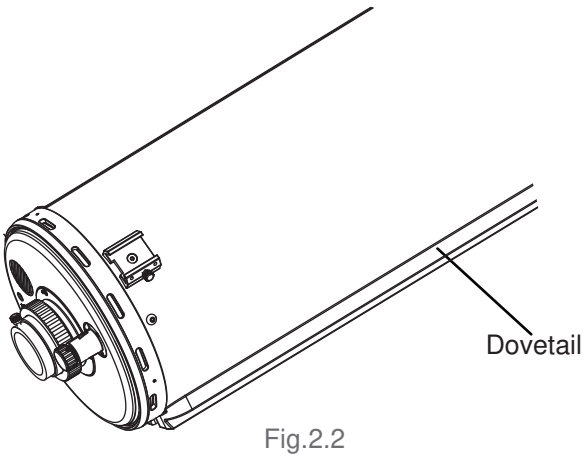


Fig.2.2

The diagonal、 eyepiece and finderscope shown in this manual are not included and must be prepared by the user.

3. Slide the finderscope bracket into the finderscope base and lock it with screw (Fig.3).

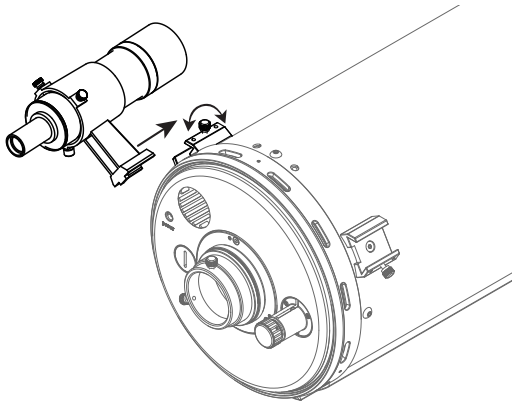


Fig.3

4. Install the diagonal and eyepiece in sequence and lock them with screws (Fig.4).

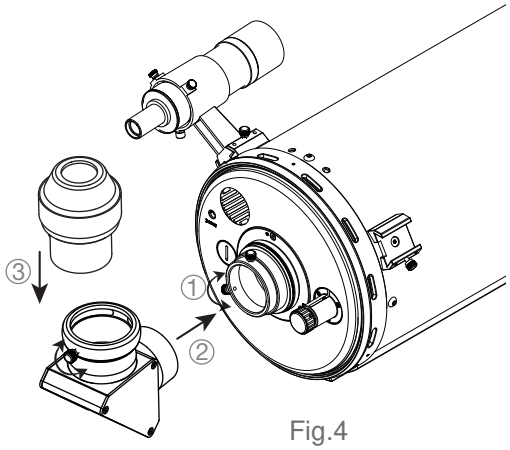


Fig.4

PART IV:TELESCOPE FOCUSING

4.1. Use of Focus Knob:

To obtain a clear image when using the telescope, you need to adjust the focal length according to the distance of the observed object. This process is completed by turning the focus knob at the rear of the telescope to move the main mirror back and forth. Specific operation methods:

1) Aim the telescope at the target to be observed.

2) Adjust the focus knob: turn clockwise for close-range targets and counterclockwise for long-range targets (Fig.5).

Note: It is best to familiarize yourself with this operation during the day, as it is difficult to focus on faint stars at night. Using it with the finderscope will make it easier. If you can focus on a sufficiently distant object during the day, it will be easier to perform the same operation to observe the night sky at night.

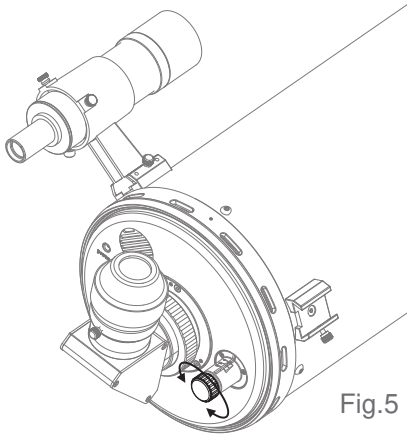


Fig.5

4.2. Function of Focus Indicator:

The scale on the indicator from 38m to infinity indicates the distance of the observed target and the focusing range.

1) First estimate the distance of the observed target. Then, rotate the focus knob to make the indicator line on the movable indicator block approach the estimated distance (Fig.5).

2) Fine-tune the focus knob until the target is focused through the eyepiece.

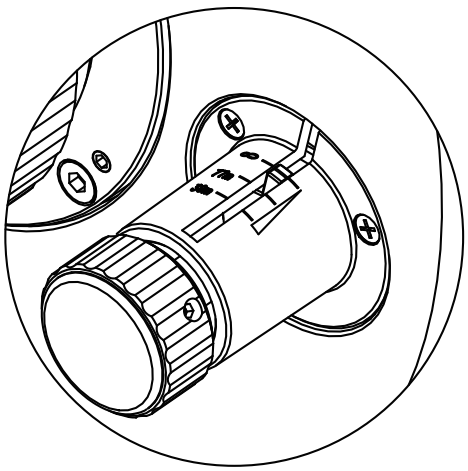


Fig.6

PART V:USE OF FAN

The atmosphere with various weather phenomena is full of tiny temperature changes. When observing with a telescope, these weather effects are also amplified, reducing the observation accuracy and efficiency of the telescope.

To ensure better observation results, a fan is installed inside the telescope for active air exhaust to accelerate cooling, blow away relevant air, and achieve more effective heat dissipation.

When the environment affects observation:

1) Correctly install 8 AA batteries into the battery compartment of the battery compartment assembly.

2) Connect the power port on the battery compartment to the POWER interface at the rear of the main tube, and the fan will operate automatically.

3) Let the fan run for more than 10 minutes, then unplug the battery compartment assembly for observation. If the environmental impact still exists, repeat the above operations until the desired observation effect is achieved.

PART VI:TELESCOPE PHOTOGRAPHY METHOD

When switching from visual observation mode to photography mode:

1) Remove the visual adapter (Fig.7).

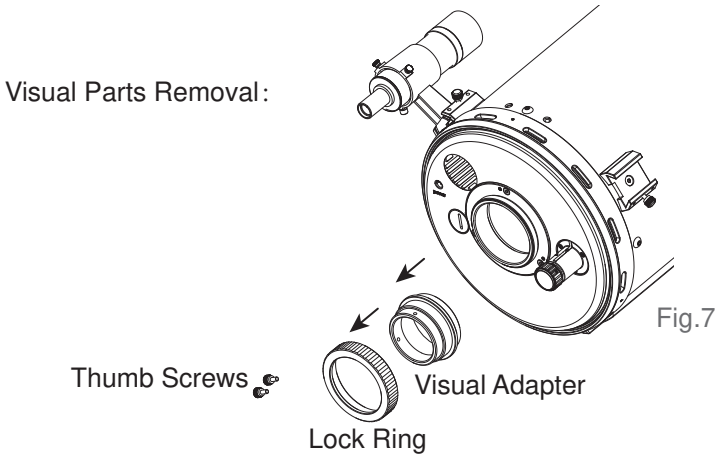


Fig.7

2) Install the camera adapter. Insert the short end of the camera adapter into the central hole of the main tube and lock it with the locking ring. The camera interface on the camera adapter is M48X0.75. After installing the camera adapter on the main tube, the back focus is 55mm and the image height is 44mm. Cameras that meet the above conditions can be used (Fig.8).

3) Connect the camera adapter ring and camera to the camera adapter (Fig.9).

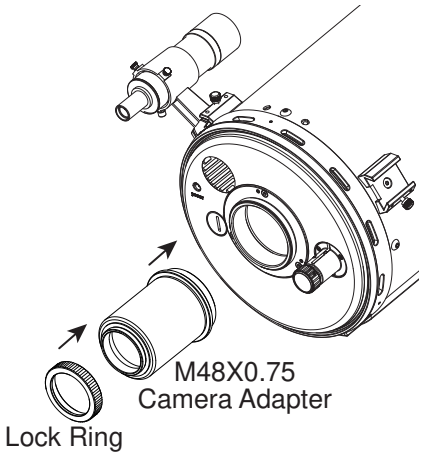


Fig.8

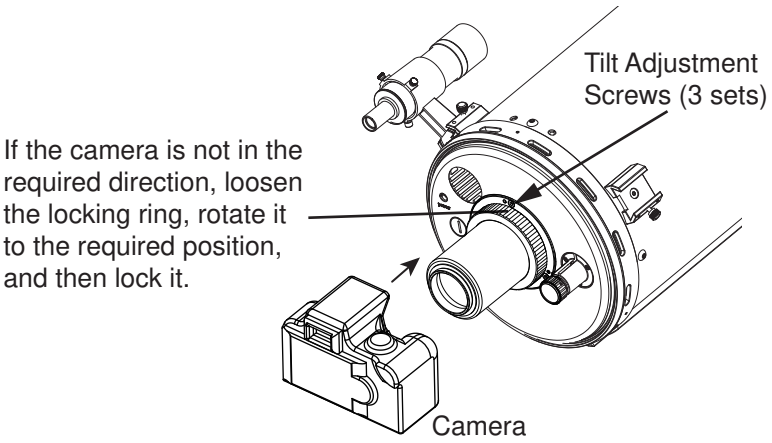


Fig.9

4) Adjust the circumferential position of the camera. If the camera is not in the required direction, loosen the locking ring of the camera adapter, rotate it to the required direction, and then lock it.

5) Adjust the axial tilt of the camera. If the images at the four corners of the camera are asymmetric during use, adjust the three sets of tuning screws to adjust the tilt of the camera.

Note: If using other cameras for shooting, to achieve the best use effect, please select the appropriate adapter and camera according to the back focus and image height of this telescope.

PART VII:USE OF REDUCER LENS (OPTIONAL)

The optional accessory of this telescope is a 0.7X reducer. Usage method of the reducer:

1) Remove the connecting parts at the rear of the telescope, such as the visual adapter and camera adapter.

2) Remove the protective covers at both ends of the reducer lens (Fig.10).

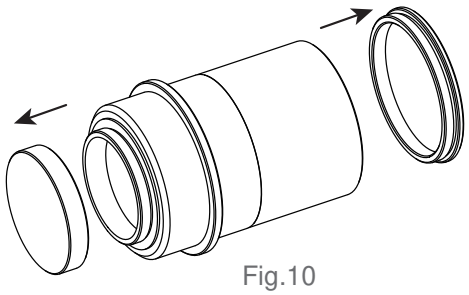


Fig.10

3) Insert the long end of the reducer into the central hole of the main tube and lock it with the locking ring.

4) The camera interface on the reducer base is M48X0.75. After installing the reducer on the main tube, the back focus is 55mm and the image height is 43mm. Cameras that meet the above conditions can be used.

5) The circumferential position adjustment and axial tilt adjustment of the camera are the same as those of the camera adapter.

Notes: **If using other cameras for shooting, to achieve the best use effect, please select the appropriate adapter and camera according to the back focus and image height of this telescope after installing the reducer lens.**

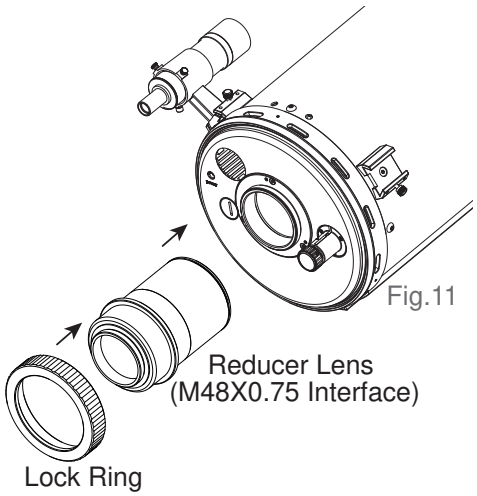


Fig.11

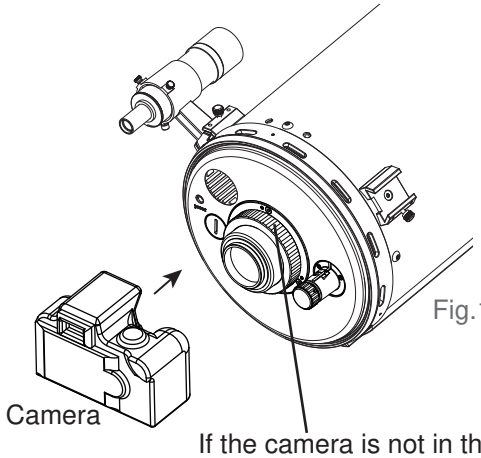


Fig.12

If the camera is not in the required direction, loosen the locking ring, rotate it to the required position, and then lock it.

Mounting screws for Losmandy-D accessories are reserved on the telescope; customers need to purchase the Losmandy-D plate separately (Fig.13).

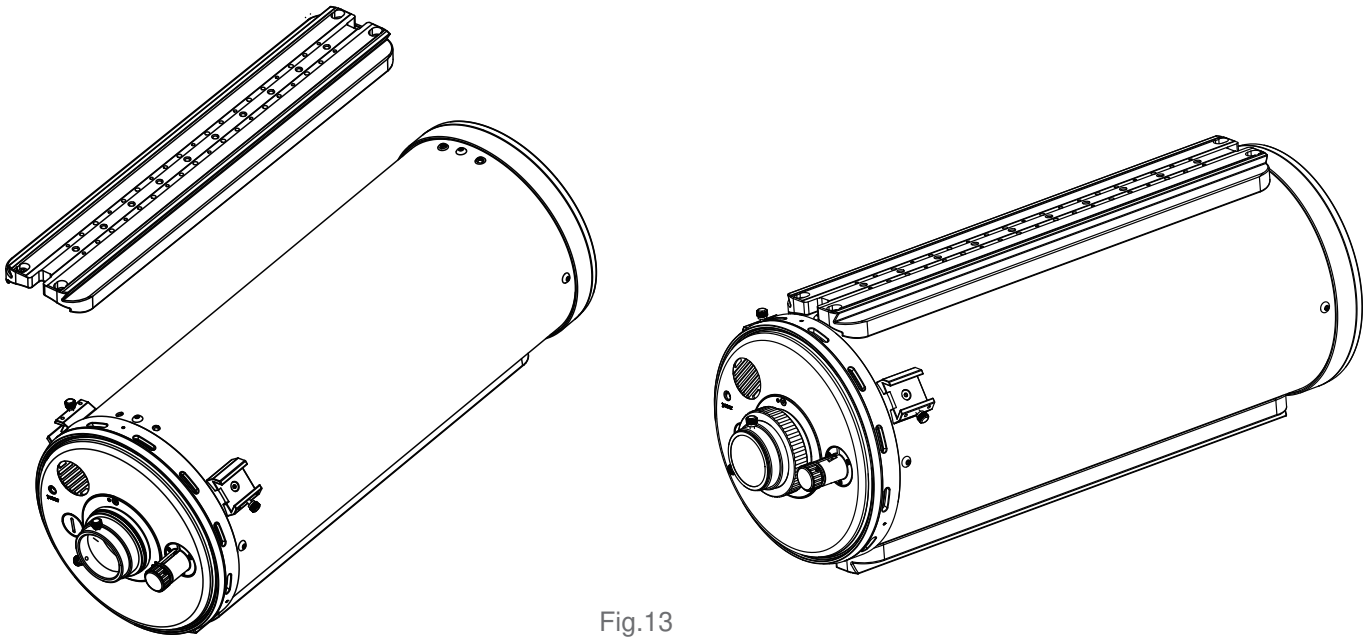


Fig.13

The focusing mechanism of the SKYMAX 200DX is driven by a timing belt. After long-term use, the timing belt may become loose or tight. Users can adjust the tightness of the timing belt by unscrewing the cover at the timing belt adjustment position to access the adjustment mechanism and adjust it themselves (Fig.14).

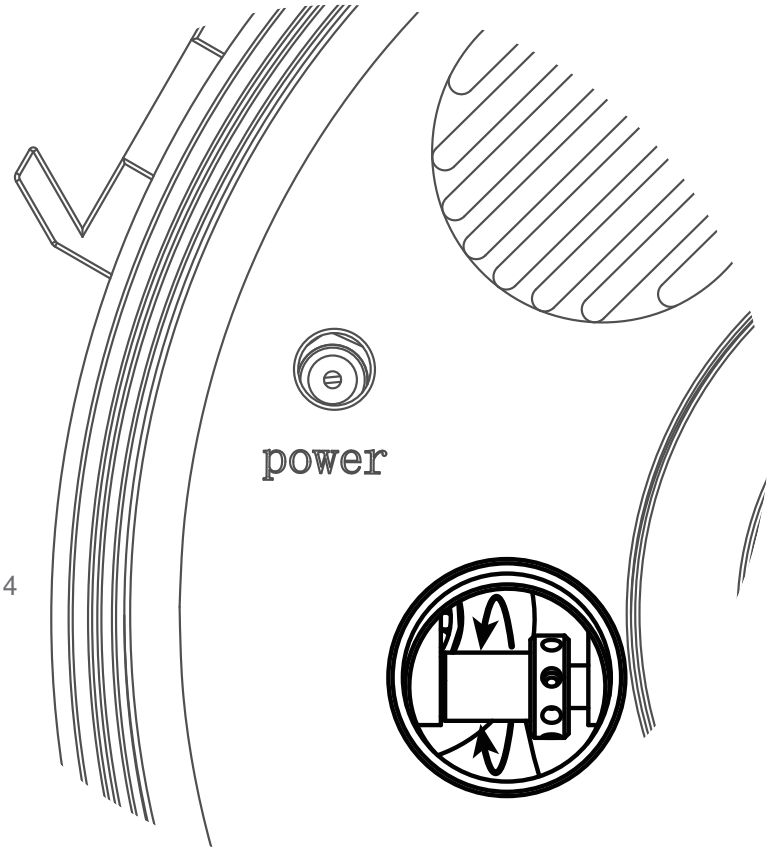


Fig.14

PART VIII:TELESCOPE COLLIMATION

The collimation screws of the telescope are located at the bottom of the primary mirror. You need to open the cover plate of the rear sleeve to see 3 collimation screws and 3 locking screws.

1) Remove the two set screws on the focus knob, pull out the focus knob, then remove the three screws on the focus knob base and the slotted nut at the timing belt adjustment port (Fig.15).

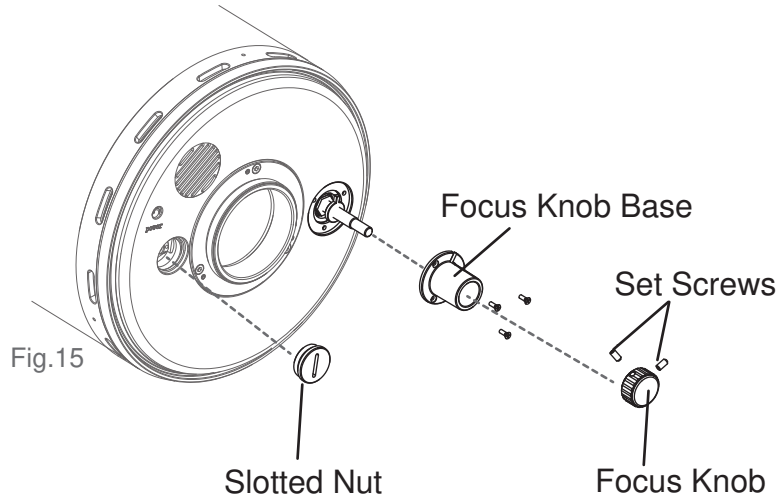
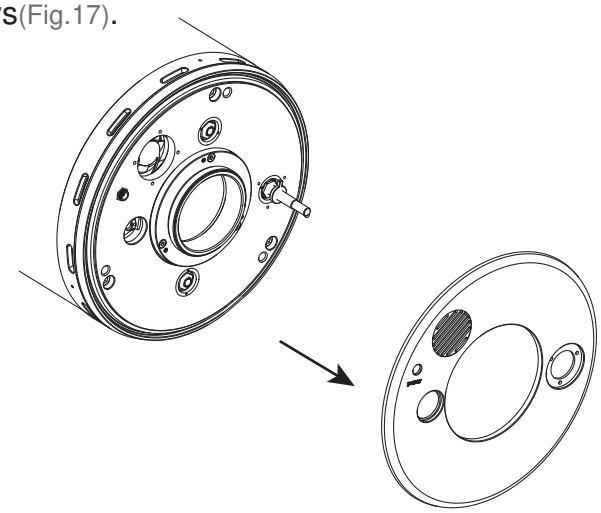


Fig.15

2) Remove the rear sleeve cover plate (Fig.16) to see the three collimation screws and three locking screws(Fig.17).


Fig.16

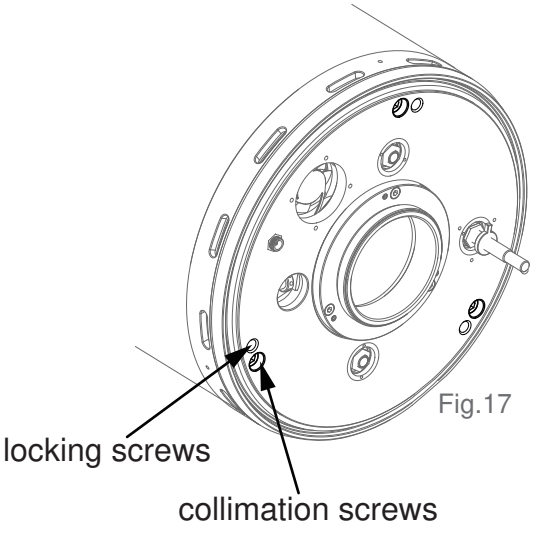


Fig.17

The optical performance of your telescope is directly related to its collimation, that is, the collimation of its optical system. Your telescope was collimated at the factory after being fully assembled. However, if the telescope is dropped or severely shocked during transportation, collimation may be required. It is necessary to adjust the tilt of the main mirror to ensure optimal optical performance.

To check the collimation of the telescope, you need a light source. A bright star near the zenith is ideal because atmospheric distortion is minimal there.

Before starting the collimation process, ensure that the telescope is in thermal equilibrium with the surrounding environment. If you move the telescope between large extreme temperatures, allow it 60 minutes to reach equilibrium. To verify collimation, observe a star near the zenith. Use medium and high-power eyepieces—12mm to 6mm focal length. It is important to place a star in the center of the field of view to judge collimation. Slowly focus and defocus alternately to judge the symmetry of the star. If the star is systematically tilted to one side (Fig.18), re-collimation is required.

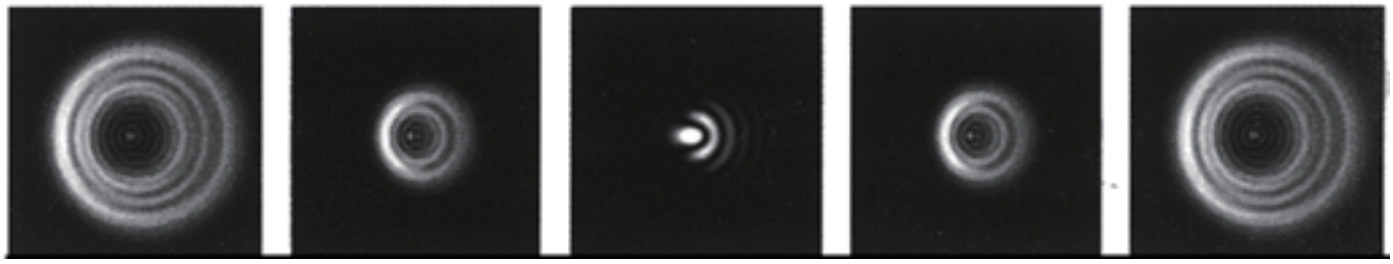


Fig.18

Use an Allen wrench to tighten one or two main mirror calibration screws at the narrowest part of the star's diffraction ring pattern (Fig.18) until the star's diffraction ring appears as concentric circles (Fig.19). If one or two calibration screws at the narrowest part are too tight to tighten, you can also loosen one or two screws in the opposite direction until the star's diffraction ring appears as concentric circles. Note that loosening the screws should not cause the main mirror to loosen; optimally, when loosening a calibration screw, tighten the calibration screw in the opposite direction.

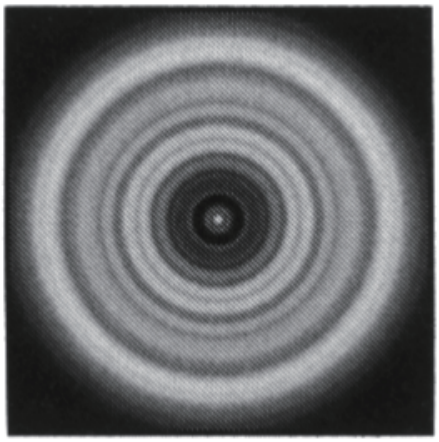


Fig.19

PART IX:TELESCOPE STORAGE AND MAINTENANCE

1. The telescope must be stored correctly to ensure normal function and service life. When not in use, cover the telescope with the lens cap.

2. Cleaning the optical components of the telescope can be done with a dust-free flannel. Do not use abrasive materials or corrosive chemicals, as these will damage the optical surface. Over time, a small amount of dust will accumulate on the front lens of the telescope. This will not affect performance and should only be cleaned when it accumulates excessively.

3. Avoid touching the optical components of the telescope.

4. Do not immerse the telescope or any parts in water.

5. Do not disassemble the telescope. There are no user-serviceable parts inside this telescope.

SKYMAX 200DX



NEVER USE YOUR TELESCOPE TO LOOK DIRECTLY AT THE SUN. PERMANENT EYE DAMAGE WILL RESULT. USE A PROPER SOLAR FILTER FIRMLY MOUNTED ON THE FRONT OF THE TELESCOPE FOR VIEWING THE SUN. WHEN OBSERVING THE SUN, PLACE A DUST CAP OVER YOUR FINDERSCOPE OR REMOVE IT TO PROTECT YOU FROM ACCIDENTAL EXPOSURE. NEVER USE AN EYEPIECE-TYPE SOLAR FILTER AND NEVER USE YOUR TELESCOPE TO PROJECT SUNLIGHT ONTO ANOTHER SURFACE, THE INTERNAL HEAT BUILD-UP WILL DAMAGE THE TELESCOPE OPTICAL ELEMENTS.