

C80 Sector Series

O W N E R ' S H A N D B O O K

Time on your side...

Your Christopher Ward watch has been designed and engineered by highly talented craftspeople to ensure not only accurate and precise timekeeping but also to bring a real pride of ownership that only luxury items of the highest quality can ever hope to deliver.

You have made an investment, a good one, and the aim of this handbook is to help you make the most of that investment during what I hope will be a lifetime of ownership.

A handwritten signature in black ink that reads "Chris". The letters are fluid and cursive, with a prominent loop at the start of the "C".

Christopher Ward

Caring for your Christopher Ward automatic watch

Your C80 Sector is constructed from the finest components and materials available including one of Switzerland's finest automatic movements. As with all mechanical watches of this quality, with just a little care, it has the potential to become an heirloom piece giving further joy to future generations.

Here are a few hints to help keep your watch working perfectly over the years:

- Never fully wind your watch if it stops, 5-10 revolutions should suffice to have it restart.
- Try and wear your watch everyday, if possible, as this will both enable it to keep better time as well as preventing the lubricants in the movement from solidifying.
- Your watch is fitted with the finest Incabloc anti-shock system which should protect it if dropped onto a carpeted surface. However, it is best to avoid hard surfaces or sharp knocks. You may not want to wear your watch whilst playing racquet sports, for instance.
- There are many differing views about the right frequency for servicing your watch, ranging from 2 to 7 years! A modern mechanical watch like yours shouldn't need servicing more than every 4 years but we wouldn't recommend leaving it longer than this as, just like a car, the oil needs topping up from time to time.
- Always use a reputable watch repairer to clean and lubricate your watch.

Should you need a replacement part - don't worry, we keep stocks of spare parts for years, even for discontinued models. It's all part of the Christopher Ward service.

Finally, don't forget our famous **60:60 Guarantee** allows you to return your watch absolutely free, for any reason, and with no quibbles, for up to 60 days after purchase and we also guarantee your movement for up to 60 months.

After all, why shouldn't you enjoy peace of mind as much as you enjoy your watch?

Acknowledgements

We are grateful to the RAF, Ministry of Defence and Lt. Col. Bob Gardner (the author of *"The History of RAF Clocks"*) for their help during the development of our C80 Sector watches.

N.B. We make a contribution of 5% of the retail price to the RAF Benevolent Fund for any C80 Sector watch sold.



About automatic accuracy

If you are new to automatic watches you may not be aware that generally speaking automatic watches are not as accurate as their quartz counterparts. Whilst it is possible to fine tune an automatic watch to within a few seconds per day, the accuracy is largely dependent upon the power reserve in the watch at any given time. As you will appreciate the power reserve is dictated largely by the amount of wear and the amount of movement given to each individual watch.

When you first receive your watch it is quite possible that the balance may have been upset during its' journey to you, and then may require a settling down period of a few days or so. After a few weeks of wear you should be in a position to determine how your wearing habits affect the accuracy of the watch and whether it is within the tolerances specified by ETA and CWL on page 15 of this manual.

The Origins of Sector Clocks



The Metropolitan Observation Service was using clocks with coloured segments as early as WWI to track German bombers bombing London in large numbers. The frequent bombing of London during WWI threw into sharp focus the difficulties of tracking aircraft and of guiding Home Defence fighters to them. Although the first Zeppelin raids were in May 1915, it was not until the summer of 1918 that a workable system to track them was brought into use.

The turning point was the appointment of Major General Ashmore. He reorganised the air defence of London and coordinated the efforts of the observers in the Metropolitan Observation Service, the Police, the Navy and the Royal Flying Corps.

The information coming into an Ops Room was colour coded according to time, with each quarter of an hour having three five minute periods referred to as green, yellow and red segments. These segments were painted on the dial of a clock known as a colour change clock, the forerunner of the Sector Clock.

Users of Sector Clocks

Sector clocks were used by various armed services but especially the RAF.

When the American Army Air Forces operated under RAF control they used their own version.

Although all these clocks are now generally called 'sector clocks' they were known from 1918 until well into WWII as 'colour change clocks'. They began to be known as 'sector clocks' around late 1937 when RAF Sector HQ's became a focal reporting point. By 1941 they had been adopted as the general-purpose RAF Ops Room clock and this remains their alternative name.



Method of Use

The clock face had a 12 hour dial and an inner ring for 24 hour time and was marked with red, blue and yellow triangular segments. The position of the sighted aircraft was recorded, together with the colour of the triangle beneath the second hand at the time of sighting. This data was then reported back to sector headquarters, where counters of corresponding colours representing each air raid were placed on a map of the UK.



The red, yellow and blue colour coding of each counter was changed every five minutes. As the plots of the raiding aircraft moved, the counters were pushed across the map by magnetic 'rakes'. This system enabled 'Fighter Controllers' to see very quickly where each formation was heading and allowing an estimate to be made of possible targets. The simplicity of the system meant decisions to scramble allied fighter squadrons could be made quickly and accurately.

Type I Sector Clocks

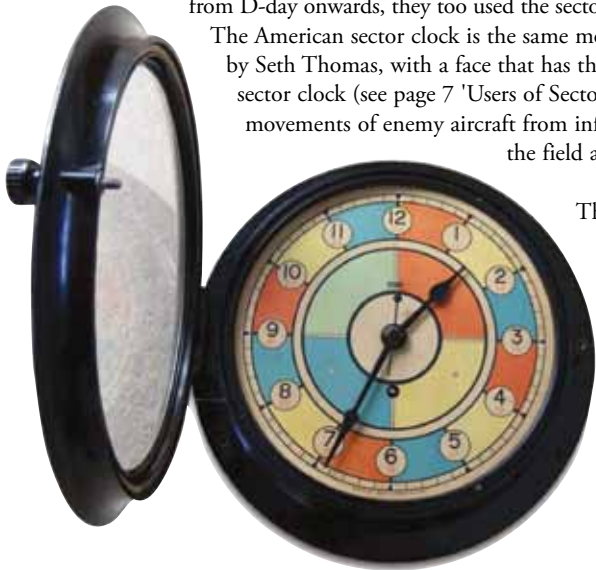
This term is used to describe the standard mechanical clock of the RAF from 1935 through to 1943. Most were made by FW Elliott Ltd with a few made by Stockall Marples & Co whose clocks were signed SM & C or SM & Co.

The first Type I Sector clocks appear to have been made in late 1937 and early 1938 with winged RAF crests and a noticeably light colour on the blue segment. Some would have been in use as the sector control system took shape.



US Army Air Force Sector Clocks

When the US Army Air Force was operating jointly with the RAF in the Allied Tactical Air Force from D-day onwards, they too used the sector method of plotting aircraft movements. The American sector clock is the same model as a US Navy bulkhead clock made by Seth Thomas, with a face that has the same five-minute segments of an RAF sector clock (see page 7 'Users of Sector Clocks'). It was used in tracking the movements of enemy aircraft from information gathered from observers in the field and from mobile radars.



The clock looks very different from a RAF sector clock but the same sequence of colours (red, yellow and blue) is used in the five-minute segments of each quarter of an hour.

The New York Times.

NEW YORK, FRIDAY, SEPTEMBER 1, 1939

GERMAN ARMY ATTACKS POL
CITIES BOMBED, PORT BLOCK
DANZIG IS ACCEPTED INTO





ANIMATED SOVIET PROPAGANDA

SAF

M. J. ALLEN
MARINE

FU-58

IRELAND

GREAT BRITAIN

DENMARK

NETH.

BELG.

LUX.

FRANCE

SWITZ.

AUSTRIA

HUNGARY

NORTH SEA

Potsdam

EAST GERMANY

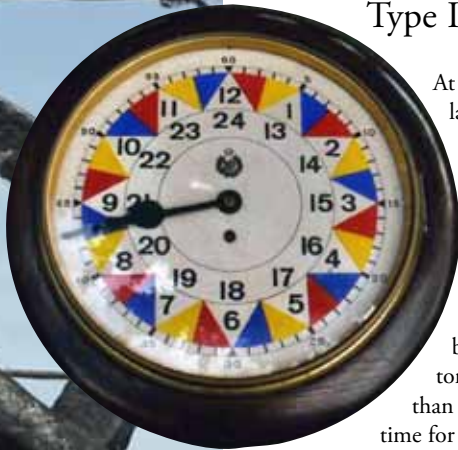
POLAND

WEST GERMANY

CZECHOSLOVAKIA

ATLANTIC OCEAN

Type III Sector Clocks



At the end of the war, probably in the late 1940's, the poor quality late war clocks were gradually replaced with the Type III clock, the Elliott 7779 clock. This had an oak case of good quality and a springer movement.

The movement had tapered plates, because it had no fusee to equalise the torque of the spring, it ran for more than twelve days but the clock only kept time for the first eight.

However the key change from previous sector clocks was the adoption of two and a half minute segments which reflected the change to a "cold war" setting when jet aircraft approached at far greater speeds.

The C80 Sector Series

Features

25 jewel Swiss automatic movement

Self winding (automatic)

Date indicator

Convex sapphire crystal with
anti-reflective coating

Water resistant to 50m (5 atm)

38 hours maximum power reserve

Soft iron anti-magnetic inner casing

Engraved case back

Quick release butterfly clasp

Superluminova dial and hands

Technical Data

Diameter: 44mm

Height: 9.7mm

Weight: 140g

Case: 316L Stainless steel

Calibre: ETA 2824-2

Vibrations: 28,800 per hour (4 Hz)

Accuracy: +20 / -10 seconds per day



Description of the display and control buttons

The C80 Sector Series have a maximum power reserve of 38 hours when fully wound. To re-power the watch after a period of non-use, simply unscrew the crown and wind in approximately 10 revolutions. Normal wearing will very quickly allow the rotor to start re-powering the watch over time after putting it on your wrist.

Display elements

Minute Hand

Hour hand

Second hand

Date Window

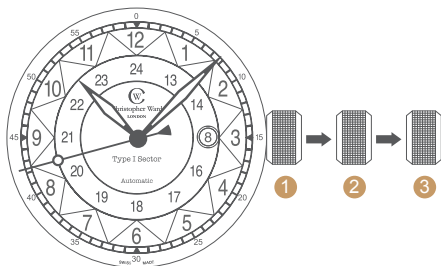
Control buttons

Crown



Setting the time/date

- Position ① is for winding in power. Wind in a clockwise direction to re-power the watch.
- Pull gently into position ②. For rapid date correction, turn in a clockwise direction.
- Pull gently into position ③. This position is used for handseting, and stopping of the second hand. For precise time setting it is recommended to pass beyond the desired minute and to set the hand backwards.



C80 Type I Sector illustrated

N.B. The information is equally relevant to the Type III and USAAF versions

Please note: Date correction should not be carried out between 20.00 hr and 02.00 hr as the watch gearing will already be aligning itself to change the date. The crown should always be pushed in after adjustment, and it is best to do so from position 3 to avoid advancing beyond the desired date.

The quick-release butterfly clasp

The strap versions of the C80 Sector use quick-release butterfly clasps. If you are unfamiliar with the butterfly clasp system just follow our 8 step guide below.



Step 1 Locate the clasp



Step 2 Click quick-release



Step 3 Pull open clasp



Step 4 Prise cover open



Step 5 Thread strap through



Step 6 Snap back



Step 7 Close clasp



Step 8 Complete



1 ATM (10 Metres)

Safe to wear your watch while washing your hands with tap water.



3 ATM (30 Metres)

Washing your car and or general hosepipe usage.



5 ATM (50 Metres)

Water resistant to most household shower units.



10 ATM (100 Metres)

Safe to use while snorkelling in open water, it is not advisable to dive with your watch.



30 ATM (200 Metres)

Ideal for experienced divers and, in general, anybody practising scuba-diving.



50 ATM (500 Metres)

Professional divers, experienced prolonged exposure underwater.

Water resistance

Please note. these are only guidelines but we strongly urge you to adhere to them to retain the integrity of your watch. If you have any queries regarding this please contact us direct.

NB. To safeguard watch movement please ensure the crown is, at all times, screwed in correctly.

Keeping in touch with Christopher Ward...

From small beginnings just a few short years ago (our first workshop was actually a refurbished chicken shed!), Christopher Ward has won a worldwide following for his eponymous watch brand and can justifiably claim to manufacture the most affordable luxury watches in the world.

For many, the philosophy behind the brand, trying to put luxury watches within the reach of everyone, is as attractive as the watches themselves as is the very open approach of the business which means that Chris and the team spend a lot of time communicating personally with our customers - many of whom have become friends.

As the owner of a Christopher Ward watch, if ever you need to get hold of us we are at your service. We have listed some useful contact details on the back cover.

There is also always something new going on at our website at **www.christopherward.co.uk** and, if you haven't already discovered the independent forum dedicated to our brand at **www.christopherwardforum.com** we would recommend a visit. Informative and fun, it's a great place to hear the unexpurgated view of Christopher Ward of London!



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