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The Avalon M-Zero Single-Arm Mount



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The Avalon M-Zero

Single-Arm Mount

Sexy Is as Sexy Does

By Mark Zaslove

Ferrari. The name conjures beauty, power, red and cost. Big cost. But with a car like that, one also envisions European super-models, posh restaurants and paparazzi. Oh, and Italian. Now take a look at the Avalon M-Zero mount. Beauty. Power (for its size). Red. Cost (sorta, but not really; we'll get to that later). Oh, and also Italian. Is a Ferrari worth it? Is an Avalon M-Zero worth it? You bet! But only if you enjoy luxury and fine craftsmanship.

I get it, I get it, I get it: there are ways to get to the grocery store cheaper than in an F12berlinetta. And, there are ways to view and take pics of the stars cheaper than with an M-Zero. But those other ways...they lack a certain something.

First things first. The Avalon M-Zero is a multi-purpose mount, a sort of Swiss Army knife that is super-light for the load capacity and can be used as a no-meridian flip EQ mount for smaller/shorter scopes, a regular EQ mount up to its weight capacity, an Alt/Az mount for those nights you just feel like visual with a scope or binoculars, and a panorama camera mount for landscape/time lapse photography. Oh, and in these configurations, built-in double mounting capacity. That's like four different mounts with eight different configurations. Hmm, that's a lot of bang-for-buck. Maybe that price isn't that bad. In fact, maybe it's very reasonably priced for what it does.



Image 1 - The Avalon M-Zero screams luxury and fine craftsmanship in every detail.

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Image 2 - Three configurations demonstrate the versatility of the M-Zero. The mount is easily reconfigured by repositioning the three-position arm that is key to minimizing required counterweights.

BUT THAT AIN'T ALL!

Not only is the M-Zero light for its load capacity, it's built in such a unique way that it only really needs one small 0.5-kilogram weight at any given time or for most configurations. Cross my heart and hope to die. (Though, if you push it up to an 8-inch SCT, you'll need a 1.5-kilogram weight.) The whole kit-and-caboodle has two carrying bags and can almost fit into the trunk of a Ferrari.

So, what's it like to set up?

The T-Pod T-90 tripod is a work of art. It's light, easy to level and did I mention light? Yet it's capable of carrying 132 pounds on its sleek frame (way more than a super-model), and ten pounds is all it weighs. Plus, it's got a nice handle and a fairly accurate bull's-eye

level on it.

Then comes the mount head. Now, boys and girls, be sure to read the manual before attaching. There are all sorts of permutations to the thing depending on what configuration you're mounting on it and how you want to track. It all makes sense, but the order of doing things can be a little counter-intuitive if you don't read up first.

First off, there's a three-position "arm," which is why you only need one small weight. Light, medium, heaviest...the positions change the leverage of the mount and voila, it keeps most of the weight firmly over the center of the tripod, so counterbalance is minimal. Cool, eh?

Then, you have the choice of Alt/Az and EQ. Set the mount perfectly vertical, and it's Alt/Az. Set it for your latitude, and it's EQ. Easy-peasy.

Now, do you have a short-tube scope that can fit here? If so, you don't need to do a meridian flip...evah! A little longer scope, and you have your normal GEM configuration.

IF YOU CALL NOW, THERE'S EVEN MORE!!!

What if you want to use two scopes at once? A scope and a guidescope? Just attach the second Vixen-type saddle and you're good to go. Or, if you want to add the X-Guider, you can get two scopes or scope and DSLR with lens wonderfully parallel. That little X-Guider puppy's quite fun to use, too. None of that three-point screw gibberish: up, down, right, left. Waaaay easier. It's like the Lego set of telescope mounts: plug this here, move that there, and suddenly, you have a whole different permutation. Think Transformers, but a mount.

A few cables from the nifty sleek-looking control box to the RA and Dec, and guess what: they go through a nice bore in the RA axis. Sort of semi-through-the-mount cabling, as with a little slack for your DEC movement, you can route your camera and power cables back through this same bore for a lot less cable clutter.

Now, before we move on, let's talk about the hand controller. It's light. It does a mini-

mum of what hand controllers should do (over, under, sideways, down), no screen or any read-out, just some buttons. And it's plastic. That's right, plastic. I guess it's okay, but with the craft and materials of the rest of the mount, it seems a little out-of-place. Like one of those dancing hula dolls on the dashboard of our earlier-mentioned Ferrari. But heck, this mount was NOT meant to be used with a hand controller. You know why?

Built-in Bluetooth for easy wireless mount control. *Sky Safari? TheSkyX?* As grab-and-go mounts go, this one really goes easily. Very light, bring your phone for a true hand controller, and you'll never look back. Seriously, with a 70-mm 'fractor on top, I could head outside with the mount in one hand, a battery pack in the other, and be ready to view in seconds. Just one teensy-tiny thing: it's not *iOS* compatible at this time. Bummer. Here's hoping that changes soon.

So, latch on the polar-alignment scope (rotate constellations through the eyepiece, or use a phone app to place Polaris) to one of the



Image 3 - The T-Pod T-90 tripod is light, easy to level and capable of carrying 132 pounds, yet weighs only ten pounds.



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Image 4 - The T-90 tripod sports a number of nice touches, including this carry handle.



Image 5 - Details of the T-90 tripod also include an integrated bull's-eye level.



Image 6 - The three-position arm can be repositioned to accommodate payloads classified as light, medium and heaviest. Minimal counterbalance is required, regardless of configuration.



Image 7 - Attached the Avalon X-Guider to the mount, as shown in Image 1, to attach and align a second scope perfectly parallel to the main scope.



Image 8 - A variety of mounting accessories are available for the Avalon X-Guider for a configuration that is likely to match your specific requirements.

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Image 9 - Clean cable management is facilitated by the RA through-bore port.



Image 10 - Power and camera cables can also be routed through the RA bore.



Image 11 - The accompanying hand controller does what all good minimalist hand controllers do: moves the mount over, under, sideways, down. But with the mount's built-in Bluetooth for wireless control, you may never need the including hand controller, opting instead for the convenience and functionality of controlling the mount via your smartphone with Sky Safari or TheSkyX.

mix-and-match vixen-sized armatures for mounting the weight, the polar scope, whatever, no matter which side is up, align north and awaaaaay you go!

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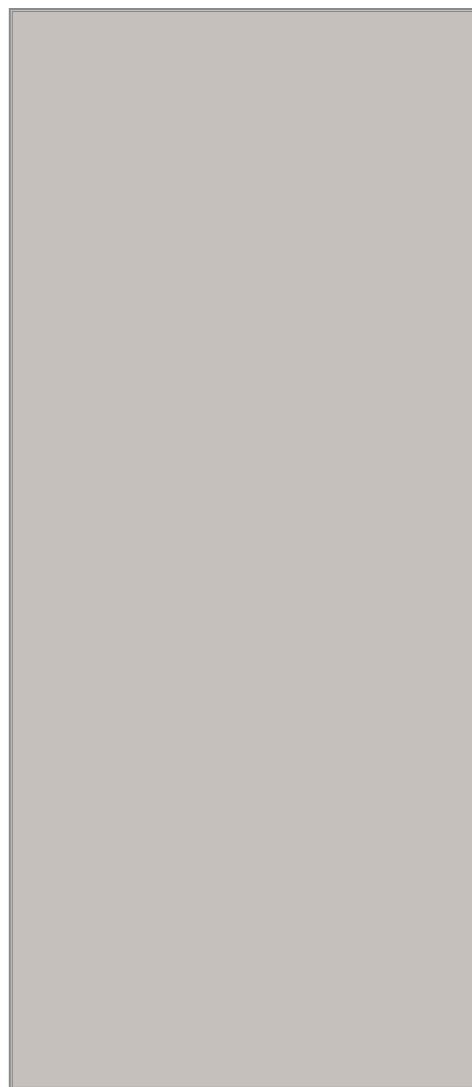
So, what's this mount like out in the wilds of a dark-site? First, you draw a crowd. People want to know what kind of mount it is; they've never seen anything like it. Seriously, it'll make you the life of the party. Then they want to know how it tracks. After some jiggering and aligning – by the way, the *ASCOM driver* works well and works with EVERYTHING I could throw at it: *TheSkyX* (and 6), *MaxIM DL* (5 & 6), *Cartes du Ciel*, *Sky Safari* – I measured the PE peak-to-peak without guiding and got

5.34 arc seconds. That's pretty dang good! With a guider, it was smooth as butter. No big jumps, bumps or asymmetrical thumps. Just a nice, pretty, easy curve to guide out.

Images 12 and 13 of M8, the Lagoon, and M20, the Trifid, respectively were capture as eight 5-minute subs with an OSC and a small but feisty 4.5-inch f/4.4 Newt.

And then I got daring, like a first-time Ferrari driver. I thought to myself: "Self, what's this baby do when I open her up?" So I attempted a single three-minute unguided exposure of M27, the Dumbbell ... and it did pretty dang good!

I don't recommend going unguided with the M-Zero, but it's nice to know you can if you need to (keeping things short). Imagine heading out on a backpacking trip



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Image 12 - This image of M8, the Lagoon Nebula, was captured through a 4.5-inch f/4.4 Newt carried by the M-Zero and consists of eight 5-minute subs.



Image 13 - M20, the Trifid Nebula, was also captured with a 4.5-inch f/4.4 Newtonian on the M-Zero in eight 5-minute subs.

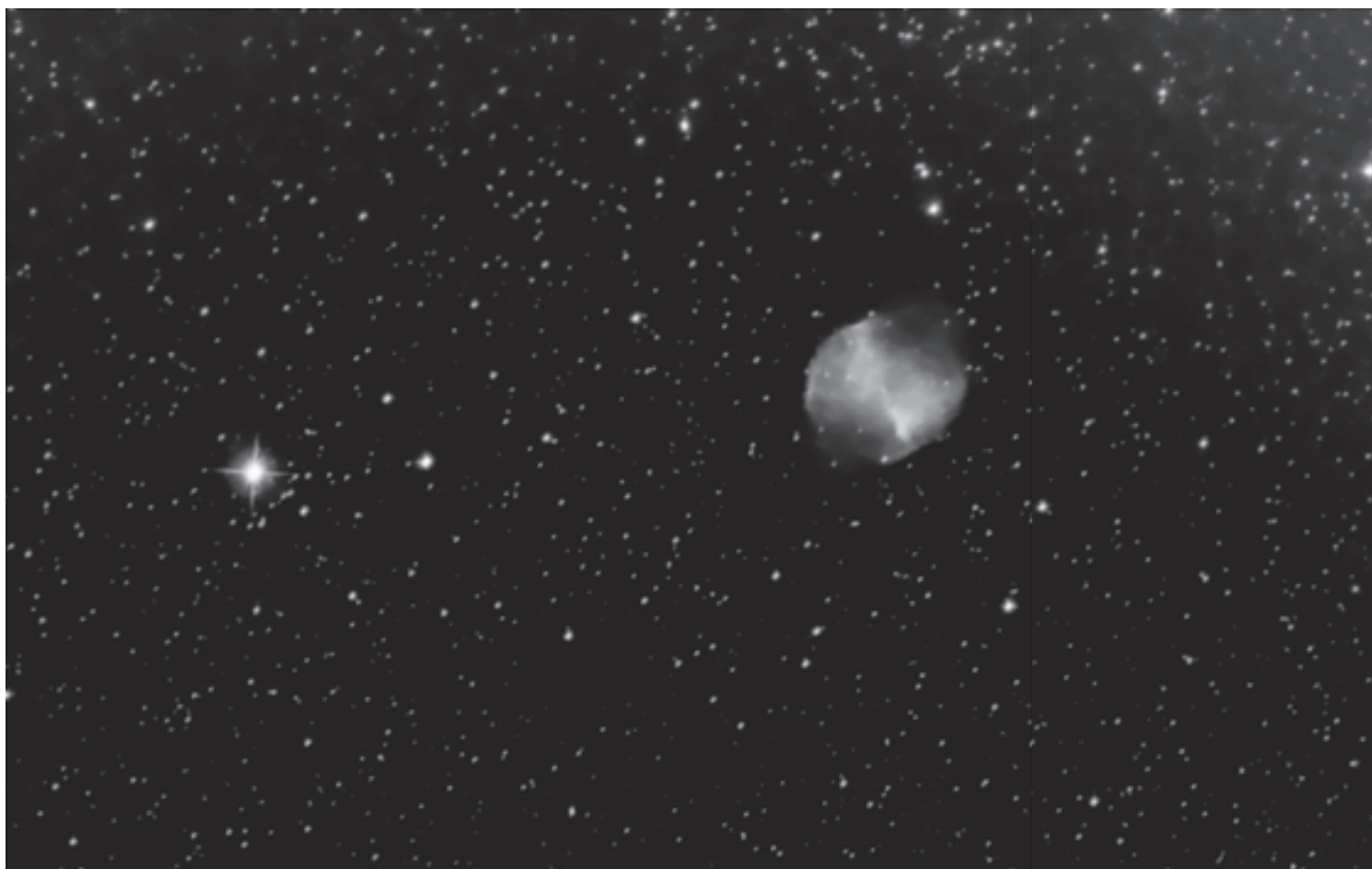


Image 14 - A single 2X2-binned sub of M27, unguided, with only a little stretching and cropping. The author doesn't recommend going unguided with the M-Zero, but it's nice to know you can if you need to (keeping things short).

with a small battery pack, a DSLR and nothing else. Totally doable with this mount. And you'd get some spectacular shots.

BUY! BUY! BUY!

This is a very sexy mount, not just in looks, but in multi-purpose abilities and plain ol' performance. Sure, it's got a few oddities: cheap-feeling plastic hand controller (not that you're really going to use it); Bluetooth wireless, but no app for iOS yet. So what? All minor details (like the fact a Ferrari doesn't get a gazillion miles to the gallon). All easy to live with.

But if you have a smaller scope (10 kilogram visual) and want a very fast, quality, light mount for grab-and-go, this is it. Either EQ or Alt/Ax. If you have smaller scope (8 kilogram imaging) and want to image

with guiding, or with a DSLR and lens, this is it. Or, if you want a small scope and a DSLR imaging simultaneously, or two small scopes, this is it. Or, if you want ALL of these possibilities... this is REALLY it. In fact, are there any other mounts that can do all this and be this accurate and look this sexy? And are Italian?

If you're in the market, give the Avalon M-Zero some real thought; it does NOT disappoint. But I warn you: you're on your own with the super-models.

Thanks go out to Ed Thomas, the owner of Deep Space Products, who so kindly allowed me to take this puppy for a spin and also answered any questions I had. Ed's a good guy; very quick on the email responses. Also, thanks to Luciano Dal Sasso from Avalon, who also answered questions in a very timely manner. 🇮🇹



Image 15 - A closing perspective of the Avalon M-Zero with X-Guider attached.