

2008 Model Information

MODEL CODE: **EX650A8F**

MODEL NAME: *Ninja 650R*



Why Ride?

Because motorcycles are fun. Because motorcycles make you feel alive. And because there are few experiences in life more exhilarating than going for a ride on a Kawasaki motorcycle.

The Ninja 650R is a bike that only Kawasaki could have built. Exciting, eye-catching and bursting with energy, this is a lightweight and responsive machine that all riders can enjoy.

For those just moving up from smaller machines and experienced riders, the Ninja 650R offers a combination of versatility, performance and style that is hard to resist.

Combining Kawasaki's proven engineering prowess with a refreshingly contemporary design, the ER-6f is one of the most innovative motorcycles on the market today.

Conceived at Kawasaki's design facility in Akashi, Japan, the Ninja 650R represents a bold leap forward for Kawasaki.

Featuring an innovative engine and chassis, the Ninja 650R introduces a new genre to motorcycling: the entry-level bike with the styling, build quality and performance of much pricier machines.

This broad-spectrum machine is suited to riders of all ages and abilities. Whether male or female, the core appeal of the Ninja 650R is that of a motorcycle at the very cutting edge of contemporary design, as pleasing to look at as it is easy to ride.

Powered by a compact two-cylinder engine mounted in a sleek, lightweight chassis the Ninja 650R is extremely manoeuvrable and very rider friendly. And don't be fooled by that compact power unit, the Ninja 650R punches out plenty of satisfying power. Low-effort controls, wind and weather protection care of full fairing bodywork and ergonomics suited to a variety of body sizes make the Ninja 650R an ideal bike for a wide range of riders.

BACKGROUND

For new riders, the Ninja 650R experience will open their minds to the freedom of the motorcycling experience. For existing riders, this fun-to-ride machine will help them rediscover the fundamental joys of motorcycle riding.

The Ninja 650R is an expression of Kawasaki's vision of motorcycling's future — a vision born of a passionate commitment to offering the sheer enjoyment of motorcycling to the widest possible audience.

A unique combination

Fun to ride, rider-friendly and great looking, the Ninja 650R has something for everyone, from beginners to experienced riders. How did we build a bike with such broad-spectrum appeal? Simple, we started with the rider, not the bike. Kawasaki's engineers took a close look at how riders interface with a motorcycle. Riding positions were studied to discover which posture instilled the most confidence. Narrowing the distance between the footpegs and using a lower seat made it easier for riders to reach the ground with their feet. And low effort controls make for easy operation.

The Ninja 650R is very easy to ride. Nimble handling qualities come courtesy of a narrow and lightweight trellis frame featuring an offset laydown rear shock mounted to a triangulated swingarm. This innovative short-wheelbase frame (together with the compact engine) is key to the Ninja 650R's high comfort and rider-friendly handling qualities.

The engine is no less innovative. With light weight and high compactness primary design goals, V-Twins and In-line Fours were out of the question. The engineering team developed an all-new compact parallel twin engine that pumps out plenty of smooth, responsive power across a mile-wide rev range.

This 649cc, liquid-cooled power unit is the most compact engine in its category. But don't be fooled by the small size, this baby punches out power levels that are more than a match for any machine in its category. Electronic fuel injection ensures seamless power delivery across the rev range. The Ninja 650R is as nature-friendly as it is rider-friendly, as it is the only machine in its category to meet the stringent Euro-III emissions regulations.

Fun to ride and easy to operate, the Ninja 650R welcomes new riders with its non-intimidating size and comfortable ergonomics, while also appealing to experienced riders with its gutsy engine performance and responsive handling qualities.

The Ninja 650R — the size and feel of a 400 with the power of a 650.

Easy to Ride for a Range of Riders

The ER-6n is exceptionally easy to ride.

The combination of the compact and gutsy Parallel Twin engine and lightweight trellis frame with laydown shock result in a slim, compact package which belie the machine's impressive performance.

Add a low seat height, comfortable riding position and low-effort controls and the result is a bike that is as easy to ride for newer riders as it is satisfying for experienced riders.

Sophisticated Styling

Sleek as a jungle cat and just as agile, the ER-6f has the look and feel of a much more expensive bike.

The best looking middleweight on the market, the ER-6f is a perfect example of how form follows function, the bike's clean, flowing lines blending perfectly with the rider's body. The laydown shock, mid-ship muffler and racy looking 6-spoke wheels, give the ER-6f a look that makes it instantly recognisable as a Kawasaki.

SLIM, LOW, COMPACT & LIGHTWEIGHT

- ★ The key to the Ninja 650R's compact size is its amazingly compact Parallel Twin engine, which permits the use of a narrow, lightweight frame. The result is a bike with the dimensions of a 400 and the power of a 650 that welcomes beginners with a "Come on, let's go for a ride!" attitude, while also offering plenty of performance for more experienced riders.
- ★ The Ninja 650R's 649 cc liquid-cooled power unit is far and away the most compact engine in its category, smaller even than that of the ER-5 – quite a feat, considering that the Ninja 650R displaces 150cc more than the ER-5.

ENGINE

- ★ All-new liquid-cooled, DOHC, 8-valve, 649 cc Parallel Twin with fuel injection delivers smooth, responsive performance, especially in the low and medium rpm ranges. Tuned for rider-friendly power characteristics that will inspire confidence in new riders.
- ★ The engine's excellent mid-range power characteristics make the bike especially fun to ride at medium speeds on city streets. Roll-on response from 50 km/h is exceptional, offering impressive passing performance.
- ★ Large-bore 38 mm throttle bodies feature sub-throttles for high power output with smooth, sensitive throttle response.
- ★ Don't let the words "Parallel Twin" fool you. This engine is loaded with high technology that helped realise its compact design:
- ★ Triangular layout of the crankshaft and transmission shafts makes the engine very short front-to-back.
- ★ Transmission input shaft, output shaft and change drum are contained in a "cassette"- style package that both allows a compact layout and facilitates transmission maintenance chores.
- ★ Semi-dry sump design reduces engine height.
- ★ Plated, linerless cylinder is lightweight, and the narrow cylinder pitch reduces engine width.
- ★ Under-engine muffler lowers the bike's centre of gravity.



CHASSIS

- ★ Chassis design is no less elegant:
- ★ The compact engine allows use of a slim, minimalist frame, resulting in a design that is narrow at the knees and feet.
- ★ The compact engine also allows an extremely short wheel base, giving light and nimble handling.
- ★ Because a long swingarm can be used, rear suspension action and handling are both improved.
- ★ 3D analysis was used to achieve the ideal stiffness balance for the frame, contributing to the superb handling characteristics.
- ★ The frame is constructed of high-tensile steel, giving it a lightness rivalling that of aluminium frames.
- ★ The same characteristics that make it fun to ride (responsive handling and rider-friendly ergos), also make the Ninja 650R ideal for newer riders.
- ★ The riding position was specially designed to inspire rider confidence. An ideal relationship between the handlebars, seat and footpegs results in a comfortable and natural position suitable for a wide range of riders.
- ★ The narrow frame and engine make for an overall narrow package, allowing the rider to keep his or her knees and feet close together.
- ★ Thanks to the low seat height and slim overall design, it's easy to keep both feet firmly on the ground when stopped, an important consideration for many riders.
- ★ Aerodynamic windscreen helps protect you from the wind and weather, while contributing to the Ninja 650R's exceptional fuel efficiency.



FAME/SUSPENSION

- ★ The design of the frame, rear suspension and swingarm create an integrated line running from the steering head to the rear hub.
- ★ A trellis frame of high-tensile steel gives the bike a lightweight appearance. 3D analysis was used to achieve the target rigidity and stress values.
- ★ Offset laydown rear single-shock suspension flows smoothly from the frame to the swingarm.
- ★ The braced steel swingarm follows the lines of the frame and rear shock, its triangulated design contributing to the machine's innovative styling.

BODYWORK

- ★ Aggressive headlight design — any resemblance to the awesome Z1000 is purely intentional.
- ★ Wind and weather protection come from the aerodynamic windscreen and full fairing, both of which make the Ninja 650R as at home on the highway as on city streets.
- ★ The flowing bodywork includes a slim tail cowl with flush-surface tail lamp lens. From the rear, the Ninja 650R has a slim, agile appearance.
- ★ Seductively sculpted fuel tank ensures that no one will ever mistake the ER-6f for anything other than a Kawasaki. Newly designed flush-surface fuel cap contributes to the Ninja 650R's slim lines.
- ★ Stylish one-piece passenger and footpeg brackets contribute to the bike's sporty personality.

INSTRUMENTS

- ★ The simple instrument layout of the stacked instrument cluster allows riders to take in all the bike's pertinent information at a glance. Features include a digital LCD speedometer and analog tachometer, as well as a clock, odometer and tripmeter.



BRAKES

- ★ Triple petal disc brakes look great and deliver plenty of braking power.
- ★ Attractive 6-spoke wheels give the bike a light look while reducing unsprung weight.

OTHER FEATURES

ENGINE

- ★ Auto-fast idle system simplifies starting and ensures the catalyser reaches optimum temperature quickly.
- ★ Simplified cooling system routes coolant through the engine cases to the cylinder and head to reduce external plumbing.
- ★ 180° crankshaft drives a balancer shaft for silky smooth engine operation. The water pump is driven off the right end of the balancer shaft.
- ★ Oil jets located in the rod big-ends direct oil to the undersides of the pistons for added cooling.
- ★ Lightweight plug-mounted ignition coils deliver a hot spark while saving space.
- ★ High-capacity air cleaner contributes to excellent engine performance.
- ★ Newly designed lightweight fuel pump mounted inside the fuel tank.

CHASSIS

- ★ Four tie-down hooks allow baggage or a spare helmet to be secured to the rear seat.
- ★ Under-seat storage space has room for a U-lock or similar device.
- ★ The turn signals also function as hazard lights.



SPECIFICATIONS

ENGINE

Type	Liquid-cooled, 4-stroke Parallel Twin
Displacement	649 cc
Bore and Stroke	83 x 60 mm
Compression ratio	11.3:1
Valve system	DOHC, 8 valves
Fuel system	Fuel injection: ø 38 mm x 2 (Keihin)
Ignition	Digital
Starting	Electric
Lubrication	Forced lubrication, semi-dry sump

DRIVETRAIN

Transmission	6-speed
Final drive	Sealed Chain
Clutch	Wet multi-disc, manual

FRAME

Type	Diamond, high-tensile steel	
Wheel travel: front	120 mm	
	rear	130 mm
Tyre: front	120/70ZR17M/C (58W)	
rear	160/60ZR17M/C (69W)	
Caster (rake)	24.5°	
Trail	102 mm	

SUSPENSION

Front: Type	41 mm telescopic fork
Rear: Type	Offset laydown single-shock with adjustable preload

BRAKES

Front: Type	Dual semi-floating 300 mm petal discs
Caliper	Dual piston
Rear: Type	Single 220 mm petal disc Caliper Single-piston

DIMENSIONS

Overall length	2,100 mm
Overall width	760 mm
Overall height	1,095 mm
Wheelbase	1,405 mm
Ground clearance	140 mm
Seat height	785 mm
Dry weight	174 kg
Fuel capacity	15.5 litres

PERFORMANCE

Maximum power	53 kW {72.1 PS} / 8,500 rpm
Maximum torque	66 N·m {6.7 kgf·m} / 7,000 rpm

The specifications mentioned here apply to and have been achieved by production models under standard operating conditions. We intend only to give a fair description of the vehicle and its performance capabilities but these specifications may not apply to every machine supplied for sale.

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Equipment illustrated, colours and specifications may vary to meet individual markets.

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