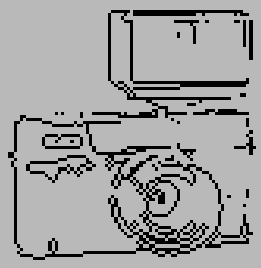

Konica Hexar

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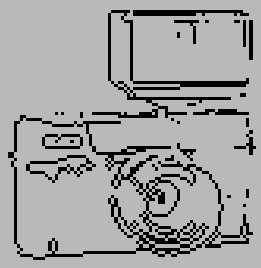
of Contents

What does this camera look like.

Reference cards

Tables

Information at other sites



Pictures of the camera

I have opened the camera and made a few pictures.
If you want to know what is taking up all that space take a look at these photographs.


Rear view


Top view


Front view


Inside top cover


Infra Red sensors


Bottom printboard


Top cover removed

Click an icon to see the full image (average image size 70KB, 640x480)

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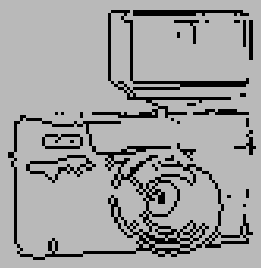

Did you know ...

Software upgrade

If you own a Konica Hexar *standard* model you can upgrade your camera with four extra functions. Therefore you have to return your camera to Konica support services. They will upgrade and check your camera completely for about $30.

The extra functions you get are:

- multiple exposures
- one step exposure setting in manual mode
- guide number setting
- infra red film setting

Models

There are six different models of the Konica Hexar camera (not produced anymore).

- Standard (Black)
- Date (standard model with date back)
- Classic (Chrome)
  The Hexar *Classic* has one more extra function than an upgraded standard model Hexar namely automatic bracketing!
  3 exposures +- up to 2 EV in 1/3 EV steps. This may be of interest for those who make slides. But this camera may be hard to find (special anniversary model 120 years Konica 1993, only 2000 cameras are made and half of it stayed in Japan).
- Gold
  For collectors there is a special gold edition of the Hexar (anniversary model).
- Rhodium (Pink)

The *Rhodium* has all the functions identical to an upgraded Hexar standard model.

- Hexar Silver
  The *Silver* has all the functions identical to a Hexar classic model plus a date back. No silent mode like the standard model.

Some kind of identification of your negatives

On my standard Hexar model there is a small triangular piece cut away from the negative frame in the camera. As a result this is visible on all my negatives. It is at this location where during the production proces of the camera the opening for the film frame is made.

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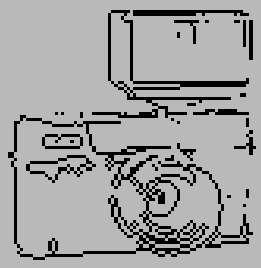

Books about ...

Books

Language	German
Title	Konica Hexar
Author	Heiner Henninges
Year	1992
Type	paperback,132p
Publisher	Verlag Laterna Magica, Germany
ISBN	3-87467-502-5

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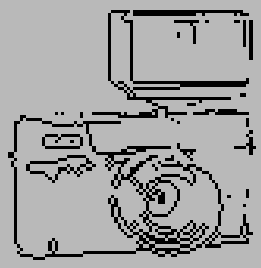

Tips and tricks

How to press the buttons
This is of course personal but for me it is the best way to use the camera.
Use your middle finger to press the release button and your index finger to press the up or down button.
This way you can look through the view finder while adjusting settings.
It will also reduce the possibility that one of your fingers covers the photocel on the front side of the camera.

Filters and short focussing distance
The camera was designed to get the highest quality pictures possible and that means NO filters. Lucky for you the Konica engineers where kind enough to add a filter screw thread (size 46mm).
If you really want to use filters be careful. When you try to focus at a distance of 60cm your camera may display an error message EEE on the LCD panel.
This is caused by obstruction of the lens by the filter mounted.
This message stays there even when you have switched off your camera.
Removing the battery will clear the lcd panel error message.
You have to remove the filter before using your camera again.
If you want to use filters, focussing at a distance 60cm, return your camera to Konica support service and they will add a very thin metal ring to your camera which will keep the filters just out of range of the autofocusing lens and the problem will be solved.
PS: I do not know if this problem is solved on the newer models.

Using non DX films

The camera automatically sets the ISO value to that of the loaded DX-film. There maybe situations where you may want to adjust filmspeed and you don't like to do this with the exposure adjustment (0+-2 EV).
One way to do this is tape the filmcartridge DX-code and set manually the ISO value you want. Switch your camera to A mode and press the Select button for more than 1 second. Adjust the ISO value with the Up or Down button. The camera will use this ISO value for all next films until you load an DX-coded film or remove the battery.

Hexar Silent Photography

With the Silent Mode, the Hexar is an extremely quiet camera. Some circumstances may however require even less obtrusive operation (e.g. ceremonies in church, candid photography). The following considerations will be helpful in achieving this.

The causes and solutions to noise from the Hexar

1. **Focussing**

   The noise of focussing is lessened by the Silent Mode. It can be completely eliminated by manually selecting focus in advance, and sticking to that. Combined with a fixed Aperture for a hyperfocal setting, this approach would be most effective.

2. **Aperture**

   The noise of the aperture opening up or closing down is not affected by the Silent Mode. It can be completely eliminated by manually selecting the aperture in A-mode or M-mode in advance, and sticking to that. Combined with a fixed Focussing for a hyperfocal setting, this approach would be most effective.

3. **Film Advance**

   The noise of film advance is lessened by the Silent Mode. It can not be completely eliminated, but the film advance can be delayed by keeping the shutter release pressed. Release the shutter when the Hexar's hidden under a piece of cloth, or the sound is camouflaged by other noise.

4. **Film rewind**

   The noise of film rewind is lessened by the Silent Mode. One's best bet however, is to make sure that film rewind does not need to occur.

5. **Shutter**

The noise from the shutter is not affected by the Silent Mode. It is however by far the least obtrusive noise generated, even by Silent Mode standards. The only solution would of course be to not press that shutter release at all :-)

6. **Switching on/off**

   When switching off, the aperture opens up completely, and the lense moves back to its base position. When switched on again, the aperture closes down to the one selected immediately. The lense will move again when focussing takes place either manually or automatically. This means that for candids, switching off and on again of the Hexar should be avoided.

Taking the above at heart, your Hexar should make a whisper sound like a bang by comparisson.

Hexar S-Mode (sort of, anyway..)

Yep, it's true, the Hexar does not sport a shutter priority mode. Programmed aperture preference (P-Mode), Aperture priority (A-mode) and full manual (M-Mode), it's all there. But there's no way to crank the selector button all the way up to an S-Mode.

What the Hexar does have though, is a user programmable camera shake critical speed. Combined with the P-Mode, it offers a programmed shutter preference mode with full stop speed settings from 1/4 to 1/60th plus 1/250th.

Here's how it works:

- Select P-Mode.
- For the slower speeds (1/4, 1/8, 1/15, 1/30, and 1/60), set the camera shake critical speed to the shutter speed required -attainable by keeping the Select button pressed.

  Set the aperture wheel to 22.

  This very small aperture will cause the Hexar to use the slowest shutter speed available to it. This will be the selected camera shake critical speed, and when there's still too little light -as is often the case with f22 and the slower films the Hexar particularly favours- will automatically open up the aperture to one appropriate to the camera shake critical speed.
- For the fastest speed (1/250), turn the aperture wheel to 2.

  This large aperture will cause the Hexar to use the fastest shutter speed available to it. This is the shutter top speed of 1/250, and when there's

still too much light -as is often the case outdoors with f2- will automatically close down the aperture to one appropriate to the camera shake critical speed.

Hexar Silent Photography, *Hexar S-mode* contributed by Peter van de Haar

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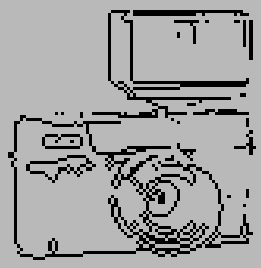

Flash Photography

Using the flash unit Konica HX-14 auto with your HEXAR camera

There are three main modes of taking pictures with this flash unit:

- Full automatic, full flash output with automatic adjusted aperture
- Automatic, fixed aperture and variable flash output depending on subject distance
- Manual, nothing automatic

* When mounting your flash unit to the camera be sure that both camera and flash unit are switched off.

Full automatic
Available light, subject distance and camera-shake critical speed is taken into account to get a correct exposure. The flash unit is set for maximal light output. The picture is made by an exposure with the available light and then immediately changing the aperture of the camera to a value which gives a correct exposure with the full flash output fired just before closing the shutter.

How to:

- Mount the flash unit on camera

- Set camera to mode P

- Set flash unit to mode P-FULL

When the flash unit is completely charged a [FL] message appears in the LCD panel and the pilot lamp on the flash unit is burning*.

- Press the release button

* If the flash unit is not fully charged a picture is made only with the available light and the flash does not fire.

Automatic
The flash light output is changed depending on subject distance. The aperture setting is fixed.
The HX-14 flash unit is now functioning like a normal electronic flash light.

How to:

- Set flash unit to mode A

- Set camera to mode A or M

- Set the aperture on camera depending on filmspeed

Film speed (ISO)	aperture
50	2.8
100	4
200	5.6
400	8.0
800	11

- Press release button

*In poor light conditions always use a tripod to support your camera.

M mode
Nothing automatic. Flash unit is set for maximal light output. You have to set the aperture on your camera manually to a value calculated by the following formula:

F = GN / m

F = aperture

GN = guide number of your flash unit (14 for HX-14 with an ISO 100 film)

m = distance to subject in meters

* Important when the distance changes to your subject you have to recalculate the aperture value.
(see also Flash distance range)

How to:

- Set flash unit to mode P-Full
- Set camera to mode A or M
- Calculate and set aperture on camera (e.g. Film ISO 100, GN=14, m=5 then F is 2.8)
- Press release button

*If the flash unit is set to mode A the available light is not measured.

Using other flash units
Almost any flash unit can be used with your camera.
Only automatic and manual flash mode are available for non HX-14 flash units.

Fill-in flash
Set camera to mode A.

Choose a correct aperture for the available light and use the same aperture value for your flash unit.
To get a more subtle effect set the work aperture on the flash unit one or two stops larger than the aperture on your camera. E.g. camera aperture F8 set flash unit to F5.6 or F4.
Depending on your flash unit you may also reduce the flash output instead of changing the aperture.
Try different combinations of aperture settings on your camera and flash unit to see what is best in your situation.
This mode is very well suited for outdoor photography with fill-in flash.

Saving battery lifetime.
When not using the flash unit for a long time switch of the power of your flash unit.

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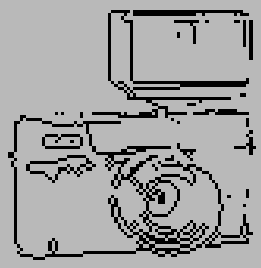

Extra functions

One step exposure time setting in M(anual) mode

One step exposure time setting in M(anual) mode
For this function you have to upgrade the standard Hexar model.

Swith the camera to M mode
Set the aperture of your choice with the aperture dial.
When you press the release button half way down, the LCD panel shows you the exposure time corresponding to the aperture set.

Setting the exposure time
Method 1:
You can set the exposure time by pressing once the select button and then pressing the up or down buttons until the time corresponds to the suggested time by the camera.

If you want to stay looking through the view finder use
Method 2:
In the view finder you will see a - or + burning which means under or over exposure corresponding to the aperture value set.
The leds in the view finder will burn for 10 seconds after you have pressed the release button half way down meanwhile you can adjust the exposure time by pressing the up or down button or adjust the aperture by rotating the aperture dial.
When both leds burn alternating the real exposure time will be somewhere in between (within 1/3 f value). This procedure may take some time.

Method 3:
To set immediately the exposure time corresponding to the selected aperture value, you have to press the release button half way down and press the up or down button at the same time (**one step**). The exposure time will be kept in memory until you explicitly set another value or switch of the camera.
The light reading is made for an circular spot area of 4 degrees.

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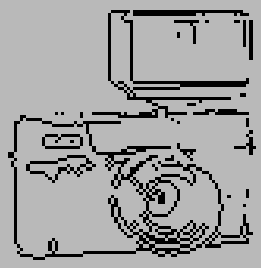

General camera functions

In the table below the display values may differ depending on the use of the Up and Down buttons, light conditions, focusing distance and aperture setting.

All modes P A M		
Function	**Photographer's Action**	**Display**
Focus Lock	press and hold release button halfway down make your composition and release shutter	1.5 1/30
Focus Lock with other light reading	press and hold release button halfway down and press MF button. point to another subject and press and hold release button halfway down again. go back to your previous composition and release shutter.	7.0 2.4 1/30
Set focus at infinity	press MF button	999
Set fixed focus distances	press MF button for more than 1 second	0.6
Silent	press and hold MF button while switching the camera on until L appears	L[0]

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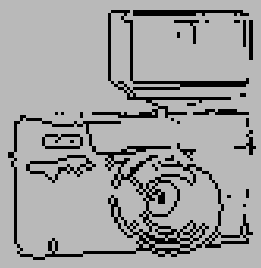

Camera functions (mode dependent)

In the table below the display values may differ depending on the use of the Up and Down buttons, light conditions, focusing distance and aperture setting. Personal adjustments can be made by using the Up and Down buttons.

Mode	Function	Photographer's Action	Display
P	over or under exposure	press Select button	± 0.0
	camera shake critical speed	press Select button for more than 1 second	1/30L
	guide number	press and hold Select button while switching the camera on switch to A mode if you don't use the Hexar X14 flash unit	. . . P36 PFL
	multiple exposure	press and hold Self button while switching the camera on	9[3]
A	set over or under exposure	press Select button	± 0.0
	set film speed (ISO value)	press Select button for more than 1 second	100
	infra red film setting	press and hold Select button until ISO value appears press Down button within 3 seconds when **. . .** appears press MF button once or twice (750 = Konica 850 = Kodak)	100 . . . 750 [100]
M	set manually exposure time spot reading (4°)	press Select button and press Up or Down button simultaneously. Exposure time corresponding to the aperture set is fixed. Make composition and release shutter.	1/250 . . . 1/125
	set time and aperture	press select button to set exposure time set aperture	Picture will be taken with your settings

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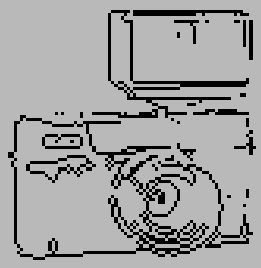

Reset camera functions

Reset functions	Reset by
focus lock f correction multiple exposure guide number spot reading	switch camera off and on
ISO value (only if next film has DX code) infra red film setting	open back cover
reset all personal settings	remove battery

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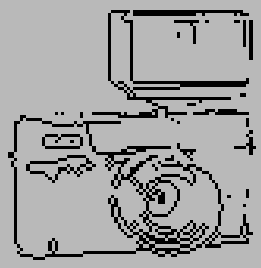

Error situations

Mode	LCD	Display error	To solve the problem
P A M		no ISO value or frame number is displayed	press select button
P A M	[0]	flashing	load film again or remove rewinded film
P A M	b.c.	flashing / continuously displayed	replace battery (Li2cr5) / immediately
P A M	. . .	continuously displayed	switch to M mode and back
P A M	EEE *	continuously displayed	camera lens blocked, remove battery and / or obstruction For instance a mounted UV filter and short focus distance
P A M	dark	continuously displayed	temperature to high, keep camera in shade
P A M		slow reaction	temperature to low, keep camera warm (-10°C +40°C)
A	1/250	flashing	over exposure, set aperture to larger value
A	30	flashing	under exposure, set aperture to smaller value
M	2	flashing	under exposure, set exposure time to larger value
M	22	flashing	over exposure, set exposure time to smaller value

M	shutter speed	flashing	exposure exceeds Exposure Display Range (EV 3-18) This has no effects on camera functioning
Silent mode		flashing,film rewinding stops	low battery voltage press rewind button or switch camera off and on

*See Filters and short focusing distance.

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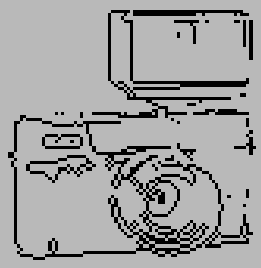
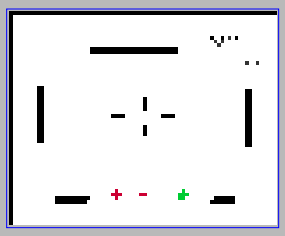


View finder information



Autofocus area indicator
The central area of the image is indicated by 4 lines (cross hair). In P and A mode the area of exposure metering area covers 15 ° and is square shaped just covering the area of the cross hair.
In M mode the exposure metering area is circular shaped and covers 4 ° and is as large as the central area of the cross hair.

Image frame area indicator
The 5 thick lines frames 83% of the negative image area. The top and left line will move depending on the distance set (parallax compensation).

Distance indicator
The top thick line in the view finder points to a small break in the diagonal line in the top right corner of the view finder which is the distance indicator.

View finder led information

• burning continuously	distance set correctly
• flashing	distance set less than 0.6 meter
- burning continuously	under exposure
+ burning continuously	over exposure
- and + burn alternating	exposure set correctly within 1/3 aperture

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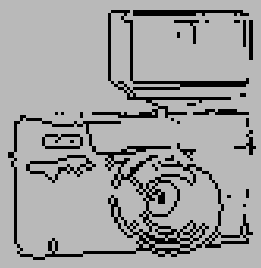

Flash modes

Combinations of the Hexar camera and the HX-14 Konica flash unit.

Camera mode	Flash unit mode	Function
P	P-full	all automatic, maximal flash output, variable aperture
A	A	automatic correction for available light, fixed aperture, variable shutter time, variable flash output
M	P-full	nothing automatic, fixed aperture, fixed shuttertime, maximal flash output
M	A	no correction for available light, fixed aperture, fixed shuttertime, variable flash output

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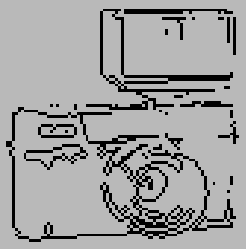

Hyperfocal distances

Formula used:

$$H = \frac{F \times F}{f \times c}$$

H = hyperfocal dist. (mm)

F = focal len. 35mm

f = aperture f value

c = circle of diffusion 0.033mm

Briefly
If you set the focus of your camera to the hyperfocal distance the depth of field range from half that distance to infinity. It is of course strongly depending on the aperture.

Aperture	2	2.8	4.0	5.6	8.0	11	16	22	f
Hyperfocal distance	18.56	13.26	9.28	6.63	4.64	3.37	2.32	1.69	m
Set manually focus to	20	20	10	7	5	3.5	2.4	1.7	m
Sharp from x till infinity	10	10	5	3.5	2.5	1.75	1.2	0.85	m

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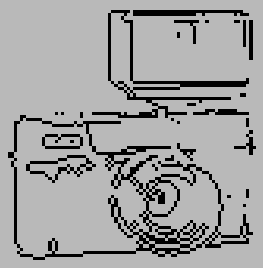

All camera settings

(upgraded Hexar standard model)

Times
1/250
1/200
1/160
1/125
1/100
1/80
1/60
1/50
1/40
1/30
1/25
1/20
1/15
1/13
1/10
1/8
1/6
1/5
1/4
1/3.2
1/2.5
1/2
1/1.6
1/1.2
1
1.3
1.6
2

2.5
3.2
4
5
6
8
10
13
15
20
25
30
T

Camera shake critical speeds
1/60 **
1/30
1/15
1/8
1/4

Aperture **f**
2.0
.
2.8
.
4.0
.
5.6
.
8.0
.
11

.
16
.
22

Exposure correction f
0.0
0.3
0.7
1.0
1.3
1.7
2.0

Fixed focus distances m
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.2

2.4
2.6
2.8
3.0
3.5
4.0
5.0
7.0
10
20
999 (infinity)

ISO value
6
8
10
12
15
19
25
32
40
50
64
80
100
125
160
200
250
320
400
500
640
800
1000
1200

1600
2000
2500
3200
4000
5000
6400

Guide Number
1.0
1.1
1.3
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.7
6.3
7.1
8
9
10
11
13
14*
16
18
20

23
25
29
32
36
40
45
51
57
64

* HX14 flash unit guide number
** Adviced setting when using the flash unit

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HX-14 flash distance range

HX-14 AUTO flash range (meters)								
	Aperture							
	2	**2.8**	**4**	**5.6**	**8**	**11**	**16**	**22**
ISO 50	5	3.6	2.5	1.8	1.2	0.9	0.6	-
100	7	5	3.6	2.5	1.8	1.2	0.9	0.6
200	10	7	5	3.6	2.5	1.8	1.2	0.9
400	14	10	7	5	3.6	2.5	1.8	1.2
800	20	14	10	7	5	3.6	2.5	1.8

HX14 flash unit guide number is 14 at ISO 100

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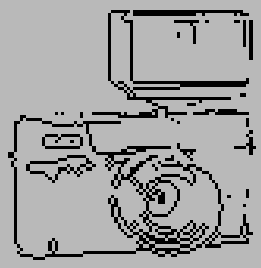

Introduction

I have compiled some information which I couldfind in the manual, on the net
and in magazines about this camera and placed it on a few web pages.

I took me some time to gather this information and maybe it saves you some time.
These pages are certainly not complete. Additional information is always welcome.

The Dutch user manual is really good this in contrast to the original Konica manual
delivered with the camera. This manual was written by the Dutch Konica distributor
in Amsterdam.

These web pages contains many tables, so you will need a browser with support
for tables (e.g. netscape 2.0 or higher will do).

I owe an upgraded Konica Hexar standard model camera myself and enjoy using
it very much.
Most of the information is not only valid for the Hexar standard (black)model but
also for the newer models of the Hexar but there are some small differences.

PS. I'm in no way related to Konica co-operation.

For suggestions and remarks send an e-mail to: Frank van de Wiel

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