

We take a detailed look at Glashütte Original's PanoMaticCounter XL, with its unconventional dial design and innovative counter function.

BY MARTINA RICHTER

PHOTOS BY ZUCKERFABRIK FOTODESIGN

COUNTER INTELLIGENCE



Like other watches in Glashütte Original's Pano-XL collection, the PanoMaticCounter XL has an unconventionally designed dial that might require the wearer to take a second glance to figure out exactly what its horological attributes are. The presence of a chronograph can be inferred by scrutinizing the upper portion of the dial, where a large ring occupies a plane above the level of the main dial. On its periphery it bears a wreath of numerals and strokes for the elapsed seconds, which are tallied not by pressing the button at 2 o'clock, as they would be on most standard chronographs, but by triggering the one at 4 o'clock. The subdial for the elapsed minutes also occupies an unusual position, toward the right of this raised ring, while the running seconds are recorded on another subdial at the left. Even the display for hours and minutes is in an odd location, below the dial's center on its lower portion. Glashütte Original's familiar big date display, with white digits on a black background, is at 3 o'clock, and at first glance, it appears that the watch has a second date window, with red digits, opposite the first, at 9 o'clock.

However, a closer look reveals that the latter window shows not a redundant date function but a manually operated counter, independent of the watch's movement, which can tally from



CLOSE-UP

Glashütte Original PanoMaticCounter XL

The right flank of the case (top) has the winding crown and the two buttons for the chronograph; the left side (bottom) has the three pushers used to operate the counter function.



“00” to “99” units. It is, in fact, a very versatile complication: for example, the wearer can use it to keep track of the current month by simply advancing the counter before going to bed on the last day of each month. It is actually simpler to advance this counter from “02” to “03” than it is to adjust the date display from February 28 to March 1: manual adjustment of the large date requires the operation of an inset button in the case or the use of a corrector stylus or other auxiliary aid. You can also use the counter to keep track of the week (“00” to “52”). But the counter need not be used as a calendar function: it offers the ability to count many items unrelated to time measurement. This clever little mechanism, most of which is ensconced beneath the dial, combines 217 parts, including wheels, screws, levers, springs, disks, etc.

Operating the counter, however, can be a bit confusing at first. Right-handed people, who would most likely wear the PanoMaticCounter XL on their left wrist, would instinctively follow the most ergonomically convenient route to attempt to start the counter, going for the lower button at 8 o'clock. That button instead moves the double-disk display backwards (from “00” to “99,” for example). Pressing the upper button at 10 o'clock, the next logical option, will instantly return the counter from any two-digit number to “00.” It is the middle button at 9 o'clock that advances the counter's display, i.e., from “00” to “01.”

For this reason, it is important to pay attention to the markings on the dial's flange, which are in the same red color as the digits, rather than going by intuition. Unfortunately, the “PLUS” indication at 9 o'clock is difficult to read and the “MINUS” at 8 o'clock is inexplicably inverted. The “ZERO” appears at 10 o'clock. The plus and minus buttons clearly differ from the zero-reset button in both their size and design: they're much larger, they protrude farther beyond the flank of the case, and the broad upper surface of each is fluted to prevent the user's thumb from slipping off.

WHETHER YOU REGARD the PanoMaticCounter XL's counter function as toy or technological artistry, and even if you happen to press the wrong button now and then, it is always fun to operate. Its slight yet noticeable resistance to a thumb's pressure testifies to its top-notch construction; the switching of the numbered disks adds interest and excitement to the dial; and unlike the little red words on the dial's flange, the digits on the counter display's disks are very easy to read.

The visual complement to the counter is the outsize date display (which Glashütte Original calls a “panoramic date”), a signature feature of this German brand. The element that makes it distinct from other large dates is that its rotating disks are coplanar. That means that a middle bar between digits in the date window, which other brands use to conceal the height difference between the two disks, is unnecessary here. When the watch is running, the date display automatically advances shortly before midnight — about two minutes before, to be exact. To adjust the date manually, you can simply press the button above the crown on the right-hand side of the case. This means that the

SPECS

GLASHÜTTE ORIGINAL PANOMATICOUNTER XL

Manufacturer: Glashütter Uhrenbetrieb GmbH, Altenberger Strasse 1, D-01768, Glashütte, Germany

Reference number: 96-01-02-02-04

Functions: Hours, minutes, small seconds, chronograph with stop-seconds function and stop-minutes function, flyback, panoramic date, counter

Movement: Caliber 96-01, based on Caliber 95, automatic; 28,800 vph; 72 jewels; diameter = 32.2 mm; height = 8.9 mm; Glucydur screw balance; flat Nivarox hairspring; Incabloc shock absorption; swan's neck fine adjustment with finely threaded spindle; 42-hour power reserve; decorated with Glashütte waves, circular graining and satin finishing; beveled edges; skeletonized rotor; blued, polished screws; module for outsize date, module unconnected to movement for counter function

Case: Stainless steel; nonreflective sapphire crystal in front and sapphire caseback with nonreflective inner surface; water-resistant to 50 meters

Strap and clasp: Louisiana alligator skin, double-folding steel clasp with pressure-operated closure

Dimensions: Diameter = 44 mm, height = 16 mm, weight = 145 grams

Price: \$25,100

Pros

- + Manufacture caliber/complication
- + Good rate values, with or without chronograph on
- + Unconventional design
- + Superior quality of case and clasp
- + Good wearing comfort

Cons

- Legibility of some functions is limited
- Operating the counter and chronograph requires practice
- High price

CLOSE-UP

Glashütte Original PanoMaticCounter XL

The transparent caseback offers an excellent view of the chronograph mechanism.

crown, which is fluted along its sides, is used only to manually wind the movement and, when it is pulled out, to set the hour and minute hands. The large crown makes both operations very user-friendly.

The chronograph's buttons are positioned to the right and left of the crown. As with the counter buttons, there are words on the flange — here, in white lettering — to help the wearer figure out the unconventional placement of the stopwatch functions. “FLY BACK” is spelled out at 2 o'clock and “START/STOP” (like the “MINUS,” oddly inverted) at 4 o'clock. The button at 2 o'clock, which most would instinctively reach for to start and stop the chronograph, is instead used to activate the watch's flyback function — the quick return to zero of the chrono's elapsed-time hands and their instantaneous resumption of motion. Wearers will need to get used to starting and stopping the chronograph with the lower button, at 4 o'clock.

After starting the chronograph, the eye-catching elapsed-seconds hand, with Glashütte Original's double-G logo serving as a counterweight on its short end, begins to sweep in the upper portion of the dial. Stopping and restarting this hand by pressing the button at 4 o'clock reveals that the chronograph mechanism doesn't use vertical friction coupling because the elapsed-seconds hand first executes a noticeable backward motion, especially when it's restarted. This could also be the reason why the elapsed-seconds display isn't subdivided into smaller intervals, so at least we can't make any mistakes with its scale. Finer increments — that is, fractions of elapsed seconds — would require extremely slender and very closely spaced strokes, which would be more difficult to read.

ONE LEVEL BELOW the elapsed-seconds ring and toward its right-hand side, a subdial tallies the chronograph's elapsed minutes. But instead of occupying its usual location at 12 o'clock, the zero position for counting the minutes has been shifted 60 degrees counterclockwise. This means that five minutes have already elapsed when this subdial's hand reaches the position where you'd expect to find a zero. Glashütte Original claims this unusual positioning improves the subdial's legibility. That's true, especially if you want to be certain that the hand is indeed pointing to zero or to make sure that the chronograph is switched off. But legibility in the areas of five and 20 elapsed minutes is difficult, if not impossible, because the elapsed-seconds ring overlaps the markings on the elapsed-minutes subdial in these two spots. A similar problem occurs at the other end of the imagined diameter, where the large ring crosses over the subdial for the running seconds. The calibrations on this subdial are shifted 60 degrees clockwise: this not only gives the dial symmetry, but it is also im-

THE HOURS-
AND-MINUTES
SUBDIAL FORMS
A FIGURE EIGHT
WITH THE
CHRONOGRAPH
SECONDS
COUNTER.

portant because it enables the user to set the watch with to-the-second accuracy. Unfortunately, the small-seconds scale is unreadable from 17 to 23 seconds and from 47 to 53 seconds because of the overlap. Everywhere else along the periphery of this subdial, finely drawn strokes for the seconds, slightly broader strokes for five-second intervals and digits for units of 10 seconds (0, 10, 30 and 40, in Arabic numerals) are easy to read against a circularly guilloché-embellished background. The little steel hand, however, isn't always easy to see. Ditto for the hand on the elapsed-minutes subdial, although the scale here, as on the small seconds subdial, is clearly legible and conveniently punctuated by Arabic numerals at the 5-, 10-, 15- and 25-minute positions. The indices between these numerals are also easily visible. The result is a harmoniously designed ensemble, but with less than ideal legibility.

While we're on the subject of the dial, we shouldn't forget to mention the main display — the large subdial for the ordinary hours and minutes. This indicator has been repositioned downward along the vertical axis into the lower portion of the dial. It does not dominate the stage but is not upstaged by the other elements, either. From an aesthetic standpoint, it also combines with the elapsed-seconds indicator above it to form a harmonious figure eight.

Like the subdials for the running seconds and chronograph minutes, the hours-and-minutes disk is inset slightly below the



The pressure-activated folding clasp has an asymmetrical design that ensures a good hold on the wrist, and the buttons make it easy to open.

CLOSE-UP

Glashütte Original PanoMaticCounter XL

*WEARERS WILL
NEED TO GET
USED TO
STARTING AND
STOPPING THE
CHRONO WITH
THE LOWER
BUTTON.*



Printed on two disks that rotate under the dial, the counter's bright red digits appear in a window at 9 o'clock.

plane of the main dial and is decorated with a circular guilloché pattern. Within the circle of 60 minute markings around its periphery, there is a smaller wreath of markers for the hours: it consists of eight gleaming, white-gold indices and four applied, white-gold Arabic numerals (3, 6, 9 and 12). Unfortunately, only the 12 is always easy to identify: the other three numerals tend to blur into indefinable objects depending on the lighting. Their thick, bulging typeface doesn't contribute to the legibility, either. Perhaps there simply isn't enough space for such large elements on a subdial. On the other hand, these polished, curved appliqué's reflect incoming light, so the time display is always easy to find against the black galvanized background of the dial.

The alpha-shaped, white-gold hands and the 12 dots, all of which are white in daylight and brightly luminous at night, also aid in legibility. However, the exact reading of the minutes temporarily becomes a guessing game at the two locations on the hours-and-minutes subdial where the elapsed-seconds ring overlaps its peripheral scale. This isn't a problem for the hour hand, whose tip barely overlaps the numerals, but the tip of the minute hand reaches nearly to the outer edges of the white minute strokes.

The unusual time indicators, the chronograph function with a flyback mechanism, and the outside date display are all familiar features from the PanomaticChrono, which originated with Glashütte Original's *manufacture* Caliber 95 from 2004, a movement with 367 components. The addition of the counter function in the new Caliber 96-01, which uses Caliber 95 as its base, increases the total number of parts to 584. Although the counter isn't connected to the timekeeping movement, it looks very much like a part of it. Glashütte Original crafts each part of its counter mechanism to meet the same standards that it upholds for the components of the base caliber. One visible expression of this is the seamless and gradual shifting of the counter's numbered disks, which cover components that have received the same ultra-fine finishing lavished on the parts of the main movement.

The timekeeping movement boasts polished steel elements; beveled edges on flat parts; blued, polished screws; a Glashütte three-quarters plate with its distinctive banded pattern and, naturally, an engraved balance cock, the "must" feature on every Glashütte watch. Beneath the cock is the hoop of the balance, which bears 18 golden weight screws, and above it is a slender swan's neck spring with a threaded spindle to finely adjust the movement.

THE RATE OF Caliber 96-01 is finely adjusted, indeed. Our timing machine discovered that the fully wound watch gained an average of only 1.6 seconds per day, without losing either rate or amplitude when the chronograph mechanism was allowed to run together with the timekeeping movement. Worn on the wrist, the PanoMaticCounter XL posted a daily gain between one and three seconds, again performing with an average daily rate deviation of just +1.6 seconds. Only after it has run for 24 hours does the rate performance begin to decline: the

watch loses 1.3 seconds per day and the amplitude occasionally suffers noticeable declines.

This underscores the value of this movement's well-thought-out self-winding mechanism: a bidirectional winding system transfers force to two barrels, which store enough energy for a power reserve of at least 42 hours. A patented, multi-step transmission guarantees ideal transfer of energy from the rotor to the two serially connected barrels: via a fast gear ratio, the bidirectionally effective rotor quickly conveys a large amount of energy to the barrels for a large enough moment of inertia to ensure steady amplitude. Afterward, the rotor winds the barrels via a slower translation and in only one direction of rotation. This twofold system ensures a constant level of tension in the mainsprings and thus a highly accurate rate, which was confirmed by the values we measured when the watch was fully wound. The self-winding mechanism also ensures that the mainsprings and gear train are not subjected to excessive strain.

THE ROTOR IS TYPICAL "Glashütte," with a skeletonized double-G logo in its oscillating body and a 21k-gold piece screwed to its periphery. A well-shaped automatic bridge provides plenty of room to view the movement or, to be more precise, the chronograph mechanism, which, as is usual in integrated constructions, is mounted on the back side of the movement. A watch-savvy observer will recognize the long lever that stretches from the starting button of the chronograph to the six-pillared column wheel, as well as notice how the connecting wheel swings in and out between the base movement and the chronograph's mechanism, i.e., between the fourth wheel and the stop-seconds wheel. He will also admire the action of the heart lever when the chronograph is reset to zero or the flyback function is triggered.

The transparent pane of sapphire crystal in the caseback, which provides this view of the movement, is affixed to the case by five screws. Its inner surface has nonreflective treatment. The sapphire crystal above the dial has nonreflective treatment on both its surfaces. The two crystals form the top and bottom of a 44-mm-diameter, 16-mm-thick stainless-steel case. Such stately dimensions are necessary because of the complex mechanisms inside the case, which has glossy, polished surfaces and a stepped bezel around the upper crystal. The lugs extend from the middle part of the case and continue downward far enough for the watch to be worn comfortably by people with slimmer wrists.

Each pair of lugs provides a secure mooring for the ends of a high-quality, hand-sewn Louisiana alligator-skin strap, which has a sturdy, double-folding clasp at its other end. Unlike the case, the clasp is mostly matte, with satin finishing; only the sides, buttons and edges have a glossy polish. The double-G logo is engraved into the clasp, which closes firmly and has an asymmetrical design that keeps the 145-gram timepiece secure on the wrist. The clever system for opening the folding clasp emits a quiet but pleasing cracking sound when it snaps shut. ○