

Using the Tension Control Knob

Loosen or tighten the knob to add just enough friction to allow the tube to move easily when nudged but to stay in position when not. It may be necessary to re-adjust the tension control handle when accessories are added to, or removed from, the tube.

Calculating the Magnification (Power)

The magnification produced by a telescope is determined by the focal length of the eyepiece that is used with it. To determine a magnification for your telescope, divide its focal length by the focal length of the eyepieces you are going to use. For example, a 10mm focal length eyepiece will give 30X magnification with an 300mm focal length telescope.

$$\text{magnification} = \frac{\text{Focal length of the telescope}}{\text{Focal length of the eyepiece}} = \frac{300\text{mm}}{10\text{mm}} = 30\text{X}$$

When you are looking at astronomical objects, you are looking through a column of air that reaches to the edge of space and that column seldom stays still. Similarly, when viewing over land you are often looking through heat waves radiating from the ground, house, buildings, etc. Your telescope may be able to give very high magnification but what you end up magnifying is all the turbulence between the telescope and the subject. A good rule of thumb is that the usable magnification of a telescope is about 2X per mm of aperture under good conditions.

Cleaning your telescope

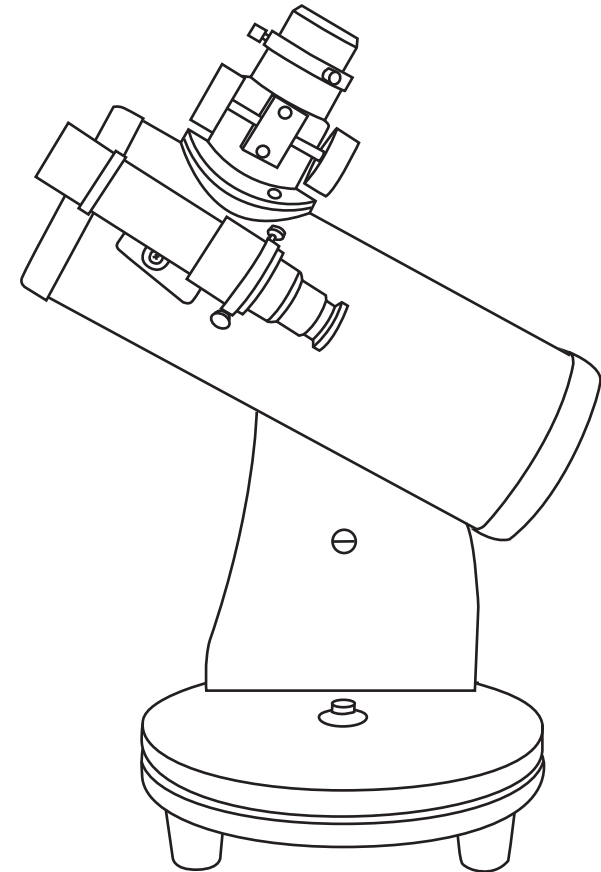
Replace the dust cap over end of telescope whenever not in use. This prevents dust from settling on mirror or lens surface. Do not clean mirror or lens unless you are familiar with optical surfaces. Clean finderscope and eyepieces with special lens paper only. Eyepieces should be handled with care, avoid touching optical surfaces.



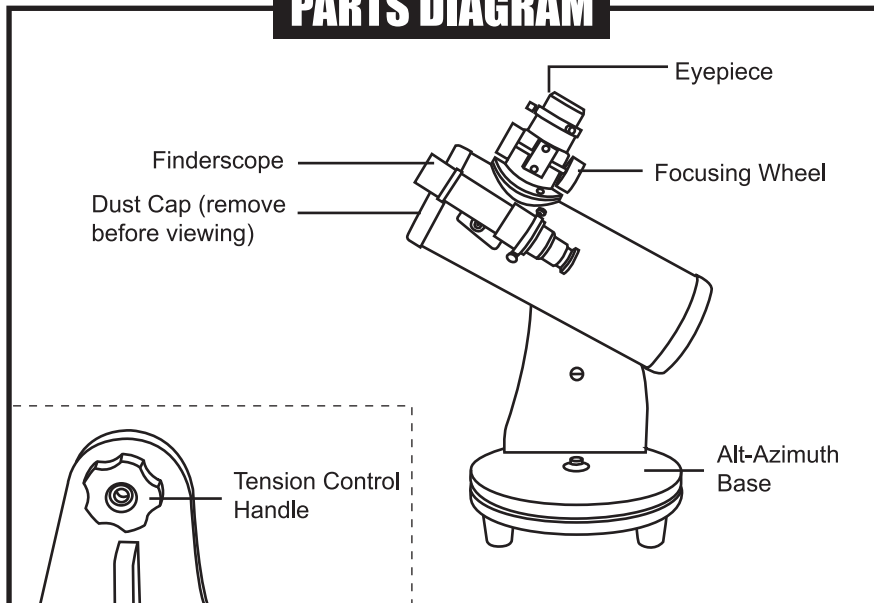
NEVER USE YOUR DOB TO
LOOK DIRECTLY AT THE SUN.
PERMANENT EYE DAMAGE
WILL RESULT.

INSTRUCTION MANUAL

minidob 76

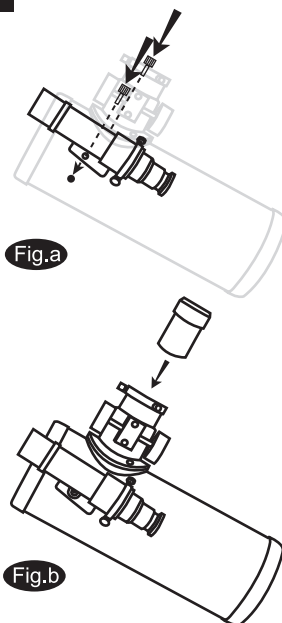


PARTS DIAGRAM



ASSEMBLY

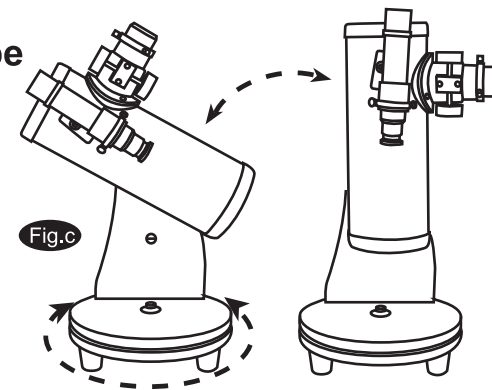
1. Remove the telescope and accessories from the package.
2. Locate finderscope optical assembly. Remove the two knurled thumbscrews near the opening of the telescope main tube.
3. Position the finderscope bracket over the screws in the telescope main body. Secure the finderscope bracket with the two knurled thumbscrews. (Fig.a)
4. Locate the eyepiece. Loosen the eyepiece lock screws and slide the eyepiece into the holder. Slightly tighten the screws to hold the eyepiece in place. Do not over-tighten the screws. (Fig.b)



OPERATING YOUR TELESCOPE

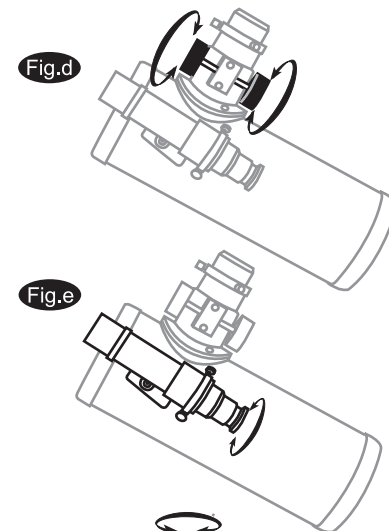
Positioning the telescope

To position the telescope to the desired angle, simply move the telescope tube up and down in altitude or swivel the telescope around the base in azimuth. (Fig.c)



Focusing

Slowly turn the focus wheel (Fig.d), one way or the other, until the image in the eyepiece is sharp. The image usually has to be finely refocused over time, due to small variations caused by temperature changes, flexures, etc. This often happens with short focal ratio telescopes, particularly when they haven't yet reached outside temperature. Refocusing is almost always necessary when you change an eyepiece or add or remove a Barlow lens.



Aligning the finderscope

These fixed magnification scopes mounted on the optical tube are very useful accessories. When they are correctly aligned with the telescope, objects can be quickly located and brought to the centre of the field. Alignment is best done outdoors in day light when it's easier to locate objects. If it is necessary to refocus your finderscope, sight on an object that is at least 500 yards (metres) away. Twist the end of the finderscope until focus is reached (Fig.e).

1. Choose a distant object that is at least 500 yards away and point the main telescope at the object. Adjust the telescope so that the object is in the centre of the view in your eyepiece.
2. Check the finderscope to see if the object centred in the main telescope view is centred on the crosshairs.
3. Use the three alignment screws to centre the finderscope crosshairs on the object (Fig.f).

