

Loan-A-Scope Program FAQ

What telescopes are available?

The current list of telescopes and manual links are:

Jason 313 Discoverer 60mm refractor f/15 on an EQ-2 mount with AC motor drive.

<http://geogdata.csun.edu/~voltaire/classics/jason/jason313.pdf>

Meade 289s 60mm refractor on EQ-2 mount (Manual)

(Similar Manual) <http://www.meade.com/manuals/TelescopeManuals/Polaris/Polaris60EQ-D.pdf>

Meade Telestar 60 AZ 60mm refractor on Alt-Az mount

http://www.meade.com/manuals/TelescopeManuals/Telestar/TeleStar_60AZ_A2.pdf

Tasco 4.5" reflector telescope on EQ-2 mount motorized

(See general 4.5"/EQ-2 Manual

Meade 4504 4.5" reflector telescope on DH GoTo electronic mount

<http://www.meade.com/manuals/TelescopeManuals/Reflectors/4504.pdf>

Meade DS-114 AT 4.5" reflector telescope on DS GoTo electronic mount

http://www.meade.com/manuals/TelescopeManuals/Reflectors/01_DS-114ATmanualfinal.pdf

6" Short Tube reflector telescope on EQ-2 Mount (Manual)

(Similar scope) http://www.citiwellint.com/manuals/OR9000Manual_RevSep1603.pdf

Tasco Starguide 60mm refractor on Celestron Nexstar GT GoTo electronic mount

http://downloads.celestron.com/Manuals/telescopes/nexstar_60%2C80%2C114/nexstar_60%2C80%2C114_manual_0901.pdf

Celestron C-90 Spotting Scope – Standard Camera Tripod mount

http://downloads.celestron.com/Manuals/telescopes/archive/manuals/orange_tube_c90.pdf

(This scope is also capable of being used with an SLR camera if you have a T-Ring. The mount however is not good for any astronomy photos.)

Cometron CO-62 62mm Wide Field Refractor on small Alt-Az mount or Camera Tripod mount

(Similar telescope manual) <http://www.ledametrix.com/astro/Meade277Manual.pdf>

Monolux 60mm f15 refractor on EQ-2 mount (Manual, but very smooth)

http://geogdata.csun.edu/~voltaire/classics/monolux/Monolux_60mm910fl_Carton_manual.pdf

General 4.5"/EQ-2 manual (If you have an EQ mount scope, this is a basic guide)

<http://www.meade.com/manuals/TelescopeManuals/Reflectors/Meade4500.pdf>

How can I check out a telescope or return one?

Contact our equipment coordinator via email or phone and arrangements can be made to either pickup or return a telescope. Telescopes may also be picked up or returned at one of our public events. If you have a specific telescope in mind, you will need to contact us first to see if the telescope is available and that it will be at the location where you will be getting the telescope. We do want to take anyone who will be using the telescope through a short orientation program to make sure that you can assemble/disassemble the telescope and have a basic understanding of how to operate it.

Can I take pictures with these telescopes?

These telescopes are not designed to take pictures like you see in books and magazines. Many of those pictures are long exposure guided pictures (many minutes long), not quick snapshots. You can take pictures of bright objects like the moon and some of the planets and daytime objects using what is called "afocal" photography by holding your camera up to an eyepiece and taking a picture. Sometimes a camera tripod can be used to hold the camera steady and a shutter release or delayed timer may be used to prevent vibration/shakes when the picture is taken. You may also hook up a webcam with a special adapter to fit the eyepiece for lunar or planetary pictures, but you have to provide the camera and adapter. This will only work with the telescopes that are electronic GoTo or motorized. The C-90 is an exception, but you must have an SLR/DSLR camera with the appropriate T-Ring to attach it to the telescope. This still is good for daytime and limited other objects as the mount for it is not motorized,

Can I observe the Sun with these telescopes?

Observing the sun should not ever be done unless you have been specifically given equipment and instructions to do so. Serious eye injury/fire/burn damage can occur to the user, the area where the telescope is setup and the telescope itself! One should never leave the telescope setup in the daytime where a child can get to or use the telescope. If you do observe the sun with it follow all precautions and put all equipment/covers on before moving the telescope towards the sun. Do not leave the telescope setup where the sun could enter the scope optics at a later time, as this can cause damage. These telescopes are only capable of observing the sunspots and faculae, they will not show prominences or flares. To observe those requires special filters that cannot be used with these telescopes. NEVER USE ANY EYEPIECE SCREW IN SOLAR FILTERS!

Can I observe from in the city?

Observing in urban/suburban areas is possible for bright objects like the moon and the major planets. Some double stars and a few other bright objects may also be observed. To see fainter objects, one must get away from light pollution and one should allow their eyes to get dark adapted for at least 15 minutes. Use of a red flashlight will help preserve your dark adaptation. If you use a bright white light, expect another 15 minutes for your eyes to get adapted again. The club holds star parties at darker sites and members can help you use the telescope and learn where things are in the sky. Check our website for information on upcoming star parties and events.

What comes with the telescope?

We provide the telescope, the mount/tripod, eyepieces/accessories and a copy of the manual for the telescope where available. The eyepieces/accessories will provide a range of magnifications. You normally will start out with low power and only work your way up in magnification when you have located the object and have it centered. Sky conditions will limit how much magnification you can use. Too much and the image will just get fuzzy and dimmer, even though it may appear larger. If the telescope is not motorized or properly aligned, the object will move out of the eyepiece very quickly.

The telescope got dirty, how do I clean it?

It is normal for the outside of the telescope to get wet (we are in a subtropical climate) and it can be gently wiped off or simply allowed to air dry when brought inside.

If you are out for a period of time, you may find that the eyepieces or the front lens on the telescope or finder may get covered in dew. DO NOT WIPE THIS OFF! You may use a hair dryer on low setting to gently warm the glass and allow the dew to evaporate. This may need to be done repeatedly.

Try not to touch any of the glass/mirror surfaces with your fingers. If a lens gets extremely dirty please contact us about what to do. We may need to have the lens/scope brought in for proper cleaning. Wiping a surface may scratch and permanently damage it! Unless the dirt is visible when looking in the eyepiece, don't worry about it! It will not have any major impact unless a large percentage of the lens is covered or smeared.

(It is best to keep eyepieces covered in their box/holders when not in use to keep them clean and dry.)

I want to see more, where do I find out about getting a telescope or working with a more advanced telescope?

Join our club, we have larger more advanced telescopes that members can borrow and we can also help you find the right telescope for you. Come out to one of our star parties and learn about the different telescopes and what will fit your budget. Keep in mind, things like astrophotography require more advanced equipment/mounts and you should find out what works for you before you spend the money on it. One can spend from a few hundred to 10s of thousands of dollars on equipment. One does not have to go buy things new, there are several major sources for used equipment and some can even be found locally once you have identified what you are interested in. We can even help you check out used equipment before you buy or during a checkout period after you receive it.

I can't find anything!

The finderscope must be aligned first. This should be done in the daytime with a distance radio tower/tree/telephone pole. (1/4 mile or further is best!) Using the background features, move the telescope until the object is centered in the eyepiece. Then look through the finder and using the finder adjustments center the crosshairs or indicator on the object. Try finding another object using the finderscope first and make sure it is centered in the telescope. If not, then repeat the operation until you can easily find a daytime object. Once it is dark, then try the moon or a bright object and center it in the telescope and then fine tune the finder adjustments so that it is centered. You can increase magnification and check the finder for centering.

The telescope is motorized but it won't track anything.

If the telescope is a GEM mount with a simple tracking motor, make sure the motor is properly engaging and running. You should be able to hear a hum or whine from the motor. If not, check that it is getting power and if it has LED's, that some are on. If not, check the power source/change the battery if the switch is on. If you can detect that the motor is moving the scope (keep in mind, it moves the main axis at half the speed of an hour hand on a clock, but there are usually spots close to the motor output that one can touch and feel motion with a few seconds), you may not be properly aligned. (Some motors have a N/S designation for reversing the motors and may also have a speed adjustment knob. See how long it takes something to move across the field with the motor off. Turn the motor on, if it takes 1/2 the time, then you need to reverse the N/S switch. If it takes less time or moves opposite the direction it did when the motor was turned off, then the speed may need to be adjusted. It may take some experimenting to get the speed right.

If this is not the case, then the mount is probably not properly aligned. The RA axis should point directly at Polaris. If you cannot see or find Polaris, there should be a latitude scale on the mount that you can set for 26.5 degrees and aim the RA axis North using a compass. The tripod should be level when doing this. This should allow you to track on objects readily for several minutes without it drifting out. If not properly polar aligned, the drift will often be perpendicular to the drift across the field when you turn off or disengage the motor, and this can only be fixed by getting a better polar alignment.

The telescope is a GoTo electronic telescope and I can't find anything.

One must follow proper setup and alignment when using an electronic telescope. You need to follow the directions in the manual for doing this. It is also important that proper power be supplied. If using regular batteries, be aware that these mounts often eat batteries at a rate that can be surprising. We recommend hooking up to an AC power source if possible or a 12volt source such as a car battery or a jumpstart battery system. Keep in mind, the better the centering of the alignment stars, the closer to level the tripod is and the proper selection of the alignment stars, the better the actual goto operations will be. These are not high end goto mounts, so one can expect to search around for objects once one is close. Again, follow the manual for advice on adjusting the mount to improve the accuracy. These mounts have capabilities that are harder to do with the simpler mounts, but the setup/alignment is more involved, so if quick setup is important, use non goto mounts.