

Now...the most
exciting Sinclair kit ever

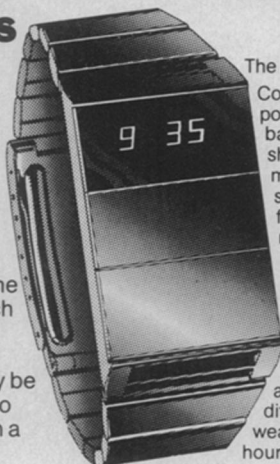
The Black Watch kit

At \$31.95, its

★ **practical** – easily built by anyone in an evening's straightforward assembly.

★ **complete** – right down to strap and batteries.

★ **guaranteed.** A correctly-assembled watch is guaranteed for a year. It works as soon as you put the batteries in. On a built watch we guarantee an accuracy within a second a day – but building it yourself you may be able to adjust the trimmer to achieve an accuracy within a second a week.



The Black Watch by Sinclair is unique.

Controlled by a quartz crystal... powered by two hearing aid batteries... using bright red LEDs to show hours and minutes and minutes and seconds... it's also styled in the cool prestige Sinclair fashion: no knobs, no buttons, no flash.

The Black Watch kit is unique, too. It's rational – Sinclair have reduced the separate components to just four.

It's simple – anybody who can use a soldering iron can assemble a Black Watch without difficulty. From opening the kit to wearing the watch is a couple of hours' work.

The Black Watch – using the unique Sinclair-designed state-of-the-art IC.

The chip...

The heart of the Black Watch is a unique IC designed by Sinclair and custom-built for them using state-of-the-art technology – integrated injection logic.

This chip of silicon measures only 3 mm x 3 mm and contains over 2000 transistors. The circuit includes

- a) reference oscillator
- b) divider chain
- c) decoder circuits
- d) display inhibit circuits
- e) display driving circuits.

The chip is totally designed and manufactured in the UK, and is the first design to incorporate all circuitry for a digital watch on a single chip.

...and how it works

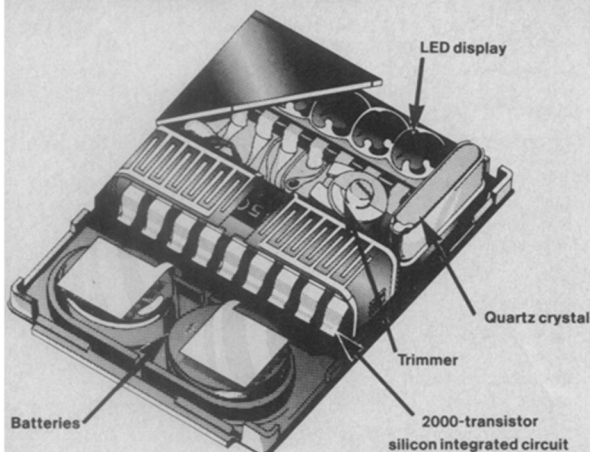
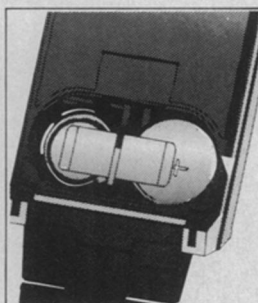
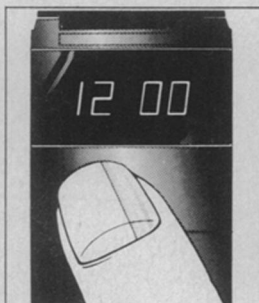
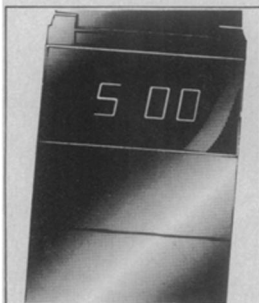
A crystal-controlled reference is used to drive a chain of 15 binary dividers which reduce the frequency from 32,768 Hz to 1 Hz. This accurate signal is then counted into units of seconds, minutes, and hours, and on request the stored information is processed by the decoders and display drivers to feed the four 7-segment LED displays. When the display is not in operation, special power-saving circuits on the chip reduce current consumption to only a few microamps.

The special features of The Black Watch

Smooth, chunky, matt-black case, with black strap. (Black stainless-steel bracelet available as extra – see order form.)

Large, bright, red display – easily read at night. Touch-and-see case – no unprofessional buttons.

Runs on two hearing-aid batteries (supplied). Change your batteries yourself – no expensive jeweller's service.



Complete kit

\$31.95

The kit contains

1. printed circuit board
2. unique Sinclair-designed IC
3. encapsulated quartz crystal
4. trimmer
5. capacitor
6. LED display
7. 2-part case with window in position
8. batteries
9. battery-clip
10. black strap (black stainless-steel bracelet optional extra – see order form)
11. full instructions for building and use.

All you provide is a fine soldering iron and a pair of cutters. If you've any queries or problems in building, ring or write to the Sinclair service department for help.

BLACK WATCH COUPON

TO: POLYTRONIX
c/o Science News, Dept. W-1
1719 N Street, N.W.
Washington, D.C. 20036

Please send me _____ BLACK WATCH KITS at \$31.95, plus \$3.50 for shipping, handling and insurance. All kits shipped complete with easy to assemble instructions. Nothing extra to buy.

Sinclair Service Department in New York City available for warranty repairs or assembly assistance. (212) 688-6623

Please send _____ Stainless Steel Watch Bands at \$3.95. Factory built Black Watch available at \$49.95. Please send _____ plus \$3.50 for shipping.

Please allow 4-6 weeks for shipment. NJ residents please add sales tax. Checks must be payable to POLYTRONIX.

Due to the uniqueness of this offer, we cannot make refunds.