

G-SHOCK

GPW-1000

Casio Release World's First G-SHOCK That Receives both of GPS Signals and Radio Wave Time-Calibration Signals

Keeps Accurate Time in the Harshest of Environments



GPW-1000

Norderstedt, February 2015 – Casio Computer Co., Ltd. today introduced the G-SHOCK GPW-1000 watch, marking the development and incorporation of the world's first*¹ hybrid time keeping system that receives both Global Positioning System (GPS) signals and radio wave time-calibration signals transmitted from six stations worldwide.

*¹ As of June 30, 2014 based on survey by Casio.

The first G-SHOCK was born in 1983 out of an engineer's passion for creating an "unbreakable watch," challenging the common notion of the wristwatch. Since then, the G-SHOCK series has continued to evolve over time by incorporating advanced technology and capturing trends based on a platform of toughness, to offer features, performance, and design that surpass the imagination of users.

The GPW-1000 watch was developed to realize the ultimate in toughness through refinements in accuracy and durability drawing on Casio technology. The watch offers unsurpassed toughness combined with the world's first hybrid time keeping system. From dense forest to desert dunes, in marine environments or surrounded by buildings or indoors, the GPW-1000 keeps accurate time anywhere in the world by

receiving GPS signals and radio wave time-calibration signals transmitted from six stations worldwide.

The watch uses ultra-small motors for the hand drive mechanism, to secure the space to mount the hybrid time keeping system. To compensate for increased power consumption, the Casio G-SHOCK GPW-1000 features a new low-power consumption, high-performance GPS LSI, as well as a new shape of solar cell with high-efficiency output. Other features include a ceramic GPS antenna and fine resin case for high signal sensitivity and shock resistance.

The Triple G Resist construction features a reinforced construction to resist shocks, centrifugal force, and vibrations. A high strength and durability carbon fiber insert band, and bezel with scratch-resistant DLC coating ensure a level of toughness to withstand the harshest of environments.

Model	Color
GPW-1000-1A/1B/4A	Blue/Black/Orange

Main Features of the GPW-1000 Series

Ultimate in accurate time keeping, all the time

■ **Receives GPS signals for accurate time and automatic daylight savings adjustment**
Obtains location and time information using GPS signals. The watch references internal global map data in 500-meter resolution grids, to automatically adjust to the local time zone based on location information, and correct for daylight savings.

■ **Receives radio wave time-calibration signals for accurate time, even when indoors**
Receives radio wave time-calibration signals transmitted from six stations worldwide (two in Japan and one each in North America, UK, Germany, and China). In coverage areas, the watch receives radio wave time-calibration signals and displays accurate time, even when indoors or surrounded by buildings.

■ **Hybrid system displays accurate time anywhere in the world**
Casio developed an algorithm that uses the location information based on GPS signals and radio wave time-calibration signals transmitted from six stations worldwide. Location information is analyzed using GPS signals. Receiving time information is prioritized by radio wave signals in radio wave coverage areas, and GPS signals in non-coverage areas.

■ Easy- to-use hybrid system

Keeps time automatically using GPS signals and radio wave time-calibration signals. GPS signals are received when relocating to a place with GPS signal coverage, while radio wave time-calibration signals are received at night. When traveling abroad to a different time zone, simply press a button to quickly obtain the current location. It takes just seven seconds to a minute for the watch to get accurate time from GPS signal time information. The watch achieves high performance and advanced usability in a package that users will appreciate for a long time.

■ Dual time display for traveling abroad

Dual time simultaneously displays the time in two separate cities. View the current local time and second time at a glance from the minute/hour hands and inset dial, which is useful when travelling abroad.

Ultimate toughness in the harshest of environments

■ Advanced Triple G Resist construction

The new watch employs Triple G Resist construction to withstand shocks, centrifugal force, and vibrations, delivering the toughness expected of a G-SHOCK watch with accurate time anywhere in the world.

■ Durable carbon fiber insert band

The carbon fiber insert band features a resin band reinforced by an insert made of carbon fiber, offering the strength and durability to last.

■ Scratch-resistant DLC coating

The metal bezel features a hard diamond-like carbon (DLC) coating that is both scratch resistant and sophisticated looking.

Technologies for toughness and hybrid time keeping

■ GPS signal sensitivity and toughness

The watch features a ceramic circular polarized antenna to receive GPS signals together with an enlarged dial, making it sensitive enough to be able to receive time information as long as it is facing even slightly up. The case frame is reinforced with strengthened fine resin so that the enlarged dial can be housed without increasing the case size. These refinements achieve the toughness that is expected in a G-SHOCK watch, in a modest size.

■ Module with built-in GPS antenna

The watch employs an ultra-small motor for the movement which drives the hands, creating the space for the GPS antenna and LSI. The GPS antenna, GPS LSI, and ultra-small movement are contained in a single module to achieve tough Triple G Resist construction.

■ Low power consumption

Features shadow-dispersing solar cells that efficiently receive light and a low-power GPS LSI, for efficient supply of power. Solar drive enables the watch to receive GPS signals, so users do not have to worry about battery drain. The low power consumption design made it possible to employ high-luminosity LEDs, making the watch even more practical.

Lineup of GPW-1000 Watches



GPW-1000-1A



GPW-1000-1B



GPW-1000-4A

Specifications

Construction	Shock-resistant; resistance to centrifugal gravitational force; vibration resistant
Water Resistance	200 meters
GPS Signal Frequency	1575.42MHz
Radio Frequency	77.5 kHz (DCF77: Germany); 60 kHz (MSF: UK); 60 kHz (WWVB: USA); 40 kHz (JJY: Fukushima, Japan) / 60 kHz (JJY: Kyushu, Japan); 68.5 kHz (BPC: China)
GPS Signal Reception	time-calibration (auto ^{*2} , manual); acquisition of position information (manual) <small>*2 GPS signals are received automatically when the watch recognized that the place is area of GPS signal.</small>
Radio Wave Reception	Automatic reception up to six times a day (except for use in China: up to five times a day)
World Time	27 cities (40 time zones, daylight saving on/off) and Coordinated Universal Time
Stopwatch	1/20-second stopwatch; measuring capacity: 24 minutes; elapsed time; split time, 1st and 2nd place times
Countdown Timer	Measuring unit: 1 second (maximum 24 hours)
Alarm	1 independent daily alarm

Other Functions	Full auto-calendar; 12/24-hour format; battery level indicator; LED light with afterglow:3.0 seconds;
Power Source	Tough Solar power system (solar-charging system)
Continuous Operation	About 18 months with the power-saving function* ³ ON after full charge <small>*3 Power-saving after a certain period in a dark location</small>
Size of Case	66.0 × 56.0× 18.1 mm
Total Weight	Approx. 126 g

ABOUT G-SHOCK

G-SHOCK started with the idea and desire to create an indestructible watch. Engineers at CASIO followed the 'triple 10' concept which states that a watch should survive a fall from a height of 10 metres, withstand water pressure of 10 bar and should have a life span of 10 years on a single battery.

G-SHOCK has remained true to this concept and has been perfecting and continuously developing its G-SHOCK models since its launch in 1983.

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