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# Binocular Parallelogram Mounts and Tripods

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Binocular viewing for astronomy can be greatly enhanced by mounting the binoculars. There is versatility in being able to move around with a lightweight hand-held pair of binoculars. However, for astronomy, even the lightest of binoculars can benefit from the absolute stillness that you get when you take your hands off the binoculars. Tripod mounted binoculars provide that hands-off stillness of image that is necessary for critical observation of fine detail.

Small binoculars can be simply mounted on a decent camera tripod with the use of a binocular L adapter. A more substantial tripod is needed for heavier binoculars.

The simple L adapter has a hole in the bottom of the L to screw to the top of the tripod and has a screw thru the top of the L which screws into the front of the binoculars.

Parallelogram mounts offer added versatility to any system for mounting binoculars. They move the binoculars away from the tripod allowing an unencumbered stance. In my opinion, the biggest advantage of a parallelogram mount is the ability to allow numerous people of widely varying height to use the same binocular. I use my equipment to serve this purpose many times throughout the year. Without the parallelogram mounts I would not be able to accommodate the needs of mixed crowds. Once acquired in the field of view of binoculars mounted to a parallelogram, an object will not be lost as the parallelogram is lifted higher or lower to accommodate various individuals.

Following is a compilation of some features of various mounts and tripods. I report on three different parallelogram mounts and even more tripods. I used nearly every combination of equipment set-up that can possibly be made with these choices. And I have used most of them with nearly all of my binoculars. Advantages and disadvantages are pointed out throughout the article.

The primary comparisons noted in this review pertain to the Universal Astronomics Unimount Light Basic versus the Virgo Skymount. Of all the equipment in this review, these two are the most similar in many respects.

For every combination where I tested dampening times, I then switched the mounts on the tripods and tested again. I tested each setup with various binoculars. This gives a pretty good indication of the contribution each component of the equipment has on dampening time.

You will note quite a few personal preferences mentioned in this review. What works for me may not work for you. But, if all this information helps you better understand the things to look for when you make your equipment decisions, then it will have served its purpose. I hope you find this helpful.

Clear Skies, and if not, Cloudy Nights.  
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### **I used four mounts:**

- Universal Astronomics Unimount Light Basic
- Universal Astronomics Unimount Light Deluxe
- Virgo Skymount with a 3/8" mount hole
- Virgo Skymount with a 1/4" mount hole.

In my experience the mount hole size on the Virgo Skymount has not made any difference in performance. It just determines which mount gets attached to which tripod. Of the tripods I use, some have a 3/8" mount screw and some have a 1/4" mount screw.

### **I used these tripods as parallelogram mount platforms:**

- Universal Astronomics Light Surveyor with large Bogen spreader,
- Universal Astronomics Medium Surveyor with small Bogen spreader,
- Orion Paragon Plus XHD without standard head,
- Smith Victor (similar to XHD Plus but with tent pole push-button mid legs).
- Bogen Manfrotto 3211/3011 tripod without head
- Universal Astronomics Light Surveyor with Bogen 3025 minihead

The Universal Astronomics Light Surveyor is generally offered with the UA Light Basic mount. The Orion Paragon Plus XHD is offered by Orion for use with the Virgo Skymount.

### **I used these tripods as individual tripod mounts:**

- Orion Paragon HD-F2 (lighter-weight Paragon) with Paragon QR fluid pan head,
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Orion Paragon HD Plus with Paragon QR fluid pan head,

- Bogen Manfrotto 3011 tripod with 3130 QR fluid pan head
- Bogen Manfrotto 3011 tripod with Bogen 3025 minihead

**I used several different binoculars,**

- Minolta Activa 7x35 24oz.
- Orion Ultraview 10x50 32oz.,
- Oberwerk 15x70 3#2oz,
- Fujinon 16x70 4#12oz
- Oberwerk 20x80 Deluxe 7#12oz.

I've had the opportunity to try many combinations of tripod – mount – binocular. I've tried most of them many times. The following is what I've found so far.

### **The Motions:**

The 3 motions of a simple parallelogram mount are (1) swing on the tripod (rotation of the parallelogram around the vertical axis post on the tripod) = Azimuth or Right Ascension, (2) parallelogram arm adjust (this is the parallelogram exercising) = standing height, and (3) mount head tilt = Altitude or Declination. The second motion is what allows you to acquire an object in the field of view and move the binoculars higher or lower for another person to view without losing the object in the field of view. These are the same three motions you get with either the Virgo Skymount or the Universal Astronomics Unimount Light Basic, only you stand behind the Skymount, you stand to the side of the Unimount.

These devices are simple mechanical lever arms. There are no internal mechanisms. A slight tweak on any of the nuts and bolts allows you to modify the friction to your desired comfort level. When I first got my Unimount Deluxe from the previous owner, all the friction was set so light that it had way too much movement in every direction at the slightest touch or bump. If I came up to the binoculars and bumped them with my brow, they would swing 20° to 30° around on the center post swivel. I was not able to use them in this condition to show others an object. The slightest touch and the object would be lost. About 10 minutes with a few wrenches and I had it all tightened up and adjusted just the way I like it. The Virgo mount that I bought second hand needed similar adjustment and with a few tweaks of the wing nuts I was all set. The Unimount Basic that I used needed no adjustments.

## Setup, Cautions and Takedown:

I've set up all of these mounts, in any combination of mount and tripod, in the dark many times. These mounts are relatively easy to set up.

All of these mounts should be attached to the tripods before the weight bar is inserted into the mount. The U A mounts make attachment to any tripod easy. A center column adapter post is screwed onto the tripod threads before the mount is set in place on the post. You are only dealing with a few ounces in your hands when screwing to the tripod. Then the parallelogram bars are easily slipped in place over it. The screw mount plate on the Virgo is not detachable and the entire mount arms must be held while you screw it to the tripod.

The weight bar shaft with weights is inserted into a hole or slots at the end of the parallelogram. On the UA mount, a simple wing nut style hand screw is tightened down to hold the weight shaft securely in place. On the Virgo mount, a security pin is inserted through a hole in the top of the mount and through a hole in the shaft to secure the weight assembly. A cotter pin keeps the security pin on its short cable permanently attached to the weight shaft so it won't get lost. When the cotter pin is parallel to the ground, the holes are lined up and the security pin will slip right into place allowing easy installation even in the dark.

I have no problem setting up the Virgo Skymount or the UA Unimount in the dark. It takes maybe 30 seconds to screw onto the tripod head, maybe 30 seconds to attach the binoculars and even less to insert the counter weight shaft and secure it in place.

Balance with either mount is easily achieved in a few seconds. With the mount parallel to the ground, slide the weight or weight bar in or out to achieve balance, secure the weight screw or pin and you are ready to go.

I attempted to leave the setscrew for the weight shaft loose on the UA mount to see what might happen if I forget to tighten down this screw. As I tipped the binocular end up so the weight end would be down, 9 tries out of 10, friction stopped the shaft from sliding all the way out. But on that 10th try, the shaft with 10 pounds of counter weights slid completely out and came crashing to the floor. If I didn't by chance have 3 inches of cardboard cushion underneath, on that 10th try I would have had a gapping 1" round hole in my hardwood floor.

This is exactly what would happen if you did not secure the pin on the Virgo mount weight shaft. There was less friction holding the Virgo weight shaft in place. It slides out much easier. Do not trust the shaft to stay in all the time on any of these mounts. If the pin is not secured on the Virgo mount or the setscrew is not tightened down on the UA mounts, these weights may slide out and could cause serious damage or injury. **MAKE SURE YOU ALWAYS SECURE THE WEIGHT SHAFT.**

I keep a plastic grocery bag flag attached to the end of the Virgo weight shaft. When being used in

crowds, the end of this thin steel shaft sticks out at children's eye level quite far and can cause serious injury if an unsuspecting pedestrian walks to near. A standard routine I have adopted is to first take two minutes to walk the crowd of kids and parents around, show them all the equipment and point out all the plastic flags and the dangers that lie behind them. We've had a few bumps, but I've never had an injury occur.

The UA weights are large rubber coated weights secured at the very end of the shaft. It seems to me the worst you would get from walking into these would be a good bump on the head. Just the same I also keep a plastic flag hanging from my UA weights.

Several times, in my haste at the end of a viewing session, I attempted to take the mounts off the tripods with the weights and binoc still attached. No matter which mount, every time I got pinched. I recommend always removing the binocs and the weights from all of these mounts before removing the mount from the tripod.

### **Virgo Skymount:**

The Virgo Skymount is definitely the most compact of the mounts I use. The Virgo stores most easily. I store two Virgo mounts, their weights on the shafts, two tripods for mounting the Virgos and several pair of binoculars, all in the same Rubbermaid footlocker.

The Virgo has less versatility than the Unimount. Because the Virgo Skymount needs to be straight in front of you, it can't be used from a reclined or seated position of a lawn chair.

The Virgo Skymount dampens out shakes more quickly than the others.

I keep the altitude tension knob set once I mount my binoculars. I grab the entire L bracket like a pistol grip and tilt the binoculars up or down using this as my handle. I do get some backlash when I let go, but it's very easy to center objects.

You cannot attach binoculars with a center-post mounting shaft, such as the Oberwerk Deluxe 20x80s, on the Virgo Skymount.

You need to purchase separately and dedicate a binocular L bracket to the Virgo mount. It must be screwed onto the mount with a screwdriver and it is not adjustable in the field.

Virgo Skymounts come with either 1/4" or 3/8" screw mounts. You need to buy matching tripod and mount.

### **Universal Astronomics Unimount Light Basic:**

The Unimount Light Basic is moderately more bulky than the Virgo Skymount.

The Unimount Basic is more eccentrically loaded than the Virgo Skymount causing more oscillations in the mount, but the UA Basic mount has added versatility.

You could sit down in a lawn chair with the Unimount Light Basic standing on a tripod next to you. The Unimount support stands off to your side. The Basic doesn't equal the versatility of the Deluxe's 6 degrees of motion, but it's definitely in the same family, it's a bit more compact and works very well in it's own right.

The Unimount Basic is made with an integral binocular attachment. No L bracket is needed. If desired, modified mount heads can be purchased for specific binoculars.

The center post adapters are custom made to fit any tripod mount screw on the market. You can designate which center post you want, or you can order more than one so you can use the mount with a variety of tripod platforms.

I was impressed that the Unimount Light Basic was able to carry the Oberwerk 20x80s. Not only did the Basic hold the 7.75# 20x80s, in my opinion it held them better than the Unimount Deluxe. Light bumps from my eyes as I stepped up to the binocs damped out in about 3-4 sec. Several times when looking up at approx 75° altitude, I would come back to the binocs after 5 min and they had drifted, the weight of the binocs being so eccentrically loaded. I had to tighten the hand knob as tight as it would go, way beyond what you would expect as normal tightening, then it worked just fine.

### **Universal Astronomics Unimount Light Deluxe:**

The Unimount Light Deluxe has outstanding versatility in its ability to easily accommodate a seated or reclined observer. However, the numerous hinges and swivels and eccentrically loaded joints result in more shake in the mount than either of the other two mounts.

The Deluxe can hold the 20x80 load and the binocs, when balanced, will stay where you point them. BUT, I do not use the 7.75# 20x80s on the Unimount Deluxe. They seem way too heavy for this mount. The slightest touch even from your nose bridge and they shake for 10-15 seconds. Attempts to stop the shakes by using light hand pressure resulted in additional shake time when removing the hand. I simply could not stop the 20x80s from shaking on this mount.

The Unimount Deluxe is a bigger heavier mount than either the Unimount Light Basic or the Virgo Skymount. I would recommend at the least using a very wide stance tripod with this mount. I now use a surveyor type tripod. The surveyor light is sufficient, but the medium surveyor is so much better a tripod for not much more cost. At least with one of these tripods you can widen the stance of the legs and you need not worry about the whole set-up being toppled over.

The Unimount Deluxe is a lot more bulky and much heavier than the other two mounts.

## **Dampening Times:**

There were a lot of different combinations to test here. I did put each parallelogram on each of a select group of tripods. I did this so I could get an indication of how much the dampening time was being affected by the parallelogram mount and how much was attributable to the tripods. Also I mounted various sizes of binoculars on each of these set-ups. This provided some interesting results. With 3 mounts, 6 tripods and four different binoculars, there was too much data to record it all. I do not show tabulated results here since it began to get pretty repetitive, but I will explain the results.

The dampening times did not change significantly, more than 1-2 seconds, for any of the three mounts regardless too which of the tripods the mount was attached. One exception was longer dampening times if mounted on the Smith Victor tripod. After a few tests I discontinued using the Smith Victor tripod as a mount platform since it quickly became apparent it was the least capable of the many choices I had available.

Here are the results of using one of the mounts on two different tripods. If the tripod is a center post model, then the center post needs to be down to be similar to the stance of the surveyor tripod. If the center post is up, dampening time will be increased slightly. What did cause a change in the dampening times was the weight of the binoculars in use.

### **Unimount Basic on Paragon Plus XHD**

- With Oberwerk 20x80 damps in 8 sec
- With Fujinon 16x70 damps in 4 sec

### **Unimount Basic on UA Light Surveyor**

- With Oberwerk 20x80 damps in 8-10 sec
- With Fujinon 16x70 damps in 4-5 sec

The variances from one tripod to another, produced by the other mounts, were similar. It soon became apparent that the parallelogram design had a more significant impact on the dampening time than the tripods.

Unimount deluxe: 20x80s = 18-20 seconds, 16x70s = 10-12 sec, 15x70s = 6-8 sec.

Unimount Basic: 16x70s = 8-10 seconds, 15x70s = 5-6 seconds.

Virgo Skymount: 16x70s = 5-6 seconds, 15x70s = 4-5 seconds.

Orion Paragon Plus w/ pan head: 15x70s fully extended center shaft 70" high = 3-4 sec.

Orion Paragon HD-F2: 20x80s on fully extended center shaft 73" high = 5-6 seconds.

Bogen 3011 w/3130 pan head: 15x70s fully extended center shaft 75" high = 3-4 seconds.

Dampening times are going to vary all over the place by how much weight you have on the set-up, if the center post is completely down or fully extended and most importantly, how hard a rap you give it to do the test. I test mine by rapping my tripod quite hard, probably a harder rap than most people would ever give. While using the 4.75# 16x70 Fujinons with the mounts mentioned above, if I don't hit it quite so hard, it settles down in at best about 4 to 8 seconds.

Also, very important to note is this: If you rap the tripod the dampening time will be relatively short. However, use only half the same force and tap the binoculars and the dampening time is increased to maybe twice as long. In some cases after tapping the binoculars the whole setup did not come back to a completely quite view for a period of 15 to 20 seconds.

### **Virgo Skymount on Bogen 3211 with Fujinon 16x70**

- Rap tripod with hand, damps in 3 sec
- Bump binoculars with eyebrow, damps in 5-6 sec

### **Virgo Skymount on Paragon Plus XHD with Oberwerk 15x70**

- Rap tripod with hand, damps in 3 sec
- Bump binoculars with eyebrow, damps in 5 sec

I would have to say that realistically, even the slightest bumps, such as with my brow as I stepped up behind the binoculars, would cause movement that lasted a minimum of several seconds. With the Fujinons mounted on the UA Light Basic on the Paragon Plus tripod, the set-up settled down in 2-3 seconds after I lightly bumped it with my brow. Results were similar with the Light Basic mounted on the Light Surveyor tripod.

If the tripod is a center post model, then the center post needs to be down in order to be similar to the stance of the surveyor tripod. If using a parallelogram on a camera style tripod with the center column raised, the potential for vibration is going to increase and dampening times likewise will be longer. Even the shortest tripod I tested would place the Hi view position of the parallelogram above 6'0. Use of the center post would not be required except maybe for the tallest of people, say an individual taller than

6'6".

### **Cantilever and Eccentric Loads:**

Why does the Unimount Light Basic hold the 7.75# binoculars with less shake than the Unimount Light Deluxe? The Basic has less cantilever and is less eccentrically loaded. The cantilever issue was easily seen when switching from the 20x80s to the 16x70s to the lighter 15x70s. The longer the cantilever arm stuck out on the 20x80s, the longer the oscillations took to quiet down after a bump. You could literally watch in the star image as the oscillations returned up thru the shaft back into the binoculars about once every second. The longer the shaft and the heavier the load the more oscillations returned up thru the shaft. I was able to easily count the oscillations in the star image. They really didn't completely stop for a lot longer, but the image was comfortably viewable after the times noted.

The same cantilever issue can be compared between the UA Unimount Basic and the Virgo Skymount. The Virgo skymount does not extend out as far either towards the binocular end or towards the counter-weight end. The method of mounting the binoculars on the Virgo puts some of the weight of the binoculars in closer to the balance point. All the cantilevered weight is in somewhat closer to the center of the mount, the bearing point on the tripod. This has the effect of reducing the oscillations.

I tried one combination using the Virgo Skymount with a 1/4" mount hole mounted on a Universal Astronomics Light Surveyor tripod with the Bogen 3025 minihead to convert the 3/8" surveyor adapter screw to a 1/4" tripod screw. Although all the parts went together very nicely, this set-up performed awfully. I had the two lock screws on the Bogen minihead tightened down with pliers as tight as possible, but I still could not get this set-up to stop oscillating. The load was a pair of 2# Orion 10x50s. There was so much eccentric load on the arms of the mini-head that this setup would not stop moving and had to be scrapped.

### **Tripods:**

The UA Light Surveyor is more bulky than a camera tripod. It requires some sort of different adapter to be used with whatever equipment is chosen. Adapters are readily available from UA for any type of equipment, making this one of the most versatile tripods. It has the capability to hold various types of equipment, even telescope mounts. When collapsed it takes up a lot more room than a camera tripod. It did not provide any better damping times than the Paragon or other camera tripods I use. However, with a wider leg stance than any camera tripod the mounting platform is still several inches higher than any of the camera tripods.

I find the Bogen spreader to be cumbersome and I was always afraid I was going to bend it and snap it. I would recommend taking the spreader off the legs before folding and collapsing the tripod. The spreader did give me the security that the legs would not spread out and slip. It is very useful on concrete. It did not appear to provide any additional benefit beyond that. It did not improve dampening time. I took it off and put it in the house. For me, it was one less thing to deal with.

The Orion Paragon Plus XHD was one of the most well built tripods I have seen of its type with easy to grab large rubber coated steel helical leg locks. It is a very sturdy tripod, every bit the equal of the lightweight surveyor tripod. It has greater flexibility since it can be used with or without the pan tilt fluid head and still has the center-post adjust crank without the head. It was extremely sturdy with the center bracing locked down and damping times with any mount were the same even with the center shaft cranked up 5 to 6 inches and locked securely. It has the added versatility of coming with a tilt pan head which means it can be used as a simple tripod binocular mount with just an L bracket or as an alt-az mount for a small scope. No adapters needed.

The head is the same on both models of Paragon. There are two allen set screws under the center-post top plate that must be loosened before you can remove the head, the exact same procedure as removing a Bogen head. The center post on the Paragon has a 1/4" x 20 screw.

Of three tripods I have with helical leg locks, the Paragon Plus XHD is by far the best. The Paragon Plus locks look like they will never have the problems experienced with the Paragon HD-F2. The Orion Paragon HD-F2 was not as sturdy as the Paragon Plus XHD. It is slightly taller than the Paragon Plus. I put a pair of Oberwerk 20x80 binoculars 7.75# on the Paragon HD-F2 tripod and it's acceptably stable. I have the fluid pan head altitude tension-adjust turned very tight and this allows me to still easily tilt the 20x80s up and down. Only problem is the helical leg locks are plastic. They are nearly impossible to turn in the cold. One of the plastic leg locks on my Paragon HD-F2 has developed a crack.

It's the tripod I throw over my shoulder in a carry case when I want to walk out to a field with my binoculars or my ST90. The Smith Victor ProPod III is an older style tripod. I got mine as part of a used package deal. It came without a head. The helical leg locks are the same lower quality version as the Paragon HD-F2 and the tent pole type push buttons on the upper leg results in more shake in the tripod. Not recommended.

The Bogens, 3211 and 3011, same tripod one is black one is silver, are my most stable camera style tripods. Bogen twist clamp locks are better than any type of helical leg lock. The Bogen head I have, a 3130 QR tilt pan fluid head is just fine, not only with my 15x70 Oberwerks, but also with my heavier 4.5# 16x70 Fujinons. I do have one Bogen head, a 3025 minihead that is insufficient to use as a mounting platform. I often use the Bogen legs to set up a parallelogram mount. The surveyor tripod is no better than the Bogen. The Bogen 3211/3011 is the most compact of all these tripods. It does have a center post with lock, but it does not have a center crank or a center brace.

UA Medium Surveyor is the most bulky of these tripods. It also requires some sort of different adapter to be used with whatever equipment is chosen. Adapters are readily available from UA for any type of equipment, making this probably the most versatile of the tripods for heavier equipment use. It has the capability to hold various types of equipment, even telescope mounts.

This tripod is capable of the widest leg stance and the tallest mounting platform. Although it cannot be used directly for binoculars without a parallelogram mount, it would be very capable as a telescope-

mounting platform for a combination such as the CG5 equatorial head and the CR150 refractor, approximately a 50# load.

This UA Medium Surveyor has a smaller Bogen spreader attached up higher on the legs. I never felt like it was in the way. The spreader did give me the security that the legs would not spread out and slip. It is very useful on concrete. It easily folded as I collapsed the legs when taking down the equipment.

If you purchase the Medium Surveyor to use with the Unimount Light Basic, it may be a bit more than you really need for the parallelogram, but you would have one substantial tripod available for use with any other equipment you own.

UA Heavy Duty Surveyor is not reviewed here. It is way beyond the needs of even the largest binocular mount. The specs are included in the data table for comparison.

### Tripod Specifications

		Orion Paragon HD-F2	Orion Paragon Plus XHD	Manfrotto Bogen 3011 / 3211	Univ. Astro Light Surveyor	Univ. Astro Medium Surveyor	Univ. Astro H.D. Wood Surveyor
<b>Top Legs Double</b>	mm		2 @ 19.2		2 @ 22.5	2 @ 25	2 @ 23.5
<b>Top Leg Single</b>	mm	38	32	30			
<b>Center Leg</b>	mm	28	28	25			
<b>Bottom Leg</b>	mm	25	25	20	23x40	25x45	24x69
<b>Leg Lock</b>		Twist Knurled Plastic	Twist Knurled Rubr Steel	Wingnut Clamp Steel	FlipLock Clamp Steel	Wingnut Bracket Steel	Wingnut Bracket H.D.Steel
<b>Top Hinge</b>	mm	1 @17	2 @ 19	45	67	68	73

<b>Mid Leg Guide</b>					Plastic	Steel	H.D. Steel
<b>Foot</b>		Rubber	Rubber	Rubber	Steel	Steel	H.D.Steel
<b>Tip</b>		Convert tip	Convert tip	Cap	Point	Point	Point
<b>Spreader</b>		Braced	Braced	No	Bogen	Bogen	Bogen
		w/lock	w/lock		Detachbl	Detachbl	Detachbl
<b>Min spread</b>	in				39		45
<b>Leg Spread</b>	in	51	45	47.5	55	55	55
<b>Max spread</b>	in				68	58	78
<b>Height Min spread</b>	in				59		68
<b>Height</b>	in	51.5	52	52.75	55	58.5	65
<b>Height Max spread</b>	in				50	57	58
<b>Height w/post up</b>	in	64.75	62.5	67.25			
<b>Height w/head</b>	in	69	66.75	71.5			
<b>Elev Post</b>		crank/lock	crank/lock	slip/lock	No	No	No
<b>Head</b>		TP QR	TP QR	TP QR	No	No	No
<b>Collapsed w/o head</b>	in	4x27	5.5x30.5	4x24	6x38	6x39.5	6x43.5
<b>Collapsed w/head</b>		~4x30	~5.5x33	~4x27			

<b>Weight w/o head</b>	lbs	~5.5#	~7.0#	4.8#	~8.5#	~10#	18#
<b>Weight w/ head</b>	lbs	7.5#	9.0#	7.1#			

### Features and Abilities I really liked:

The Virgo Skymount on the Bogen 3211/3011 tripod, with binoculars and counterweights attached, can be folded out like a long thin pole and easily carried with one hand. This is the lightest, most portable setup I use. Grasp the counter weight bar and fold it down towards the collapsed legs. Carry with binoculars facing in front of you.

The UA Unimount adapter post comes in any size screw hole you are likely to encounter. Designate which is needed when ordering. For a few bucks more, you can order an additional center post for any other of your tripods. I have the ability to attach my UA mounts to any 1/4", 3/8" or surveyor screw tripod. My Virgo is restricted to one size hole.

I tested mounting all my binoculars to every mount. The 7.75# Oberwerk Deluxe 20x80s did present some difficulties, however, every other binocular I own was easily held by every mount. This includes binoculars from the 4.75# 16x70 Fujinons all the way down to the 24oz.+/- 7x35 Minolta Activa. Both the Virgo Skymount and the UA Unimount Basic Light have such a large range of counterweight balance placement that they can be instantly changed from holding 4 or 5# binocular down to holding 1-2# compact binoculars with ease simply by sliding the counter weights. The balance never once slipped or drifted with the lightest or the heaviest binoculars.

The Unimount Light Deluxe is tops for multi-positioning and ability to sit down and look around. Both the Basic and the Virgo are equal and are not really intended for seated or reclined viewing.

The Unimount Light Basic can carry a small refractor weighing 3 to 5 pounds.

The Unimount Light Deluxe can carry a small refractor weighing 3 to 5 pounds.

### Improvements:

The Unimount Basic Light especially has more versatility if used with the newer head that offers four degrees of motion.

I have used this same Unimount Light Basic parallelogram mount with the newer head option that offers 4 degrees of motion. This setup was notable for it's performance. The 4th degree of motion allows you to stand in one spot and sweep back and forth in addition to already being able to sweep up and down, without swinging the whole parallelogram arm on the vertical axis post. Motion was smooth and

effortless and held my Oberwerk 15x70s wherever I pointed them, including straight up near zenith. The mount just seemed to get out of the way.

The new head with 4 degrees of motion won't let you get all the way around the sky from one seated position such as with the Unimount Deluxe, but the 4th motion, left/right swing in the head, sure does move around to capture a lot from one spot. Settled into a nice comfortable seat, with this nice sturdy rig, little bumps dampened in 2-3 seconds and viewing was a pleasure.

I really liked the UA Unimount Light Basic with the new 4 degrees of motion head. Easy to stand under, easy to move around and nice smooth movements held the Fujinons wherever I placed them. You could easily use the Basic 4 way from a seated position. It's lighter, more compact and stops motion quicker than the Unimount Light Deluxe. I think this is a perfect example of design development resulting in a better product.