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# NEW MODEL PRESS RELEASE

## 2021 KAWASAKI Z H2 SE MOTORCYCLE

### SUPERCHARGED SPECIAL EDITION

Kawasaki's flagship model of the Z line of naked motorcycles just got better as the 2021 Z H2 SE adds a smoother ride and more stopping power to the already innovative Z H2 package.

While retaining the ultimate combination of outright power and controllability, the new 2021 Kawasaki Z H2 SE comes equipped with Kawasaki Electronic Control Suspension (KECS). The new electronic suspension also features Showa's Skyhook technology, delivering a smoother ride, which contributes to increased comfort and enjoyment. Complementing the high-tech suspension are premium Brembo® front brake components, which add to even greater stopping power and control.



The Z H2 SE was developed to deliver supercharged power, a chassis that provides superb maneuverability, daily comfort, and a host of advanced features designed for maximum functionality. The Kawasaki Z H2 SE is a truly unique motorcycle and offers a glimpse of the future.

#### Highlights of the 2021 Z H2 SE

- **NEW** Kawasaki Electronic Control Suspension with Skyhook EERA Technology
- **NEW** Brembo® Stylema Monobloc Brake Calipers and Brembo Front Brake Master Cylinder
- Powerful 998cc Balanced Supercharged Engine
- Dog-Ring Transmission
- Specially Designed, Lightweight Trellis Frame
- High-Performance Showa Suspension Components
- Aggressive Sugomi™ Styling and Minimalist Bodywork
- LED Lighting
- All-Digital TFT Color Instrumentation
- Smartphone Connectivity via RIDEOLGY THE APP
- State-of-the-Art Electronics

#### Suspension

The 2021 Z H2 SE features KECS, Kawasaki's semi-active electronic suspension system, which adapts to road and riding conditions in real-time, providing the ideal amount of damping by combining high-level mechanical components with the latest electronic control technology; KECS balances suppleness for daily commuting with firm damping to facilitate more sporty riding.

Showa's Skyhook EERA (Electronically Equipped Ride Adjustment) technology offers an even more composed ride. Damping is adjusted electronically to suit vehicle speed and suspension stroke speed. Deceleration is also taken into account, allowing the pitching that occurs under braking to be managed. Showa's Skyhook software was carefully fine-tuned by Kawasaki engineers to ensure the Z

H2 SE's sporty riding character remained, delivering a smoother ride as it continually adapts to the road surface in real-time. The Skyhook concept imagines a hook supporting the motorcycle's sprung weight and modulates the suspension's damping force to allow the wheels to track the dips and bumps encountered while maintaining the motorcycle's vertical position with minimal disturbance. In Rain Mode, the Skyhook software reduces pitching, steering remains light, and the machine feels more planted by also taking into account vertical acceleration and pitch rate (each confirmed every 10 ms) when determining the damping force required.

The mechanical components are controlled via a solenoid valve with direct (single-stage) actuation. This results in a rapid reaction time of one millisecond, which is much quicker than systems that rely on step-motors or those that use pilot valves (two-stage actuation), which slow the system's responsiveness. The quick reaction time gives the KECS system a more natural feeling and is ideal for sport riding applications, where real-time reaction to bumps and gaps in the road surface enable superior riding comfort.

The built-in stroke sensors on both the fork and rear shock provide real-time stroke speed and position information. The sensor coils provide input to the KECS ECU every millisecond and are complemented by information provided by the IMU (vehicle acceleration/deceleration), the FI ECU (front/rear wheel speed), and the ABS ECU (front brake caliper pressure) every 10 milliseconds. The KECS ECU then directs current to the solenoids to adjust damping as required by the situation.

The Z H2 SE uses a sporty 43 mm Showa SFF-CA (cartridge) fork and a high-spec BFRC lite rear shock and base damping character set according to the integrated Riding Mode (Sport, Road, Rain, Rider (manual)) selected. KECS then adjusts to the road surface environment in real-time to provide the ideal damping, taking into account vehicle speed, stroke speed and deceleration.

KECS is also monitored by Kawasaki's advanced IMU-enhanced electronics package joining KTRC, KLCM, and KIBS, KECS as inputs for KCMF (Kawasaki Cornering Management Function) which incorporates multiple engine and chassis systems to facilitate smooth cornering.

## Brakes & Wheels

Also new on the Z H2 SE is a premium spec Brembo front brake package which includes Stylema monobloc calipers and a Brembo front master cylinder and steel-braided lines, offering stronger braking performance and enhanced control. The Stylema calipers are lighter, with smaller external dimensions and have less volume around the pistons and brake pads, enabling a more direct response. The Stylema calipers also cool rapidly, thanks to increased airflow around the brake pads, pistons and an opening that allows air to exit from the central bridge.

The lightweight 17" wheels are equipped with Pirelli Diablo Rosso III tires, front and rear. The front tire is a 120/70ZR17 M/C 58W; the rear tire is a 190/55ZR17 M/C 75W.

## Engine

The Z H2 SE motorcycle's balanced supercharged engine is the product of Kawasaki Group technology, designed in-house not only by the Motorcycle and Engine Company, but also with collaboration from the Aerospace Systems Company, Energy System and Plant Engineering Company, and Corporate Technology Division. Kawasaki created a supercharged engine with high output, yet manageable power delivery. The water-cooled DOHC 4-valve parallel 4-cylinder 998cc supercharged engine of the Z H2 SE is tuned to showcase high-performance throughout the rpm range. Its broad powerband creates optimal low-mid range torque for light handling and all-out supercharged performance on the top end. Smooth acceleration in the low to mid rpm range was achieved by shortening the second reduction ratio and optimizing the valve timing. In the chamberless exhaust system, an increase in the manifold assembly's tube length further improves the output in the low to mid-rpm range output. Where torque is more apparent, in the low to mid-rpm range, the supercharged

engine emphasizes easy-to-handle throttle response and smooth acceleration, while in the high-rpm range as the speed increases, the power from the supercharged engine is brought to the forefront. The Z H2 SE also features a ram air intake. The air duct provides a clean path for air flowing linearly from the ram air intake to the supercharged engine, contributing to higher performance.

The street specific Z H2 SE supercharger design and tuning were developed by Kawasaki Heavy Industries, Ltd. (KHI), showcasing the in-house knowledge of forced induction engine performance. The supercharger's high efficiency and minimal heat gain meant an intercooler was unnecessary, allowing savings in both weight and space. The supercharger is located centrally in the best position to distribute the compressed air to all four cylinders evenly.

The supercharger is driven by a planetary gear train, which runs off the crankshaft. The gear train increases the impeller speed up to 9.2x the crank speed (1.15x step gear with an 8x planetary gear).

## **Transmission**

The Z H2 SE uses a dog-ring transmission that has been developed through feedback from the Kawasaki Racing Team and utilizes optimal gear ratios for street performance. Rather than shifting the gears into place, the gears in this configuration stay in place, with the lightweight dog-rings moving to engage the gears. This design allows the shifting effort to be lighter and shorter for quicker acceleration.

## **Assist & Slipper Clutch**

Complementing the transmission is an Assist & Slipper clutch, race-inspired technology that offers both a back-torque limiting function as well as a light feel at the lever.

The Assist function is noticed by the lighter pull at the clutch lever, helping to reduce rider fatigue, especially in stop and go traffic situations.

The Slipper function is noticed when excessive engine braking occurs as a result of quick or accidental downshifts. The slipper cam comes into play, forcing the clutch hub and operating plate apart, which relieves pressure on the clutch plates to reduce back-torque and help prevent the rear tire from hopping and skidding.

## **Chassis**

A specially designed, lightweight trellis frame delivers both light handling and excellent composure. The chassis offers excellent maneuverability while harnessing the massive supercharged power of the Z H2 SE engine. The compact naked model frame has a high-level of balance between flexibility and toughness so that you can ride on a variety of roads.

The high-tensile steel frame utilizes wheelbase and caster angle dimensions that showcase the light, sporty handling unique to the Z H2 SE. By achieving the desired riding position and center of gravity, the frame and suspension of the Z H2 SE performs well across a range of speeds.

A double-supported swingarm style was chosen for the Z H2 SE, similar to those found on Kawasaki supersport models. It offers the high rigidity and lightweight construction necessary for high performance. The swingarm mounting plate is located on the back of the engine, enabling it to play the role of a cross member in the frame, contributing to rigidity and weight reduction.

## Ergonomics

A relaxed riding position has been created by a combination of an upright handlebar shape and a seat with an optimized base plate and cushion thickness. This design provides a high degree of freedom for riding posture and low vibration, allowing for a pleasant and comfortable ride. Adding to the Z H2 SE motorcycle's comfort and strength is a fat-type handlebar and handle switches.

## Electronics & Rider Aids

The strength of Kawasaki's cutting-edge electronics has always been the highly sophisticated programming that uses minimal hardware to give the ECU an accurate real-time picture of what the chassis is doing and what the rider wants, to best support the rider's inputs with a natural feel. Using the latest evolution of Kawasaki's advanced modeling software, including input from a compact Bosch IMU (Inertial Measurement Unit), Kawasaki Cornering Management Function (KCMF) monitors engine and chassis parameters throughout the corner to assist riders in holding their intended line through the corner. The Z H2 SE utilizes the input from multiple sensors to optimize ride quality via the Kawasaki Traction Control (KTRC), Kawasaki Launch Control Mode (KLCM) and the Kawasaki Intelligent Anti-Lock Braking System (KIBS).

## Electronic Cruise Control

The Z H2 SE is equipped with electronic cruise control, which improves overall comfort for those long days on the road. The cruise control system enables riders to set and maintain their desired speed with the simple press of a button. Once activated, the rider does not have to constantly apply the throttle to maintain speed. The cruise control helps to reduce rider fatigue when traveling on open roads, allowing the rider to relax and enjoy cruising, contributing to a high level of riding comfort.

## KQS (Kawasaki Quick Shifter)

The Z H2 SE features a highly reliable contactless-type quick shifter that allows for ultra-quick, full power upshifts and seamless acceleration. The system detects that the shift lever has been actuated and sends a signal to the ECU to cut ignition so that the next gear can be engaged for clutchless shifting.

## Power Mode Selection

Riders can set power delivery to suit conditions and/or preference, choosing from Full, Middle and Low. Middle Power is 75% of Full Power, while Low Power is 50% of Full Power.

## Styling

The styling of the Z series flagship Z H2 SE has been shaped according to the Sugomi design concept and the minimalist bodywork that Kawasaki's Z series lineup of motorcycles is known for. Sugomi describes the unique aura that radiates from beings possessing compelling presence and unrivaled power. Featuring a low crouching stance and the asymmetry of the air intake duct installed on the left side of the vehicle body, the Z H2 SE intensely and aggressively emphasizes the identity of Sugomi design. Only the air intake duct and the under cowl are asymmetrical; all other design work represents accurate symmetry, giving the Z H2 SE a well-balanced and highly harmonious design.

The supercharger housing is visible from the outside thanks to the naked model concept that does not have a cowl covering the motorcycle's body. Providing a glimpse of the supercharger between the frame makes for a more impressive appearance.

The Z H2 SE is equipped with an LED headlight and taillight. The bulbs' low power consumption and high durability improve maintainability while providing high-light intensity and high illumination with a clean headlight beam spread. The frame-mounted headlamps also influence the styling around the front and create an innovative look that is different from previous naked models.

### **TFT Color Instrumentation**

The 4.3" all-digital TFT color instrumentation gives the cockpit of the Z H2 SE motorcycle a high-tech, high-grade appearance. The full-color display features TFT (thin-film transistor) technology and delivers a high level of visibility. Display functions include: digital speedometer, gear position indicator, shift indicator, odometer, dual trip meter, fuel gauge, remaining range, current/average fuel consumption, outside temperature, coolant temperature, clock, Economical Riding Indicator, IMU indicator, KIBS indicator, boost pressure and boost temperature.

### **RIDEOLOGY THE APP**

Kawasaki continues to offer its Z lineup the addition of Bluetooth® Smartphone Connectivity. A chip built into the instrument panel enables riders to connect to their motorcycle wirelessly. Using RIDEOLOGY THE APP\*, several instrument functions can be accessed, logged, and reviewed, contributing to an enhanced motorcycling experience. The following information can be viewed:

1. **Vehicle Info**
  - Check latest status update
2. **Riding Log**
  - Can be logged in detail and played back for review
  - Route, Distance & Time travelled can be logged for review
  - Riding conditions can be recorded in detail
3. **Telephone Notifications**
  - Provides a notification on the dash when a call or mail is received by smartphone
4. **Tuning**
  - General instrument display setting changes can be made on your smartphone
  - Kawasaki Riding Management modes can be set

The app can also be used when away from the motorcycle. When riding (with the app ON), the bike and smartphone are always connected and riding log data is being recorded by the app. After the ride is complete, the latest riding information is stored by the app and may be viewed on the smartphone. Any changes made via the app while the engine is off, or while out of range, will be implemented as soon as the ignition is turned on and the smartphone is in range with the app ON.

\* RIDEOLOGY THE APP is not intended for use during vehicle operation. Only use RIDEOLOGY THE APP when the vehicle is not being operated and it is safe to do so.

### **Colors**

The 2021 Kawasaki Z H2 SE motorcycle is available in Golden Blazed Green/ Metallic Diablo Black.

### **MSRP**

\$19,700

To download high-resolution images, log on or register for the Kawasaki media site at <http://kawasakimedia.com>.

## **ABOUT KAWASAKI**

Kawasaki Heavy Industries, Ltd. (KHI) started full-scale production of motorcycles over a half century ago. The first Kawasaki motorcycle engine was designed based on technical know-how garnered from the development and production of aircraft engines, and Kawasaki's entry into the motorcycle industry was driven by the company's constant effort to develop new technologies. Numerous new Kawasaki models introduced over the years have helped shape the market, and in the process have created enduring legends based on their unique engineering, power, design and riding pleasure. In the future, Kawasaki's commitment to maintaining and furthering these strengths will surely give birth to new legends.

Kawasaki Motors Corp., U.S.A. (KMC) markets and distributes Kawasaki motorcycles, ATVs, side x sides, and JET SKI® watercraft through a network of approximately 1,100 independent retailers, with close to an additional 7,700 retailers specializing in general purpose engines. KMC and its affiliates employ nearly 3,100 people in the United States, with approximately 260 of them located at KMC's Foothill Ranch, California headquarters.

Kawasaki's tagline, "Let the good times roll.®", is recognized worldwide. The Kawasaki brand is synonymous with powerful, stylish and category-leading vehicles. Information about Kawasaki's complete line of powersports products and Kawasaki affiliates can be found on the Internet at [www.kawasaki.com](http://www.kawasaki.com).