Innovation has always been at the core of Casio’s endeavours. From Tadao Kashio’s earliest electronic calculators through to today’s GPS- and Bluetooth-equipped watches, the Japanese brand is one step ahead. But there’s one particular Casio innovation that has resonated with the sneakersphere like no other. On the eve of G-SHOCK’s 35th anniversary, with sales having just sailed past the 100 million mark, it’s time to take a look back at how a broken heirloom and one man’s vision produced the world’s first unbreakable watch.
As a young engineer in Casio’s watch department, Kikuo Ibe was aware that time was a precious commodity. His father had presented him with a valuable wristwatch, and he knew that using his time wisely would result in a lifetime of memorable minutes, hours and days. When the precious gift broke free of its buckle and shattered on impact, Kikuo Ibe was disconsolate. Yet the moment was an epiphany. Staring at the fragments on the floor, he realised something: the world needed an unbreakable watch. What he didn’t know then, of course, was that this was the jumping-off point for a revolution in timepiece technology.

Mr Ibe’s ambitious side project began as a solo assignment on top of an already heavy workload, but it quickly became a full-time obsession. He began by devising criteria for what he considered ‘absolute toughness’. Known as the ‘Triple 10’, the watch would have to withstand a drop from 10 metres, hold up under 10 atmospheres of water pressure and have a battery life of 10 years.

With approval from his superiors, Mr Ibe recruited a small crew that became known as Team Tough. Over two years, they threw more than 200 prototypes from the bathroom window on the third floor of Casio’s office. But no matter how much padding they used or which shock-absorbing material they chose, the delicate electronic modules never survived.

One day, Mr Ibe found himself sitting in a local park on the verge of abandoning the project. He was taking in the surrounding scenery when something unexpected caught his attention. A child was bouncing a ball on the hard ground. ‘Hmmm,’ thought Mr Ibe, ‘if the watch module was suspended inside a ball-like structure, maybe it would survive impact.’ It was the breakthrough moment he had been looking for.

The First G

After further experiments, the first G-SHOCK model hit the street – this time not literally – in 1983. The DW-5000 utilised Mr Ibe’s park-born inspiration by suspending the watch module inside a resin case. To protect the fragile parts inside the module itself, the same cushioning material was applied to specific points within the componentry. The resin case was designed with manifold protrusions that would protect the buttons and screen from any angle.

The original G-SHOCK was quickly adopted by anyone needing a tough watch to cope with a tough job. Military and emergency personnel, construction workers, miners and outdoors types all gravitated to the new Japanese brand. Encouraged by the success, Casio saw an opportunity to create even more specialised versions. These days it isn’t unusual for G-SHOCK to release 200 watches in a year, but back in the 80s, it took Mr Ibe two more years to perfect the rounded DW-5400 and dust-proof DW-5500. Four years after that, the first analogue G-SHOCK appeared.

Despite bold new watch designs and updated capabilities, the classic DW-5000 remained in high demand. After vanishing from the lineup for several seasons, the traditional square-bodied design was relaunched. 

DW-5000 prototype

Every G-SHOCK is tested to exacting standards

G-SHOCK tough!
‘Balance between each component is an important part of the design. The aspect ratio of the bezel and LCD display, size of font, engraving and even the connection between case and band – everything has to be balanced. If we lose this synchronicity, suddenly G-SHOCK loses its beauty and doesn’t look like the real thing. We call it the golden balance of 5600, it is a very delicate procedure.’

Mr Moriai, G-SHOCK Designer
in 1987. In keeping with Casio tradition, new releases were given a numerically ascending product code, so the revamped DW-5000 was christened the DW-5600.

In the early 90s, G-SHOCKs got bigger and bulkier as product engineers pushed into every conceivable heavy-duty scenario. Watches tuned for extreme cold weather and deep-sea diving arrived, along with solar-power capability and altitude sensors. The offering was expanding quickly and G-SHOCKs were suddenly available in a multitude of shapes, colours and sizes.

Despite the increasing tech demands of consumers, the purity of the original shape maintained the DW-5600’s relevance. When Keanu Reeves’ character wore the watch in 1994’s blockbuster Speed, a whole new audience was turned on to the utilitarian time-teller. The first high-vis resin case arrived with the DW-5600C-9B, while the famous bumper-bar protective grills arrived in 1996. Three years later, cloth straps were introduced, followed shortly after by the use of metal bands. Rather than being pensioned off as an obsolete curiosity, the DW-5600 was suddenly the staging-ground for innovation once again.

**Staple Diet**

The DW-5600 has been a staple in G-SHOCK’s offering for decades, but the design is much more than just a watch; it’s symbolic of the ‘absolute toughness’ mentality perfected by Casio. And it’s surprisingly played a pioneering role in developing sneaker culture today.

When G-SHOCK joined forces with Stüssy and BAPE in the early 90s, they were one of the first brands to embrace the idea of collaborative design. The nostalgic and cyclical nature of fashion has inspired many brands to favour the old-school shape of the DW-5600, ensuring the squared-off bezel has stayed in the spotlight.

**18 Karat**

In 2015, all eyes were on G-SHOCK when Mr Ibe unveiled his dream project. The solid 18-karat gold GW-5600 was intended as an exhibition piece, but it’s true G-SHOCK by every measure, including its reengineered shock-absorbing structure. Considering the production cost was rumoured to be $120,000, it’s not likely anyone will ever test this model’s ability to bounce from a height of 10 metres.

Dreams of heavy-metal DW-5600s have been rekindled this year with the release of the GMW-B5000. The latest evolution takes the model to a whole new dimension. The all-metal masterpiece hasn’t just been visually reengineered, the entire internal gadgetry was completely overhauled. Available in gold, silver and stealthed-out black, the model features the full suite of G-SHOCK tech. MultiBand 6 technology receives radio signals around the world to correct the displayed time accordingly. Bluetooth connectivity enables the watch to communicate with smartphones, sharing information and setting reminders. It can even log time and place data and display them on a map. And to feed all of these power-hungry functions, the face is laminated with a shadow-dispersing solar panel that can harness the power of the sun.

**The Empire**

It’s easy to see how the sturdy squared-off design of the DW-5000 and DW-5600 set G-SHOCK up for 35 years of relentless success. The enduring timepiece laid the groundwork for a global horological empire, all thanks to Mr Ibe’s vision of ‘absolute toughness’ and his unwavering dedication to the pursuit of perfection.
G-SHOCK’s history of product collaboration dates all the way back to the mid 1990s, predating the sneaker industry’s obsession with colabs by several years. Recent G-alumni in the streetwear world includes the likes of Alife, Supra, CLOT, Undefeated, Medicom and DGK, with Parra, atmos and Ta-Ku all favouring the DW-5600 as their collaborative model of choice.

When you break down the DW-5600’s legendary status, the most comparable sneaker that comes to mind is the Converse All Star. Classic, simple and totally timeless, the DW-5600 is a graceful design that will never go out of style.
In honour of the DW-5600, the new Full Metal series is an inspired choice as the headliner of G-SHOCK’s 35th anniversary. In addition to standard shock resistance and 200-metre waterproof capability, the series is loaded with the best in G-Tech. Bluetooth takes care of mobile connectivity, while Multi-Band 6, Tough Solar, world time-sync, five different alarms and the Super Illuminator LED make for an impressive suite of tech credentials.

Available in ion-plated gold or stainless silver, both models feature the solid screw-back, which takes the weight to a chunky 170 grams. In collaboration with Japanese luggage-maker Yoshida & Co, an all-black edition will reportedly retail for $1200, so get ready to flex the Amex!
As a G-SHOCK designer, I reference things that are seen as inherently masculine. Things like bulldozers, monster trucks, heavy machinery and wild beasts. These things don’t just look cool, they inspire me to explore new perspectives on toughness.

Every aspect of a G-SHOCK’s shape plays a role in protecting the watch from impact. We have never designed watches to simply look tough, we design them for ultimate protection. The shape of each watch has serious significance. There are no gimmicks.

Our customer service department heard from a man whose whole town was destroyed during the earthquake and subsequent tsunami that struck Tohoku in 2011. After the danger subsided he returned to sift through the rubble, where he found his G-SHOCK. It was muddy and scratched but it was still ticking! He was so impressed by the discovery that he felt some happiness, even after all that had happened.

The DW-5000 is the first G-SHOCK model, so it is essential to the company history. Today the DW-5600 is the watch that most people think of when they think G-SHOCK. We have a company policy of evolving the DW-5600 without altering the external shape. This is very important to our heritage. Standing up to the flow of time without changing the design is a tough challenge, but what’s tougher than G-SHOCK?

In every country, city and town, wherever you go, you will find people wearing G-SHOCK. Whenever I notice this fact, I am very touched and filled with happiness and joy.

Chief Designer of G-SHOCK

Ryusuke Moriai
Balance between each component is an important part of the design. The aspect ratio of the bezel and LCD display, size of font, engraving and even the connection between case and band – everything has to be balanced. If we lose this synchronicity, suddenly G-SHOCK loses its beauty and doesn’t look like the real thing. We call it the golden balance of 5600, it is a very delicate procedure.

The MRG-100 was the first full-metal, shock-resistant G-SHOCK. The structure and design were completely different than previous G watches, but the approach was consistent. We used a simple structure and the classic G-SHOCK shape to realise the final design.

The GMW-B5000 is a new design I am very proud of. It is simple on the outside, but complex on the inside. We did face some heavy-duty challenges developing the metal case. Since our policy is to never change the shape, we had to adopt a totally different shock-resistant structure. It was a very difficult developmental procedure.

As a designer, I think if we continue to pursue the concept of metal watches, it should be to take advantage of the material’s strong points. Every day we asked ourselves if it was worth doing. Even with the existing shape it was a difficult task that put us through a lot of hardship. Adding the Bluetooth function to the watch was not easy to accomplish either. The idea of ‘connection’ in itself is not where the value lies. The important thing is that the connection provides stress-free convenience.

From that viewpoint, we see the ultimate watch not as a stressful tech gadget, but more like your favourite pair of sneakers. Something that becomes part of your life and provides value through the simple act of wearing.

Some 35 years ago, we wouldn’t have imagined anyone other than an astronaut wearing G-SHOCK in space. But now, thanks to companies such as SpaceX, dreams of civilian space journeys are coming true. G-SHOCK has never been exclusively for specialists, so we dream of offering a watch that’s convenient for the average space traveller. That’s the kind of ‘SPACEMASTER’ we plan to launch in the future. The sky is the limit!

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18k Gold
Valued at over $120,000, the one-of-one 18k gold DW-5600 edition is easily the most expensive G-SHOCK of all time.

MR-G
1996: A compact and elegant design, MR-G was designed to fit easily under the sleeves of a formal suit or jacket. The metal case with a screwback made this chic series practically indestructible. While the first model still featured a resin bezel, the next versions were pure metal and most models featured a classy metal bracelet with solid links. The latest premium MR-G model features the newest GPS Hybrid Wave Ceptor technology.

18k Gold
Valued at over $120,000, the one-of-one 18k gold DW-5600 edition is easily the most expensive G-SHOCK of all time.