

# PENTAX

## Cross-Format

### Lens & Accessory Compatibility Guide



© Murray O'Neill 2023

Murray O'Neill





### **Cover Background: Lupines in June (*Lupinus polyphyllus*)**

Pentax 645Z Camera, Pentax Adapter 645 for 67 Lens, Pentax SMC 67 55mm F4.0 Lens

One of the first showings of wildflower colours in Spring, Lupines, also known as Fireweed, are an extremely common perennial plant in mountain meadows. It is often the first plant to colonize recently disturbed sites, especially following fires. Flowers are present between June & August

### **Cameras on the Cover**

**Asahiflex IA (1953)** The first Asahiflex camera was actually introduced in 1952 and was the Model I

The Asahiflex IA had no “IA” designation on the body, but was simply labeled Asahiflex like the first model. The changes from the first model were only two: There were some minor shutter speed changes and the lowest shutter speed was increased to 1/25 of a sec. and an X-Sync contact was added on the front of the camera body.

**Asahi Pentax Spotmatic (Black Body) (1964), Pentax 67 (1990), Pentax 645Z (2014)**  
**Pentax K-1 Mk.II (2019), and the Pentax K-3 Mk.III (2021)**





**SMC Macro-Takumar 50mm F4  
Pentax Mount Adapter K**



**SMC Pentax-A 645 120mm F4 Macro  
Pentax Adapter K for 645 Lens**



**SMC Pentax 67 135mm F4 Macro  
Pentax 67 Lens Adapter K**



## **Pentax Cross-Format Lens & Accessory Compatibility Guide**

**One of the most significant features of the Pentax system is that EVERY lens made since 1952 can be used on the newest Full Frame, & Crop-Frame DSLRs, including vintage screw mount lenses and both medium format system lenses.**



## Introduction:

One of the most significant features of the Pentax system is the ability to use lenses and accessories across different formats. Unlike many of other major manufacturers, every lens Pentax has made since 1952 can be used on the newest full-Frame and Crop-Frame DSLRs.

Even though they have changed the “flagship” Pentax K mount eight times since its inception in 1975, all the K mount lenses will fit new or older digital and film camera bodies. Depending on the lens and camera used, there may be some features that the lens or the camera body does not recognize, as they were not available at the time of manufacture.

Pentax made cameras and lenses in 37mm screw mount for the Asahiflex camera series starting in 1952, changed to a 42mm screw mount (M42) in 1957, changed to “K” flange mount 35mm film cameras starting in 1975 and continuing through to the newest DSLRs. They made 6x7cm flange mount medium format cameras starting in 1969 through to 2009, and as well 6x4.5cm flange mount medium format, film & DSLR cameras, starting in 1984 and continuing through today (2023).

Unlike Canon, Nikon, Sony and others, who made major changes to their mounting flanges, creating incompatibilities, the Pentax K mount has had eight iterations, and K mount lenses made in 1975 are still usable on the newest Pentax DSLRs. Backward compatibility between new lenses and older cameras will be lacking some features and newer lenses without aperture rings, while they fit, would be awkward to use on older film bodies.

A comprehensive history of the Pentax K Mount can be found here:

[The Evolution of the Pentax K-mount - Articles and Tips | PentaxForums.com](https://www.pentaxforums.com/articles/photo-articles/evolution-of-pentax-k-mount.html)

<https://www.pentaxforums.com/articles/photo-articles/evolution-of-pentax-k-mount.html>

Why would you want to adapt lenses from other Pentax formats? Well, if you photograph with a full format, or crop format DSLR, and as well, use a 645 or 67 medium format camera, the reasons for sharing lenses between formats is obvious. It would expand the range of lenses available to the smaller cameras.

The lenses for the 67 (6x7) have much wider “cross-format” capability than the 645 lenses and can be used on the 645 film and digital cameras, and all the K mount cameras. They can even be used on the older screw mount SLRs such as the Spotmatics. An added benefit is that the 67 to K adaptors are more plentiful and usually less expensive than the 645 to K mount adapters.

Most of the benefits of using a larger lens series on smaller DSLRs are in the area of macro, telephoto and focal lengths, or lens types not available in the “native” offerings for that format.

Having and using cameras in all four formats I have some experience in “swapping” lenses from one camera format to the other. On the following pages are some significant advantages that in my opinion you might want to consider. Some situations are obvious. There are also some lens specific advantages, and some you may not have considered:

**Case studies, opinions, and facts on the following pages:**



- (1) Using the Pentax Mount Adapter K and a #1 Extension Tube, you can easily make a permanent K mount camera connector for the excellent Pentax Auto Bellows (M42) which are readily available on the used market. See page 57 in the eBook “The Pentax Bellows”:

<http://www.pentaxforums.com/articles/photo-articles/the-pentax-bellows-guide-ebook.html>

- (2) Many of the 67 and 645 lenses are more highly user rated than the equivalent “native” lenses in the smaller formats.
- (3) The SMC Pentax-A 645 120mm F4.0 Macro lens is one of the highest user-rated macro lenses, across all formats. And the FA 645 120mm F4.0 is rated 10 out of 10, and is also very usable on the K mount cameras. They are still available new, and are also available used. Using either lens on the smaller format they would not have the same exposure and focusing features, but both are easily manual focused.

There are almost always a dozen or so of the excellent A 645 units for sale used, and can be purchased for under \$150 US. On a 645 camera it is a short telephoto, on full or crop frame DSLRs it becomes a medium telephoto macro.

- (4) Many of the lenses for the 6x7 (67) system are readily available on the used market and are well priced, possibly because there are no new cameras being produced in that format, although used 67 (6x7) bodies are holding their price well. There was a very wide range of lenses produced for the 6x7 format from 35mm “fish-eye” to 1000mm super telephoto and all are available used. For 645, 645D and 645Z users these add another thirty lenses to the 645 medium format system, and most function almost the same as “native” manual focus 645 lenses.
- (5) When adapting one of the larger format lenses to a full or crop frame DSLR, or even a 645D or 645Z, you are only utilizing a small portion of the lens area. Even using extension tubes, fall-off in edge sharpness, or vignetting, would not even be a consideration. You are only using the center “sweet spot” of the lens.
- (6) The SMC Pentax 67 75mm F2.8 AL was produced in low numbers, just prior to the 67 II camera being discontinued and because of this, and its incredible performance, is a little pricy on the used market. It can easily be used as a macro lens as its close focus capability is actually better than the excellent SMC Pentax 67 100mm f4.0 Macro, and it is a faster lens. On the 645 it can be a standard lens length “macro”, shorter, and just as fast, as the new HD Pentax-F FA 645 90mm F2.8 ED AW SR Macro. Also, it is almost half as long, and faster than the native SMC Pentax-A 120mm F4.0 Macro. On DSLRs it can be a macro lens slotting in between the native 50 and 100mm macro lenses on the K mount.
- (7) The highly rated SMC Pentax 67 135mm F4.0 Macro lens is a “bargain” on the used market. As I write this, there are more than seventy-five of these lenses on the used market. About one third of them are the latest “67” production, and an excellent copy can be bought for well under \$100 US, about the same price as a Pentax M 100mm macro, and a fraction of the price of a Pentax A 100mm macro. It can be used on all three formats, screw mount (M42), K Mount & 645). With more of these lenses offered for sale than the apparent demand, you can be fairly confident that a seller will be open to an offer even though they have not stated that option.



- (8) For macro photography using one of the 67 (6x7) macro lenses on the K mount system allows you to also use the longer 67 Auto Extension Tubes in 14mm, 28mm and 56mm as opposed to the 12, 19, and 26mm K mount tubes. In combination, or even having an extra 67 #3 tube, you can equal or exceed the performance of a K mount bellows unit. Most serious macro work is completely manual, so using a larger lens format in manual mode should not be an issue.
- (9) Pentax did not make a “shift” lens for the 645 series of film and digital cameras. There are currently thirty SMC Pentax 28mm F3.5 Shift lenses for sale on the used market at an average price of \$715 US. You can purchase an excellent copy of the SMC Pentax 67 75mm F4.5 Shift (latest 1989-on production) for around \$450 US and the user rating is higher. That is a little more than half the price of the 35mm one, and you can use it on (M42) Spotmatics, K-1 and K-3 DSLRs and all the 645 bodies including the 645Z.

While the 75mm Shift lens is moderate wide-angle lens on the 6x7 (angle of view much like a 35mm on K Mount), on the K mount it is a short telephoto, and it is a “standard” length lens on the 645. The challenge is to get your whole subject into the frame on the K and 645 mounts, but not a problem with enough camera to subject distance. A little-known aspect of shift lenses, is that by using them horizontally and by shifting it to both sides and stitching the images, you can create a two-frame panorama.

- (10) Pentax never made a “native” 400mm F4.0 in K mount, although many of us wished for one. They did make an excellent SMC Pentax-A\* 400mm F2.8 ED (IF), but they are heavy and as pricy as the FA\*600 F4 ED (IF). The SMC Takumar 6x7 400mm F4.0 lens is fast and an excellent buy for a manual telephoto lens and has a built-in hood. It can be used on screw mount, K mount, and 645s. An excellent copy can be purchased, used, starting at around \$200 US, and a “Mint, like-new, in-the-box”, with an excellent case sells for under \$700 US.

While it is not in the same class as the SMC Pentax-M\* 67 400mm F4.0 ED (IF), that lens sells for between \$1,500 and \$2,000 US (10x more!). The Takumar is user rated at 9.7 out of 10 for sharpness which is very close to the M\* at 10/10, and is just as fast, and rated 9.7 for value. It will handle the “grey” series 67 rear converters and has a built-in lens hood. The lens is a little more awkward to use than the M\*, as it is not internal focus. Because of this, focusing may seem not as smooth and perhaps a little “stiff”. It has an outer bayonet mount, manual diaphragm, minimum focus of 8 meters, and really needs a good lens foot for balance and handling.

The mounting issue is easily remedied by using a Hejnar Quick Release Mounting plate #D033, a QR clamp #F62AB, and a 7” Nodal Base Rail #E030-70. For a photographer on a tight budget, or for an occasional long lens user it is an outstanding bargain. The “outer bayonet” mount is not a huge drawback as I will explain later.

- (11) Unlike many of the other manufacturers Pentax never made a “high quality” 500mm lens for the K mount. In the early 1970s they made a 500mm F4.5 (M42) lens, then they released it for the K Mount, but it would appear that they simply converted the mount. This lens suffered from lack of sharpness and dismal aberrations.

Pentax did make some high-quality K mount 600mm lenses in both manual and auto focus. The A\*600mm F5.6 and the F\*600 F4 are hardly ever seen for sale used and the FA\*600 F4.0 ED (IF) is usually offered for sale at between \$4,500 and \$5,000 US. But with wildlife, particularly with larger mammals, 600mm is sometimes too much lens, and 500mm can be a more usable focal length (subjective opinion).



The SMC Pentax 67 500mm F5.6 is a “fast” lens by today’s standards, with higher ISO cameras. It is not internal focus, but is sharp, and has a 67-flange mount and a built-in lens hood. It handles the “grey” 1.4x and 2X converters well, and is still sharp with these converters.

Like the previously mentioned Takumar 6x7 400mm F4, it also suffers from the lack of a decent lens foot, for balance and handling, but that can be easily fixed in the same way. The minimum focus is 8 meters or 26’3”, which is a little long, but using a Pentax 67 #2 Auto Extension Tube cuts it almost in half at an acceptable 4.55 meters (14’11”), much more manageable, and with less than ¾ of a stop in light loss. This brings minimum focus more in line with the more modern long telephotos. I have seen them listed for sale for as low as \$250 US. For a budget minded photographer or an infrequent long lens user it is another “hidden jewel”.

- (12) With so many of the K mount 600mm telephotos being somewhat scarce, and rather pricy, when they are offered for sale used, there is another excellent consideration and that is the SMC Pentax-A\* 645 600mm F5.6 for the following reasons:
- (a) It is manual focus, but **is** internal focus and smooth. Build and optical quality is equal to any of the K mount 600mm “Star” lenses.
  - (b) Because of the innovative design with the integrated upper handle/sight groove, it is very easy to carry and far easier to mount.
  - (c) It has a two-stage built-in lens hood and the first stage is usually adequate, and with both stages extended is deeper than the others.
  - (d) The balance point on the lens foot is also optimally placed, which is not the case with many of the other long lenses.
  - (e) There are always excellent copies available used, and frequently include the proprietary drop-in polarizer. This accessory filter for the K mount 600s is impossible find.
  - (f) The lens is usually offered at half the price of the A\*600mm F5.6 and about a quarter the price of a good FA\*600mm F4.
- (13) The SMC Pentax 67 165mm F2.8 used on a 645 or a K mount DSLR provides a medium, fast, hand holdable telephoto length that is not provided in either format. It is fairly light as 67 lenses go, has a built-in hood, is highly user rated for sharpness, and makes a great “portrait” lens. An excellent used copy can be purchased for around \$150 US. On the 645 it functions as auto diaphragm, on the K mount as manual.
- (14) For 645, 645D and 645Z camera users wanting to do extreme close-up photography the Pentax 67 Auto Bellows should be very seriously considered. Because it is outer bayonet mount, I keep a “crippled” (broken lens release button) **Pentax Adapter 645 for 67 Lens** mounted all the time. Consider the following:
- (a) The 67 (6x7) Auto Bellows is always available for sale used and the Auto Bellows 645 almost never.
  - (b) The 67 (6x7) Auto Bellows is usually offered for sale at half, or less than half, the price of the 645 unit, even considering the adapter.
  - (c) The 67 (6x7) Auto Bellows has double the extension range, from 54mm to 353mm, the Auto Bellows 645 only 54mm to 180mm
  - (d) Because the 67 (6x7) Auto Bellows is robust and the “pleated bellows component” has metal frames on both ends, the unit can be disassembled and reassembled easily, multiple times, without concern for component damage.
  - (e) The 67 (6x7) Auto Bellows can be stored, disassembled, in a Pelican series 1500 case (with many accessories), and assembled when ready to use. This makes it “field” portable, and usable, rather than studio only.



## Table of Contents:

Introduction .....	02
Case Studies, Opinions & Facts .....	03
Asahi Mount Adapter (Asahiflex lenses (37mm) to M42) .....	07
Asahi Pentax L-Adapter (A) (Leica M39 (LTM) to M42) .....	08
Asahi Pentax L-Adapter (B) (M42 to M39 (Leica thread mount "LTM" ) .....	10
Pentax Adapter K for Microscope lens (RMS Thread to K Mount) .....	14
Pentax Mount Adapter K .....	15
Using the Mount Adapter K for (M42) lenses .....	16
Pentax Adapter K for 645 Lens .....	19
Using the Adapter K for 645 lenses .....	20
Pentax 67 Lens Adapters .....	22
67 Lens Coverage & Format Comparison, Field of View, Angle of View & Magnification.....	23
Pentax 67 (6x7) Lens Mounting .....	24
Mounting the Pentax 67 (6x7) Outer Bayonet .....	25
Pentax P-Adapter for 6x7 Lens .....	27
Pentax 67 Lens Adapter K .....	29
Pentax 645 Lens Adapter for 67 Lens .....	32
Pentax Medium Format Lens Listings & User Ratings .....	37
Author's Biography .....	38
Notice of Rights & Liabilities, and Acknowledgements .....	39

## Early Pentax Lens Adapters

Pentax made four lens adapters prior to 1975, before they changed to the **K** mount, the **Asahi Mount Adapter**, the **Asahi Pentax L-Adapter A**, the **Asahi Pentax L-Adapter B** and the **Asahi Pentax P-Adapter for 6x7 Lens**, which will be mentioned further on in this eBook in a discussion of the lens adapters for 6x7 and 67 lenses.

The three earliest adapters were made prior to the introduction of the medium format **Asahi Pentax 6x7** cameras, and were to facilitate the mounting of 37 and 39mm lenses on M42 screw mount camera bodies and accessories, and the mounting of 42mm lenses on the 39mm **Leica Thread Mount (LTM)**, used on most photographic enlargers and **Leica** cameras.

### Asahi Mount Adapter

**Asahi Optical Co.** started production of **Asahiflex** cameras in 1952 using 37mm thread mount lenses, and in 1957 Asahi redesigned the camera as an **Asahiflex Pentax**, changed the primary viewfinder from waist-level to a Pentaprism, and changed the lens mount from 37mm to 42mm thread. Pentax produced the **Asahi Mount Adapter** to facilitate using the earlier 37mm Asahiflex lenses on the newer prism equipped, M42 mount cameras, like the **Asahiflex Pentax**, **Asahi Pentax S** and on up to the **Asahi Pentax Spotmatic**s.

Camera-Lens-Accessory  
Brochure Circa 1962



Asahiflex Lens Adapter to M42



## Asahi Pentax L-Adapter A

The stated purpose in this “L&A” Brochure is to use the **Asahi Pentax L-Adapter A** to mount threaded Leica lenses on M42 camera bodies such as the **Asahi Pentax Spotmatic**. But they can **ONLY** be used for close-ups because the Flange Focal Distance on a rangefinder camera is much shorter than on a Pentax SLR. Given that the better Takumar lenses are (arguably) equal to the quality of the Leica lens equivalents I cannot see an advantage. And today, on a basis of cost vs benefit, it is far less attractive if you look at the jaw-dropping prices the vintage Leica lenses are fetching at the Leitz Photographica Auction in Wetzlar, Germany.

My opinion is that enlarging (dark-room) lenses using the Leica thread mount, called LTM or L39, would be the best candidates for use with this adapter. Since they have no focusing helicoid, they would have to be used in conjunction with a bellows unit or, in a more limited way, with a **Pentax Helicoid Extension Tube**. There are a number of excellent enlarger lenses available from a number of manufacturers and are generally less expensive than dedicated bellows lenses. In my experience they work well on the **Asahi Pentax Auto Bellows**, the **Asahi Pentax Bellow I**, and the first and second production (different designs) of the **Asahi Pentax Bellows Unit II**.

For more information see Page 53 of “**The Pentax Bellows**” eBook available for download at the Pentax Forums website.

### Camera-Lens-Accessory Brochure Circa 1965



The most common mount for enlarger lenses is a true Leica Thread-Mount (LTM), which is 39 mm and has 26 threads per-inch, or a pitch of 0.977 mm.

Asahi Pentax L-Adapter (A)



**Asahi Pentax Spotmatic, Asahi Mount Adapter**  
**Asahi-Kogaku Takumar 50mm F3.5**



The **Asahi-Kogaku Takumar 50mm F3.5** shown here is a good, but unremarkable lens, and is shown illustrating the adapter in use. If you are lucky enough to have either the **Asahi-Kogaku Takumar 83mm F1.9**, or **100mm F3.5**, it might be worthwhile to acquire a 37 to 42mm adapter. Both of these lenses are user rated at 10 out of 10.

37mm lenses can also be used on SLR / DSLRs utilizing the **Mount Adapter K** in tandem with a 37 to 42mm adapter, but doing so exposes the lock-release holes on the K adapter and it may be prudent to block these off with black tape or a 42mm ID x 52mm OD x .5mm Shim Washer to avoid the incursion of stray light.

**Note:** The **Asahi Mount Adapter** has an overlapping spit to assist in removal if stuck on a lens, third-party adapters are double slotted, when stuck require a lens spanner tool for removal.



**(1953)**  
**Asahiflex Model 1A**  
**Asahi-Kogaku**  
**Takumar**  
**50mm F3.5**



**Pentax Bellows Unit II (2nd Production)**  
**Pentax L-Adapter (A)**  
**EL Nikkor 50mm F2.8**

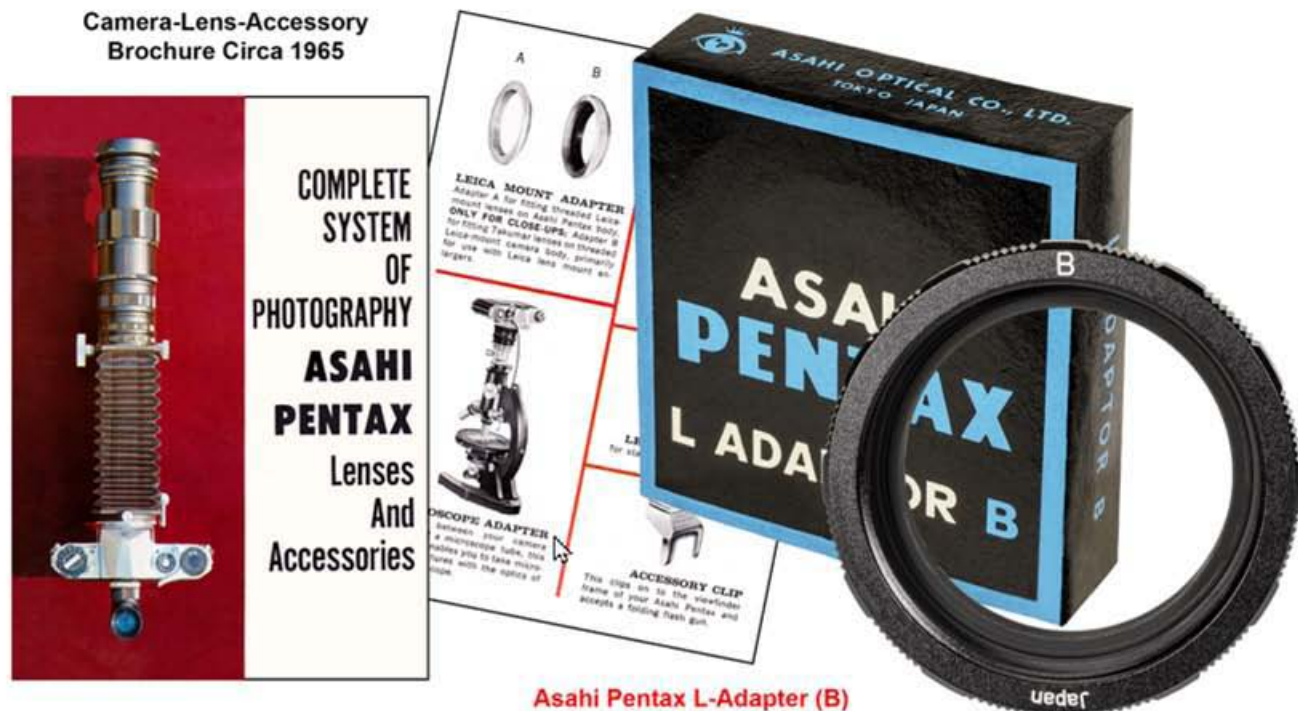


## Asahi Pentax L-Adapter B

This vintage Asahi Pentax "L&A" Brochure describes the **Asahi Pentax L-Adapter B** as being able to mount Takumar lenses on **Leica** thread mount bodies, with the primarily purpose of being able to mount Takumar lenses on Leica thread mount (LTM) darkroom enlargers.

The lens used for printing 35mm negatives is usually a 50mm, and one of the important attributes of excellent enlarger lenses is to be able to project a "flat field" image with uniform brightness and sharp detail out to the edges of the print.

Camera-Lens-Accessory  
Brochure Circa 1965



Asahi Pentax L-Adapter (B)



This is not necessarily true of the performance of 50mm camera lenses, particularly fast lenses such as F1.4, although the **SMC Takumar 50mm F4 Macro** lens might be a good candidate.

Today there are many excellent, used enlarger lenses available, that are purpose-built. and they are also less expensive because they do not need a focusing helicoid, and again less expensive because of excess availability. I do not currently see an advantage in using the Asahi Pentax L-Adapter (B) for this application.

Photographic Enlarger, **Asahi Pentax L-Adapter (B)**, SMC Macro Takumar 50mm F4.0

However, mounting **Takumar** lenses on a **Leica** (LTM) mount camera looked like it might be a consideration, as the Takumar lenses are far less expensive and just as good. As I have a **Leica IIIf Rangefinder** (L39mm- LTM) I was curious to find out if fitting Pentax Lenses to the Leica was a viable endeavor. The Flange-Focal-Distance (FFD) is much shorter on a rangefinder camera than an SLR, and the Takumar lens will not couple to the Leica rangefinder system, leaving only “zone focusing” techniques as an option.

After doing a film test, I found that no combination of lens settings was viable. As mentioned in the brochure “Complete System of Photography Asahi Pentax Lenses & Accessories (Circa 1965)”, it would appear that the reference “Adapter B for fitting Takumar lenses on threaded Leica mount body” was not a tested statement of application.

Accurate focusing with a rangefinder camera is meant for lenses shorter than 65mm, and depending on the camera model can also be 90mm. Accurate focusing becomes problematic with long telephoto lenses, and also in macro photography. To overcome this Leica made an interesting accessory called a **Visoflex Reflex Housing**, using a prism head and a retracting mirror, basically emulating an SLR. There were four different models made, but the **Visoflex I Reflex Housing** (Male/Female L39) is affordable and quite versatile as it will mount a Leica 39mm (LTM) body (or a Leica M flange mount rangefinder body with the addition of a simple inexpensive L39 to M adapter). Using this adapter, the **Visoflex I Reflex Housing** would then couple to all M mount Leica rangefinder cameras right up to the **newest Leica M11 digital**.

The **Leica “Hektor” 135mm F4.5** lens head is removable from the lens body and can be used with a short focusing mount on the **Visoflex 1 Reflex Housing** allowing the full range of focusing from minimum focus distance to infinity. However, the **Pentax Takumar 135mm lens** when mounted with the Asahi **Pentax L-Adapter (B)** can also be used, but **only** as a macro lens due to the depth of the Visoflex housing (65.5mm), and the difference in FFD, Flange to Film Distance (16.68mm), this combines to create the same effect as using an 82mm extension tube. As Leica did not make a dedicated L39 (LTM) “macro” lens, the Takumar 135mm does an acceptable job as a macro lens giving .75x life-size images at a working distance of 14.5 inches.

Using the **Asahi Pentax P-Adapter for 6x7 lens** and the addition of the **Asahi Pentax L-Adapter (B)**, the **Pentax 67 135mm F4 Macro lens** does a much better job. At minimum focus distance it provides .93x life-size with a working distance of 11 inches, and set at infinity, gives .50x life-size image at 17 inches, camera to subject distance. The **Pentax P-Adapter** is somewhat rare, so alternatively you could use the easily available **Pentax 67 Adapter K** and a third-party **PK to Leica M** adapter to couple to all the newest **Leica M series** rangefinder cameras.

Another interesting application of the **Asahi Pentax L-Adapters** is using both adapters and the **Pentax Bellows Unit II (late production)** in combination with a **Leica** camera, the **Leica Visoflex Reflex Housing**, and the **Leica “Hektor” 135mm** short mount lens to replace the Leica bellows unit. The Pentax bellows unit is far superior to the Leica one, both in design and function.

Additionally, the Leica lens and L-Adapter (A) can be replaced with a variety of Takumar lenses up to 200mm for **macro**, producing variable magnifications, with excellent working distances on lenses longer than 100mm.



I have spent a considerable time and provided a lot of information regarding the use of Pentax lens equipment on Leica cameras but wanted to fully explore the value of the two vintage **Pentax “L” adapters**, and considering that Pentax has a much a larger range of lenses than Leica.

The Leica information may not be of much interest to “dedicated” Pentax shooters and collectors, but may be quite interesting to fans of all cameras of the classic screw mount era.

If you are looking for a “mirrorless stable-mate” 😊 for your **Spotmatic** collection, the most common, and affordable, is the **Leica Model IIIf**. You would then have the two most iconic cameras of the screw mount era in your collection.

This is the second to last **Leica** thread mount (LTM) camera made and 184,000 were manufactured, other than only being made at the home of Leica cameras, in Wetzlar, Germany, curiously 5,000 of these were made in Canada.

Interestingly, **Pentax** and **Leica** are the only major camera manufacturers with the foresight to feature native shooting in **DNG**, Adobe’s open source, archival, digital RAW file format.





**Leica IIIf Rangefinder Camera**  
**Leica Visoflex-I Reflex Housing w/45° Viewer**  
**Asahi Pentax L-Adapter (B)**  
**Pentax SMC Takumar 135mm F2.5**



**Leica IIIf Rangefinder Camera**  
**Leica Visoflex-I Reflex Housing w/Chimney Viewer**  
**Asahi Pentax L-Adapter (B), Pentax P-Adapter for 6x7 Lens**  
**SMC Pentax 67 Macro 135mm F4.0, RRS MPR-192 Rail**



**Leica IIIf Rangefinder Camera**  
**Leica Visoflex-I Reflex Housing (45°)**  
**Asahi Pentax L-Adapter (A)**  
**Asahi Pentax L-Adapter (B)**  
**Pentax Bellows Unit II (Late Prod.)**  
**Leica Hektor 135mm F4.5 (short mount)**



## Pentax Adapter K for Microscope Lens

The **Pentax Adapter K for Microscope Lens**, while this not a cross-format camera lens adapter, it is still a lens adapter allowing non-conventional lenses to be used on Pentax camera equipment, such as Pentax K mount bellows unit. Microscope lenses do not have a focusing helicoid and to use a microscope lens directly on a camera body you must use it in conjunction with a **Pentax K mount Bellows** unit, or with lesser extension, a **Pentax Helicoid Extension Tube K** if you wish to have some focusing capability.

It is a simple adapter plate with an **RMS (Royal Microscopical Society)** female thread (20.32mm) in the middle, and a Pentax K flange mount on the rear. It will attach directly to the camera body, but regardless of the lens make or model can cause considerable vignetting mounted this way. Using a **Pentax #3 Auto Extension Tube K**, or the Pentax **Helicoid Extension Tube K** increases the magnification slightly but brings the vignetting down to an acceptable level.



Pentax K1 Mk.II, Pentax Helicoid Extension Tube K

**Pentax Adapter K for Microscope Lens, AmScope Achromatic 10X Lens**

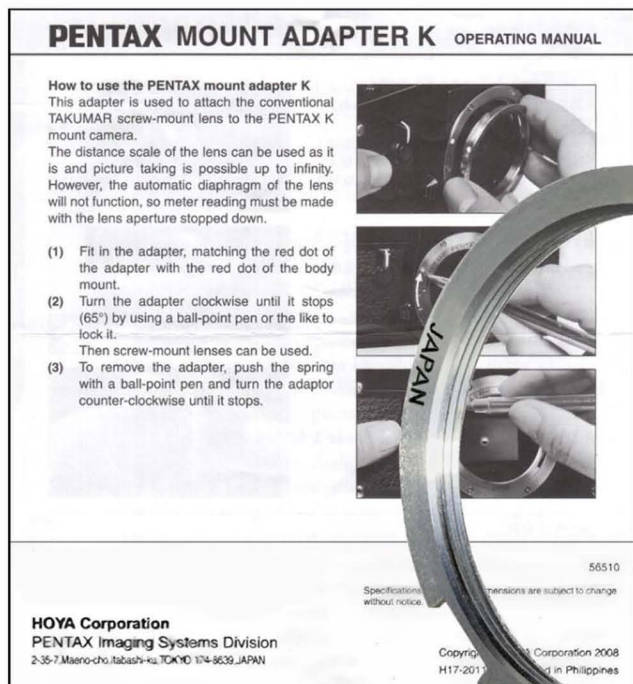
## Pentax Mount Adapter K:

When Pentax switched from the 42mm screw mount lenses (M42) in 1975 to the K mount (bayonet mount) bodies, there were many Pentax users with a significant investment in the earlier screw mount lenses, so they made an adapter to enable these lenses to be used on the new flange mount bodies, encouraging the transition to the newer camera designs.

The **Pentax Mount Adapter K** is a simple, easy to use adapter. It has a 42mm thread on the inside and a “K” bayonet flange on the back side. Whereas all the other Pentax lens adapters are attachments to a lens to allow it to fit a certain camera body, this adapter is an attachment to a body, to allow it to fit a different lens. Once it is placed it can be left there and any number of (M42) lenses can be interchanged easily. It is unlikely that an experienced Pentax photographer would need an operating manual for this accessory, but they did provide one, and on the following page I have shown the mounting process.

As the lens locking pin and the focusing screw drive protrude from the K flange, good practice would indicate holding the lens release button down when mounting and dismounting M42 lens to avoid any possibility of scratching the rear of the lens body.

Below, on the right, is a close-up view of the adapter locking mechanism. The earlier adapters are called “**Asahi Pentax\***”. The newer ones are simply marked “**Pentax**” both are identical.



There are some third party “knock-off” adapters that look almost identical, and may or may not work well, but one serious problem I saw with one of them is that the screw holding the locking spring was too long and protruded into the thread area.

**When threading a lens into one of these adapters, it will seriously score the lens thread!**

There were a number of excellent, highly user rated, lenses made by Pentax in the earlier (M42) screw mount. Keep in mind that these lenses, while they may be auto diaphragm on a Spotmatic F, will require stop down metering, and the diaphragm will need to be manually operated on a K mount camera.





(1) Fit the adapter into the camera body aligning the red dots and push the adapter in, flush with the camera flange.

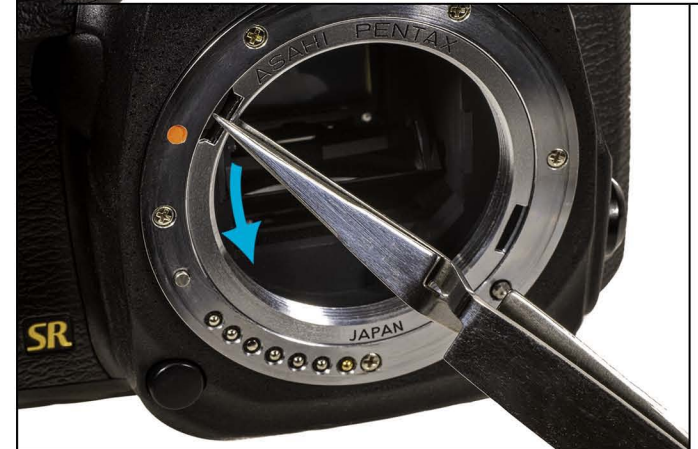


(2) Turn the adapter clockwise without depressing the lock spring until it stops.

(3) The adapter is now locked into place ready to accept a screw mount lens (M42).



**Note:** Your right thumb nail to depress the lock along with your index finger can remove the adapter. A pair of tweezers, or even a ball point pen tip can also be used.



(4) To remove the adapter, depress the locking spring and turn the adapter until it stops.

## Pentax Mount Adapter K





**K-1 Mk.II with  
Pentax Mount Adapter K  
SMC Takumar 50mm F1.4 (Version 4)**



**K-3 Mk.III with  
Pentax Mount Adapter K  
SMC Takumar 135mm F2.5 (Version 2)**

**Pentax Mount Adapter K**





**Bellows Camera  
Body Connector  
Ring**



**Body Connector Ring  
Mount Adapter K  
Extension Tube K (#1)**



**Detail of groove for  
Extension Tube K  
Locking Pin**



**Note:** Attachment of Pentax DSLRs to the Pentax Auto Bellows (M42) requires a spacer between the body & bellows.

**Mount Adapter K** used with the Pentax Extension Tube K (#1) and mounted to the Bellows Connector Ring forms a semi-permanent "K" adapter for this purpose.

**Pentax K-3 Mk.III, with Pentax Extension Tube K (#1),  
Pentax Mount Adapter K, Pentax Auto Bellows (M42)  
and SMC Bellows-Takumar 100mm F4.0 lens**

## **Pentax Mount Adapter K**

## Pentax Adapter K for 645 Lens:

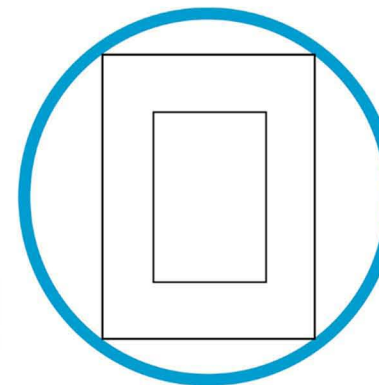
The **Pentax Adapter K for 645 Lens** is designed to mount 645 lenses (manual and auto focus) on Pentax K mount cameras. The adapter works with all K mount versions; **K, KA, KAf**, right up to **KAf4**, functioning on all Pentax K mount cameras from the early 35mm film cameras to the Pentax K-1 Mk.II and K-3 Mk.III. It allows focusing from minimum to infinity.

When mounted on this adapter, 645 lenses do not have automatic aperture control, in fact, if the lens is set to the “A” setting you will not be able to rotate the aperture ring, and the lens will remain stopped down to minimum aperture.

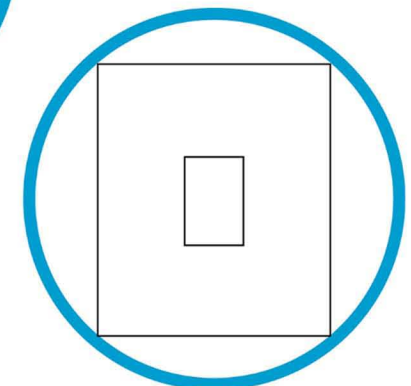
Unlike other Pentax lenses, with 645 lenses unattached, the aperture remains wide open and cannot be set, without the lens being attached to a camera, a lens adapter, or the 645 Reverse Attachment (when the lens is being used in reverse mode).

An important cautionary **NOTE** to be aware of is that when mounting this adapter on a K-1 or K-3 camera body, or other DSLRs, the **Fixing Screw** can interfere with the camera prism housing, when mounting and dismounting, and can cause a significant scratch. The **Pentax Adapter K for 645 Lens** allows the K flange to rotate within the adapter housing and has four detents at 90 degrees. Position the fixing screw as shown in the illustration on the next page, when **mounting** and **dismounting** the adapter. Using the adapter to reorientate the camera body to the vertical on a tripod mounted lens, **be aware** of the fixing screw position. Rotate to the right!

When a lens from a larger format is used on a smaller camera the magnification remains the same even if it is a crop sensor. A 75mm lens on a 645 camera would be a “standard” lens, but on a full frame DSLR would be a “short telephoto”, and on a crop frame body might be considered a “moderate” telephoto.



645 Lens Circle & Frame  
with FF DSLR Frame  
(35mm Film Format)



645 Lens Circle & Frame  
with APSC DSLR Frame





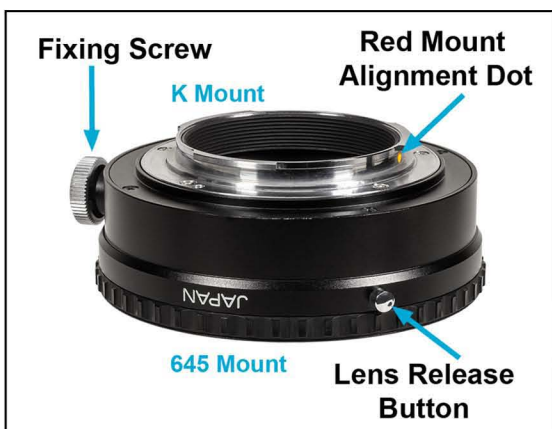
(1) Loosen the fixing screw and position the K flange in a detent so that the red alignment dot is directly opposed to the fixing screw before attaching it to the camera body. This will ensure that it will clear the camera body. Retighten the fixing screw.



(2) Mount the adapter onto the camera body as you would a lens. This will place the fixing screw at the bottom.



(3) For the lens controls to be accessible at the top, the fixing screw needs to be loosened and the adaptor rotated so that the fixing screw is on the left side and then retightened.



**SMC Pentax-A 645 120mm F4.0 Macro**

**Pentax Adapter  
K for 645 Lens**

**Pentax  
K-1 Mk.II**



**Pentax SMC A645  
120mm F4.0 Macro**

**Pentax K-1 Mk.II**  
**Pentax Adapter K for 645 Lens**  
**Pentax A 645 Auto Extension Tube #3**



**Pentax  
K-3 Mk.III**

**Pentax SMC A645  
120mm F4.0 Macro**

**Pentax Adapter K for 645 Lens**  
**Pentax Auto Bellows 645**



**Pentax K-3 Mk.III**

**Pentax Adapter K for 645 Lens**

**Pentax SMC-A\* 645 600mm F5.6 ED (IF)**



## Pentax 67 (6x7) Lens Adapters:

Pentax made three lens adapters to adapt 67 lenses to their smaller formats: the **Pentax P-Adapter for 6x7 Lens**, the **Pentax Adapter K for 6x7 Lens** and the **Pentax Adapter 645 for 67 Lens**. All three have different attributes, and I will discuss them in general terms here and then in detail afterward. Pentax are also not consistent in referencing the 67 (6x7) adapters, I will use the name stamped on the Adapter.

The first one, the **Pentax P-Adapter for 6x7 Lens**, allowing screw mount (M42) bodies, such as the Spotomatics, to use 67 (6x7) lenses is somewhat rare to find offered for sale. Of course, there is also not a huge demand as while 35mm film shooters are a dedicated bunch, they are not in great numbers. However, it is an interesting item for collectors. This was a more attractive accessory between its introduction in 1969 when the 6x7 system was introduced, and 1975, when the K mount bodies were introduced.

Although there are some thirty 67 (6x7) lenses and devices that **Pentax Adapter K 6x7 Lens** can adapt to K mount, there are, in my opinion, only significant advantages for K mount shooters in the macro and telephoto areas. Using a **SMC 67 135mm F4 Macro lens** and a couple of **67 #3 Auto Extension Tubes** can start to equal K mount bellows performance with excellent working distances. This same lens with the **67 (6x7) Auto Bellows** can yield some amazing results, and there are some very inexpensive 67 (6x7) telephotos.

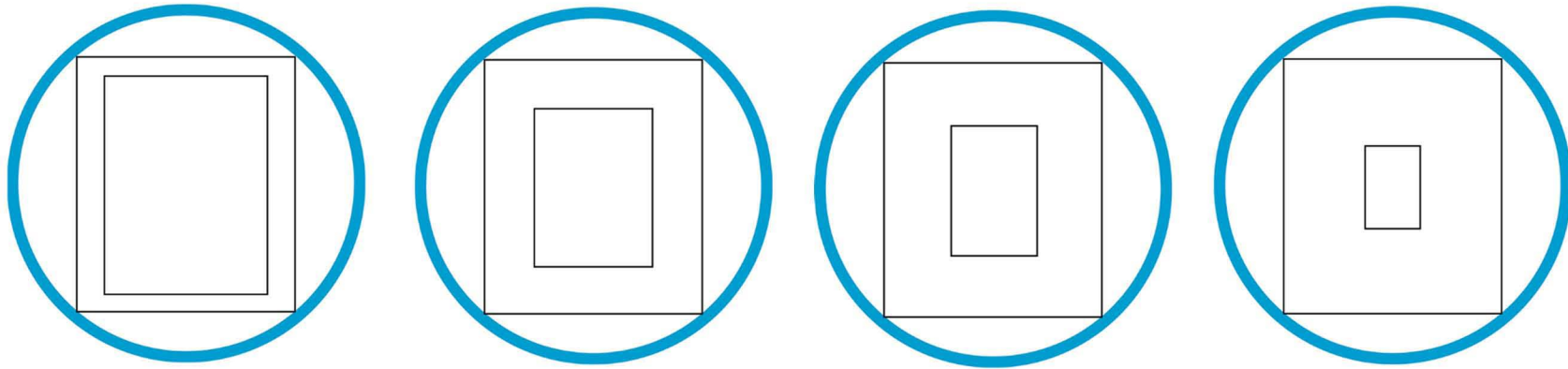
While there are thirty-two 645 lenses both manual, and auto focus, including eight zooms, as well as an auto bellows, that can be adapted to K mount bodies, with the **Pentax Adapter K for 645 Lens**, there are **another** twenty-nine manual focus lenses, including two zooms in the **Pentax 67 (6x7) System** that can also be adapted to K mount camera bodies using the **Pentax Adapter K for 6x7 Lens**. This is an impressive selection, and K mount shooters some of these longer lenses are well worth considering.

With the third adapter, the **Pentax Adapter 645 for 67 Lens**, there are even greater advantages for 645 shooters, both film and digital, as this adapter couples with the aperture in the 67 (6x7) lenses, and while it does not show the aperture value on the camera LCD screen, it allows for automatic aperture and metering using the green button. This allows a selection of over sixty lenses, counting the “native” glass. With the aperture coupling, the **67 (6x7) Auto Extension Tubes** can also be used. The manual for these 67 (6x7) accessories says that there may be some light “fall-off” in the corners at smaller apertures, but as the 645D and 645D digital cameras are using less of the entire 67 (6x7) optical circle than the 645 film cameras, and smaller sensors than 6x4.5 this will not happen. (See examples)

Most of the 67 (6x7) lenses are larger and heavier than the native lenses for the smaller formats, and without tripod mounts, and when used on a tripod with the smaller DSLR bodies, there can be balance issues. I have been using universal multi-purpose rails and nodal slides for years such as the Really Right Stuff MPR-CL, MPR-192, or Hejnar E3-60 & E3-70 to balance camera and lens combinations. I use two different fixed length rails and one adjustable one.



## Pentax 67 (6x7) Lens coverage by Format and Angle of View:



6 x 4.5 Film Format

6 x 4.5 Digital Format

FF Digital Format & 35mm

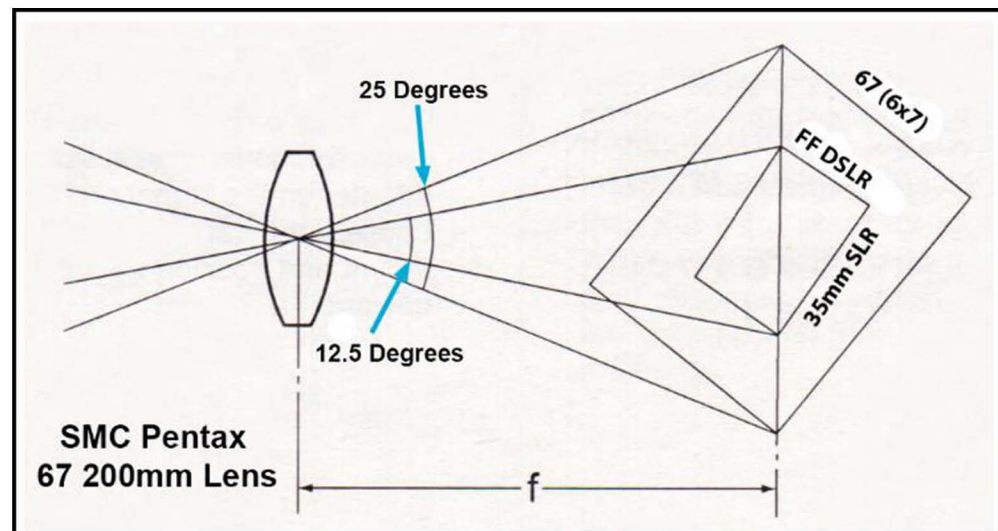
APS-C Digital Format

**The outer blue ring is the optical lens coverage and the larger inner rectangle is the 67 (6x7) camera coverage.**

From the diagrams above it is obvious that the smaller formats are using the center “sweet spot” of the lens, and for some of the highly user rated 67 (6x7) lenses the optical quality could not be better.

The focal lengths of 67 (6x7) lenses remain the same even when attached to smaller camera formats. The magnification does not change, but the angle of view **does** change.

For example, the SMC Pentax 67 200mm on a 67 (6x7) camera is a “short” telephoto lens with a 25-degree angle of view, while on a full frame DSLR or a 35mm SLR it would be a “moderately long” telephoto with an angle of view of 12.5-degrees, or the same as a “native 35m” 200mm lens.





## Pentax 67 (6x7) Lens Mounting:

The Pentax 67 (6x7) lenses, for the most part, all use a conventional type of flange mount, however, there are a few lenses that use an **outer bayonet mounting system**. I have listed these as follows:

**SMC Takumar/Super Takumar/Takumar 6x7 400mm F4.0**

**SMC Takumar 6x7/Takumar 6x7 600mm F4.0**

**SMC Pentax-6x7/SMC Takumar 6x7/Takumar 6x7 800mm F4.0**

**SMC Reflex-Takumar 1000mm F8.0**

**Pentax 67/Asahi Pentax 6x7 Auto Bellows**

Not many photographers would put the 6x7 600mm F4, the 6x7 800mm F4 or the 6x7 1000mm F8 on their Christmas wish list. The 800mm weighs 39 pounds and would be like lugging around a blacksmith's anvil 😊. However, the **Takumar 6x7 400mm F4.0** is fast, sharp, will accept the "Grey" 67 (6x7) 1.4X and 2X teleconverters, and is incredibly inexpensive. This lens is well worth considering for the once-in-a-while long-lens shooter, and the other consideration is the **Pentax 67 (6x7) Auto Bellows**. It is a beautiful piece of equipment. Using it has all the ambience of a 4 x 5 view camera, and I find it enjoyable to use in the studio and can be easily used in the field. The **Pentax 67 (6x7) Auto Bellows** has a unique pleated bellows with metal end pieces, and the whole unit can be disassembled and reassembled constantly without risk of damage, and stored in a model 1500 Pelican case along with lots of accessories.

The Pentax outer bayonet can be a little tricky to use, and you need to be careful that you have mounted your camera correctly and securely, **before you let go of it**. Not paying attention can have disastrous results. Once you are aware of how to properly use it you will find it takes a little longer to mount a camera/camera-lens adapter combination than a "conventional" bayonet mount. But you can always leave an adaptor permanently mounted as I do on my bellows and most of my 67 lenses.

The Pentax 6x7 and 67 cameras all have outer bayonet tabs, as do all three of the 67 (6x7) lens adapters. There are four tabs on the adapter that fit into the outer bayonet fastening ring. **The tab detail is shown in the illustration on the right.** Most Pentax photographers will not have the opportunity to try this mounting system, so the following pages show, in detail, how it is used.



## Outer Bayonet Mounting:

- (1) Best, and safest practice, is to mount the lens securely on a tripod before mounting the adapter and camera.
- (2) Turn the Fastening Ring clock-wise until it stops, and then turn it back, counterclock- wise, until the white dot is at the top, in line with the red indicator line that is used for the distance scale.



- (3) Align the **Pentax Adapter K for 6x7 lens** so that the red dot on the adapter lines up with the white dot on the lens and the tab openings in the Fastening Ring.

Push the adapter forward with the bayonet tabs going through the Fastening Ring cut-outs, so that the adapter butts up against the lens.

Turn the Fastening Ring clock-wise until the adapter tabs are **firmly** held.





(3) Check to make sure the the bayonet tabs are completely, or at least 3/4 clamped by the Fastening Ring.



(4) Mount the camera body on the adapter as you would to any lens.



**Pentax K-3 Mk.III**  
**Adapter K for 6x7 Lens**  
**SMC Takumar 6x7 400mm F4**  
**Hejnar D033 Lens Plate, Kirk LRP-1 Lens Foot**

**Pentax K-3 Mk.III**  
**Adapter K for 6x7 Lens**  
**SMC Takumar 6x7 400mm F4**  
**Desmond DPL60 Lens Plate**  
**Jobu SF-CP1 Lens Foot**  
**Jobu Jr.3 Deluxe Gimbal head**  
**Kirk Tripod Head QD System**  
**Gitzo Series 3 Systematic Tripod**

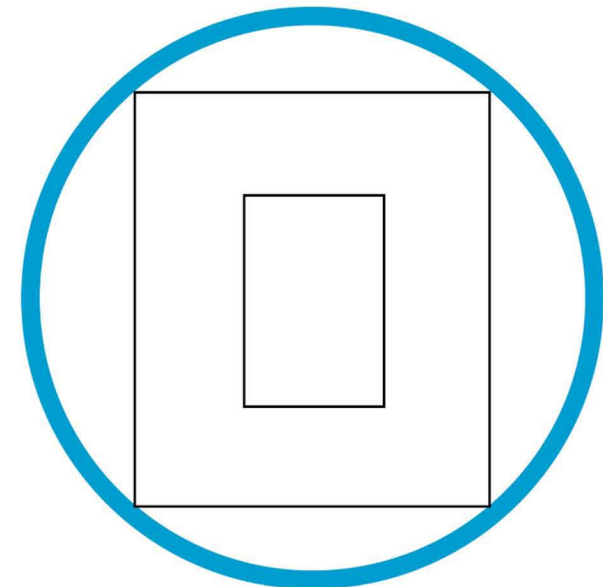
## Pentax P-Adapter for 6x7 Lens:

The **Pentax P-Adapter for 6x7 Lens** was introduced shortly after the first Pentax 6x7 camera, circa 1969, and was discontinued sometime after 1975 when the K mount cameras were introduced. It was designed to allow a 6x7 (67) camera lens, either inner or outer bayonet connection, to mount on a 35mm film camera body, such as one of the Spotmatics. The aperture on the lens must be stopped down manually, and even with the more advanced Spotmatic F open-aperture metering is not possible.

Unlike the other 67 (6x7) lens adapters, this adapter has a 49mm thread for attaching a filter **inside** the adapter, or you can attach a filter to the lens. Filters are not often used in digital photography, but can be an important tool in B&W film photography.

They are not commonly seen for sale, but are occasionally listed on used camera websites, like eBay. Because they are somewhat rare, and now more of a “collectors” item, they are usually offered at a considerably higher price than the **Pentax 67 Lens Adapter K** which is easily purchased on the used market.

When a lens from a larger format is used on a smaller camera, the magnification remains the same, but the angle of view changes. For instance, a 75mm lens on a 6x7 camera is a “mild” wide angle, on 645 cameras would be a “standard” lens, but on a full frame DSLR would be a “short telephoto”, and on a crop frame DSLR body might be considered a “moderate” telephoto.



(67) image circle & frame

Showing 35mm frame coverage





**Pentax Spotmatic with P-Adapter for 6x7 Lens**  
**SMC Takumar 6x7 400mm F4 Lens**  
**Kirk LRP-1 Lens Foot**



**Detail Outer Bayonet Mounting**



**Detail Inner Bayonet Mounting**



**Pentax Spotmatic**  
**P-Adapter for 6x7 Lens**  
**SMC Pentax 67 500mm F5.6 Lens**  
**Kirk LRP-1 Lens Foot**

**Pentax P-Adapter for 67 Lens**



## Pentax 67 Lens Adapter K:

The later Operator's Manual, and some new literature, refers to this adapter as **Pentax 67 Lens Adapter K**, but the actual labeling on the adapter reads: "**Adapter K for 6x7 Lens**". It is designed to mount 67 and 6x7 lenses on Pentax K mount cameras. Like the **Adapter K for 645 Lens**, it works with all K mount versions: **K**, **KA**, **KAF**, right up to **KAF4**, functioning on all Pentax K mount cameras from the early 35mm film cameras to the Pentax K-1 Mk.II and K-3 Mk.III. It allows focusing from minimum to infinity. Unlike the **Adapter K for 645 Lens**, with this adapter there are no control clearance problems on the later DSLR camera bodies.

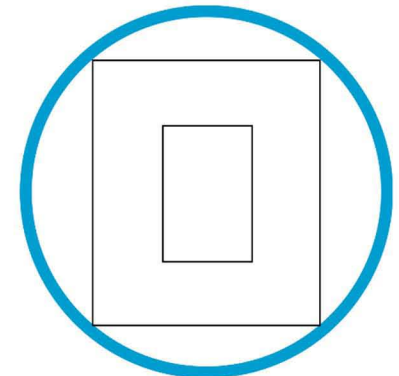
This adapter has no connection to the lens aperture mechanism, and the 67 (6x7) lenses must be stopped down for metering and exposure, but this is easily done on 67 lenses. Simply move the depth of field preview lever to manual "MAN.", and the lens will stop down. "Flick" the lever and it will switch back to "AUTO" (open)



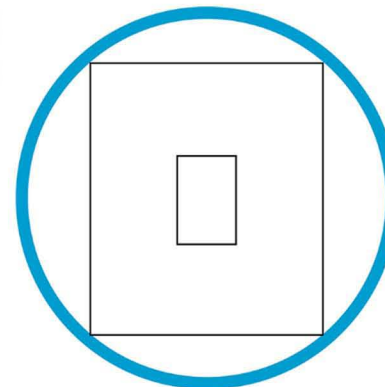
When a lens from a larger format is used on a smaller camera format the magnification remains the same, even if it is a crop sensor. A 75mm lens on a 67 (6x7) camera would be a "moderate" wide angle, on a 645 camera would be a "standard" lens, but on a full frame DSLR would be a "short" telephoto. On a crop frame body might be considered a "short to moderate" telephoto.



**Pentax 67 (6x7) lens  
coverage with  
Full frame DSLR and  
35mm SLR**



**Coverage with  
an APS-C DSLR  
(Crop Sensor)**







**K-1 Mk.II w/ D-BG 6**  
**Pentax 67 Lens Adapter K**  
**SMC Pentax-M\*67 400mm F4**  
**Hejnar Lens Stabilization Hardware**  
**Wimberley WH200 Gimbal Head**



**K-3 Mk.III w/ D-BG8**  
**Pentax 67 Lens Adapter K**  
**SMC Takumar 6x7 400mm F4**  
**Hejnar D033 QR Plate**  
**Kirk LRP-1 Lens Foot**



**K-1 Mk.II w/ RRS L-Plate**  
**Pentax 67 Lens Adapter K**  
**SmallRig HSS2425 Handle w/ DBC2506B Clamp**  
**SMC Pentax 67 500mm F5.6 Lens**  
**Hejnar C1-275 QR Plate, Kirk LRP-1 Lens Foot**



K-3 Mk.III w/ Hejnar D046 QR Plate  
RRS MP-CL Multi Purpose Rail  
**Pentax 67 Lens Adapter K**  
SMC Pentax 67 135mm F4 Macro



K-1 Mk.II  
**Pentax 67 Lens Adapter K**  
SMC Pentax 67 75mm F4.5 Shift



K-3 Mk.III w/ **Pentax 67 Lens Adapter K**  
Pentax 67 Auto Bellows (Outer Bayonet)  
SMC Pentax 67 135mm F4 Macro





## Pentax Adapter 645 for 67 Lens:

The **Pentax Adapter 645 for 67 Lens** allows 67 and 6x7 lenses to be used on all Pentax 645 medium format camera bodies, both film and digital. Unlike the other two 67 (6x7) lens adapters, it has the added benefit of aperture coupling for auto diaphragm operation.

This allows the 67 and 6x7 lenses to function much like 645 lenses set to the non-A value, with the aperture value set on the lens. This is almost the same as using a native manual focus 645 lens, although the aperture information is not shown on the LCD screen. When displaying the metadata for the image, the following is not shown in the “Camera Data”: the aperture value, the lens used, or the focal length.

The 67 (6x7) lenses can be set easily for **stop-down metering**. Simply move the depth of field preview lever to manual “MAN.”, and the lens will stop down. The lever is spring loaded and giving it a “flick” will snap it back in place to “Auto”.



Because the lens aperture is coupled by this adapter, the “**Av**” **exposure mode** setting may be used for automatic exposure.

The correct shutter speed will be selected, even though the aperture value is not shown in the LCD panel or in the viewfinder.

When setting the camera for fully manual operation, “**M**” **exposure mode**, where you know the aperture value/shutter speed combination desired, and set the lens and camera accordingly, you do **NOT** have to set the lens to “MAN’ and can continue viewing the subject with the aperture open.

Using Auto Extension Tubes for close focusing, you can use either the 645 tubes on the camera side of the adapter, or the 67 Auto Extension Tubes on the lens side of the adapter. There is an advantage in using the 67 accessories as they are longer than the 645 ones and are less likely to cause vignetting when stacked with long lenses.

There is not much length difference on the shorter tubes, but the #3 tubes are 39.9mm versus 56mm. Using two 67 #3 tubes with a lens like the SMC Pentax-M\*67 300mm F4 ED (IF) can provide “reach” and close focusing ability when you cannot get close to the subject or do not want to.

The appropriate rear converters can also be used on either the 67 side or the 645 side of the **Pentax Adapter 645 for 67 Lens**.

While there are thirty-three 645 lenses, both manual and auto focus, including eight zooms, in the 645 system, there are **another** thirty manual focus lenses, including two zooms in the **Pentax 67 (6x7) System**. This is an impressive selection of some sixty-three lenses available for the 645 system, not to mention the two auto bellows units and the auto extension tubes and rear converters from both formats.

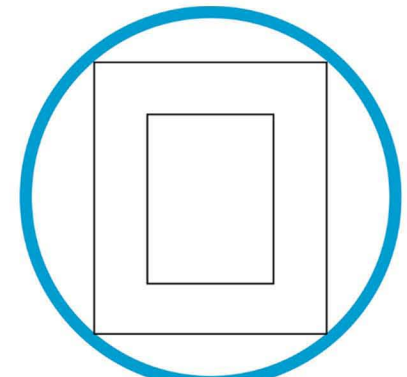
There are many 67 (6x7) lenses and accessories on the used market, possibly more than there is demand, and some are “bargains” considering the quality of the lenses and prices they are offered for.

When a lens from a larger format lens is used on a smaller camera format the magnification remains the same, even if it is a cropped sensor, but the angle of view changes. On a 645 camera the 67 format 75mm lens will appear the same as a 645 format 75mm lens viewing through it, but on a 67 (6x7) camera a 75mm lens would be a “moderate” wide angle, and on a 645 camera would be a “standard” lens.

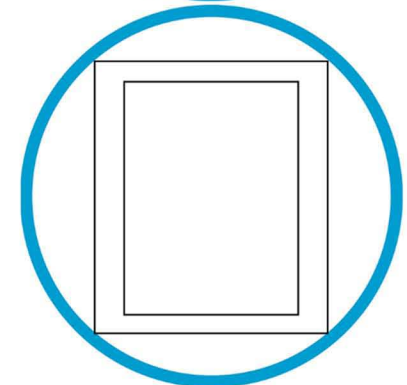


**67 (6x7)  
frame &  
optical circle  
comparison:**

**645D and  
645Z Digital  
Cameras**



**645, 645N  
and  
645NII Film  
Cameras**







**Pentax 645Z**

**Pentax Adapter 645 for 67 Lens**

**Pentax 67 Auto Ext.Tube #3**

**SMC Pentax 67 135mm F4 Macro Lens**

**RRS MPR-192FAS Mult-Purpose Rail**



**Pentax 645Z**

**Pentax Adapter 645 for 67 Lens**

**SMC Pentax 67 165mm F2.8 Lens**



**Pentax 645Z**

**Pentax Adapter 645 for 67 Lens**

**Pentax 67 Auto Bellows (outer Bayonet)**

**SMC Pentax 67 135mm F4 Macro Lens**



**Pentax 645Z**

**Pentax Adapter 645 for 67 Lens**

**SMC Pentax 67 75mm F4.5 Shift Lens**

**(vertical perspective correction)**





**Min. Focus Reduced  
to 18" (.457m)  
from 4.9 ft (1.5m)**



**Pentax 645D w/Hejnar 10" Rail & Clamp**  
**Pentax Adapter 645 for 67 Lenses**  
**Pentax 67 Auto Extension Tubes #3 (x2)**  
**SMC Pentax 67 200mm F4.0**



**Min. Focus Reduced to 28.5" (.724m) from 6.1 ft (2.0m)**



**Pentax 645D**  
**Pentax Adapter 645 for 67 Lenses**  
**Pentax 67 Auto Extension Tubes #3 (x2)**  
**SMC Pentax-M\* 67 300mm F4.0 ED (IF)**  
**w/Hejnar 10" Rail & Clamp**





**Pentax 645Z**  
**Pentax Adapter 645 for 67 Lens,**  
**SMC Takumar 6x7 400mm F4**  
**Kirk LRP-1 Lens Foot**



**Pentax 645Z, Pentax Adapter 645 for 67 Lens,**  
**SMC Pentam 67 500mm F5.6, Kirk LRP-1 Lens Foot**  
**Small Rig HSN2093C Handle w/ Hejnar F69B Clamp**



**Pentax 645D, Pentax Adapter 645 for 67 Lens,**  
**SMC Pentam-M\*67 800mm F6.7 ED (IF), Pentax T5-1.4x Rear Converter**  
**Wimberley WH-200 Gimbal Head, Hejnar Lens Stabilization Hardware**

## Pentax Medium Format Lenses

Pentax 645 Lenses		User Rating	Pentax 67 (6x7) Lenses		User Rating
1	SMC Pentax-DA 645 25mm F4 AL (IF) SDM AW	9.50	1	SMC Pentax 67 /SMC Takumar 6x7 /Takumar 6x7 35mm F4.5 Fish Eye	8.00
2	SMC Pentax-D FA 645 25mm F4 AL (IF) SDM AW	9.50	2	SMC Pentax 67 /SMC Pentax 6x7 45mm F4.	9.22
3	HD Pentax-D FA 645 35mm F3.5 AL (IF)	9.67	3	SMC Takumar 6x7 /Super Takumar 6x7 55mm F3.5	9.43
4	SMC Pentax-FA 645 35mm F3.5 AL (IF)	9.33	4	SMC Pentax 6x7 55mm F4	9.00
5	SMC Pentax-A 645 35mm F3.5	9.29	5	SMC Pentax 67 55mm F4	9.73
6	SMC Pentax-FA 645 45mm F2.8	8.29	6	SMC Pentax 67 75mm F2.8 AL	9.80
7	SMC Pentax-A 645 45mm F2.8	8.80	7	SMC Pentax 67 /SMC Takumar 6x7 /Super Takumar 75mm F4.5	9.67
8	SMC Pentax-D FA 645 55mm F2.8 AL (IF) SDM AW	9.82	8	SMC Pentax 67 /SMC Pentax 6x7 75mm F4.5 Shift.	9.00
9	SMC Pentax-A 645 55mm F2.8	8.91	9	SMCTakumar 6x7 90mm F2.8 Leaf Shutter	8.33
10	SMC Pentax-FA 645 75mm F2.8	9.42	10	SMC Pentax 67 /SMCTakumar 6x7 90mm F2.8	9.25
11	SMC Pentax-A 645 75mm F2.8	9.50	11	SMC Pentax 67 100mm F4 Macro	9.83
12	SMC Pentax 645 LS 75mm F2.8	9.50	12	SMC Pentax 67 / SMC Takumar 6x7 /Super Takumar 105mm F2.4	9.56
13	HD Pentax-D FA 645 90mm F2.8 ED AW SR Macro	9.83	13	SMC Pentax 67 /SMC Takumar 6x7 120mm F3.5 Soft	9.67
14	SMC Pentax-FA 645 120mm F4 Macro	10.00	14	SMC Pentax 67 /SMC Macro Takumar 6x7 135mm F4	9.00
15	SMC Pentax-A 645 120mm F4 Macro	9.68	15	SMC Takumar 6x7 /Super Takumar 6x7 150mm F2.8	9.50
16	SMC Pentax 645 LS 135mm F4	9.33	16	SMC Pentax 67 /SMC Pentax 6x7 165mm F4 Leaf Shutter	9.83
17	SMC Pentax-FA 645 150mm F2.8 (IF)	9.50	17	SMC Pentax 67 /SMC Pentax 6x7 165mm F2.8	9.47
18	SMC Pentax-A 645 150mm F3.5	9.33	18	SMC Takumar 6x7 /Super Takumar 6x7 200mm F4	8.25
19	SMC Pentax-FA 645 200mm F4 (IF)	9.78	19	SMC Pentax 67 200mm F4	9.60
20	SMC Pentax-A 645 200mm F4	8.00	20	SMC Pentax 67 / SMC Takumar /Super Takumar 6x7 300mm F4	7.60
21	SMC Pentax-FA* 645 300mm F4 ED (IF)	9.50	21	SMC Pentax-M*67 300mm F4 ED (IF)	9.25
22	SMC Pentax-FA 645 300mm F5.6 ED (IF)	9.67	22	SMC Takumar /Super Takumar /Takumar 6x7 400mm F4	9.00
23	SMC Pentax-A* 645 300mm F4 ED (IF)	9.73	23	SMC Pentax-M*67 400mm F4 ED (IF)	9.63
24	SMC Pentax-FA 645 400mm F5.6 ED (IF)	9.33	24	SMC Pentax 67 /SMC Pentax 6x7 /SMC Takumar 500mm F5.6	8.50
25	SMC Pentax-A* 645 600mm F5.6 ED (IF)	9.38	25	SMC Takumar 6x7 /Takumar 6x7 600mm F4	8.00
<b>Pentax 645 Zoom Lenses</b>			26	SMC Pentax-6x7 /SMC Takumar 6x7 /Takumar 6x7 800mm F4	n/a
26	HD Pentax-DA 645 28-45mm F4.5 ED AW SR	9.17	27	SMC Pentax-M*67 800mm F6.7 ED (IF)	9.75
27	SMC Pentax-FA 645 33-55mm F4.5 AL	8.00	28	SMC Reflex-Takumar 1000mm F8	n/a
28	SMC Pentax-FA 645 45-85mm F4.5	9.44	<b>Pentax 6x7 67 Zoom Lenses</b>		
29	SMC Pentax-A 645 45-85mm F4.5	9.33	29	SMC Pentax 67 55-100mm F4.5	9.80
30	SMC Pentax-FA 645 55-110mm F5.6	8.00	30	SMC Pentax 67 90-180mm F4.5	9.33
31	SMC Pentax-FA 645 80-160mm F4.5	9.44			
32	SMC Pentax-A 645 80-160mm F4.5	9.00			
33	SMC Pentax-FA 645 150-300mm F5.6 (IF)	8.25			





**Biography:** Murray O'Neill retired at 65 as an IT Consultant. His IT clients included sales firms, architects, engineers and photographers. He has also been a photographer specializing in wildlife images for over fifty years.

His wildlife images have appeared in publications of *National Geographic*, *Canadian Geographic*, *National Wildlife Federation* and tourism brochures of British Columbia, Yukon Territories and Alaska.

His images have graced the covers of more than 40 magazines.

At 84 he is still actively photographing, and the image below was taken on a recent ten-day trip to the Eastern Slope of the Rocky Mountains in October of 2022.

[oneill@nucleus.com](mailto:oneill@nucleus.com)

[www.pentaxphotogallery.com/oneill](http://www.pentaxphotogallery.com/oneill)

BIO Photograph by Richard Glass



**“The Cardinal Divide”** in the **Alberta Rocky Mountains**, at 1981 meters, or 6,500 feet, is part of the **Continental Divide**. From this high point, water drains to the **Arctic** and **Pacific** Oceans and to **Hudson’s Bay**.

**Pentax 645Z camera and an SMC Pentax 67 55mm F4.0 Lens with a Pentax 645 Adapter for 67 Lens (1/250 sec, ISO 800, F22)**

This image is a five-frame panorama with a “native” canvas size of 20” x 75” or 22,249 x 6034 pixels, and is 1.05gb. Viewed at 200% the detail is such that you could almost identify animals on the shoulders of the mountains in the distance.

### Notice of Rights:

All rights reserved. The contents of this eBook are the artistic, copyrighted property of Murray O'Neill, and/or the individual manufacturers of the products illustrated. **This work may be freely distributed, as is, without alteration, or addition, and without any charge. Excerpts can be reproduced for editorial purposes only.** Reproduction or distribution in whole or part, for any purpose, other than stated, is strictly forbidden without the written consent of the copyright holder.

### Notice of Liability:

Many of the designations used by manufacturers to distinguish their products are called trademarks. All product names, services and trademarks identified throughout this document are used in editorial fashion only, and for the benefit of such companies, with no intention of infringement of a Trademark or Copyright. No use of any trade name or trademark is intended to convey endorsement, or any affiliation with this eBook.

### Acknowledgements:

**Editing and Proofreading:** Mary Madden; before she retired, taught English at Thompson Rivers University.

A special thanks to **Gerjan van Oosten** of the Netherlands, Pentax Forums handle "**Argos**". Gerjan is the author of "**The Definitive Asahi Pentax Collector's Guide 1952-1977**". He graciously offered to review and technically edit this eBook, he shared his extensive Pentax knowledge, and made some significant suggestions in expanding the scope of this publication.

A special thank you as well to **Steve McIntosh**, Pentax Forums handle "**SteveM**", for allowing me to use his product image of the **Asahi Mount Adapter**, an Asahi Pentax accessory from the late 1950s that is extremely rare and almost never seen for sale, it is a veritable "ghost" of an accessory.

### Reviewers:

**Phil Vogl**, Pentax Forums handle "**GoFour3**". Phil is a very active user of 6x7, 67 and 67 II cameras and lenses from 35mm to 800mm. His knowledge of the "67" (6x7) system is extensive and shares it actively on the Pentax Forum.



