

Lens\$db: Lens Price Database, version 05

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All of the brand and product names mentioned in Lens\$db are trademarks or registered trademarks of their respective companies.

Acknowledgements

I am grateful to the many people who share photography information online. I attempt to acknowledge all sources I have used (except eBay sales), and I apologize to any sources I may have missed. Thanks to Ed Cullison for suggesting that the links should be more accessible, and to John Finn for suggesting that I should consider Carl Zeiss lenses.

Disclaimers

I try to be accurate but I'm sure there are errors and omissions - use Lens\$db at your own risk.

Many of the prices in Lens\$db are from "Other Suppliers" which are mostly camera shops with online inventories of used gear. These prices may not be the lowest available, and the items may not be still available. I can't guarantee that these Other Suppliers are reliable, but I've personally had consistently good results.

I am not affiliated in any way with makers or sellers of the products mentioned in Lens\$db.

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ABSTRACT

The Lens Price Database, **Lens\$db**, has prices and physical specifications for over 600 lenses and other stuff, including: all Canon EF prime lenses; all Canon EF L-series zoom lenses (plus a few others); a variety of lenses from Sigma, Tamron and Tokina; a selection of more-or-less EF-compatible manual focus lenses from Carl Zeiss (Contax), Leica R, Nikkor, SMC Pentax, SMC Takumar, and other brands; plus, other stuff including: teleconverters, flash, and macro accessories; selected EOS dSLR and SLR bodies; Fujifilm medium format rangefinders; modern, in-shutter large format (LF) lenses; and, a limited selection of 35mm fixed-lens compact and mini rangefinder cameras. The prices are mostly for used equipment in excellent to mint condition, based on eBay sales and list prices at over 100 camera stores.

1 Introduction

The Lens Price Database, **Lens\$db**, provides price and physical specification data for all Canon EF prime lenses, all Canon EF “L” series zoom lenses (plus a few others), EF extenders, and EX flash. A variety of modern lenses from Sigma, Tamron, and Tokina is included, as well as older lenses which provide manual focus and manual aperture controls on EOS bodies, such as Pentax, Carl Zeiss (Contax), Leica R, and Nikkor. Also, a special section on Large Format (LF) lenses section includes a selection of 224 modern, in-shutter large format (LF) lenses.

The general approach used to create **Lens\$db** is based on the earlier SMC Pentax Lenses and Other Stuff Database (**SPLOSdb**) and Canon EF Lenses and Other Stuff Database (**CELOSdb**), which are now in the archive section of my web site. If you want to get into some of the details, such as search-tactics and a discussion of buying used gear, then you could read the **SPLOSdb** documentation.

2 Overview

Lens\$db contains two types of information:

- i. physical specifications, such as minimum focus distance, weight, dimensions, etc.; and,
- ii. current selling prices on eBay, and (separately) current list prices from camera stores.

The database is implemented as a MS Excel spreadsheet, with the following worksheets:

i	information
EFp	Canon EF prime lenses
EFz	Canon EF L series zoom lenses (plus a few others)
big3	big three 35mm lenses; Sigma, Tamron, and Tokina
SMC	selected SMC Pentax and Takumar manual focus lenses
oL	other lenses
oS	other stuff; teleconverters, flash, macro, EOS pro bodies, Fuji rangefinders, etc..
LF	large format (LF) lenses, mostly modern, all in-shutter
35	35mm film, fixed-lens rangefinders: fast MF compacts & minis, plus some AF P&S

The database and its documentation are distributed as **.pdf** and **.xls** files. Annex A defines abbreviations and acronyms, Annex B summarizes links and references, and Annex C lists the camera stores. Annexes B and C are also online as separate html documents.

2.1 Dates

Dates are shown as year and month: .YY-MM. For example .06-09 is September 2006. All prices for Canon EF lenses, for other 35mm EF-mount lenses, and for EOS accessories were recorded between 1 October 2004 and 10 December 2006. Prices for LF lenses were recorded between 1 July 2005 and 10 December 2006. Prices with dates before October 2004 (.04-10) are inherited from SPLOSdb, and prices with no date are from before November 2003 (.03-11) .

3 Prices

All prices are in US dollars. eBay prices are for items sold, and camera store prices are list prices of items for sale. A price in **bold font** indicates the item was described as 'new' (this does not include items described as 'like new').

Prices for 'Big 3' autofocus lenses which do not have 'EF' in the 'mount' column are from the SPLOSdb era, and may not be accurate for EF versions of the same lenses. This is primarily because EF and EOS-compatible autofocus (AF) lenses contain the AF motors within the lens itself, as opposed to the Pentax AF system, which has the AF motor in the camera body. Prices for manual focus lenses from SPLOSdb and Lens\$db are appropriate for any body on which they can be mounted, but keep in mind the dates at which the prices were recorded.

3.1 Price Categories

Lens\$db prices for small format (35mm) lenses and other stuff are recorded in four categories:

1. [E to E++] for eBay;
2. [M- to N] for eBay;
3. [E to E++] for camera stores; and,
4. [M- to N] for camera stores.

[E to E++] is *Excellent* or better; the lens has clean & clear optics and is fully functional, there may be external wear on the body and control rings, and maybe a *little* dust inside, but nothing to reduce the image quality; this category includes common condition ratings: E, E+, E++, 9, and 9+, also some E- and 8+, depending on the supplier.

[M- to N] is *Near Mint* or better; the lens is really clean, it looks barely used, and it functions perfectly, this category includes common condition ratings: M-, M, LN, N, NIB, 10-, 10, also some E+, E++ and 9+, depending on the supplier.

Lens\$db prices for large format lenses are recorded in five categories:

1. [E to E++] for eBay;
2. [M- to N] for eBay;
3. [E to E++] for camera stores
4. [M- to LN-] for camera stores; and
5. [LN to N] for camera stores

3.2 eBay Prices

Most of the eBay prices are the computed average of two or more individual sales, up to a maximum of about ten sales. If you use the Excel version of Lens\$db, then you can click on a price to see how many sales are included in the average. When more than one price is shown for an item, the left-most price corresponds to the most recent sale, which defines the date in the next column. For example, the price of \$1556 (US) for the Canon EF 70-200/2.8 L IS USM is the average of 11 sales; with a minimum price of \$1450, maximum price of \$1719, and standard deviation of \$75. The left-most price of \$1556 was recorded in December 2006 (.06-12).

For what it's worth, here are a few comments on buying from eBay: you must exercise intelligent caution, if it looks too good to be true then it might be a scam; you should do enough research to know what you want and how much it is worth; do not make assumptions, always ask questions to get the information you need to make good decisions; and finally, set your budget and stick to it, so you don't get caught up in a bidding frenzy - it's your money, spend it wisely.

3.3 Camera Store Prices

Lens\$db prices from camera stores are the list prices of items for sale. Lens\$db usually shows the lowest price for any particular item, but not always. In some cases, a more expensive item is shown, if it is in better condition and close in price. For example, if one store has an EF 50/1.4 USM rated [E] for \$210 and another has one rated [E++] for \$220, then Lens\$db would probably list the price and supplier for the [E++] lens. Also, if there is no listing for this lens in the [M- to N] category, then Lens\$db would list both; the first in [E to E++] and the second in [M- to N].

Most of the camera stores have online inventories and are located in Canada, the US and the UK. Annex C shows the abbreviation, name, location, and url for all of the camera stores included in Lens\$db. The letters LF in the first column shows which camera stores are included in the LF list, and CE in the second column shows which are included in the Canon EF lists. The 'star' ratings in the third column of Annex C are: no-star, one-star (*) and two-star (**). Two star is the best, but all of these stores are worth a visit; virtual or (if possible) real. The ratings are based on my personal opinion of many factors, including; depth and breadth of inventory; price, customer service (for those I have dealt with), turnover, and web site (KISS). Camera stores with a pointy close-bracket (>) symbol in the first column are excellent walk-in stores, but don't have a particularly good online presence (many are eBayers). Annex C is also available online as a separate html document.

Note that while some online camera shops in the UK are very good in terms of the number and variety of products that they stock, their prices are generally quite high in comparison with those in Canada and US.

You can find links to many camera stores at:

ACE Index www.acecam.com/usedindex.html
Jeff Albro at Monahan's Megasite <http://medfmt.8k.com/mf/albro.html#used>

4 Lens Specifications, Data Sources and Links

4.1 35mm Lenses

Lens\$db lens specification data for 35mm lenses includes:

f	focal length (mm)
f/	maximum aperture
f.20D	equivalent focal length (mm), based on angle of view, on a x1.6 'crop factor' camera: such as 10D, 20D, 30D, dRebel (300D), dRebel XT (350D), dRebel XTi (400D)
mt	type of lens/body mount (mt = EF for Canon EOS lenses)
Dmin	minimum focus distance (m)
wt	weight (kg), not including caps
d	maximum diameter (mm)
l	minimum length (mm) at infinity focus and, for zooms, at most compact focal length
df	filter diameter

35mm lens specification data are from the sources listed below.

Canon EF lenses and other EOS stuff:

Canon Canada, www.canon.ca
Canon USA, www.usa.canon.com
Canon Camera Museum, www.canon.com/camera-museum
Eric's Photos canid.com/canon_ef_lenses.html
Klaus Schroiff, www.photozone.de,
...especially the Canon Lens EOS FAQ, www.photozone.de/8Reviews/canonFAQ.htm
Lim Chan Hin, http://members.tripod.com/~Photography_2/ownreview.htm
Reptile Garden Photography, www.rgarden.glandrake.com/index.html
Tan Chung, www.tanchung.com/canon/canonlensesmain.htm

Carl Zeiss, Leica R, Nikkor, Pentax K and M42 screw-mount lenses

Nikon Lens Specifications by Roland Vink <http://home19.inet.tele.dk/ne/nikon.htm>
Carl Zeiss <http://www.zeiss.de>
Leica R <http://www.leica-camera.com>
Voigtlander, Stephen Gandy's Camera Quest www.cameraquest.com/voigtlen.htm
Asahi Optical Historical Club, AOHC, www.aohc.it
Bojidar Dimitrov, www.BDimitrov.de/kmp
Pentax Canada, www.pentaxcanada.com
Pentax USA, www.pentaximaging.com
Peter Jonkman, spotmatic.web-page.net (now silent)

Other sources include: www.sigmaphoto.com www.tamron.com www.thkphoto.com
www.photodo.com www.captjack.exaktaphile.com/LENSPAGE.htm www.praktica-users.com

I recommend the following sites for general information, user surveys and reviews:
www.photozone.de www.photonotes.org www.photo.net www.fredmiranda.com
<http://luminous-landscape.com/> www.the-digital-picture.com For general information on third party lenses, lens myths, lens testing, and just about anything else, you should visit Monaghan's "Third Party Lenses Resource Megasite" at <http://medfmt.8k.com/third/index.html>

4.2 Large Format Lenses

Lens\$db lens specification data for large format (LF) lenses includes:

f	focal length (mm)
f/ min	minimum F-stop number (maximum aperture), lens wide open
f/ max	maximum F-stop number (minimum aperture), lens stopped down all the way
d.ic	diameter of image circle (usually at f/22)
rise.h	maximum rise on 4x5 format for horizontal or landscape orientation [1]
tilt.h	maximum tilt on 4x5 format for horizontal or landscape orientation [1]
AoC	angle of coverage
sh.	shutter size
wt	weight (in most cases, includes shutter)
df	front thread filter diameter

These data are from a combination of sources, including:

www.badgergraphic.com	mostly for new lenses
www.harrysproshop.com	many wide angle lenses since 1945
www.largeformatphotography.info	an especially important LF site
www.mpex.com	mostly for new lenses
www.schneideroptics.com	mostly for Schneider-Kreuznach lenses, no surprise
www.thalmann.com/largeformat	another important LF site

All LF lenses are in-shutter; most are Copal, some are Compur, fewer are Seiko and others are others. No Sinar DB mount lenses are included (not that there's anything wrong with that...).

Most LF listings are from the LF “Big Four”: Fuji, Nikon, Rodenstock, and Schneider, but a few Zeiss and Congos have snuck into version 2.

Some items in the LF listings cover more than one variant or version of a particular lens. For example, a Fujinon-W 250mm f/6.7 in Seiko shutter will be single coated, but a Fujinon-W 250mm f/6.7 in Copal shutter has EBC multicoating [2]. Lens\$db does not differentiate between these (and other) versions of this lens, and there doesn't seem to be a significant price difference either. Similar situations exist for other LF listings. I may make an effort to reduce these combined listings, as I get more familiar with the equipment and especially if people ask me to.

4.3 Using Manual Lenses on Canon EOS Bodies

Many lens mounts, such as the Contax/Yashica SLR (Carl Zeiss), Leica R, Nikkor F (AI, AIS, etc.), and M42 (aka Pentax or universal screw mount), have readily available mechanical adapters for Canon EOS bodies. Pentax K-mount lenses can also be mounted on Canon EOS bodies; however, the lens must be modified by removing its aperture control lever, as discussed elsewhere on my web site. These adapters allow you to physically mount a non-EF lens on an EOS body, but they only enable manual focus and manual aperture control. Good sources of information on this topic are NK Guy's article “Using manual lenses and telescopes with EOS cameras”, at photonotes.org/articles/eos-manual-lenses/, and Robert Monaghan's Megasite at <http://medfmt.8k.com/third/mounts.html>. Also, see the Annex A definitions for aa, ma and ps for a brief discussion on some manual aperture control issues.

5 Concluding Remarks

The Lens Price Database, Lens\$db, has prices and physical specifications for over 500 lenses and other stuff, including: modern, in-shutter large format (LF) lenses; all Canon EF prime lenses; all Canon EF L-series zoom lenses (plus a few others); a variety of lenses from Sigma, Tamron and Tokina; a selection of more-or-less EF-compatible manual focus lenses from Carl Zeiss (Contax), Leica R, Nikkor, SMC Pentax, SMC Takumar, and other brands; plus, other stuff including; teleconverters, flash, macro accessories, selected EOS dSLR and SLR bodies, Fujifilm medium format rangefinders, and a limited selection of 35mm fixed-lens compact and mini rangefinder cameras. The prices are mostly for used equipment in excellent to mint condition, based on eBay sales and list prices at over 100 camera stores.

References

1. Michael K. Davis, "Specs for new large format lenses" www.largeformatphotography.info/lenses/
2. Kerry Thalmann's LF site www.thalmann.com/largeformat/

Annex A: Abbreviations and Acronyms

Upper case acronyms are usually part of an item's name (e.g. AL for aspherical elements), or an abbreviation for a common descriptive phrase (e.g. MF for manual focus); lower case acronyms and symbols are usually my annotations.

Symbol	Description
[name...]	lens manufacturer (as opposed to brand name on the label)
[n1.n2.n3]	in description for other lenses: n1 = Nelements, n2 = Ngroups, n3=Nblades (if present)
1:n	macro magnification 1 to 'n'; 1:1 is life-size image on film, 1:2 is half of life size, ...
A2	Adaptall 2 Tamron MF mount: A2 to EF adapters are scarce, but you can use the fairly common A2 to M42 adapter in a very common M42 to EF adapter (works fine).
aa	auto-aperture: typical aperture control for modern lenses (with or without a manual aperture control ring); the lens is "wide-open" for metering and finder viewing, and when the shutter is pushed, the camera automatically "stops down" to the appropriate "taking" aperture (either user-selected or set by the camera for AE modes); note that the (aa) pin on a M42 lens is not used by a Canon EOS body, and so it is desirable for a M42 lens to have a manual/auto aperture switch to enable (ma) with "stop-down" metering, some M42 adapters have a flange to depress the (aa) pin, but it should not be used on more recent "2 pin" M42 lenses as it contacts and grinds against the diaphragm coupling lever, see www.aohc.it/tak00e.htm for a description of Asahi Pentax M42 mounts.
AE	auto-exposure mode: camera body selects Av and/or Tv for 'automatic' exposure
AF	autofocus
AI, AIS	Nikon Nikkor manual focus lens mounts, AI, AIS to EF adapters are available
aka	also known as (or labeled as)
AL	aspherical lens elements (same as ASP)
AoC	angle of coverage
AoV	angle of view
APO	apochromatic lens, special coatings and/or special glass to reduce colour aberration
ASP	aspherical lens elements (same as AL)
aux	auxiliary lens, usually screws on to filter threads of the 'real' or 'primary' lens
Av	aperture value; camera setting "Av" indicates Aperture-Priority AE mode <i>math</i> : $Av = \log(Nf)/\log(\sqrt{2})$
BBAR	broad band anti-reflection (Tamron coating)
bi	"built-in" filters, most common on wide angle lenses
Cat	Catadioptric lens (mirror)
CE	Canon EOS or Canon EF
c.o.	clip on (filter)
cf, CF	cf = cropping factor for a digital camera, CF = close focus for a lens,
CY	Contax/Yashica mount (for Carl Zeiss lenses), CY to EF adapter is available
d	column in database, d = maximum diameter of lens barrel (mm)
da	apparent diameter of maximum aperture when viewed through the front of the lens
di	"drop in" filters go in a slot near the rear of lens, allows use of small diameter filters on large diameter lenses (e.g. 400/2.8)
(continued...)	

Annex A: Abbreviations and Acronyms (continued)

Symbol	Description
d.ic	diameter of image circle (usually at f/22)
df	column in database, df = filter thread diameter (mm)
Dmin	column in database, Dmin = minimum focus distance (m), from film plane to object
DO	Diffraction Optics, enables "long" telephoto lenses to be relatively short in length
dSLR	digital SLR
E	excellent lens condition (see Section 3.1)
E++	excellent ++ lens condition (see Section 3.1)
ED	extra-low dispersion elements in lens (see APO)
EF	Electro Focus, Canon autofocus lenses for EOS (focus motor is in the lens)
EF-M	Canon manual focus EF mount lens (this abbreviation is not used by Canon)
EF-S	EF-Short back focus, Canon autofocus EF mount lens for relatively small APS-C sized image sensors, only for use on Canon EOS 20D, Digital Rebel and Digital Rebel XT
EOS	Electro-Optical System, Canon autofocus system, includes EF lenses, EOS cameras, etc.
EV	exposure value <i>math</i> : $EV = Tv + Av$
f	focal length
f/	aperture f-number, <i>math</i> : "f/" = $Nf = f / da$
f/ min	minimum F-stop number (maximum aperture), lens wide open
f/ max	maximum F-stop number (minimum aperture), lens stopped down all the way
f.20D	equivalent focal length when using lens on a Canon 20D digital camera (x1.6 CF)
FE (x/y)	fish eye: x = diagonal AoV, y = image diameter (35mm film image is 24mm x 36mm)
FF	1. full frame image sensor (dSLR sensor 36mm x 24mm) 2. flat field, macro design to focus on single plane, good for pics of flat things
FTM	Full Time Manual, manual focus ring on an AF lens can be used at any time, see USM
FREE	fixed rear-element extension (focusing mechanism)
IF	internal focus: barrel length does not change, front element does not rotate
Keos	my name for the Pentax K-mount lens to Canon EOS body adapter, the lens aa aperture control lever must be removed, making it a (ma) lens, which is also MF.
KISS	Keep It Simple, Stupid
l (lower case L)	column in database, l = length of lens (mm), front of lens to mount plate, at infinity focus.
L	indicates Canon professional lens series (e.g. EF 85/1.2 L USM): apparently, L stands for "Luxury", but I can't find substantiation for this common belief, see the "Canon FAQ" at www.photozone.de/8Reviews/canonFAQ.htm for a good discussion of L series lenses.
LNIB	Like New In Box
LD	low dispersion glass (see ED, APO)
LF	Large Format (4x5 and bigger)
LR	Leica R mount, LR to EF adapter is available
[M]	mint lens condition, see Section 3.1
[M-]	mint - (minus) lens condition, see Section 3.1
(continued...)	

Annex A: Abbreviations and Acronyms (continued)

Symbol	Description
M42	42mm diameter screw mount for MF lenses, aka 'Pentax screw', 'universal screw', etc., used on Pentax Takumar series and many other brands (not all old), see Section 4.3.
ma	manual aperture: "stop-down metering", the aperture opens and closes as the aperture ring is rotated; in practice, you compose and focus with the lens wide open, and then manually "stop down" to the "taking" aperture just before taking the shot.
MF	manual focus (could also mean 'medium format')
MP-E	Canon EOS "Macro Photo" manual focus EF lens mount (so far, the only MP-E is 65/2.8)
mt	column in database for lens/body mount (e.g. EF, M42)
N	new lens condition, see Section 3.1
Nf	f-stop number (aperture) <i>math</i> : $Nf = "f/" = f / da = (\sqrt{2})^{Av} \dots$ (square root 2 to power of Av)
pp	push-pull zoom (one touch): push-pull to zoom, twist to focus
ps	pre-set aperture: two aperture control rings; one ring is used to set a 'stop' at the desired taking aperture, and the other ring is used to open the aperture for viewing and then close it to the 'pre-set' aperture for exposure, this is a form of "stop-down" metering, see (ma)
RF	rangefinder camera
rg	"rear gel" filter
rfe	rotating front element (filter ring rotates as lens is focused)
rise.h	maximum rise on 4x5 format for horizontal or landscape orientation [3]
rl	rectilinear: straight lines appear straight (as opposed to FE circular distortion)
S.1	abbreviation in database, Vivitar Series 1 (pro-series from mid-70's to early-90's)
sh.	shutter size
SLR	Single Lens Reflex (reflex = mirror, not moving mirror)
SMC	Super Multi-Coated (c), Pentax
SSS	Sun/Sigma/Spiratone conglomeration of 3 rd party lenses (Accura, Lentar, Upsilon...)
t	inverse of shutter speed: for example, t = 500 for shutter speed of 1/500 sec <i>math</i> : $t = 2^{Tv} \dots$ (two to the power of Tv)
tilt.h	maximum tilt on 4x5 format for horizontal or landscape orientation [3]
TS-E	Canon EOS "Tilt and Shift" manual focus EF mount lens, tilt controls plane of focus, shift controls perspective (vanishing point)
Tv	time value, camera setting "Tv" indicates Shutter-Priority AE mode <i>math</i> : $Tv = \log(t)/\log(2)$
T,T2,T4,TX	3rd party MF lens mount: mostly Vivitar, some Tamron & others, M42 adapters available
tt	two-touch zoom (separate zoom & focus rings)
USM	Ultrasonic Motor, advanced Canon EF AF system, most are FTM, see the Canon Museum
vf	varifocal: focus changes while zooming
VMC	Vivitar Multi Coating
wt	column in database, wt = weight of lens (kg), no caps, includes shutter for LF lenses.
YS	3rd party MF lens mount: mostly Sun/Sigma/Spiratone, M42 adapters available

Annex B: References and Links

Lens\$doc-v03 References

<http://www.largeformatphotography.info/lenses/>

<http://www.thalmann.com/largeformat/>

General Information

<http://medfmt.8k.com/third/index.html>

<http://www.fredmiranda.com>

<http://www.largeformatphotography.info>

<http://www.photo.net>

<http://www.photonotes.org>

<http://www.photozone.de>

<http://www.photozone.de/8Reviews/canonFAQ.htm>

Camera store index sites

<http://medfmt.8k.com/mf/albro.html#used>

<http://www.acecam.com/usedindex.html>

LF lens specs

<http://www.badgergraphic.com/>

<http://www.f32.net/Services/Equipment/equipment.html>

<http://www.harrysproshop.com>

<http://www.largeformatphotography.info/>

<http://www.mpex.com>

<http://www.schneideroptics.com>

<http://www.thalmann.com/largeformat>

Canon EF lenses and other EOS stuff:

http://194.100.88.243/petteri/pont/Whats_new/a_Recent_changes.html

http://canid.com/canon_ef_lenses.html

http://members.tripod.com/~Photography_2/ownreview.htm

<http://wlcastleman.com>

<http://www.canon.ca>

<http://www.canon.com/camera-museum>

<http://www.eosdoc.com/>

<http://www.luminous-landscape.com/>

<http://www.photozone.de/8Reviews/canonFAQ.htm>

<http://www.rgarden.glandrake.com/index.html>

<http://www.tanchung.com/canon/canonlensesmain.htm>

<http://www.the-digital-picture.com>

<http://www.usa.canon.com>

1. Michael K. Davis

2. Kerry Thalmann

Robert Monaghan's "Megasite":

Fred Miranda

LFphotography site

photo.net

PhotoNotes.org

PhotoZone

PhotoZone Canon EOS Lens FAQ

Jeff Albro at Monahan's Megasite

ACE Index

mostly for new lenses

f32 LF site

wide angle lens specs since 1945

LF photography site

mostly for new lenses

for Schneider-Kreuznach lenses

Kerry's LF site

Petteri's Pontifications

Eric's Photos

Lim Chan Hin

William Castleman

Canon Canada

Canon Camera Museum

EOS Documentation Project

Michael Reichmann's Luminous Landscape

Canon EOS Lens FAQ

Reptile Garden Photography

Tan Chung

The-Digital-Picture.com

Canon USA

Annex B: References and Links (continued)

Pentax K-mount and M42 screw-mount lenses

<http://spotmatic.web-page.net>

<http://www.aohc.it>

<http://www.BDimitrov.de/kmp>

<http://www.pentaxcanada.com>

<http://www.pentaximaging.com>

Peter Jonkman (now offline)

Asahi Optical Historical Club AOHC

Bojidar Dimitrov Pentax K Megasite

Pentax Canada

Pentax USA

Other lens data sources

<http://www.sigmaphoto.com>

<http://www.tamron.com>

<http://www.thkphoto.com>

<http://www.photodo.com>

<http://www.captjack.exaktaphile.com/LENSPAGE.htm>

<http://www.praktica-users.com>

<http://home19.inet.tele.dk/ne/nikon.htm>

<http://www.zeiss.de>

Nikon Lens Specifications by Roland Vink

Carl Zeiss

<http://www.contaxusa.com/lenses.asp?itemnum=132000>

Carl Zeiss at Contax

www.leica-camera.com

Leica R

<http://www.cameraquest.com/voigtlen.htm>

Voigtlander, Stephen Gandy's CameraQuest

35mm film Rangefinder compact & mini cameras

<http://cameraquest.com/classics.htm>

Stephen Gandy's CameraQuest

<http://www.ph.utexas.edu/~yue/misc/rangfndr.html>

<http://mywebpages.comcast.net/youngds/Classic35/Classic35mmCompactRangefingerCameras.htm>

http://www.lumieresenboite.com/collection_categorie.php?categorie_link=2&l=2

<http://www.photo.net/equipment/point-and-shoot/konica-hexar>

Manual Lenses on Canon EOS Bodies

<http://photonotes.org/articles/eos-manual-lenses/>

<http://medfmt.8k.com/third/mounts.html>

Annex C: Camera Stores

LF	CE	star	abbrev	name	place	url
LF	CE	**	ado	Adorama	New York NY	www.adorama.com
	CE	*	andy	Andrews Cameras	Teddington UK	www.andrewscameras.co.uk
	CE	>	aps	Atlantic Photo Supply	Halifax NS	www.atlanticphotosupply.com
LF	CE	**	b&h	B&H	NEW YORK NY	www.bhphotovideo.com
LF		*	badger	Badger Graphic Sales Inc	St. Kaukauna WI	www.badgergraphic.com
	CE		bcc	Bergen County Camera	Westwood NJ	www.bergencountycamera.com
	CE		beach	Beach Photo & Video	Daytona Beach FL	www.beachphoto.com
	CE		bigg	Biggs Camera	Charlotte NC	www.biggscamera.com
LF	CE	*	bkyn	Brooklyn Camera Exchange	Rockville Center NY	www.brooklyncam.com
	CE		boca	Precision Photo	Boca Raton FL	www.bocaphoto.com
	CE		brad	Brads Camera	San Antonio TX	www.usedphoto.com
			brom	Bromfield Camera	Boston MA	www.bromfieldcamera.com
	CE		bui	BUI Camera	Temecula CA	www.buicamera.com
LF			cal.chi	Calumet Chicago	Chicago IL	www.calumetphoto.com
	CE		cal.ny	Calumet New York	New York NY	www.calumetphoto.com
LF			cal.sb	Calumet San Bernadino	San Bernadino CA	www.calumetphoto.com
LF			calumet	Calumet.com online lists	etherville	www.calumetphoto.com
			camcol	Camera Collectors	Denver CO	http://camera-collectors.com
		*	cameta	Cameta Camera	Amityville NY	www.cameta.com
	CE		camQ	Camera Quest, Stephen Gandy	Thousand Oaks CA	www.cameraquest.com/
	CE		camtec	Camera Tech Inc.	Las Vegas NV	www.cameratech.net
LF			camtx	Camera Techs	Seattle WA	www.cameratechs.com
LF	CE	*	camW	Camera West	Monterey CA	www.camerawest.com
	CE	*	canoga	Canoga Camera	Canoga Park CA	www.canogacamera.com
	CE		cc	Central Camera	Chicago IL	www.central-camera.com
			cd	Camera Depot	Thousand Oaks CA	www.camera-depot.com
	CE	x	cex	Camera Exchange II	Ottawa ON	www.camera-exchange.com
LF	CE	*	charl	Charlotte Camera	Charlotte NC	www.charlottcamera.com
			chris	Chris Camera	Aiken SC	www.chriscamera.com
	CE		chUK	Camera House	Oakworth UK	www.the-camera-house.co.uk
	CE		citiz	Citizens Photo	Portland OR	www.citizensphoto.com
			class	Classic-Cameras	Catawba VA	www.classic-cameras.com
	CE	>	cmp	Carsand Mosher Photographic	Halifax & Truro NS	www.carsand.com
	CE	*	cole	Cole's Cameras	Fergus Falls MN	www.colescamlas.com
			cris	Chris's Camera	Aiken SC	www.chriscamera.com
			crs	Camera Repair Service	Pittsburgh PA	www.camerarepairservice.com
	CE	*	ctc	Camera Traders	Victoria BC	www.camera-traders.com
		>	ctco	Camera Trading Co.	Ottawa ON	www.cameratradingco.com
	CE		ctl	Camera Traders Ltd	NEW YORK NY	www.cameratradersltd.com

Annex C: Camera Stores (continued)

LF	CE	star	abbrev	name	place	url
			cts	Camera Techs Inc	Seattle WA	www.cameratechs.com
			ctzn	Citizens Photo	Portland OR	www.citizensphoto.com
	CE		cwNW	Camera Works NW	Beaverton OR	www.cameraworksnw.com
	CE		cz	Camerazine	Penticton BC	www.camerazine.com
	CE		disc	Discount Camera	San Fran CA	www.discountcamera.com
		>	downt	Downtown Camera	Toronto ON	www.downtowncamera.com
			elm	Eight Elm Photo & Video	Toronto ON	www.eightelmphoto.com
LF			f-stops	the F STOPS here	Crystal Lake IL	www.thefstop.com
			ffordes	Ffordes Ltd.	The Kirk UK	http://secure.ffordes.com
			fmt	Format	Rockville Center NY	www.formatcamera.com
LF		*	gasser	Adolph Gasser Inc.	San Francisco CA	www.adolphgasser.com
	CE		gentec	Gentec International	Markham ON	www.gentec-intl.com
	CE		glazer	Glazer's Camera	Seattle WA	www.glazerscamera.com
			goodw	Goodwin	San Diego CA	www.goodwinphotoinc.com
			gz	Glazer's Cameras	Seattle WA	www.glazerscamera.com
			harr	Jonathan Harris	London UK	www.jonathanharris.co.uk
	CE		henry	Henry's	Toronto ON	www.henrys.com
LF	CE	*	igor	Igor's Camera Exchange	Cleveland OH	www.igorcamera.com
LF	CE	*	jack	Jack's Camera Shop	Muncie IN	www.jackscamera.com
			jer	Jerry's Camera and Jewelry	Denver CO	www.jerryscamera.com
LF	CE	**	keh	KEH	Atlanta GA	www.keh.com
LF	CE	*	k-mar	Ken-Mar Camera	Albertson NY	www.kenmarcamera.com
LF	CE	*	ken	Kenmore Camera	Kenmore WA	www.kcamera.com
	CE		kev	Kevin Cameras	Los Angeles CA	www.kevincameras.com
	CE	*	kex	Kamera Express (NL)	Amsterdam NL	www.kamera-express.nl
LF	CE		levine	Levine's	Boston MA	www.cameras.com
			manf	Manfred Schmidt Collectible	Chicago IL	www.manfredschmidt.com
			marr	F. and S. Marriott Classic	Hornsea UK	www.marriottworld.com
	CE		mcb	MacBains	Calgary AB	www.mcbaincamera.com
			mck	McKittrick's Photo/Video	London ON	www.mckittricks.ca
	CE		mcr	McRill's Cameras	Eugene OR	www.cameraguy.com
LF	CE	**	mpex	Midwest Photo Exchange	Columbus OH	www.mpex.com
	CE		rolfo	eBay member Mr.Rolfo		
			mwcc	MW Classic Camera	London UK	www.mwclassic.com
	CE	*	mxv	MXV Photographic	Hempstead Rise UK	www.mxv.co.uk
	CE	*	nat	National Camera & Video	Minneapolis MN	www.natcam.com

Annex C: Camera Stores (continued)

LF	CE	star	abbrev	name	place	url
			nwcam	NW Camera	Oregon WA	nwcamera.com
		*	nwcc	Northwest Collector Camera	Seattle WA	nwcollectorcamera.com
	CE		p.net	photo.net classified section		www.photo.net/gc/domain-multi
			pac	Pacific Rim Camera	Salem OR	www.pacificrimcamera.com
	CE	*	pc	Precision Camera & Video	Austin TX	www.precision-camera.com
	CE		pcentr	Photo Center	Fayetteville NC	www.thephotoctr.com
	CE		pgon	PhotogoN online classified		www.photogon.com
	CE		pgraf	Photo-graphic Systems	Albuquerque NM	www.pgsys.com
	CE	*	pitt	Pittsburgh Camera Exchange	Pittsburgh PA	www.pghcamex.com
	CE		port	Porter's	Cedar Falls OR	http://buyporters.com
	CE	*	pq	Presto	Quebec QU	www.presto.qc.ca
	CE		ps	Photo Stop	Westwood NJ	www.photostop.net
LF	CE	*	ritz	Ritz Collectibles	Phoenix AZ	www.ritzcam.com
	CE		rolfo	eBay member Mr.Rolfo	Germany	
	CE	*	russ	Russ' Camera and Video	Santa Barbara CA	www.russcamera.com
	CE		SRB	SRB Film Service	Luton UK	www.srbfilm.co.uk
	CE		seaw	Seawood Photo	San Anselmo CA	www.seawood.com
	CE	>	simon	Simon's Cameras	Montreal QU	www.simonscameras.com
	CE		snap	S.N.A. SnapPhoto	Peacehaven UK	www.snapphoto.co.uk
	CE		stud	Studio One Cameras	Courtenay BC	www.studio-one.bc.ca
	CE		tamk	Tamarkin Camera	NEW YORK NY	www.tamarkin.com
	CE		thom	Thompson Photo Products	Knoxville TN	www.thompsonphoto.com
	CE		tj	Trader Jim's	Culver City CA	www.traderjims.com
	CE		tl	Technilab (Camera Repair.com)	West Nyak NY	http://db.technilab.com:8001
	CE		uc	University Camera	Iowa City IO	www.ucam.com
	CE		used	Usedphotostuff	Phoenix AZ	www.usedphotostuff.com
LF	CE	**	v.v	Vintage Visuals	Calgary AB	www.vintagevisuals.com
LF			view	The View Camera Store	Fountain Hills AZ	www.viewcamerastore.com
	CE	*	vis	Vistek	Toronto ON	www.vistek.ca/used
	CE	*	vUK	Vintage UK	London UK	www.vintagecameras.co.uk
	CE		ware	Warehouse Photographic	Carrollton TX	www.warehousephoto.com
	CE	*	wood	Woodmere Camera	Merrick NY	www.woodcam.com
	CE		worz	Worz Cameras	Ansonia OH	www.worzcamlens.com