

FINGER ON THE PULSAR

Following the 1970s Quartz Crisis, battery-powered timepieces were considered wholly undesirable by the watch collecting community at large. But dismissing all quartz watches as horology's detritus is to overlook some of the most compelling modern wristwatches around. Please step forward the Pulsar P-series.

BY ALAN SEYMOUR



Developed by the Hamilton Watch Company and its sub-contractor Electro/Data Inc and launched in 1972, the inaugural Pulsar P1 was the original electronic digital watch and one of the first consumer products to use a type of circuit chip. The Pulsar project started in earnest in 1969, when Hamilton engineer John Bergey enlisted the help of fellow engineers George Thiess and Willy Crabtree of Texas-based Electro/Data. A year later, Bergey filed a patent for a “solid-state watch which requires no moving parts for timekeeping and display”, a watch that would eventually become the P1.

Hamilton quickly announced its ground-breaking work in a press conference, which featured three functioning prototypes. According to hearsay, the prototypes drained their batteries so quickly that the display

model had to be subtly switched between the three during the one-hour presentation.

It would take another two years of research and development to produce a consumer-ready timepiece, during which time the Hamilton Watch Company ran into major financial difficulties and had to restructure itself into Hamilton Metals Wallace (HMW). The Hamilton watch brand continued as a subsidiary of HMW and the Pulsar project was assigned to the newly-formed Time Computer Inc. subdivision, with Bergey as its president. The Hamilton brand was eventually acquired in 1974 by the Société Suisse pour l'Industrie Horlogère (now the Swatch Group) and saved from extinction. Not included in the sale, however, was Time Computer Inc./Pulsar, which HMW chose to retain and continue operating itself.

MODERN TIMES

Approximately 400 examples of the avant-garde Pulsar P1 were produced, each boasting solid yellow-gold construction and a price tag of \$2,100 (more than the average family car at that time). Powered with two button-cell batteries, time was displayed on the P1 using red LEDs (light-emitting diodes) behind a synthetic ruby crystal. These emit light when a current is applied to the diode's leads. The electrons recombine with electron holes within the device and, thus, release energy in the form of photons. This lighting effect is called electroluminescence.

A push of the button located at the bottom of the case would illuminate the hours and minutes, while continued pushing, for precisely 1.25 seconds, would reveal running seconds. The time was set with a loose P-shaped magnet – or

“timeset bar”, as Pulsar referred to it – using two grooves found on the right of the P1's watchcase. One simply removed the magnet from its storage-hatch in the bracelet's deployant clasp and placed it onto the top groove to cycle through hours and on the bottom groove to zero the seconds and adjust the minutes, breaking contact once the display counted around to the desired time.

Despite its elevated price tag, upon its 4 April release, the P1 was a sell-out success, with customers including the likes of Elvis Presley, the Shah of Iran, Emperor Haile Selassie of Ethiopia, Sammy Davis Jr and Yul Brynner. According to author Don Sauers' tome, *Time for America: Hamilton Watch 1892–1992*, Selassie was so impressed by his P1 that he granted Hamilton a “Certificate of Excellence”. Davis Jr was so distraught after his P1 was stolen that he had retailer

T-Bird Jewels in Las Vegas call Hamilton for an immediate replacement. Rumours, too, circulated that one of then-US President Nixon's daughters popped into Tiffany's to buy a P1 as a gift for her father.

The Pulsar P1 was something wholly original in the world of horology, and after 400-odd years of analogue mechanical watches, a breath of fresh air for the progressive 1970s consumer. It was the automobile to the horse-drawn carriage, the mobile phone to the landline, the jet engine to the piston – it was a new way of doing something old.

There were, however, teething problems. The original “25-chip” modules used to drive the P1 were found to have major design flaws: over 400 hand-soldered points of connection were used between the circuit chips, each creating a possible point of failure, and many did. The watches were recalled

and the 25-chip modules were replaced with an improved, single-integrated-chip-module developed for the follow-up P2 watch. Today, original P1s are exceptionally rare, with only a handful known still to be in existence. General damage and loss, as well as melting down the gold for scrap in the 1980s and 1990s, claimed many P1s. However, one surviving example can be found in the collection of the Smithsonian Institution in Washington DC.

Opposite page:
Pulsar P1.

This page, clockwise from far left: Sammy Davis Jr. wearing a P1; Gianni Agnelli wearing his P2 in signature over-the-cuff style; Roger Moore with Madeline Smith in *Live and Let Die*, (1973).



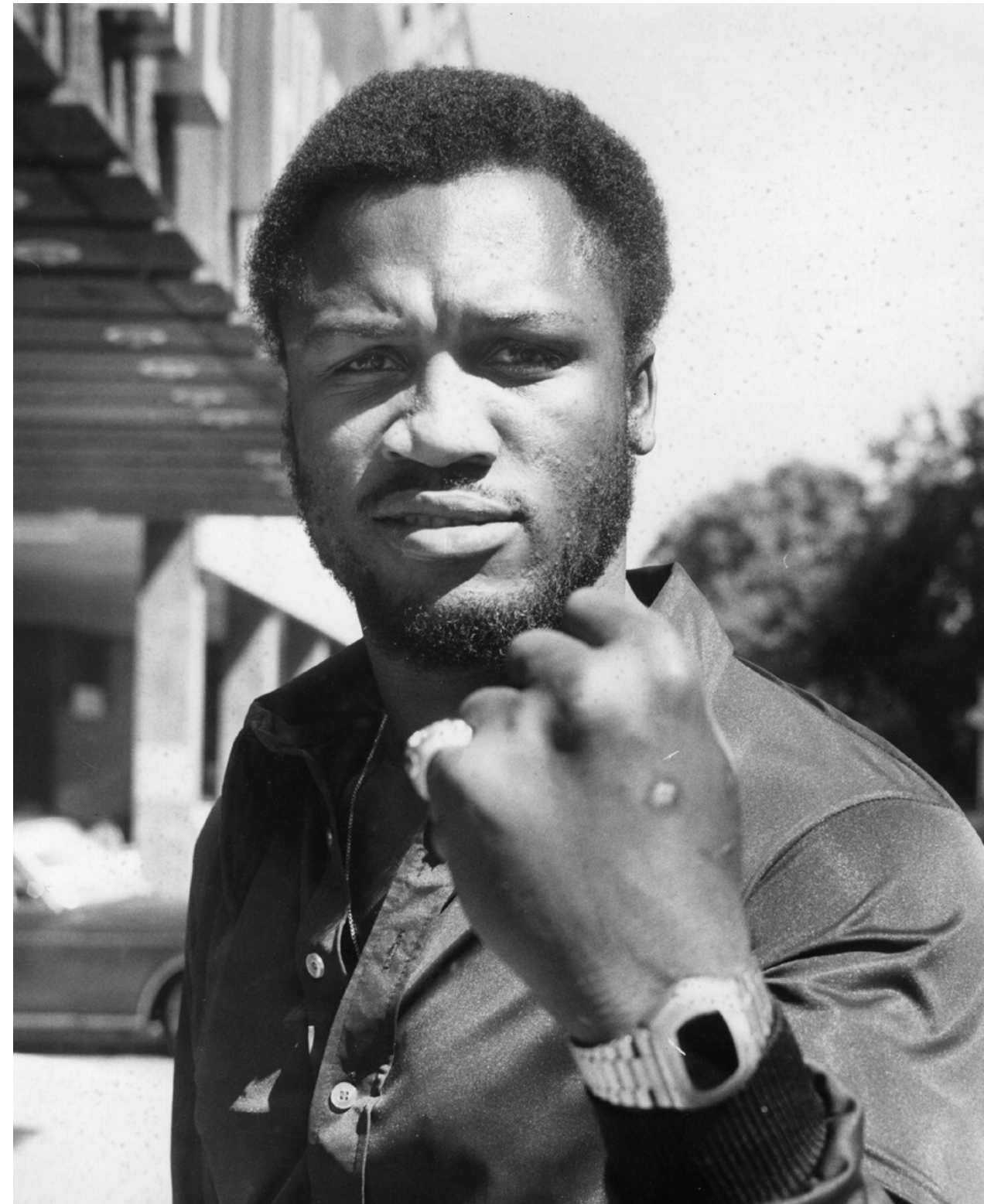


The P2 rapidly became the period's must-have watch, with wearers including Keith Richards, Jack Nicholson, Peter Sellers, Elton John and "Smokin'" Joe Frazier. If you didn't have a Pulsar P2, you were a nobody.

SECOND GENERATION

The Pulsar P2 reached the market in 1973 and, unlike the P1, was reliable and produced in relatively large numbers. Priced at the time at a more reasonable \$275 for the steel "Astronaut" version (still more expensive than a steel Rolex Submariner), the P2 continued to use LEDs, the wonderfully eccentric timeset bar, and the push-to-display function of its predecessor. It did, however, feature a slightly more rounded case shape than the P1, a conventional mineral crystal instead of synthetic ruby and a pusher located more conventionally on the right-hand side of the case.

A P2 Date model was also available, with an additional pusher on the left to operate the date function. Alongside the steel model were the gold-filled "VIP" priced at \$375 and special-order solid 14ct- and 18ct-gold versions; the latter was priced at a P1-matching \$2,100. Of additional note are the versions with crystals co-signed by retailers Tiffany & Co. and Neiman Marcus.



This spread, clockwise from far left: Keith Richards and his P2 on stage with Mick Jagger in 1973; Joe Frazier in 1973, wearing a P2; The Pulsar P2.

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The P2 rapidly became the period's must-have watch, with wearers including Keith Richards, Jack Nicholson, Peter Sellers, Elton John and Gianni Agnelli. Notably, Roger Moore's James Bond wore one and consulted it in *Live and Let Die* (1973), while boxing great "Smokin'" Joe Frazier was pictured wearing his when showing off his devastating, hook-swinging left hand in the run-up to his 1973 fight with Joe Bugner. If you didn't have a Pulsar P2, you were a nobody.

Soon, everyone from Bulova to Hewlett Packard jumped on the LED watch bandwagon but, despite the competition, Pulsar remained the irrefutable leader of the LED-pack. To keep up with demand, tens of new LED Pulsar models were released throughout the mid-1970s, including the Calculator model and the P3 Date Command model with "lobster" bracelet, the Pulse/Time model capable of reading one's heart rate, sports models, "flick of the wrist" activated models and ladies' models.

But, by 1977, the LED bubble had burst. Advances in LCD (Liquid Crystal Display) technology facilitated the production of cheap mass-market digital watches, phasing out the expensive and less-efficient, battery-draining LED watches. The digital electronic watch was no longer a status symbol and by 1978, with sales plummeting, HMW made the decision to liquidate Time Computer Inc./Pulsar, selling the brand name to Seiko, which uses the Pulsar name to this day for a collection of predominately analogue entry-level watches.



This spread, clockwise from far left: The Who's John Entwistle and his P3; a Pulsar Calculator Watch, sold by Antiquorum; President Gerald R. Ford wears a Pulsar P3 in the White House barbershop, while talking to Chief of Staff Donald Rumsfeld in 1975; Elton John sporting a P3.



Collectors, on the other hand, can forgive and forget. There seems to be something of a renewed interest in the Pulsar P-series. Prices are creeping up and buyers are starting to take notice of these long-neglected watches. With their modernist design, historical importance and celebrity connections, a revival is definitely overdue. Or, in the words of LL Cool J: "Don't call it a comeback. I've been here for years." ★