

 **Discovery**™

AGES
6+

INSTRUCTION MANUAL



3-in-1 Micro Viewer 50mm Telescope

Space and Land Exploration Gear



WARNING:
SUN HAZARD — Never look directly
at the sun with this device.



WARNING:
CHOKING HAZARD — Small parts.
Not for children under 3 years.

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SUN WARNING

WARNING: NEVER ATTEMPT TO OBSERVE THE SUN WITH THIS DEVICE! OBSERVING THE SUN – EVEN FOR A MOMENT – WILL CAUSE INSTANT AND IRREVERSIBLE DAMAGE TO YOUR EYE OR EVEN BLINDNESS. Eye damage is often painless, so there is no warning to the observer that the damage has occurred until it is too late. Do not point the device at or near the Sun. Do not look through the device as it is moving. Children should always have adult supervision while observing.

The **3-in-1 Micro Viewer 50mm Telescope** assembles fast and easy, and can be changed from a telescope, to a viewer, to a microscope. Let's get started.

Do you want to explore the wonders of the night sky or study tiny specimens from your own backyard? With the Discovery 3-in-1 Viewer, you can do both! This versatile device has the power to be used as a telescope, a microscope and a slide viewer. When it is in telescope mode, the viewer offers 50mm of aperture that will let you explore the chiseled terrain of the Moon and some of the brightest deep sky treasures. When in microscope/slide mode, you can see ordinary objects reveal extraordinary details. This viewer will open up news worlds to discover while giving you a great introduction to two important scientific fields — astronomy and microscopy!

Turn to Telescope

1. Put the telescope tube and mount (10) onto the table top or full-length tripod (6), and attach by turning the tripod attaching wheel (5) clockwise until snug. Spread the tripod legs apart. If you are using the full length tripod, place and turn the tripod tray (11) clockwise to lock. Set the telescope on a steady table or on the ground for viewing.
2. Release the up and down locking wheel (4) by turning it counterclockwise.
3. Look through the aiming ring (3) and center the object you want to look at in the middle.
4. Flip the right or left eye adjustment (2) into position so that you can see through the telescope. **NOTE:** Only one of the eyepiece tubes has a lens. The other tube has no optics but is there to allow both eyes to comfortably line up to the eyepieces.
5. Look through the eyepiece (1) and continue to twist the focuser (1) right or left until the image looks sharp.
6. To hold the telescope in a steady position, tighten the up and down locking knob (4) by turning it clockwise until firm.

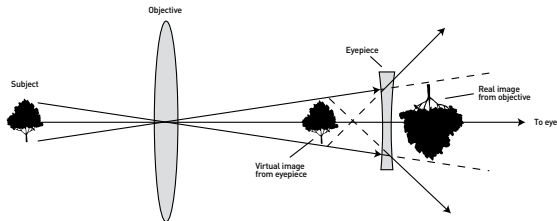
1. Eyepiece and Focuser
2. Right or Left Eye Adjustment
3. Aiming Ring
4. Up and Down Lock
5. Tripod Attaching Knob
6. Tripod
7. Slide Holder/Cap (w/slide)
8. Slide Holder/ Cap (closed)
9. Microscope Adapter Tube
10. Telescope Tube and Mount
11. Tripod Tray



Why Do I See Upside Down?

One of the most surprising discoveries first-time telescope owners will find is that images may appear upside-down depending on the type of telescope. The first thought is the telescope is broken - when in fact it is working perfectly normal. Depending on the type of telescope, images may appear upside-down, rotated, or inversed from left to right.

Why is this? Why would you want to see everything incorrectly? All telescopes, refractors, reflectors, and catadioptrics, as well as all cameras, have inverted images because that's the way all lenses and mirrors work. Even the lenses in your eyes invert the images of the world, and your brain erects them. Astronomers usually don't bother adding the optics needed for an erect image because extra optics reduce light throughput and introduce aberrations. Who cares what's up or down in space anyway? For astronomical viewing, it is not important whether an object is shown correctly. In space there is no up or down!



Turn to Microscope Slide Viewer

1. Put the telescope tube and mount (10) onto the tabletop or full length tripod (6), and attach by turning the tripod attaching wheel (5) clockwise until snug. Spread the tripod legs apart. When in this mode, the tabletop tripod will probably work better. However, if you are using the full-length tripod, place and turn the tripod tray (11) clockwise to lock. Set the telescope on a steady table or on the ground for viewing.
2. Attach the microscope adapter tube (9) by sliding it on the telescope tube and mount (10) until snug.
3. Release the up and down locking wheel (4) by turning it counterclockwise and level the microscope to a comfortable observing angle and then tighten it by turning clockwise.
4. Open the slide holder cap (7) and place the microscope or astronomy image slide into the holder.
5. Close the slide holder cap (8) and aim to a light source.
6. Flip the right or left eye adjustment (2) into position so that you can see through the

telescope. **NOTE:** Only one of the eyepiece tubes has a lens. The other tube has no optics but is there to allow both eyes to comfortably line up to the eyepieces.

7. Look through the eyepiece (1) and continue to twist the focuser (1) right or left until the image looks sharp.

Cleaning Tips

To ensure your 3-in-1 viewer has a long service life, clean the lenses (objective and eyepiece) with only a soft, lint-free cloth, like a microfiber cloth. Do not press down too hard while cleaning, as this might scratch the lens. Ask your parents to help if your device is really dirty. If necessary, the cleaning cloth can be moistened with cleaning fluid and the lens wiped clean using very little pressure. Make sure your device is always protected against dust and dirt. After use, leave it in a warm room to dry off before storing.

SAFETY WARNINGS

Read and follow the instructions, safety rules, and first aid information.

- **Respect privacy:** When using this device, respect the privacy of other people. For example, do not use them to look into people's homes.
- **Choking hazard:** Children should only use device under adult supervision. Keep packaging materials like plastic bags and rubber bands out of the reach of children as these materials pose a choking hazard.
- **Risk of blindness:** Never use this device to look directly at the Sun or in the direct proximity of the Sun. Doing so may result in a permanent loss of vision.
- **Chemicals:** Any chemicals and liquids used in conjunction with the device should be kept out of reach of children. Do not drink any of the chemicals contained in this set. Hands should be washed thoroughly under running water after working with these chemicals. In case of accidental contact with eyes or mouth, rinse the affected area with water. Seek medical treatment for ailments arising from contact with the chemical substance, and take the chemicals with you to the doctor.
- **Risk of fire:** Do not place device, particularly the lenses, in direct sunlight. The concentration of light rays could cause a fire.
- **Do not disassemble this device.** In the event of a defect, please contact your dealer. The dealer will contact the Customer Service Department and can send the device in to be repaired if necessary.
- **Do not subject the device to temperatures exceeding 60° C (140° F).**



- **Disposal:** Keep packaging materials, like plastic bags and rubber bands, away from children as they pose a risk of suffocation. Dispose of packaging materials as legally required. Consult the local authority on the matter if necessary and recycle materials when possible.



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