



## Distributed through Photosolve

### DigiMount Adapter for Digi-scoping, Astro-Photography and Microscopy

Thank you for purchasing our DigiMount Adapter which is exceptionally easy to fit, use and remove and will allow you to quickly and securely attach any digital camera or camcorder that has lens threads onto spotting scopes, telescopes and microscopes. It will cater for virtually any make or model of camcorder / digital camera and almost any available eyepiece using the appropriate Insert Collar (images B and C). Some camcorders / digital cameras can be quite large and heavy, you should satisfy yourself that using their lens threads to make a connection to the DigiMount Adapter is safe. All that is needed to quickly and securely fit or to remove the DigiMount Adapter is about 10 seconds of your time. No tools whatsoever are needed and there are no fiddly or awkward 'jigsaw puzzle' type alignments or adjustments to be made. **If you want to quickly get on with using your new DigiMount Adapter go straight to the easy image guide attached.** You should however still take the time to read these notes as they contain useful guidance and information.

#### Description of Parts (see diagram images)

All the parts of the DigiMount Adapter are custom designed and manufactured to the highest standard for their specific intended purpose. There are no inferior 'off-the-shelf' parts used; it is custom manufactured, right down to the thumbscrews. The DigiMount Adapter consists of two main components for Types L1 to L8 and three main components for Types S1 to S7 These are: the Main Body which has 4 thumbscrews (image A), a Reducing Sleeve (image C) and an Insert Collar with a rubber lining on the inner surface (either image B or C). There are 15 different sizes of Insert Collar (called 'Types'). Each one is custom made to match the size of your particular eyepiece. They have a rubber lining that both protects the eyepiece and also provides a superb amount of gripping area so that no slipping can occur. This comprehensive 'tailor-made' approach ensures that there is no slack or loose fitting when the DigiMount Adapter is used. There is nothing to become misaligned, even if your equipment is moved. The DigiMount Adapter Main Body (image A) also has a standard  $\frac{1}{4}$ " female tripod thread. There may be slight excess of adhesive around the Insert Collar rubber lining, this is normal and does not affect use.

#### Assembling the DigiMount Adapter (see images)

Your DigiMount Adapter will arrive correctly assembled, however below is a description provided for your guidance. To fit the Insert Collar into the Main Body loosen the 4 thumbscrews (it is not necessary to completely remove them). If you have a Type S1 – S7 DigiMount Adapter you will also have a Reducing Sleeve (image C) that needs to be fitted. This is inserted so that the holes line up with the thumbscrews in the Main Body (image 3B). Once inserted, the thumbscrews should be tightened sufficiently that they go through the holes in the Reducing Sleeve but do not protrude through to the inner surface. If you experience any difficulty screwing in the thumbscrews, please check the alignment of the holes.

The Insert Collar should be orientated so that when it is inserted into the Main Body the rubber lining is level with the front end (either image 3A or 4). The cut through section of the Insert Collar should be lined up centrally with the small alignment mark found on the bottom, front edge of the Main Body (image 3A or 4).

Having done this, the shallow groove around the outer circumference of the Insert Collar (which can be seen in image B—near the thumb) will then be lined up correctly with the tips of the 4 thumbscrews when they are tightened.

With the Insert Collar fully inserted into the Main Body it should stay in place, by screwing in at least one of the four thumbscrews, so that it makes gentle contact in the shallow groove. For extra security all four should be lightly tightened.

#### Other items that may be required and their use

The DigiMount Adapter Main Body has 37mm male threads (image A). It may be necessary to use a Step-Ring (image 1) or one of our Special Lens Thread Adapter Rings in order to match it to the thread size of your equipment. We sell a wide range of these Rings to allow the coupling of many different camcorder / digital cameras to the DigiMount Adapter. Some digital cameras also utilize a Lens Thread Adapter Tube to allow attachments. You should ensure that these are correctly and securely fitted first (see the instructions for your particular equipment).

#### Fitting the DigiMount Adapter to your Camcorder or Digital Camera

Once you have fitted any necessary Step-Rings / Adapter Tubes as mentioned above (image 1), the next step is to fit the DigiMount Adapter onto your camcorder or digital camera ( image 2 ).

Please take care when screwing it into the lens threads to ensure that it is positioned squarely otherwise you may possibly cause damage by cross-threading them. Never unnecessarily over tighten.

The camcorder / digital camera should be turned off and the lens cover removed, the lens should be in the retracted position. The DigiMount Adapter should be fitted by screwing it into the camcorder / digital camera threads (or Lens

Adapter Tube, if one is used). Great care should be taken not to let it slip and damage the lens during this fitting process.

Some camcorders may have a lens guard fitted to protect the main lens and this may have to be removed first (see your camcorder instructions).

### **Fitting to the Spotting-Scope, Telescope or Microscope**

With the DigiMount Adapter correctly and securely fitted to the camcorder / digital camera you are now ready to fit it onto your spotting scope, telescope or microscope.

For most popular eyepieces this is a straightforward process as described below. For a very few eyepieces it may be necessary to remove the eyepiece before fitting the DigiMount Adapter or to use an additional 'liner' to even-out ridged or sloping surfaces, this will be explained later.

1. The equipment should be on a stable surface or securely mounted on a tripod.
2. The 4 thumbscrews in the Main Body should be loosened so the Insert Collar is being touched but not compressed.
3. The eyepiece should be attached to the Spotting-Scope, Telescope or Microscope
4. If the eyepiece has an extendable rubber eyecup this should be closed down. If the rubber eyecup is removable, it should be taken off, otherwise it should be folded back.
5. The camcorder / digital camera ( with the DigiMount Adapter attached ) should be correctly orientated for use and aligned with the eyepiece ( image 5 ). It should then be gently slid-down over the eyepiece until it is inserted as far as it will go (image 6).
6. While holding in this position, each of the 4 thumbscrews should in turn be **lightly** tightened until resistance is felt (image 6). On a second pass they should be **firmly** tightened. To ensure the most accurate centralisation of the DigiMount Adapter you should tighten the thumbscrews as evenly as possible (tightening opposite thumbscrews helps achieve this).

### **Removal from the Spotting-Scope, Telescope or Microscope**

For most eyepieces this is a straightforward process as described below. For a very few eyepieces, while the Main Body and camcorder / digital camera can be removed in one operation, In order to remove the Insert Collar it may be necessary to detach the eyepiece and this will be explained later.

1. The equipment should be on a stable surface or securely mounted on a tripod.
2. Securely supporting the camcorder / digital camera the thumbscrews in the Main Body should be evenly loosened so that the Insert Collar is no longer being compressed. At this point the thumbscrews should still be making very light contact with the Insert Collar. This will ensure that when the camcorder / digital camera and DigiMount Adapter are removed the Insert Collar also comes off (see 3 below).
3. The camcorder / digital camera (with the DigiMount Adapter attached) can then be gently slid-off the eyepiece.

### **Focusing and General Tips / Information**

- a. Focusing is primarily achieved using the spotting scope, telescope or microscope focusing facilities.
- b. For most cameras the autofocus system should be activated and will operate satisfactorily.
- c. Setting the mode to Aperture Priority and forcing the lens as wide open as possible (e.g. f2.8) will ensure maximum light transmission. A higher ISO setting (e.g. 200 / 400) will also help in low-light conditions.
- d. Zooming the camcorder / digital camera up to higher magnifications will help minimise vignetting (see k below). On some equipment, also setting the mode to Macro can help with the accuracy of the auto-focusing system.
- e. If there are problems achieving good focus with the auto-focus system, set the equipment to manual & the focus to infinity.
- f. Avoid using any digital zoom as this degrades the image quality, use a higher power eyepiece instead.
- g. The use of a shutter release cable or remote control will help produce sharper images by avoiding camera shake.
- h. Using our Image Locating Sight for spotting scopes will greatly assist in locating and tracking objects.

i. The operating magnification is calculated by multiplying the eyepiece power by the zoom setting being used. So for example, using a 20x eyepiece and a 4x zoom setting on the camcorder / digital camera gives a magnification of 80x. Attaching a camcorder / digital camera to your scope will alter the centre of weight balance and you will need to allow for this when centralising your viewed subject. In common with normal viewing, this becomes increasingly more difficult the higher the magnification that is used. Working at very high magnifications requires particular care to zero-in on the viewed subject.

j. Generally the best results will be obtained by using a lower magnification eyepiece and a higher camcorder / digital camera zoom setting. With spotting scopes / telescopes, larger objective lenses will also assist by gathering more light.

k. Different camcorders and digital cameras will produce varying results. The biggest issue is vignetting (dark edges and corners surrounding the image ) and this will be produced by all equipment to varying degrees, particularly at wide-angle settings. Generally, the smaller the lens the equipment has the less likelihood of vignetting and the greater useable unvignetted zoom range available. The Nikon CoolPix CP950 / CP990 and CP995 digital still camera models have proven to be amongst the best in this respect and we would recommend their use.

### **Special Exceptions**

As mentioned previously, some eyepieces have irregular shape or ridges that make the use of the DigiMount Adapter more complicated. For these, most commonly the Insert Collar will have to be fitted to the eyepiece first before the eyepiece is attached to the spotting scope, telescope or microscope body. The Main Body of the DigiMount Adapter is then attached and removed normally, as previously described, however the Insert Collar will remain fitted around the eyepiece. On some eyepieces / mounts it may also be necessary to build –up any area that has a slope or ridge so that there exists an even surface for the DigiMount Adapter to grip on to.

### **Zoom Eyepieces**

The best way to use the DigiMount Adapter with zoom eyepieces is to loosen the 4 thumbscrews so that the eyepiece zoom can be rotated independently, without the camcorder / digital camera also rotating with it. Having set the appropriate eyepiece zoom that you require, evenly and firmly re-tighten the 4 thumbscrews. Using this method will ensure that your camcorder / digital camera remains correctly orientated for use. When set mid-way some zoom eyepieces may rotate under the turning force of the attached camcorder / digital camera.

### **General**

Your DigiMount Adapter will give very good service. It should not be unduly knocked, dropped, exposed to water or extremes of temperature as this may damage the assembly. Whenever using any items that have threads, particular care should be taken to ensure that no cross threading occurs when screwing them together.

EagleEye OpticZooms and Photosolve do not accept any responsibility for damage or consequential loss caused through the use of the DigiMount Adapter.

### **Other very useful custom products - Only available from EagleEye OpticZooms and Photosolve**

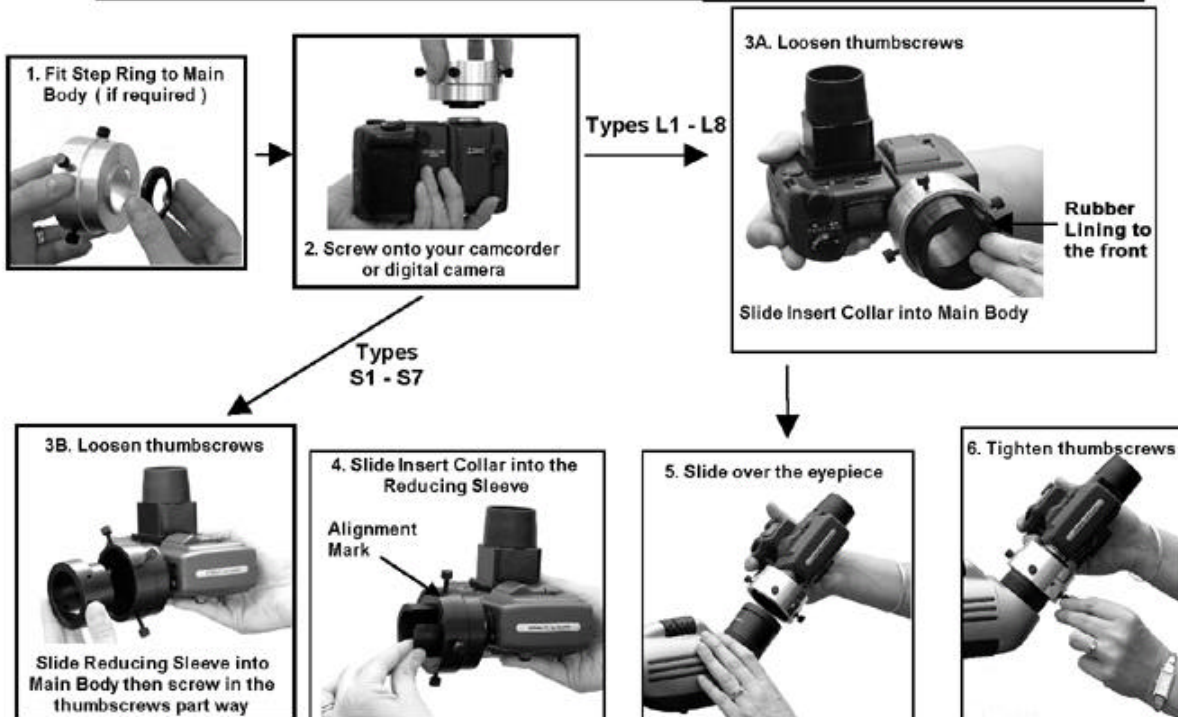
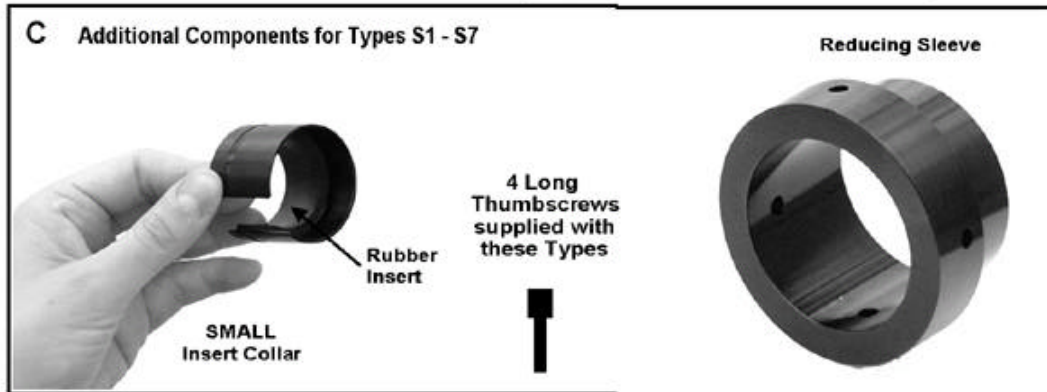
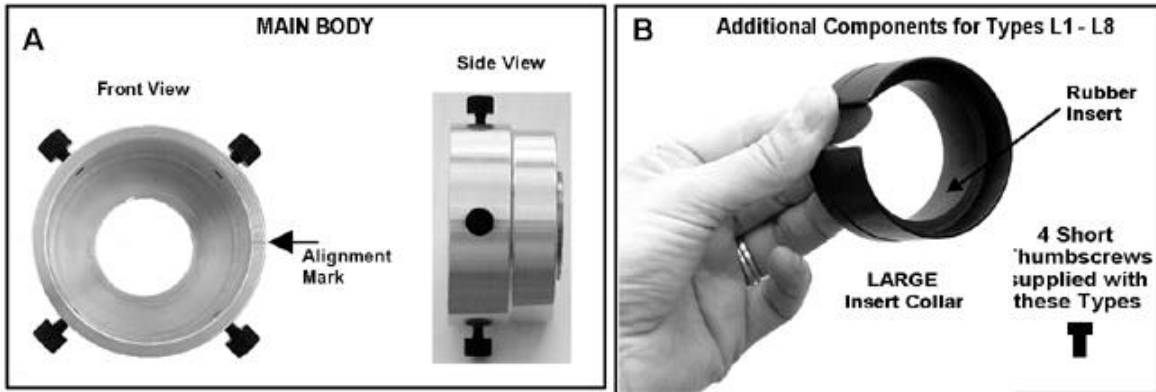
- For recording at closer distances and particularly useful for birds in flight, the **EagleEye OpticZoom 5x Telephoto Lens** is an ideal solution and works with most camcorders / digital cameras. See our website for sample images showing the excellent quality of the images that can be produced with this lens.

- Glare on the LCD screen is a huge problem, making it very difficult to see what you are photographing and whether the image is in good focus. The **Xtend-a-View Pro LCD Sunshade and Viewer** is the perfect solution to banish this problem. ***The indispensable partner for your digital camera!***

- Digital cameras are great but they also have a voracious appetite for power. They will rapidly drain even the best batteries, particularly when the LCD screen is being used (absolutely essential when digiscoping). Turning the camera / screen off helps conserve power but when that crucial photo opportunity arises, you want to be ready for it and not waiting for the camera to reactivate. The solution is our **Dual-Force Pro PowerPack** – very compact (smaller than a packet of cigarettes) and extremely powerful, it will provide many hours of power for your digital camera even with the LCD screen continuously turned on. In tests with the Nikon CP995, the DFP powered the camera for over 6 hours with LCD screen turned on all of the time - over 1500 photographs were taken.

Thank you once again for choosing EagleEye OpticZoom products

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The images show a Nikon CP995 with an Xtend-a-View Pro ( LCD Sunshade & Viewer ) attached. Some of the items in these images are pre-production parts, the production units are anodised black.