

2022

YZF-R1



Team Yamaha Blue

\$17,599 MSRP* \$430 Destination Charge*



Performance Black

\$17,599 MSRP* \$430 Destination Charge*

TOP FEATURES

1. MotoGP®-Derived Crossplane Crankshaft Engine

The 998cc inline-four-cylinder engine features Yamaha's exclusive crossplane crankshaft technology derived from Yamaha's YZR-M1 MotoGP® race bike. Every aspect of this unique engine is built to thrill.

2. Digital Superbike Technology

The R1 features a cableless ride-by-wire Yamaha Chip Controlled Throttle (YCC-T®) system that transforms the rider's inputs into motion, with a full suite of IMU-powered electronic rider aids that bring new meaning to the term "rider confidence."

3. Superbike Brakes & Tires

The YZF-R1 utilizes track-focused braking hardware, featuring potent 4-piston radial-mounted front calipers, stainless steel front brake lines, big 320mm front rotors with high-friction pads and a compact ABS unit. The Bridgestone® RS11 tires ensure true racetrack-ready traction with balanced road feel and handling.

4. Sharp, Sleek Styling

The YZF-R1 features beautifully integrated bodywork and sleek, stylish lines which create an unmistakably aggressive, aerodynamic profile.

5. Legendary R-Series Handling

Built around Yamaha's refined Deltabox aluminum frame technology and mounting high-spec, fully-adjustable KYB® suspension, the YZF-R1 exemplifies over 20 years of chassis technology developed on racetracks around the world.

6. Next Level R-Series Evolution

In developing the R1, Yamaha engineers combined feedback gleaned from top-level riders and the world's most challenging race circuits. Advanced electronic systems boost rider confidence and control while the engine, suspension, brakes and aerodynamics complete the package.



*Manufacturer's Suggested Retail Price (MSRP) shown. Does not include tax, title, prep or destination charges. Actual prices set by dealer.

FEATURES & BENEFITS

ENGINE

Cutting-Edge CP4® Engine

The R1's 998cc inline-four-cylinder engine features Yamaha's exclusive crossplane crankshaft technology derived from Yamaha's YZR-M1 MotoGP® race bike. By equalizing inertial forces at the crankshaft, the CP4 motor delivers a direct feeling of linear torque, giving the rider the ultimate connection between throttle grip and the rear wheel.

High-Output Engine Technology

Titanium connecting rods use Yamaha's precision fracture-split method to ensure maximum reliability with minimal weight. Combined with titanium intake valves and forged pistons, these lightweight parts help achieve the CP4's high redline and over-rev capability. The cylinder block is also offset from the crankshaft, reducing friction loads on the pistons and bores.

High-Performance Intake System

The cylinder head, intake system, fuel injectors and airbox work together to enhance part-throttle performance. And by creating a smaller and shorter intake tract, new injectors are able to spray fuel directly against the intake valves for improved fuel atomization.

Refined Rocker-Arm Valvetrain

Compact rocker-arm valve actuation uses optimized geometry to allow for larger valve lift than conventional cam-driven systems, while using lower cam lobes and reduced spring pressure to reduce friction losses.

Titanium Exhaust System

The R1 is equipped with a muffler and heat shields manufactured primarily from lightweight titanium. The compact midship muffler also centralizes mass low in the frame and as close to the center of the machine as possible for optimal handling.

Compact Stacked Transmission

A 6-speed transmission features close-ratio gearing to best match the high-revving engine. The transmission also "stacks" the input/output shafts to centralize mass and to keep the overall engine size shorter front-to-back, which optimizes engine placement in the frame for outstanding weight balance.

Advanced Clutch

Yamaha's assist and slipper clutch is used to give the rider more confident downshifts when entering corners aggressively, while still smoothly handling the torque of the R1's high-output motor.

ELECTRONICS

Ride-by-Wire Throttle System

The R1 features a ride-by-wire Yamaha Chip Controlled Throttle (YCC-T®) system built around the Accelerator Position Sensor with Grip (APSG), which eliminates the throttle cables. As before, YCC-T precisely senses throttle input by the rider and actuates the throttle valves to actively control intake volume, allowing for cutting-edge computerized engine management but in a lighter package.

Variable Intake System

The YZF-R1 features Yamaha's Chip Controlled Intake (YCC-I®), a variable intake system that broadens the spread of power across the entire rpm range. By actively adjusting the length of the intake based on engine speed, the CP4 engine is able to provide a broad spread of power across the rpm range.

MotoGP®-Level Controllability

Yamaha's Inertial Measurement Unit (IMU) combines a gyro sensor and G-sensor accelerometer that measures all six axes of movement in 3-D space at a rate of 125 calculations per second. This information is fed into the Engine Control Unit (ECU) to create a detailed picture of the motorcycle's position, which then powers the R1's rider-assisting technology package, Yamaha Ride Control (YRC).

Engine Brake Management (EBM)

The YZF-R1 features an Engine Brake Management (EBM) system that allows the rider to adjust engine braking to suit personal preferences and track conditions. The EBM system offers three levels of engine brake force to allow smoother corner entry.

Power Delivery Mode (PWR)

Power Delivery Mode (PWR) lets the rider adjust engine response to best match their preferences and riding conditions, adjusting throttle feel, responsiveness and overall power. The PWR system offers four settings of progressive power delivery.

Lean Angle-Sensitive Traction Control System (TCS)

The R1's Traction Control System (TCS) calculates the differences in front and rear wheel speeds to monitor and reduce unwanted wheel spin during hard acceleration. Unlike many simplified TC systems, the R1 also uses the IMU to calculate lean angle, then adjusts the amount of TCS intervention to best suit the rider's demands. The TCS offers ten separate settings enabling the rider to dial in the exact level of control needed.

MotoGP®-Developed Slide Control System (SCS)

Yamaha's Slide Control System (SCS) comes directly from the Yamaha YZR-M1 MotoGP® race bike. By using the IMU to detect lateral slides under hard cornering acceleration, the ECU intervenes to regulate power delivery and seamlessly control the motorcycle's cornering attitude. The SCS features four settings to suit rider preferences and track conditions.

Lift Control System (LIF)

The Lift Control System (LIF) utilizes the IMU to detect when the motorcycle's nose pitches upwards higher or faster than desired, then progressively regulates engine power to maintain chassis attitude with minimal loss of forward drive. LIF offers four settings of adjustment for fine tuning.

Launch Control System (LCS)

Built to deliver an optimum racetrack start every time, the R1's Launch Control System (LCS) limits maximum engine rpm and throttle plate opening with input from the TCS and LIF systems to maximize acceleration from a standing start. The LCS offers three setting levels to adjust engine control and output.

Up & Down Quick Shift System (QSS)

The Up & Down Quick Shift System (QSS) uses a sensor on the shift linkage to modulate power during shifting, allowing for split-second clutchless shifts up and down through the gearbox. Full-throttle upshifts maximize forward drive under power, while the ECU precisely matches engine speed while downshifting for nearly instantaneous gear changes with minimal chassis disruption. The QSS can be adjusted between three settings with independent downshift function control.

CHASSIS/SUSPENSION

Brake Control (BC) System with ABS

Developed on racetracks around the world, Yamaha's Brake Control (BC) System works with an Anti-lock Braking System (ABS) to minimize brake slip under aggressive braking or on less than ideal surfaces. The adjustable BC System uses the IMU to provide progressive brake force intervention as lean angle increases which boosts rider confidence when braking mid-corner.

Supersport Braking Components

The YZF-R1 features 4-piston radial-mounted front calipers riding on big 320mm rotors for excellent stopping power, with a high-friction pad compound, and supported by a 220mm rear disc with compact floating caliper. The ABS hydraulic unit is light and compact, and the high-quality braided stainless steel front lines provide firm yet responsive control and feel.

Fully Adjustable KYB® Fork

The R1 features an inverted KYB® front fork with 43mm inner tubes and a 4.7 inch stroke with full adjustability for incredible front-end feel on the track. The shim-stack damping pistons improve road feel under aggressive conditions. All adjustments are also made on the top of the fork legs for simplified tuning.

Linkage-Type KYB® Shock

The fully adjustable KYB® shock utilizes a rear bottom link pivot position that is optimally placed to provide exceptional handling and excellent transmission of engine torque to the track surface. Internal settings are also revised to match the upgraded front fork.

Bridgestone® RS11 Tires

The R1 mounts the latest Bridgestone® RS11 tires which are designed to offer true racetrack-ready traction with balanced road feel and handling.

Race-Ready Magnesium Wheels

The 10-spoke cast magnesium wheels significantly lower rotational mass compared to conventional aluminum cast alloy rims, reducing unsprung weight for quicker direction changes and responsive handling.

Compact Deltabox Frame

The slim aluminum Deltabox frame, magnesium subframe and aluminum swingarm contribute to a compact chassis design with outstanding track-focused handling. The motor mounts use the engine as a stressed member of the frame for optimal rigidity balance and fantastic cornering performance on the race track.

Aluminum Fuel Tank

The aluminum alloy fuel tank weighs in at a full 3.5 pounds less than a comparable steel tank, further reducing overall weight, and is sculpted to give the rider a natural lower body connection to the machine.

ADDITIONAL FEATURES**Sleek Styling**

The YZF-R1 features beautifully integrated bodywork and sleek, stylish lines which create an unmistakably aggressive, aerodynamic profile.

All-LED Lighting

LED headlights are both lightweight and compact, allowing for a more streamlined design of the front cowling with excellent visibility. The lights deliver a broad spread of illumination. LED front turn signals are integrated into the mirrors for improved aerodynamics while the LED tail light is stylish and highly visible.

Full-Color Instruments

The R1 features a brilliant full-color, thin-film transistor (TFT) meter, with front brake pressure and fore/aft G-force readouts which give the rider feedback from the machine. It features both street mode and a track mode that focuses on performance information, such as YRC settings (including EBM and BC systems), a zoomed-in view of the tachometer in the upper rpm range, a lap timer, gear position indicator and speed.

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SPECIFICATIONS:

Engine Type	998cc, liquid-cooled inline 4 cylinder DOHC; 4-valves per cylinder
Bore x Stroke	79.0mm x 50.9mm
Compression Ratio	13.0:1
Fuel Delivery	Fuel injection with YCC-T and YCC-I
Transmission	6-speed; wet multiplate assist and slipper clutch
Final Drive	Chain
Suspension / Front	43mm KYB® inverted fork, fully adjustable; 4.7-in travel
Suspension / Rear	KYB® single shock, fully adjustable; 4.7-in travel
Brakes / Front	Dual 320mm hydraulic disc; Brake Control System and ABS
Brakes / Rear	220mm hydraulic disc; Brake Control System and ABS
Tires / Front	120/70ZR17 Bridgestone® BATTLAX RACING STREET RS11F
Tires / Rear	190/55ZR17 Bridgestone® BATTLAX RACING STREET RS11R
L x W x H	80.9 in x 27.2 in x 45.9 in
Seat Height	33.7 in
Wheelbase	55.3 in
Rake (Caster Angle)	24.0°
Trail	4.0 in
Maximum Ground Clearance	5.1 in
Fuel Capacity	4.5 gal
Fuel Economy**	33 mpg
Wet Weight***	448 lb
Warranty	1 Year (Limited Factory Warranty)
Color	Team Yamaha Blue; Performance Black

*** Wet weight includes the vehicle with all standard equipment and all fluids, including oil, coolant (as applicable) and a full tank of fuel. It does not include the weight of options or accessories. Wet weight is useful in making real-world comparisons with other models.