



## Press Information 2001

**CBR1100**  
**SUPER BLACKBIRD** **XX**

# CBR1100XX Super Blackbird



# CBR1100XX Super Blackbird

## *Development Concept*

First introduced to an unsuspecting world in 1997 as Honda's supreme Super Sport flagship, the remarkable, ultra-high-performance CBR1100XX Super Blackbird brings together many of Honda's most innovative technologies in a sleek, fully featured Super Sport powerhouse that projects the unmistakable image of speed and performance potential from its pointed beak through its slippery tail. Powered by a compact, liquid-cooled 1,100cc inline-4 engine featuring dual balancers for silky smooth operation, and offering the enhanced riding confidence provided by its Dual Combined Brake System (Dual-CBS), the

Super Blackbird delivers both breathtaking performance and a level of comfort unheard of in the big bike Super Sport class. On top of this, its light weight and compact dimensions make it a supremely easy big-bore superbike for the vast majority of Europe's riders to comfortably enjoy.

The year 1999 witnessed several major improvements in the Blackbird's performance potential with the addition of a new Programmed Electronic Fuel Injection system (PGM-FI) fed by a new power-packing direct air induction system that combined to provide smooth,

strong and instantaneous response over the widest range of riding conditions. Featuring an Automatic Bypass Starter for assured starting ease in virtually all weather conditions, the PGM-FI system also made possible the adoption of Honda's most recent HECS3 low-emissions catalyser system on specific versions to ensure complete compliance with the toughest of Europe's current and proposed exhaust emissions regulations, all while maintaining its blistering performance potential.





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Completing the 'Double-X's' package of 1999 performance upgrades were a newly developed knock sensor that accurately maintains the engine's peak operating efficiency throughout its wide band of power, and the introduction of Honda's highly effective H.I.S.S. (Honda Ignition Security System) to prevent rideaway theft of the owner's prized investment. Now, for 2001, the Super Blackbird receives a host of improvements big

and small to further establish its prominence in the Super Sport arena. Such features as an all-new instrument panel and taller windscreen combine with a new low-emissions system that now extends its benefits to all versions of the Super Blackbird to reduce exhaust emissions to virtually unprecedented levels while maintaining its astounding level of performance.



# CBR1100XX Super Blackbird

## Colouring Concept

The 2001 Super Blackbird arrives on the European scene in four beautiful colour variations, two of which are carried over unchanged from the previous year. Leading the way is a brilliant candy blue that catches the eye with its lively air of exuberant excitement. This is followed by a dark and inviting candy red that graces the Super Blackbird's flowing curves with a regal elegance. Both these variations cleanly complement the bright silvery matte finish applied to the Super Blackbird's frame engine to the Super Blackbird's frame engine covers and wheels.

New for 2001 are a sleek and sinewy black that stays close to the fundamental theme of stealth and speed for which the Super Blackbird was named, and a brilliant, all-new metallic silver variation with specially simplified graphics that joins several other models in the Honda lineup to convey a unified image of Honda's unrivalled Super Sport excellence. Both these variations are highlighted by a new black frame coating that draws rapt attention to the Double-X's muscular, performance-oriented lines.

### Colours

- Candy Phoenix Blue
- Candy Glory Red
- Darkness Black Metallic (with Black frame)
- Accurate Silver Metallic (with Black frame)

### Other New Features

- New colour variations and new black frame colour.





# CBR1100XX Super Blackbird

## Styling

### New, Taller Windscreen

To extend the Super Blackbird's range of riding versatility and comfort, its windscreen was redesigned with a 30mm taller upper edge to extend its range of protection against the blast of wind experienced at the breathtaking highway speeds the

Blackbird can easily reach. This extra protection affords a more relaxed riding position and reduced fatigue on longer rides.

### New, Multi-Reflector Indicators

The Super Blackbird's styling details have also been brought up to date

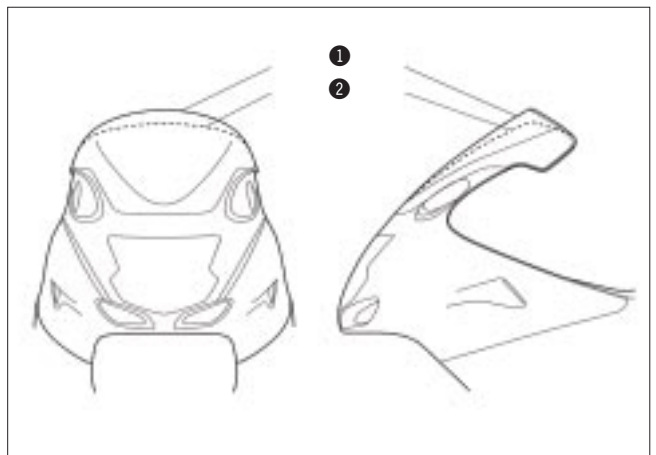
with the addition of a set of bright, new high-visibility multi-reflector indicators. Providing a brighter output for the same surface area, these new indicators ensure that even the stealthy Super Blackbird can be easily seen when it needs to be.



### Windscreen Comparison

- ① *New CBR1100XX*
- ② *Current Model*

### Windscreen Comparison



CBR1100XX Super Blackbird - 20015 - E



# CBR1100XX Super Blackbird

## Styling

### All-New, High-Tech Instrument Panel

Without a doubt, the biggest styling change to come to the Super Blackbird is in the design of its instrument panel. Doing away with the traditional dual speedometer and tachometer displays, this aggressive new panel features a large, centrally positioned tachometer with white characters on a black face, surrounded by two large digital LCD readouts.

With a row of large indicator lights positioned across the top of the panel, the speedometer display positioned to the right of the tachometer provides a large, easy-to-read readout of the Super Blackbird's velocity, and can be easily switched between kilometre and mile displays (E-type only).

The red startup indicator LED for the Blackbird's H.I.S.S. anti-theft system is located below the speedometer's large digital face.

The display on the left is topped by a dual odometer/tripmeter display that offers dual trip settings and an easy-to-use reset button. Below this is a digital coolant temperature gauge that can be toggled between Fahrenheit and centigrade readings (E-type only). Further down is a high-accuracy 8-segment fuel gauge, and taking up the bottom position, a digital clock.

All other controls are essentially the same as the previous versions of the Super Blackbird, and feature a clean, uncluttered design for easy operation and confident control.

### H.I.S.S. Indicator Light Operation

The Super Blackbird's highly advanced H.I.S.S. anti-theft system is instantly engaged when the ignition key is switched off and removed, and its panel-mounted indicator light continues to blink once every 5 seconds for a period of 24 hours to visually ward off potential thieves. After this period, the light automatically switches off, although the system remains fully active. This indicator function is enabled and disabled by way of the push-button switch located to the right of the indicator light.





# CBR1100XX Super Blackbird

## Engine

### **New All-European HECS3 Low-Emissions System**

Initially introduced only on 'G-type' versions destined for the German and Austrian markets, the 1999 CBR1100XX Super Blackbird's low-emissions HECS3 catalyser system effectively reduces the engine's pollutant emissions to well below the levels required by Europe's most stringent emissions regulations including planned EURO-2 regulations. Demonstrating Honda's ongoing concern for the environment and dedication to minimising its motorcycles' contribution to Europe's air pollution, this system will now be

included as standard equipment on every version—or the only version—of the new 2001 Super Blackbird.

The new Super Blackbird's HECS3 system not only effectively reduces exhaust emissions, it does so without cutting into the engine's superb performance output, while also remarkably managing to reduce its fuel consumption figures to approximately 15% below that of the Year 2000 standard version Super Blackbird. This superb low-emissions system incorporates the following components:

### **Air Injection System**

First introduced on all versions of the 1999 CBR1100XX, this relatively simple system effectively reduces much of the engine's exhaust emissions by feeding a precisely timed jet of fresh air into each cylinder's exhaust port to prolong the burning of the residual fuel and pollutants contained in the gases escaping from the combustion chamber during its exhaust stroke. The result is more complete and efficient combustion, and a significant reduction in carbon monoxide (CO) and hydrocarbon (HC) emissions.



# CBR1100XX Super Blackbird

## Engine

### 'O<sub>2</sub>' Exhaust Sensor

Mounted in the exhaust system just ahead of the junction leading to the two silencers, this single oxygen sensor is constantly monitored by the CBR1100XX's PGM-FI ECU—along with several other critical variables of engine operation—in order to ensure precise fuel control and the optimal effectiveness of the system's in-line catalysers.

Constantly measuring the fluctuating oxygen levels in the engine's exhaust gases, this oxygen sensor's digital

output allows the CPU to instantly calculate combustion efficiency and adjust the air/fuel mixture at the intake to maintain a precise balance of hydrocarbons (HC) and carbon monoxide (CO) emissions on one hand and nitrous oxides (NO<sub>x</sub>) emissions on the other. By maintaining the air/fuel ratio within a pre-designated tolerance range centred around the optimal ratio of 14.7:1, this 'O<sub>2</sub> feedback' system permits the catalyser to perform at its highest efficiency under most operating conditions.

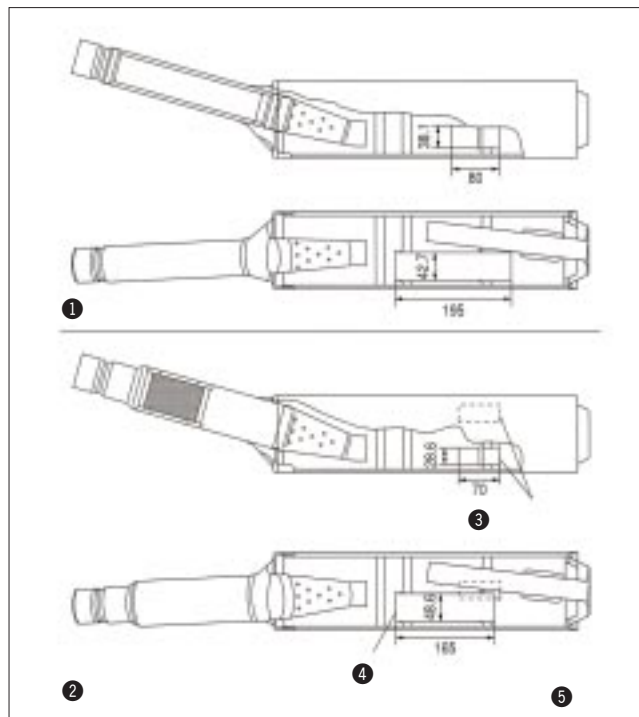
### '3-Way' Catalyser

The final components in the CBR1100XX's low-emissions system are the cylindrical catalyser units installed in the exhaust system immediately before each of the large-capacity canister-type silencers. These compact '3-way' catalytic converter elements complete the system's high-efficiency operation by chemically minimising the emissions of CO, HC and NO<sub>x</sub> gases.

### Silencer Comparison

- ① *Current Model (ED-type)*
- ② *New CBR1100XX*
- ③ *New dual secondary pass pipes*
- ④ *Thicker and shorter primary pass pipe*
- ⑤ *(Unit: mm)*

### Silencer Comparison





# CBR1100XX Super Blackbird

## Engine

### Improved Performance

In order to ensure the power and performance required to allow the HECS3 system to be included on the new all-European version of the Super Blackbird, the Double-X's design team restudied the effects of the catalyser exhaust system on the engine's power output. A detailed redesign of the silencers resulted in modifications to the size and length of the pass pipes transferring the engine's exhaust between the silencer's three chambers in order to minimise any restrictions to top performance. The result of these

changes is a major increase of 12PS in maximum power output over the Super Blackbird's current catalyser-equipped G-type version, and effectively no reduction in output compared to the standard version.

Other small yet significant improvements to the engine's operating efficiency were realised through an increase in the pressure of the fuel feed to the fuel injectors for more responsive and stable performance throughout the Double-X's wide powerband. Since these modifications provide a wider range of

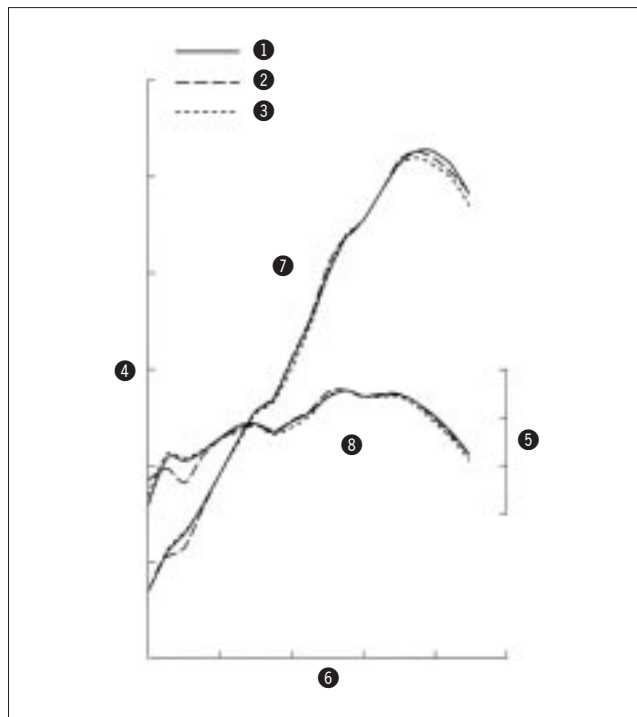
optimal low-emissions operation, they also permit the system to more effectively reduce emissions even when the Super Blackbird is being ridden hard.

A further benefit of this system is its remarkable fuel efficiency. Not only does the new Super Blackbird offer better fuel economy than the current 'standard' model, but it also achieves fully 12% better fuel consumption figures than the current HECS3 model.

### Engine Performance Comparison

- |                           |                      |
|---------------------------|----------------------|
| ① New CBR1100XX           | ⑤ Torque Output (Nm) |
| ② Current Model (ED-type) | ⑥ Engine Speed (rpm) |
| ③ Current Model (G-type)  | ⑦ Power Curve        |
| ④ Power Output (kW)       | ⑧ Torque Curve       |

### Engine Performance Comparison





# CBR1100XX Super Blackbird

## *Engine*

### **New Iridium Spark Plugs**

The Super Blackbird's high-accuracy ignition system fires a set of slim new, iridium-tipped spark plugs that feature narrow 0.4mm tips and platinum-tipped electrodes for faster, hotter ignition and a higher performance spark.

### **New 'Wet-Type' Battery**

The Double-X's maintenance-free (MF) battery has also been changed to a new 'wet-type' that not only provides strong, reliable output, but also holds its charge longer than the 'dry-type' battery that it replaces.



# CBR1100XX Super Blackbird

## Specifications

### Specifications

### CBR1100XX (ED-type) (95/1/EC-values)

Engine	Liquid-cooled 4-stroke 16-valve DOHC inline-4
Bore × Stroke	79 × 58mm
Displacement	1,137cm <sup>3</sup>
Compression Ratio	11 : 1
Carburation	Electronic fuel injection
Max. Power Output	112kW/9,500min <sup>-1</sup>
Max. Torque	119Nm/7,250min <sup>-1</sup>
Ignition	Computer-controlled digital transistorised with electronic advance
Starter	Electric
Transmission	6-speed
Final Drive	'O'-ring sealed chain
Dimensions (L×W×H)	2,160 × 720 × 1,200mm
Wheelbase	1,490mm
Seat Height	810mm
Ground Clearance	130mm
Fuel Capacity	23 litres (including 4-litre warning light reserve)
Wheels	Front/Rear Hollow-section triple-spoke cast aluminium
Tyres	Front 120/70 ZR17 (Radial) Rear 180/55 ZR17 (Radial)
Suspension	Front 43mm H.M.A.S. cartridge-type fork, 120mm axle travel Rear Pro-Link with stepless rebound-adjustable gas-charged H.M.A.S. damper, 120mm axle travel
Brakes	Front 310 × 5mm dual hydraulic disc with Combined 3-piston callipers and sintered metal pads Rear 256 × 5mm hydraulic disc with Combined 3-piston calliper and sintered metal pads
Dry Weight	223kg

All specifications are provisional and subject to change without notice.