



INTELLIGENT
**STAR
TRACKING
SYSTEM**

**8.3 &
16.6mm**
EYEPIECES

WARNING! Do not view the sun through the telescope as serious injury to the eye may occur. To be used under the direct supervision of an adult.



Please retain the information on this manual for future reference.

Colour, designs and decorations may vary from those shown in the photographs.

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 **Discovery**™

AGES
8+



VIEW THE
MOON, STARS
AND OTHER
PLANETS WITH THIS
**50mm SMART
TELESCOPE**

Inspired by  **Discovery**
CHANNEL™


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Item no. **TDK30**

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Galaxy Tracker 50 Smart Telescope
Instruction Manual

Components

Smart Phone Holder



- 1 Objective Lens Cover
- 2 Objective Lens
- 3 Lens Hood
- 4 Telescope Tube
- 5 Bracket
- 6 Bolt
- 7 Tripod Legs
- 8 Focus Tube Holder
- 9 Focus Tube
- 10 Eyepiece
- 11 Eyepiece Cover
- 12 Focus Knob
- 13 Diagonal Mirror
- 14 Erecting Eyepiece / 21x Microscope
- 15 Erecting Eyepiece Ocular

Using Your Telescope

1. Carefully remove all parts from the box. When you remove your telescope, the diagonal mirror and low-power 16.6 mm eyepiece are already fitted. It is recommended that you start viewing the moon and stars with this because it gives you the widest angle with the brightest and sharpest views.
2. Stand the tripod vertically and spread the three legs fully apart.
3. Attach the telescope to the tripod. Remove the bolt (6), then carefully position the telescope over the tripod so the holes align. Re-fit the bolt and secure, taking care not to over-tighten.
4. Adjust the angle of the telescope by first releasing the bolt (6) that secures the telescope to the tripod bracket. Move the telescope as desired and secure.

NOTE: Objects will appear right-side up in your telescope, but reversed, like a reflection in a mirror. This is normal and does not indicate a problem.

5. For greater magnification, release the thumbscrew securing the 16.6 mm eyepiece, remove and replace with the 8.3 mm eyepiece.



Viewing Terrestrial Objects Through Your Telescope

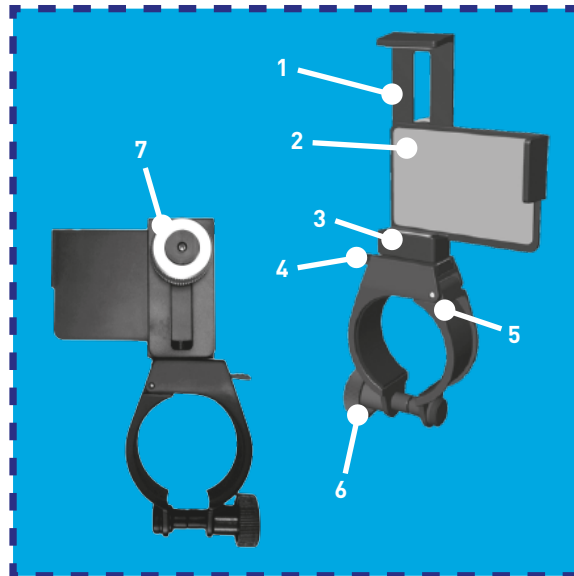
For viewing terrestrial objects, remove the diagonal mirror (13) and the eyepiece (10) from the focusing tube (9). Insert the erecting eyepiece (14) into the focusing tube.

The erecting eyepiece can also be used as a 21x microscope by placing the objective end (the end with the transparent tube) flat on an object and looking through the eyepiece.

DO NOT VIEW SUN THROUGH TELESCOPE AS SERIOUS INJURY TO EYE MAY RESULT

Components Of The Smartphone Adaptor

- 1 Adjustable Arm
- 2 Smartphone Holder
- 3 Bracket
- 4 Quick Release Lever
- 5 Arc
- 6 Small Knob
- 7 Large Knob



Setting Up And Removing The Smartphone Adaptor

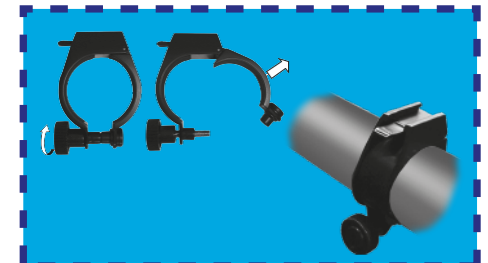
Attach the smartphone to the holder:

1. Loosen the large knob at the back of the adaptor and put the smartphone in place, face up.
2. Adjust the position of the horizontal arm to fit the width of the smartphone. Tighten the large knob so that the smartphone is securely held in place. If the adjustable arm interferes with buttons on the side of the phone, reposition the phone as necessary.



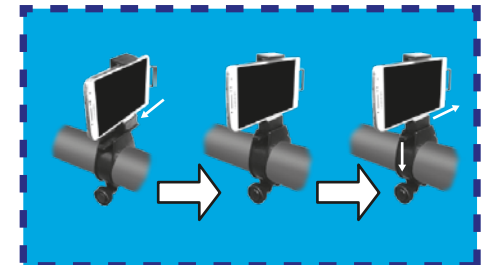
Attach the telescope clip to the telescope tube:

3. Loosen the small knob on the clip, and open as shown.
4. Attach clip to the telescope tube, with the flat side in upper position.
5. Close the ring and secure.



Attaching/removing the smartphone adaptor:

6. Slide the smartphone adaptor on to the telescope clip.
7. To remove, press the quick release lever and slide the adaptor out.



Using the Star Walk 2 Software Application

Download the Star Walk 2 app from the source appropriate to your smartphone. A code is included that gives free access to the app.

Identify The Celestial Objects

Attaching the adapter to the telescope will ensure that the smartphone is correctly aligned.

Using the smartphone's location, orientation and time information, the app can show the real time simulated sky view on the screen matching the view through the telescope. Names of the stars or celestial objects are shown on screen. The information of the screen is automatically updated when users adjust the telescope or move the telescope to a different location.



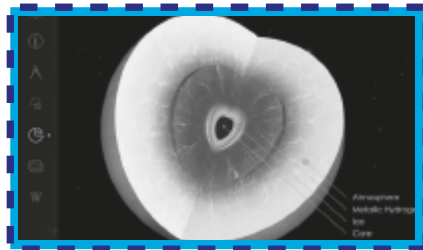
Search And Direct

The app can be used to search for a celestial object. The screen will provide a guide as to which direction to move the telescope.



Information Of The Celestial Objects

The app allows objects on the screen to be selected to provide detailed information like their internal structures, orbits and compositions.



Time Machine

Besides the real-time star map, users can extend the control of star viewing into the past and future. Users can see how specific celestial events unfold through the change of time.



How Much Power: Choosing the Eye Piece

Power refers to the ability of a telescope to enlarge an image, or, in effect, bring it closer to the viewer. The amount of magnifying power is signified by a number followed by an X. So if you view an object at 25X, you are seeing it as if you are 25 times closer to that object.

Power is calculated by dividing the focal length of your telescope's objective lens (500 mm) by the focal length of the eye piece you select. The focal length of the eye lens is usually indicated on the eyepiece itself (e.g., 4mm, 10mm, 20mm etc.)

The longer the focal length of the eyepiece, the less the magnifying power of the telescope; the shorter the focal length, the greater the power. So when you select an eye piece to insert into the diagonal prism, you're really choosing what magnifying power you wish to use for observation.

Example:

$$\frac{500\text{mm}}{16.6\text{mm}} = 30\text{X}$$

(focal length of objectives lens) (power)
(focal length of eyepiece)

Care Of Your Telescope

Your telescope should be kept away from dust and moisture. If the lenses get dirty, blow any dust particles off before cleaning. Clean the lenses with a moistened lens tissue. Always store your telescope in the box when not in use.

