**LOGICAL ONE BTG**

A paragon of fine Swiss watchmaking, Logical One is Romain Gauthier’s Grand Prix de Genève-winning creation that contains a revolutionary snail cam and friction-minimising ruby-link chain, plus sapphire-lined mainspring barrel, to offer nearly two days of constant force – the holy grail of precision watchmaking.

Its beautifully hand-decorated, in-house movement can be admired dial side and through the display back, and is wound using an ergonomic winding pusher integrated into the caseband. It features hours and minutes on an off-centre subdial, small seconds, and a 46-hour power reserve indicator on the back.

Logical One BTG boasts a black ADLC titanium case and anthracite ADLC treated mainplate. The darkness of these elements superbly sets off the ink blue hour-minute subdial and small seconds made from oven-fired enamel. The blue enamel is slightly translucent, allowing the 18k white gold dial plate beneath to occasionally flash into sight.

Equally, the sleek case and mainplate form a neat contrast to the 18k white gold pusher and crown, the balance bridge and escape wheel bridge in bright palladium-treated brass, and the upper ‘bar’ bridge for the constant force system in light-hued natural titanium.

This piece gets its name from its **b**lack **t**itanium case and white **g**old crown and pusher. Like the blue enamel of the dial, the black ADLC (Amorphous Diamond-Like Carbon) on the case bears a subtle translucency. It not only looks great, but the ADLC also brings an extra hardness to the already hard-wearing titanium. The alligator leather strap is in casual matte black with light grey stitching.

Logical One BTG’s movement was conceived, developed, produced, decorated, assembled and regulated at Manufacture Romain Gauthier in the Vallée de Joux, Switzerland. The spectacular decoration includes hand-created and hand-polished rounded bevels, hand-frosting, snailing, straight-graining, circular-graining as well as hand-polished jewel countersinks.

Logical One BTG is a 5-piece limited edition.

**LOGICAL ONE IN DETAIL**

The majority of machines run on constant force: Cars and planes don’t start running more slowly as fuel runs low and machines receive the same voltage no matter how much electricity is produced. Yet, the power that runs and regulates most high-precision mechanical timepieces varies greatly according to the state of wind of the mainspring.

Constant force, or constant torque, is one of the holy grails of horology and with Logical One, Romain Gauthier has reinvented the chain-and-fusee − one of the oldest methods of supplying constant force to a horological movement − making it more reliable, more effective… and more constant.

Logical One’s pioneering, multi-patented in-house movement features Romain Gauthier’s 21st-century reinterpretation of a traditional chain-and-fusee style constant force mechanism, on display to the left of the hour-minute subdial.

Gauthier’s invention contains an innovative snail cam connected to the mainspring barrel by a ruby-link chain. With the snail cam and mainspring barrel configured so they are ‘flat’ – i.e. on the same plane – force is transmitted in a straight line for an ultra-efficient transfer of energy.

The relatively short length of the chain allows it to contain strong, generously sized links in steel featuring rollers made from low-friction, hard-wearing synthetic rubies. The chain is joined together via a smart snap-clip system.

To eliminate potential uneven friction within the mainspring barrel, Gauthier has placed the mainspring between synthetic sapphire plates. Sapphire has a low coefficient of friction with steel making it the ideal material to use.

Winding Logical One is a veritable tactile pleasure thanks to Romain Gauthier’s innovative push button winding system, with the pusher set into the caseband at 9 o’clock. Another demonstration of Gauthier’s clever engineering, the pusher efficiently transmits force to the barrel on the same plane. That the pusher protrudes just slightly from the caseband and follows the curve of the case is an aesthetic tour de force.

Virtually every component of the movement bears Roman Gauthier's distinctive touch: The highly visible balance wheel with curved arms and calibrated eccentric weights; the curvaceous balance bridge; bespoke gear wheels with graceful circular arms for maximum strength; hand-decorated bridges; high-efficiency profiles of the gear teeth; polished screw heads with s-slot for more torque; and Romain Gauthier-invented triangular pallet lever for maximum rigidity. All these elements can be admired dial side, while more of the movement can be viewed through the display back.

So accomplished is it that Logical One was awarded the prize for Best Men’s Complication watch by the jury of the 2013 Grand Prix d'Horlogerie de Genève – the Oscars of watchmaking.

**LOGICAL ONE BTG BY ROMAIN GAUTHIER**

**Technical Specifications**

**Edition**

ADLC titanium case with white gold pusher and crown featuring ADLC and palladium-treated movement – 5-piece limited edition

**Features and indications**

Hours, minutes, small seconds; 46-hour power reserve indicator; push-button winding; innovative chain-and-fusee style constant force system featuring snail cam and ruby-link chain

**Dial and hands**

Oven-fired blue enamel dial on an 18k white gold base complemented by 18k white gold hands and silvered numerals

**Movement and finishing**

Dimensions: 35.5mm x 10.5mm

Power reserve: 46 hours

Number of jewels: 63 in total, including 26 for the constant-force chain

Number of components: 359

Balance frequency: 28,800 vph / 4Hz

Movement components in: steel, stainless steel, beryllium copper, brass, titanium and German silver

4 patents: The specific composition and construction of the chain; the constant force system; the push-button winding system; and the high-efficiency profiles of the gear teeth

Finishing: Highest-level *haute horlogerie* finishing

**Case**

Case material: Black ADLC-treated Grade 5 titanium

Dimensions: 43mm x 14.2mm

Water resistance: 30m/3atm/100ft

Sapphire crystal with interior anti-reflection coating, front and display back

18k white gold crown for time setting at 2 o’clock

18k white gold crown push button for winding at 9 o’clock

**Strap and buckle**

Matte black alligator leather strap with light grey stitching, hand-stitched in Switzerland with 18k white gold pin buckle