

Design



The Nikon 70-200mm F2.8 VR II is built to withstand the rigors of daily professional use, and the quality of construction is impeccable. The external barrel construction is primarily of magnesium alloy, and the lens is environmentally sealed, including a rubber gasket around the mount to prevent dust and water ingress into the camera. As is standard for this class of lens, both zooming and focusing are internal, which leads to a distinct impression of solidity to the 'one-piece' construction, and maintains the balance of the lens on the camera regardless of focal length.

The lens retains essentially the same layout as its predecessor (aside from the loss of the AF-stop buttons on the front of the barrel), and uses the same type of detachable tripod foot, which works very well, allowing to switch between using the camera on and off a tripod (or monopod) quickly and easily. About the only possible criticism is that the switches on the side controlling the AF and VR systems are a little small and fiddly to use, especially when wearing gloves.

(We've read some internet concerns about the internal construction of this lens but, with our review sample at least, can see nothing to complain about at all.)

On the camera



This is a relatively large and heavy lens, and therefore best matched to the more substantial bodies in Nikon's range such as the D300(S), D700 and D3 series. It feels rather better balanced on the camera than the somewhat front-heavy older version, but D300 and D700 users will still likely benefit substantially from adding the vertical grip, especially when shooting in portrait format.




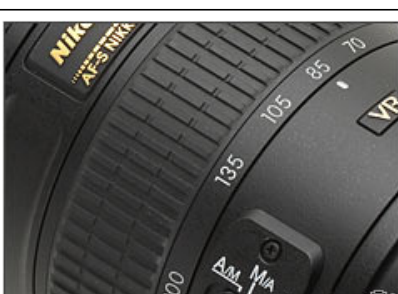
The one irritation we had with the lens in use was caused by the ribbed rubber grip right at the front of the barrel, which seems to have no obvious function. We found it all-too-easy, when trying to locate the focus ring by feel, to grab this instead, only to find it didn't seem to work. It's a small problem, but one that seems wholly unnecessary, especially if it can cause the occasional missed shot.



Potential upgraders should also be aware that this is a much bigger, heavier beast than typical consumer telezooms such as the 70-300mm VR - it's relatively unlikely to be something you'd want to carry around with you all day without being paid for the inconvenience.

Autofocus

This lens features Nikon's silent-wave motor for autofocus, which performs extremely well; it's almost silent in operation, and we saw no evidence for any systematic focusing errors. We found focusing to be extremely fast and accurate in everyday use on both the D300 and D3X test bodies; this really is one of those lenses you can rely on to nail the focus every for shot. However as always it must be noted that focus speed and accuracy is dependent upon a number of variables, including the camera body used, subject contrast, and light levels.

Lens body elements

	<p>The lens uses Nikon's venerable F mount, and communicates with the body electronically via an array of contact pins, while control of the aperture is mechanical using a metal lever. The lens is also compatible with Nikon's range of teleconverters.</p> <p>A rubber seal around the outside of the mount protects against dust and water ingress into the camera.</p>
	<p>The filter thread is 77mm, which is the de facto standard for professional lenses, and common across much of Nikon's lineup. It does not rotate on autofocusing, which should please filter users.</p> <p>A hard rubber ring surrounds the front of the filter thread, to provide some protection to the front of the lens against impact.</p>
	<p>The petal-type HB-48 hood is supplied as standard, and fits to the front of the lens via a bayonet mount, held in place by a locking button. It's somewhat shallower than before at 70mm (2.75") deep; it also reverses for storage.</p> <p>The shaping, though, means it's inadvisable to stand the lens on the hood while changing it - it can easily fall over.</p>
	<p>The zoom ring rotates 80 degrees clockwise from 70mm to 200mm. The ribbed rubber grip is 22mm in width, and the zoom action is smooth and precise.</p> <p>In common with other 70-200mm F2.8 lenses, the zoom action is entirely internal.</p>

	<p>The focus ring is 26mm wide, and rotates 130 degrees clockwise from infinity to 1.4m. It does not rotate during autofocus, and the full-time manual system allows tweaking of the focus when the lens is set to the M/A or A/M modes.</p> <p>Again focus is internal, and the action is smooth, precise and well-damped.</p>
	<p>The (still rather small) distance scale is repositioned to an easier-to-see point between the zoom and focus rings. It has markings in both feet and meters for 5 distances plus infinity. The focus ring travels slightly past the infinity mark, apparently to allow for the effects of ambient temperature variations.</p>
	<p>The side of the lens barrel is adorned with no fewer than four switches - but subtly changed from the 'mk 1' version. The AF mode switch now adds A/M mode, which differs from M/A in that it won't cancel autofocusing if the MF ring is moved during an AF operation.</p> <p>The near distance on the focus limiter has changed too, from 2.5 to 5 m, which may please sports shooters.</p>
	<p>The lower pair of switches control the image stabilization mechanism; the top one turns VR on and off, and the lower one selects between 'normal' mode (which includes automatic panning detection), and 'active' which always stabilizes in both dimensions.</p> <p>Like the focus limiter switch, the VR mode switch is a little small and fiddly.</p>
	<p>The tripod mount is of a particularly clever design; only the 'foot' detaches, by releasing the locking knob and pressing a release button, and the rotating ring remains permanently attached to the lens. The foot can then be used like a quick release plate, and left attached to the tripod/monopod.</p> <p>The foot has two screw sockets allowing the use of anti-twist plates, plus there's one on the lens itself.</p>

Reported aperture vs focal length

This lens allows an aperture range from F2.8 to F22 at all focal lengths.