Specifications

Geoma Pro / Geoma Pro ED field scope bodies

Model	Type	Objective			Dimensions			Weigh
		Aperture	Focal length	Coatings	Height	Length	Width	
Geoma Pro 67S	Straight through Viewing	67mm	386mm	PFM	120mm	330mm	85mm	1000g
Geoma Pro ED 67S								1045g
Geoma Pro 82S		82mm	480mm		118mm	364mm	97mm	1275g
Geoma Pro ED 82S								1380g
Geoma Pro 67A	45° inclined viewing	67mm	386mm		120mm	330mm	85mm	1025g
Geoma Pro ED 67A								1045g
Geoma Pro 82A		82mm	480mm		118mm	363mm	97mm	1285g
Geoma Pro ED 82A								1390g

* The field scope body is assembled with materials including optical glasses, fiber-plastics, Aluminum alloys and rubbers.
* Fully waterproof structure
* Blue-metallic color body

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Vixen

Instruction Manual for GEOMA PRO Series Field Scopes

Preface

Thank you for your purchase of a Vixen product from our Geoma Pro series of field scopes. For the proper use, read the operating instructions throughout completely before you use it.

⚠Warning!

Never look at the sun with the naked eye or with a Field Scope. Permanent and irreversible eye damage may result.

⊘ Cautions

⊘Do not leave the field scope body or eyepiece in the direct rays of the sun. It may cause a fire.

⊘Do not use the field scope while walking, where injuries could arise from collision with objects or tumbling.

⊘Put on your eyeglasses when you look through the field scope.

⊘Otherwise you may not focus at infinity by a degree of your myopia.

⊘Exchange the eyepiece in a dry environment.

⊘Never dismantle the field scope or eyepiece as those are assembled with precision in combination of accurate optical lenses and precisely machined metal parts.

Handling and Storage

①Blow off dust on lenses by a commercially available blower brush.

②If lens surfaces become dirty with fingerprints or general smears, gently wipe it using a lens cleaner and lens cleaning paper. Never touch any lens surfaces with fingers directly or do not wipe lenses with velvet or leather.

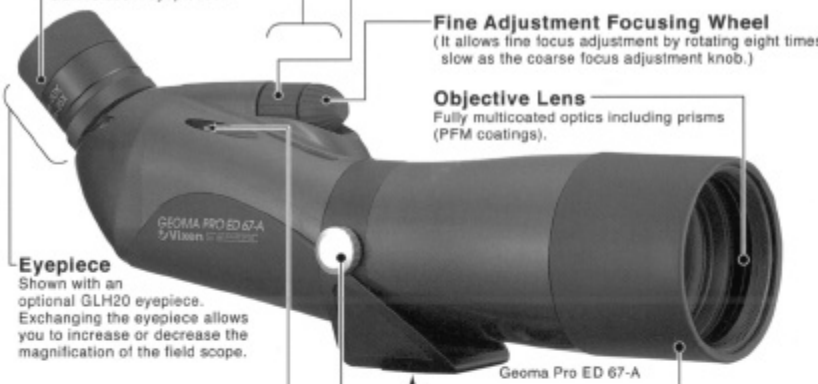
③Always keep dusting off the focusing wheel for the smooth motion.

④Wipe dirt on the body with a soft cloth lightly. When cleaning, do not use organic solvents such as a paint thinners or similar.

⑤Keep the filed scope in a dry place with good ventilation for storage to prevent the lens surfaces from generating mold or fogging.

⑥Store the field scope in a plastic bag with a drier when you do not need use for a long time.

Name of each part



Twist-up Eyecup
The twist-up eyecup provided for optional GLH20 & New GLH48 zoom eyepieces.

Dual Focus System

Coarse Adjustment Focusing Wheel

Fine Adjustment Focusing Wheel
(It allows fine focus adjustment by rotating eight times as slow as the coarse focus adjustment knob.)

Objective Lens
Fully multicoated optics including prisms (PFM coatings).

Eyepiece
Shown with an optional GLH20 eyepiece. Exchanging the eyepiece allows you to increase or decrease the magnification of the field scope.

Geoma Pro ED 67-A

Sight through Hole
Helpful to find and center your viewing object.

Sliding Hood
It prevents unnecessary incoming light and improves contrast.

Locking Thumbscrew
Allows you to change a viewing position by rotating the field scope body.

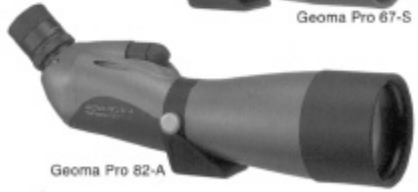
Tripod Attachment Base
Base for attachment to any standard tripod. (Standard 1/4-20 thread)

Geoma Pro 67-A

Geoma Pro ED 67-S

Geoma Pro 67-S

Geoma Pro ED 82-A

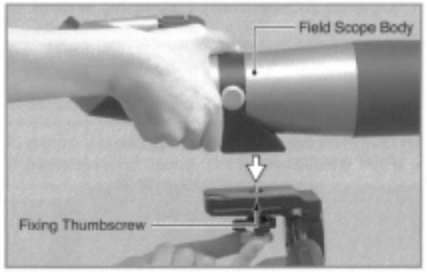


Geoma Pro 82-A

Geoma Pro ED 82-S

Geoma Pro 82-S

Attaching the field scope to a camera tripod

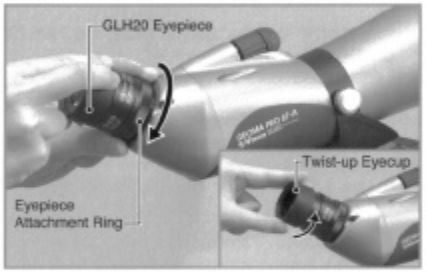


It is advisable to use with a Vixen camera tripod or a commercially available camera tripod to look through the filed scope comfortably.

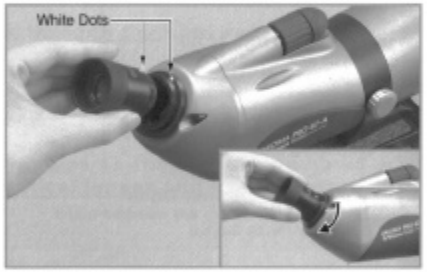
Place the tripod attachment base of the field scope over the 1/4"-20 screw on the tripod head and attach the field scope to the camera tripod with the screw. Tighten the screw by turning the fixing knob as shown in the figure.

Take off the objective cap and the eyepiece adapter cap on the body.

Attaching the eyepiece (Refer to the list in page 7 also.)



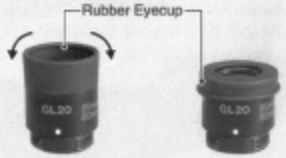
When attach a GLH eyepiece to the field scope, screw the eyepiece attachment ring of the GLH eyepiece onto the threaded eyepiece adapter of the field scope. Then tighten the eyepiece adapter ring. Fully extend the twist-up eyecup.
* The GLH20 eyepiece is optional.

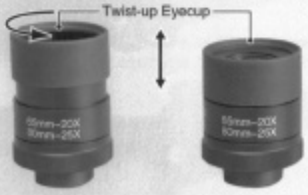


The white dots are marked on the GL eyepiece and on the eyepiece adapter respectively. When attach a GL eyepiece to the field scope, insert the threaded side of the eyepiece into the eyepiece adapter so that the two white dots face each other. Then tighten the eyepiece by turning it clockwise.
* The GL series eyepieces are optional.

■ Use with eyeglasses

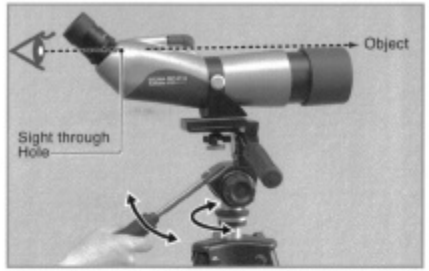
The GL series eyepieces have a folding rubber eyecup and the GLH series eyepieces have a twist-up eyecup. The eyeglass wearers can enjoy viewing the full field of view comfortably by folding the rubber eyecup or by retracting the eyecup.





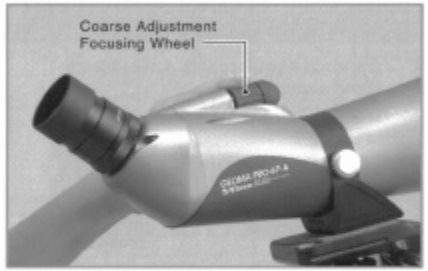
Pointing at an object

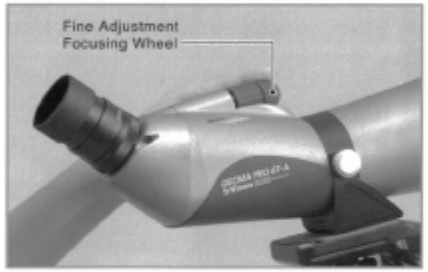
Extending the sliding hood helps block unwanted light when viewing against the sun.



The peeping hole built-in the right back side of the body can be used as a finder. Roughly point the field scope at your object while looking through it.

Focusing on an object

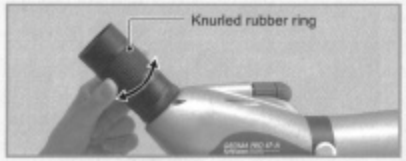




Focus the filed scope on your object while looking through the eyepiece by turning the coarse adjustment focusing wheel.With the fine focus adjustment focusing wheel you bring it into focus perfectly.

■ Using an optional GLH48 Zoom eyepiece

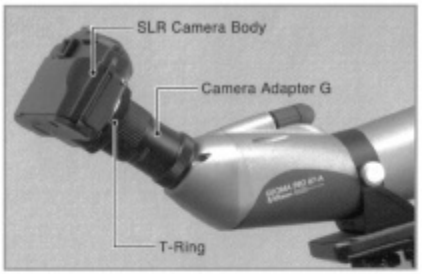
You can change power of the zoom eyepiece by turning the knurled rubber ring as shown in the figure. Turning it to clockwise increases the power and turning it to counterclockwise decreases.



■ Watertight eyepieces

The GL and GLH series eyepiece are equipped with a rubber O-ring for a perfect fit with the field scope. It prevents moisture or dust particles from coming in.

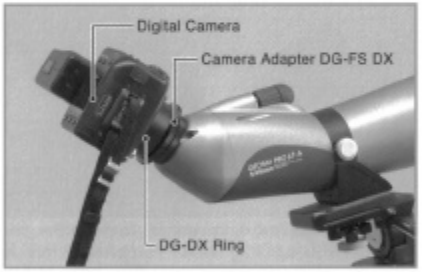
Photograph with a SLR camera



Optional Photographic Accessories (Sold separately)

Only the GL15, GL20 or GL25 eyepiece is usable for photography. The telephoto effect of each eyepiece is labeled on the camera adapter G. Place the camera adapter G to the field scope over the eyepiece. Attach it onto the field scope by turning the attachment ring clockwise until tight. Then, fit an appropriate T-ring for your camera on the camera adapter G.

Photography with a Digital Camera



Optional Photographic Accessories (Sold separately)

Only the GL15,GL20,GL25 or GLH20 eyepiece is usable for photography. Other eyepieces with higher power will result in over-enlargement image. Place the camera adapter DG-FS DX over the eyepiece and screws it onto the field scope. Then, fit an appropriate DG-DX ring for your digital camera on the camera adapter DG-FS DX. Please ask your local Vixen dealer about sizes of the DG-DX rings available from Vixen.

■ Tips on photography

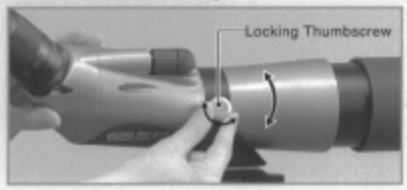
The strong telephoto effect will result and always use a sturdy camera tripod for successful photography. Mounting the filed scope on a weak camera tripod may cause a camera shake due to a breeze of wind or movement of a person.

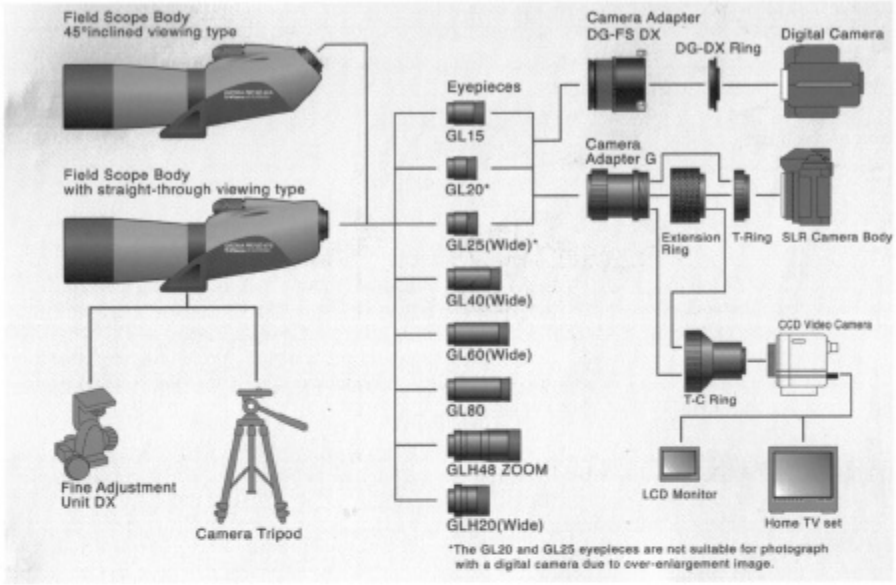
The telephoto effect makes the finder screen of your camera dim and it makes you difficult to bring the field scope into focus.

The Geoma Pro filed scopes are not equipped with the diaphragm provided for the SLR cameras. It means an area that is in focus or the range of focus is smaller and careful focus adjustment is required accordingly.

■ Rotary-type body

The Geoma Pro field scopes are equipped with the rotary body mechanism. You can angle the field scope body by loosening the thumbscrew. It is helpful when you take photographs with the camera attached onto the field scope.





Eyepieces usable with 67mm Geoma Pro(Geoma Pro ED) field scope *Optional*

Model	Power	Coatings	Eye-relief	R. F. V.	A. F. V.	Field at 1000m	Exit pupil	Brightness	Approx. Near focus in straight through type	Approx. Near focus in 45° inclined type	Barrel Dimensions Length	Diameter	Weight	Telephoto effect 2mm Adapter G	Extension Ring
GL15	15x	Fully Multicoated	17mm	2.9°	35.2°	51m	4.5mm	20.3	8m	5m	52mm	33mm	44g	–	1100mm
GL20	20x	Fully Multicoated	19mm	2.6°	53°	45m	3.4mm	11.6	5m	4m	42mm	33mm	50g	1000mm	1500mm
GL25	25x	Fully Multicoated	13mm	2.6°	57.6°	45m	2.7mm	7.3	5m	4m	43mm	33mm	54g	1400mm	2000mm
GL40	40x	Fully Multicoated	15mm	1.6°	64°	28m	1.7mm	2.9	7m	5m	76mm	33mm	75g	Photography not possible	
GL60	60x	Fully Multicoated	15mm	1.1°	65°	19m	1.1mm	1.2	6m	6m	88mm	33mm	88g		
GL80	80x	Fully Multicoated	16mm	0.7°	56°	12m	0.8mm	0.6	8m	5m	90mm	33mm	84g		
GLH48	16–48x	Multicoated	19mm	2.5°~1.2°	40°~57.6°	43m~21m	4.2mm~1.4mm	17.6~2.0	5m	5m	101mm	44mm	173g		
GLH20	20x	Multicoated	18mm	3.1°	62°	54m	3.4mm	11.6	4.5m (ED:4m)	4.5m (ED:4m)	59mm	46mm	140g		

Eyepieces usable with 82mm Geoma Pro(Geoma Pro ED) field scope *Optional*

Model	Power	Coatings	Eye-relief	R. F. V.	A. F. V.	Field at 1000m	Exit pupil	Brightness	Approx. Near focus in straight through type	Approx. Near focus in 45° inclined type	Barrel Dimensions Length	Diameter	Weight	Telephoto effect 2mm Adapter G	Extension Ring
GL15	19x	Fully Multicoated	17mm	2.3°	35.2°	40m	4.3mm	18.5	12m	9m	52mm	33mm	44g	–	1400mm
GL20	25x	Fully Multicoated	19mm	2.1°	53°	37m	3.3mm	10.9	9m	8m	42mm	33mm	50g	1300mm	1900mm
GL25	31x	Fully Multicoated	13mm	2.1°	57.6°	37m	2.6mm	6.8	10m	8m	43mm	33mm	54g	1800mm	2500mm
GL40	50x	Fully Multicoated	15mm	1.3°	65°	23m	1.6mm	2.6	12m	10m	76mm	33mm	75g	Photography not possible	
GL60	75x	Fully Multicoated	15mm	0.9°	67.5°	16m	1.1mm	1.2	15m	11m	88mm	33mm	88g		
GL80	100x	Fully Multicoated	16mm	0.5°	50°	7m	0.8mm	0.6	12m	9m	90mm	33mm	84g		
GLH48	20–60x	Multicoated	19mm	2.0°~1.0°	40°~60°	35m~17m	4.1mm~1.4mm	16.8~2.0	14m	12m	101mm	44mm	173g		
GLH20	25x	Multicoated	18mm	2.4°	60°	42m	3.3mm	10.9	7m (ED:6.5m)	7m (ED:6.5m)	59mm	46mm	140g		