

# Nikon 135mm f/2 DC

## The King of Bokeh (1990-)

© 2009 KenRockwell.com. All rights reserved.

[Intro](#) [Specs](#) [Performance](#) [Recommendations](#)

Please help KenRockwell.com



**Nikon AF DC-NIKKOR 135mm f/2 D** (72mm filters, 28.9oz/818g, about \$1,300). [enlarge](#). I'd get it new or used at at [Adorama](#) or [B&H Photo Video](#), new at [Amazon](#), or used at [eBay](#). The 135 DC is a limited-production lens, and therefore hard to find in stock; you have to order it and wait. It helps me keep adding this site when you get yours from these links, thanks! Ken.

December 2009 [More Nikon Reviews](#)

## Introduction [top](#)

[Intro](#) [Specs](#) [Performance](#) [Recommendations](#)

The Nikon AF 135mm f/2 DC is Nikon's, and arguably the world's, greatest [portrait lens](#). It has a very similar smaller brother, the [105mm f/2 DC](#).

The 135mm DC is also Nikon's sharpest 135mm lens, and an extraordinarily great lens for nature and landscape photography. It is worlds sharper and freer from spherical aberration than any of the the old manual focus 135mm f/2 lenses.

The hood is the best built-in hood I've ever used. It is metal, and it locks into position so it doesn't shrivel down like most other built-in hoods.

You have to move a ring to get to manual focus mode, and once you do, manual focus is fantastic.



## Defocus Control

DC stands for Defocus Control. A lot got lost in the translation on the way from Japan. The key word is control, not defocus. This is not a soft-focus lens; it is a lens that has been specifically designed and [patented](#) both for superior [bokeh](#) (the softness of out-of-focus areas), and the ability to control this bokeh for optimum results under all conditions.



Defocus Image Control. [bigger](#).

How do you set this 135mm lens for optimum bokeh? Easy: set this ring to the same aperture at which you're shooting. Press the unlock button on the left in order to move it, otherwise it stays locked. Set it to the R side to make backgrounds go soft and disappear, or the F side if you want to optimize it for junk in the foreground.

Hint: You should almost never have out-of-focus objects in front of your subject or in the foreground. It looks unnatural and weird. Our eyes naturally focus on the closest thing to us, so it's uncomfortable when a photo has a soft foreground or other distractions which our eyes can't bring into focus.

The effects of this defocus control are very subtle. You won't see it through your viewfinder. When used properly, the 135 DC turns backgrounds into the softest, smoothest washes of color you've ever seen. Turn the ring in the wrong direction, and out-of-focus backgrounds get harsher. These are subtle effects. Computer people may not see these subtleties at all, but artists will.

Leave the Defocus Image Control ring at zero, and the 135 DC simply acts as the sharpest 135mm lens you've ever used.

The defocus control only controls defocus, or the parts of the image that are not in focus.

If you set the control beyond the aperture you're using, like set to f/5.6 when shooting at f/2, you can get a softer focus effect.

The in-focus part of the image is always ultra sharp. This is not a soft-focus lens. It's only the unfocused parts of the image which are made softer. No one in the USA understands this lost-in-translation subtlety, and mistakenly thinks this is a soft focus lens. That's why this lens isn't popular in the USA.

The 135 DC has a control for all of this. This is why Nikon has the patent on it. You can adjust the lens from normal to super bokeh to soft focus if you push it too far. You'll notice that dedicated soft-focus lenses have no separate defocus control; they are fixed one way and the only control you have is your shooting aperture.



I personally buy from [Adorama](#), [Amazon](#), [Ritz](#), [B&H](#), [Calumet](#) and [J&R](#). I can't vouch for [ads](#) below.

**Dynalens  
Kontaktlinsen**

**JETZT KAUFEN!**

Ads by Google

This lens is so unique that Nikon will probably discontinue it just around the time people start figuring out what it does, and then the used price will skyrocket to \$4,000, just like it did with the [28mm f/1.4](#), for exactly the same reason.

## Focus



**Nikon 135mm DC Focus Controls.** [bigger.](#)

When you set the Defocus Image Control away from zero, the focus shifts. Be sure to focus after you set the Defocus Image Control (DIC). That's why the  $\infty$  mark has a white band slopping off to the left: with the DIC set to optimize defocus behind the subject (R), infinity comes up along that bar. With the DIC set towards F, infinity comes up closer on-scale distances. Don't sweat this; this is how the optics recombobulate themselves for optimum performance. If you're an engineer and aren't getting this, leave the DIC at zero.

To switch between auto and manual focus, press the unlocking button on the left, and rotate the AF Mode selector between M or A.

For use on most Nikons made since the 1980s where aperture is set or controlled on the camera, be sure to set the aperture ring to **16**, otherwise you'll see a blinking "fEE" message. There's a sliding lock to keep it set at **16**, just above the 2 in the photo above.



Nikon 135/2 DC. [bigger](#).

## Compatibility [back to intro](#) [back to top](#)

This 135 DC lens works incredibly well on FX, film and DX Nikons like the [D700](#), [D3X](#), [D300s](#) and [F6](#). It works fantastically on manual-focus cameras like the [F2AS](#), [F3](#), [FE](#) and [FA](#), since it has a real manual-focus ring that works exactly as it should.

The 135mm f/2 DC AF works perfectly with almost every film and digital Nikon camera made since 1977. If you have a coupling prong added to the diaphragm ring, it's perfect with every Nikon back to the original [Nikon F](#) of 1959.

The only incompatibility is that it will not autofocus with the cheapest [D40](#), [D40x](#), [D60](#), [D3000](#) or [D5000](#), but if you focus manually, everything else works great. These cameras have in-finder focus confirmation dots to help you.

See [Nikon Lens Compatibility](#) for details on your camera. Read down the "AF, AF-D (screw)" column for this lens.

## Production and History [back to intro](#) [back to top](#)

**1990:** This AF 135mm DC was introduced as an AF lens.

**1995:** It was updated to "D," meaning that focus distance is coupled to 3D Matrix meters, especially helpful for flash exposures.

Nikon made about 15,000 of the first non-D version from 1990-1995, and has made about 15,000 of the current D version so far.

## Specifications [top](#)

[Intro](#) [Specs](#) [Performance](#) [Recommendations](#)

## Name

Nikon calls this the Nikon AF DC-Nikkor 135mm f/2 D.

The earlier non-D version (1990-1995) skipped the D, and was called the Nikon AF DC-Nikkor 135mm f/2.

## Focal Length

135mm.

Used on a [DX camera](#) it gives angles of view similar to what a 200mm lens would give on an [FX](#) or 35mm film camera. See also [Crop Factor](#).

## Optics

7 elements in 6 groups.

Multicoated.

Newer D models have an extra rear optical flat to protect against dust.

Rear Focusing.

Haruo Sato of Nikon received [US Patent 5,841,590](#) on Nov. 24, 1998 for the defocus control design.

When an optical designer friend ran simulations and analyses on the design, he discovered another clever trick: Nikon designed the red end of the spectrum to focus in a slightly different plane to make skin look even better.

Look ma, no lens! When the 135/2 opens up, it sucks in light. The entire front of the lens is glass, so this is what a photon sees as it head on in.



© KenRockwell.com

Front view, Nikon 135mm f/2 DC at f/2.

## Diaphragm



© KenRockwell.com

Nikon 135/2 DC at f/4. [bigger](#).

9 curved blades.

Stops down to f/16.

The diaphragm is an "outie," meaning the tail ends of each blade go in front of the diaphragm.



© KenRockwell.com

AF DC-Nikkor 135mm f/2D at f/16.

## Filter Thread

72mm, metal.

Does not rotate.

## Close Focus

3.6 feet (1.1 m).

## Maximum Reproduction Ratio

1:7.1.

## Focus Distance Scale

Yes.

## Depth-of Field Scale

Almost; marked only at f/16.

## Infra-Red Focus Index

Yes, white dot on depth-of-field scale.

## Size

4.7" (120mm) extension from flange x 3.1" (79mm) diameter.

## Weight

28.850 oz. (817.8 g), measured, current D version.

Nikon specifies 30.7 oz. (870g) for the original 1990-1995 model, and 28.6 oz/810g for today's D version.

## Teleconverters

Nikon suggests only the TC-14B. More at [teleconverters](#).

## Case

CL-38.

## Hood



**Nikon 135/2 DC with hood extended and locked.**

Built-in telescoping, locking metal hood.

When you pull it out, rotate it to lock it into position.

## Nikon Product Number

1935.

## Announced

1990.

## Price

2009 December: [\\$1,300](#), USA.

## Performance [top](#)

[Intro](#) [Specs](#) [Performance](#) [Recommendations](#)

## Overall

This lens does it all. It's fast, super-sharp, and designed for the best portraits you've ever taken.

## Bokeh

[Bokeh](#) is extraordinary. It's the whole point of this lens.

Defocus is Nikon's sloppy English translation of the Japanese word bokeh.

Nikon really means that this is a lens with variable bokeh, or "bokeh control," thus the garbled English name "defocus control."

Get the happy feeling.



## Distortion

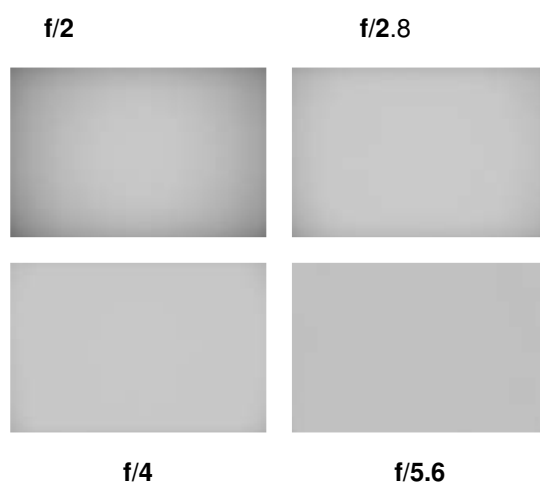
The 135 DC has no distortion.

## Falloff (dark corners)

For real pictures, it's got just a tiny bit of falloff at full aperture. It's gone by f/2.8. I wouldn't even notice it at f/2 except by comparison to the same shot made at smaller apertures.

I've gone out of my way to exaggerate this below. With real pictures, this is invisible.

### Nikon AF DC 135mm f/2 falloff on FX and film at infinity.



© 2009 KenRockwell.com. All rights reserved.

## Flare and Ghosts

If you point it into the sun and look in the shadows, you can get a couple of soft ghosts.

## Focus

AF is fast. One full turn of the AF screw pulls it from infinity to 20 feet.

One light fingertip is all that's required to focus manually, and the manual focus ring is a huge, solid, rubberized ring.

Manual focus is the best of any AF lens. It's even better than most manual-focus Nikon lenses, especially the original 135mm f/2 manual focus lens. This is because the 135 DC uses internal focus, so most of the lens stays put as it's focused. Since not much is moving inside the lens, the 135 DC requires very little effort to focus manually.

Autofocus accuracy is perfect on my D3. Every f/2 shot is dead-on.

## Use with Filters

The metal 72mm filter thread doesn't rotate.

Use all the filters you want; you're not going to get any vignetting.

## Lateral Color Fringes

None, on a D3.

## Mechanics and Construction



© KenRockwell.com

Rear, Nikon 135 DC. [bigger](#).

The 135mm f/2 DC is made like it should be.

It almost feels like a piece of American military equipment, except that it's not weather sealed.

It's not textured plastic like most of the toy-store trash coming out of the [Orient](#) today. Everything you see in crinkle-coat is solid metal.

**Filter Threads:** Metal.

**Retraceable Hood:** Metal, internally flocked, screw-thread locking.

**Barrel:** Metal.

**Focus Ring:** Metal, rubber covered.

**Aperture Ring:** Plastic.

**Finish:** Black crinkle-coat.

**Mount:** Chromed brass.

**Internals:** Metal.

**Markings:** Paint.

**Serial Number:** Laser-engraved on bottom of aperture ring.

**USA Models:** Designated by US prefix in serial number.

**Noises when Shaken:** Assorted clunking from all the moving elements.

## Sharpness

Sharpness is extraordinary.

On a 12MP D700 or D3, it's super sharp edge-to-edge at f/2, and doesn't get any softer even in the farthest corners.

It's also super-sharp on the 24MP D3X. At this high resolution, it almost gets a tad softer at f/2.8 and f/2 compared to f/4 and f/5.6, but not enough to notice except in carefully controlled tests at infinity. It's sharp!

Have no fear, I shoot this puppy at f/2 and get super-sharp, and perfectly in-focus images, edge-to-edge.

## Spherochromatism

Like most fast long lenses, there is a little spherochromatism.

This means that out-of-focus highlights may have slight green tinges behind the subject, and slight magenta tinges when in front of the subject.

## Recommendations [top](#)

[Intro](#) [Specs](#) [Performance](#) [Recommendations](#)

Nikon's 135 DC is the best 135mm lens I've ever used.

If you want an ultra-sharp 135mm lens, this is it. Canon users tell me that [Canon's 135mm f/2 L](#) is super-sharp, but I've not used it, and it has no bokeh control.

If you want a superb portrait lens, optimized to let you control the look of your backgrounds, this is it.

Get one while you still can.

Nikon's 28mm f/1.4D came out at about the same time. It performed to the same extreme level, offered unique optics never seen before and was built to the same ultrahigh mechanical standard as the 135 DC. When Nikon discontinued the 28/1.4 in 2006, its used price quickly rose to over twice what the new price used to be.

The same thing could happening with this 135 DC.

The very similar [105mm f/2 DC](#) is also a good choice, but not as good for portraits or for softening backgrounds because of its shorter focal length.

## Help me help you [top](#)

I support my [growing family](#) through this website, as crazy as it might seem.

If you find this as helpful as a book you might have had to buy or a workshop you may have had to take, feel free to help me [continue helping everyone](#).

If you've gotten your gear through one of my [links](#) or [helped otherwise](#), you're family. It's great people like you who allow me to keep adding to this site full-time. Thanks!

If you haven't [helped](#) yet, please do, and consider [helping me with a gift of \\$5.00](#).

The biggest help is to use these links to [Adorama](#), [Amazon](#), [Calumet](#), [Ritz](#), [J&R](#) and [eBay](#) when you get your goodies. It costs you nothing and is a huge help to me. eBay is always a gamble, but all the other places have the best prices and service, which is why I've used them since before this website existed. I recommend them all personally.

Thanks for reading!