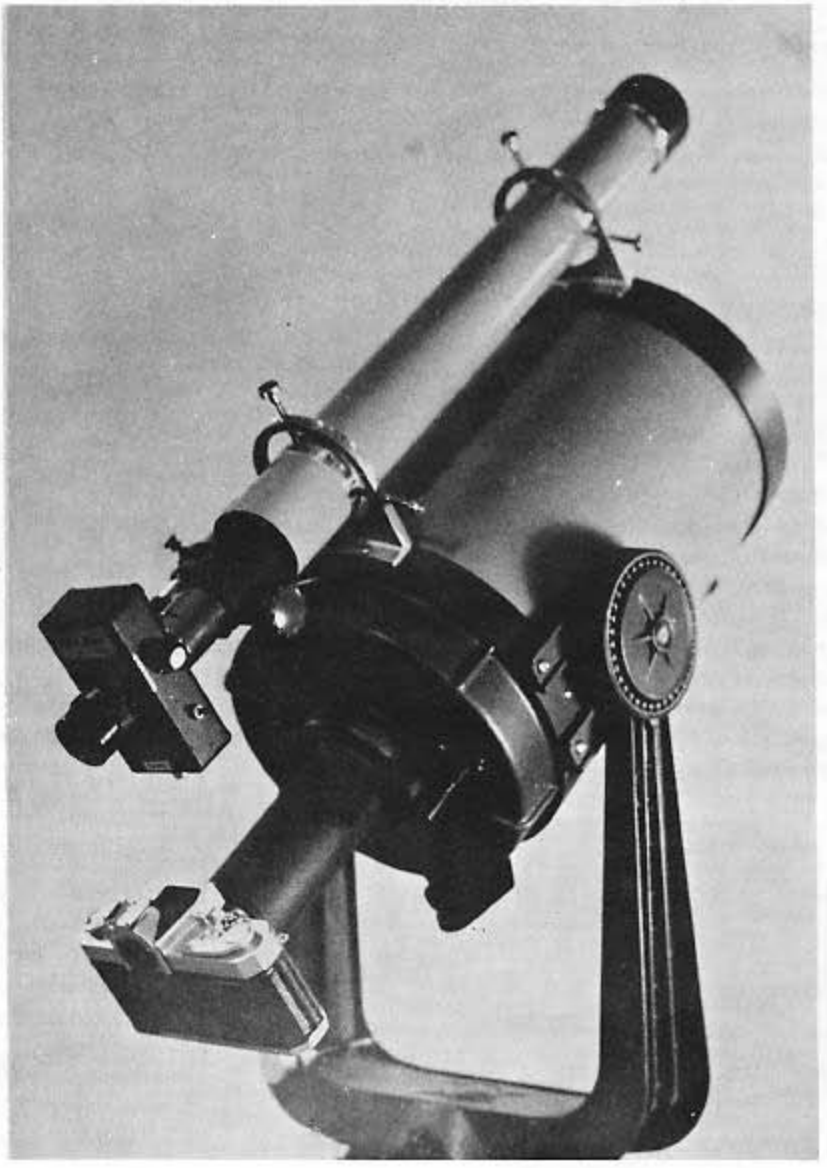
Astro - Physics



2703 Hampden Ct.
Rockford, Illinois 61107
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model no. 7002

The DUAL AXIS STAR TRACKER, model no. 7002, corrects both right ascension and declination axes for fully automatic guiding. It mounts into the standard 1-1/4" eyepiece holder of a guide scope. (Other size mountings available on request.)

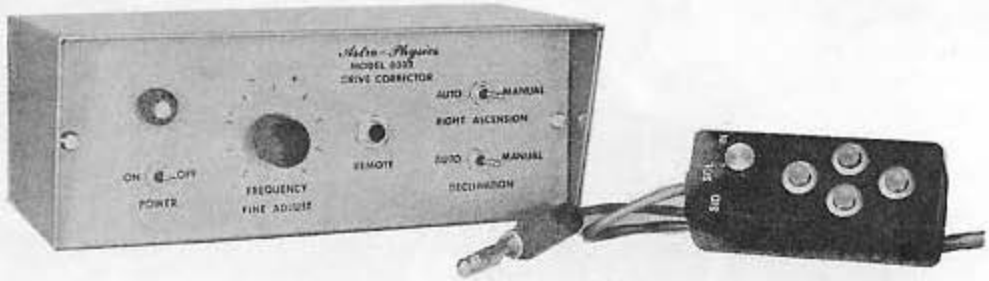
The unique prism beam splitter is a precision crossed knife edge which splits the guide star two ways for automatic tracking in both axes. The guide star can be seen in the 27mm focusing eyepiece while the tracker is in operation. This eyepiece offers excellent eye relief. An offset control eliminates the effect of background skylight and allows for variation in guide star brightness. Two built-in LED indicators verify proper operation during an exposure. The newest solid state photodetectors and amplifier circuitry provide high sensitivity for tracking on faint guide stars. The photodetector is a special blue-sensitive photocell designed to give maximum response over the full spectrum. The tracker comes in a light-tight cast aluminum housing to prevent stray light from leaking into the photodetector.

The dual axis star tracker requires a dual axis drive corrector, such as our model #8002 and a D.C. or reversible A.C. motor attached to the telescope declination slow motion. With this system, the astrophotographer is free to do other observation during long time exposures, since no adjustment is necessary.

The SINGLE AXIS STAR TRACKER, model no. 7001, automatically corrects the R.A. drive speed only. It features a 27mm focusing eyepiece and illuminated reticle for manual declination corrections. This star tracker is easy to set up, simple to use and guides by itself.

STAR TRACKER SPECIFICATIONS

tracking accuracy equals diameter of the star image (1 to 3 seconds of arc depending on aperture).
spectral response near ultraviolet to far infrared.
sensitivity 2" aperture - 6th mag. 5" aperture - 8th mag. 8" aperture - 9th mag.
power supply internal 9 volt alkaline battery.
size 4.5" x 2.5" x 1" **weight** 0.6 lb.



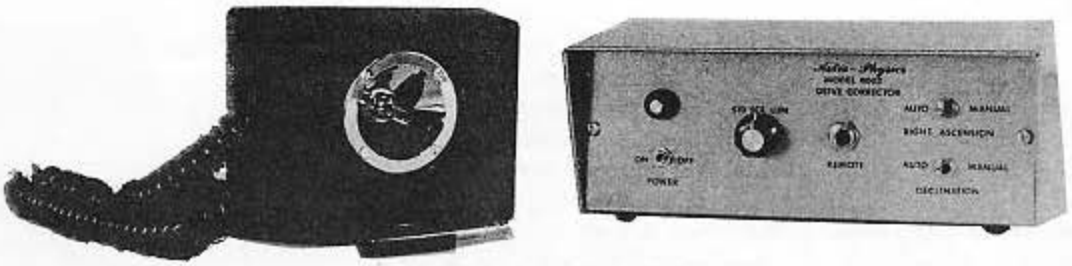
model no. 8002

DUAL AXIS DRIVE CORRECTOR, model no. 8002 controls both axes for any telescope with a standard 115v, 60 Hz clock drive on the right ascension axis and a low speed reversible motor (such as our model #601) on the declination axis. A front panel switch allows selection of automatic or manual operation for either axis. The remote control comes with 4 fast/slow push buttons arranged conveniently in a cross configuration. The dual axis star tracker plugs in directly for fully automatic operation. Switch selectable lunar, solar and sidereal rates are preset to save time. A fine adjustment allows exact trimming of the drive rates. Modern integrated circuitry provides high stability operation from - 60° F to +165° F. The built-in power supply runs off 115v, A.C. house current or a 12v car battery. (For foreign orders, different voltage and frequency power supplies are available at no extra charge.) A 6' battery cable with alligator clips is standard. Other sizes are optional upon request. A special cable is available for the Celestron 14. This drive corrector fits in the Celestron 8 wedge. The declination portion of the dual axis drive corrector is designed to control a D.C. motor attached to the declination axis. Options include a modification to control a reversible A.C. motor in declination.

SINGLE AXIS DRIVE CORRECTOR, model no. 8001 for right ascension only, is the same as our #8002 without the declination circuitry.

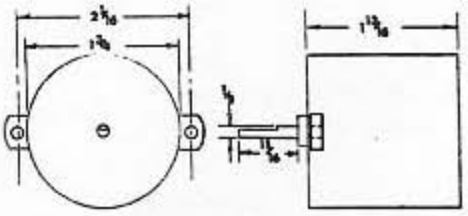
DRIVE CORRECTOR SPECIFICATIONS

frequency stability .0025% per °F.
power supply 115v A.C. or 12v D.C. (Foreign orders specify)
a.c. output 115v, 45-75 Hz, 20 watts (Foreign orders specify)
d.c. output 10v, 5 watts
fine adjustment varies frequency 1%
case aluminum enclosure **size** 3.25" x 5" x 8"



model no. 8002-602

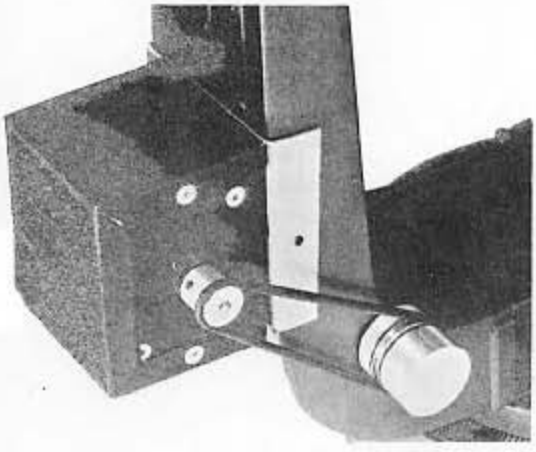
JOYSTICK CONTROLLED DRIVE CORRECTOR, model no. 8002-602 is our dual axis drive corrector with the joystick controller replacing the push button remote. This system is a proportional controller, not a 4 switch joystick. The controller features infinite variability, permitting fine adjustment of the guide star in any coordinate. Trim tabs are included for fine adjustment.



model no. 601

D.C. MOTOR, model no. 601 is for telescopes not equipped with electric declination.

output - 1 RPM @ 12 volts D.C., 65 inch ounces torque.
shaft size - 1/8" diameter, 11/16" length
size - 1-3/4" x 1-13/16"

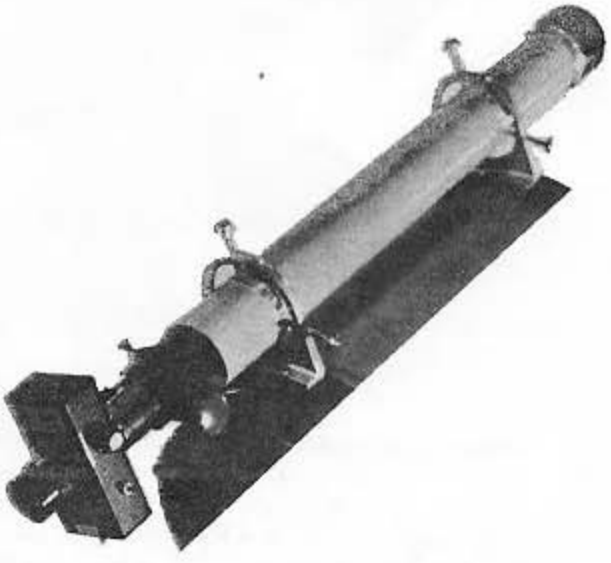


model no. 603

DECLINATION DRIVE, model no. 603 is specially designed for the Celestron 8. The drive mounts without any machining and detaches in seconds. The telescope folds easily for storage with the drive attached. The unique slip clutch system allows manual adjustment of the declination axis without removing the drive. The drive motor gives smooth, accurate control in the automatic or manual mode. The declination drive is available in two different mounting styles. When placing your order, be sure to specify whether your Celestron 8 has the old style fork arms with holes, or the new style with ridges.

motor type 12 v D.C. **size** 2" x 2-1/2" x 2"

2 INCH GUIDE SCOPE model no. 604 packs a 3000mm focal length into a 24" package with a resolving power of 2 seconds of arc. Use it with our new automatic star tracker to guide on 6th magnitude stars. Mounting rings and hardware are included to fit a 9" telescope tube. No drilling or machining necessary to mount this guide scope to your Celestron 8. Mounting rings with thumb screws allow the guide scope to be offset as much as 5° from the primary telescope. This represents a vast improvement over the off-axis guider where a suitable guide star is often difficult to find in the field of view. The combination of light weight and sturdy mounting rings results in a guiding system free of differential flexure. Photos will be sharp and clear at f10 prime focus. This scope has been extensively field tested with our automatic star trackers and can be used directly without any further focal length amplification. For manual guiding or visual use, a 3x barlow may be employed for minimum guiding error.



model no. 604

GUIDE SCOPE SPECIFICATIONS

focal length 3000mm
resolution 2 seconds of arc
objective clear aperture 2"
length 24" **weight** 2-1/2 lbs.

SCHMIDT TELECOMPRESSOR, model no. 605 changes the Celestron 8 telescope into a fast Schmidt system using your 35 mm camera. American made achromatic optics do not mar the resolution of the C8 or introduce color aberrations. Large 52mm optics capture the full C8 field. Other telecompressors do not use the maximum available field because they are designed for use with an off-axis guider where the edge of the field is lost to the film. We recommend the use of our 2" guiding refractor when using the telecompressor. This will enable you to take perfect astrophotos using either guiding crosshairs or an automatic tracker.

model no. 605

THREE MODELS AVAILABLE

model no. 6051

1000mm f5 TELECOMPRESSOR covers 35mm slide format. Gain in photographic speed is 4 times over 2000mm prime focus. Capture in 30 minutes what would take 2 hours at f10. Perfect for color slide film. 2 element lens.

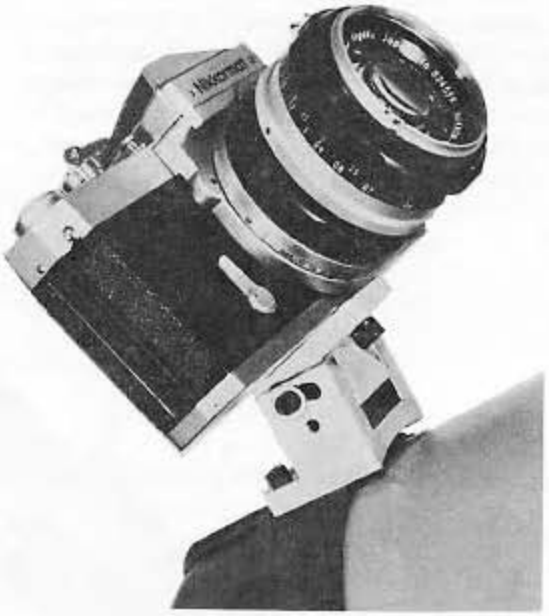
model no. 6052

750mm f3.8 TELECOMPRESSOR produces a 30mm circular image. The f3.8 speed gives a gain of 8 times over prime focus. Produces amazing results in just 10 to 15 minutes. 4 element lens.

model no. 6053

500mm f2.5 TELECOMPRESSOR produces a 20mm circular image. Photographic gain is 16 times over prime focus. Perfect for hunting elusive comets, faint nebulae and galaxies. 4 element lens for needle sharp images. High definition allows magnification up to 100x.

LENGTH - 2.75" DIAMETER - 2"



model no. 606

SWIVEL CAMERA MOUNT, model no. 606 fits into the Celestron 8 camera mounting holes. No drilling is necessary. Heavy machined aluminum stock construction allows even the heaviest telephoto camera to attach tightly and securely with Allen screws. No more fumbling with hard to tighten thumb screws. This mount allows your telephoto lens to be aimed up to $\pm 30^{\circ}$ from the direction of the Celestron.

model no. 607

CARRYING CASE, model no. 607 conveniently transports your star tracker, drive corrector and camera in foam padded safety with room to spare for your eyepieces and accessories. This tough A.B.S. case has 3 strong hinges and positive action locks. Tongue and groove aluminum closure provides maximum protection against dust and moisture. Comes with 4 adjustable dividers. SIZE - 15" x 10" x 4"