

# Instruction Manual



# C o r t e b e r t



To ensure correct care, please take some time to review the enclosed instructions to review how to operate your watch.

Vol.1.03A EN

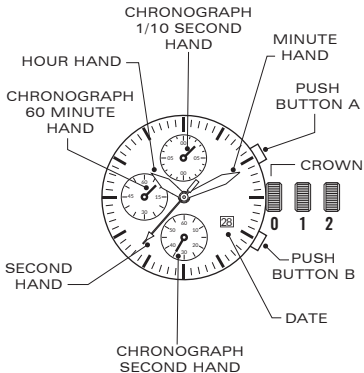
# Cortebert ELEVATION

This watch is equipped with a quartz powered chronograph movement.

Besides the normal time read out, this movement enables split timing micro measurements of time at the push of a button, which can be utilized in a variety of applications.

For more details on operating this timepiece please refer to the enclosed booklet or visit :

[IM.CORTEBERT1790.COM](http://IM.CORTEBERT1790.COM)



**Remarks :**

The measurement time indicated by the stopwatch hands move independently of the center hands.

## HOW TO SET THE DATE AND TIME

\*Before setting the time, check that the chronograph measurement is stopped.

1. Pull out the crown to the position [1]-(1st click).
2. Turn the crown clockwise until the previous day's date appears.
3. Pull out the crown to the position [2]-(2nd click). when the second hand is at the 12 o'clock position. It will stop on the spot. Set the hands to the desired time of the day (make sure AM/PM is set correctly) by turning the crown.

\* When the crown is at the position [2]-(2nd click), do not press any pusher. Otherwise the chronograph hands will move.

4. Push the crown back in the position [0] in accordance with a time signal.

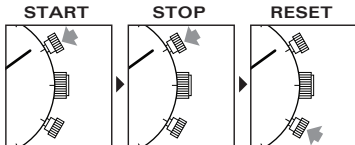
\* Do not set the date between 9:00 P.M. and 3:00 A.M., otherwise the day may not change properly.

If it is necessary to set the date during the time period, first change the time to any time outside it, set the date and then reset the correct time.

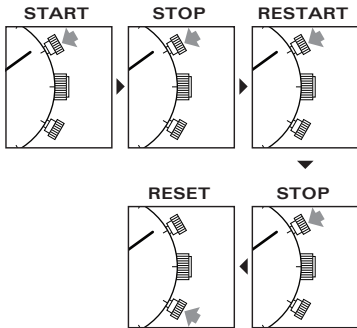
## STOPWATCH FUNCTION

- \* The measured time is indicated by the stopwatch hands that move independently of the center hands. The stopwatch can measure up to 60 minutes in 1/10 seconds.

### STANDARD MEASUREMENT

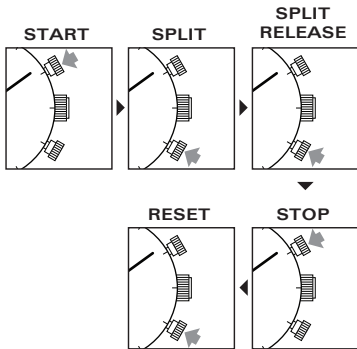


### ACCUMULATED ELAPSED TIME MEASUREMENT



Restart and stop of the stopwatch can be repeated by pressing the button **A**.

## SPLIT TIME MEASUREMENT



Measurement and release of split time can be repeated as many times as necessary by pressing the button **B**.

## ADJUSTING THE STOPWATCH HAND POSITION

Before setting the time, check if the Stopwatch 1/10 second, second and minute hands are at the "0" (12 o'clock) position. If the stopwatch is in use, press the button to stop and reset it, check if the hands return to "0" position. If either of the stopwatch hands are not at the "0" position, reset them in the following steps:

1. Pull out the crown to 2nd position.
2. Press Button A or B to reset the stopwatch 1/10 second, second and minute hands to "0" position.
  - a. By pressing Button A, set the stopwatch 1/10 second hand.
  - b. By pressing Button B, set the stopwatch second hand and minute hands.
  - c. The stopwatch minute hand moves correspondingly with the stopwatch second hand.
  - d. The hands move quickly if the respective buttons are kept pressed.
3. Push the crown back to normal position.

## HOW TO USE THE SLIDE RULE BEZEL

This watch is equipped with a Slide Rule Bezel. Two logarithmic scales are positioned and adjustable to enable a range of analog calculations and measurements useful in a variety of situations.

While you may no doubt have other digital forms of computation available at your finger tips, the pilot Slide Rule Bezel is still very much a useful, easy to operate piece of technology to be found on your wrist.

Turn the Slide Rule Bezel crown to rotate the inner Slide Rule Bezel. You can use it for the following functions:

- 1: MULTIPLICATION
- 2: DIVISION
- 3: CALCULATING GROUND SPEED (1)
- 4: CALCULATING GROUND SPEED (2)
- 5: CALCULATING GASOLINE CONSUMPTION
- 6: CALCULATING THE RATE OF CLIMB OR DESCENT
- 7: CALCULATING THE DISTANCE OF CLIMB OR DESCENT
- 8: NAUTICAL AND STATUTE MILE CONVERSION

## 1: MULTIPLICATION



### UNIT INDEX

To multiply with the Slide Rule Bezel, use the unit index (number "10" in the inner scale). Always set the multiplier (the number by which another is multiplied) opposite the unit index on the inner scale and read the answer on the outer scale opposite the multiplicand number (number to be multiplied by another) appearing on the inner scale.

#### Example:

To multiply  $7 \times 12$ , set 12 (the multiplier) on outer scale opposite unit index ("10") on the inner scale. Opposite 7 (the multiplicand) on the inner scale, read the answer 84 on the Bezel.

## 2: DIVISION



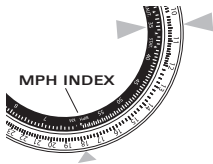
To divide with the Slide Rule Bezel, also use the unit index (number "10"). Place the dividend (the quantity to be divided by another number) on the outer scale opposite the divisor (quantity by which another is divided) on the inner scale. Opposite the unit index (numeral "10" on inner scale), read answer on outer scale.

#### Example:

Divide 120 by 4. Place 120 on outer scale opposite 4 on the inner scale. Read answer, 30, on outer scale opposite unit index (number "10" on inner scale).

### 3: CALCULATING GROUND SPEED

(1)



The Bezel and fixed inner scales are used for determination of ground speed problems. Two of the following quantities are available for its solution: time, distance, ground speed.

#### Example:

Known: Distance and Time.

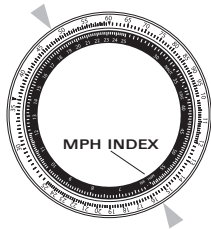
Required: Ground Speed.

A pilot finds by the use of checkpoint that he has traveled 104 miles in 35 minutes. What is the ground speed?

**Solution:** Move the Bezel scale until 104 on the mobile scale is set opposite 35 on the fixed scale. Opposite the hour index (the arrow marked "MPH" directly over the hour 12) read 178 miles per hour on the Bezel scale.

### 4: CALCULATING GROUND SPEED

(2)



#### Example:

Known: Distance and Speed.

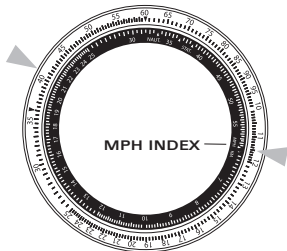
Required: Time.

A pilot wants to know how long it will take to go 486 miles at a ground speed on 156 miles per hour.

**Solution:** On the Bezel scale set 156 opposite the MPH index on the fixed scale. On the inner scale opposite 486 on the mobile scale read 187 minutes (or 3 hours and 7 minutes).



## 5: CALCULATING GASOLINE CONSUMPTION



Two of the following quantities are available for gasoline consumption problems: Total gallons used, time, rate of consumption.

### Example:

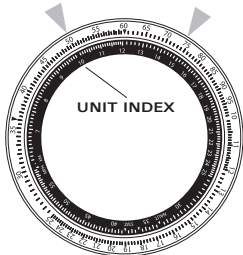
Known: Time and Rate of Consumption.

Required: Total Gallons Used.

A pilot wishes to know how many gallons are necessary to fly 3.5 hours at an average rate of consumption of 11.5 gallons per hour.

**Solution:** Opposite the "MPH", set 11.5 on the Bezel scale. Then, opposite 210 minutes on inner scale on the Bezel scale read 41 gallons.

## 6: CALCULATING THE RATE OF CLIMB OR DESCENT



Two of the following quantities are available for solution: total altitude of descent, time and rate of descent (or climb).

**Example:**

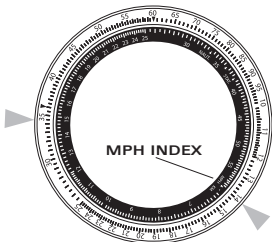
Known: Rate of Ascent and Total Elevation in Ascent.

Required: Time.

A pilot climbs to 7400 feet above his starting point at the average rate of 500 feet per minute. How long will this require?

**Solution:** Set 500 on the Bezel scale opposite the "unit index" ("10" on the fixed scale). Opposite 7400 on the mobile scale, read answer, 14.8 minutes on the fixed scale.

## 7: CALCULATING THE DISTANCE OF CLIMB OR DESCENT



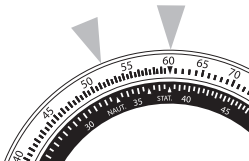
Two of the following quantities are available: Distance, time, speed.

The methods used in examples 4 and 5 should be used.

**Example:**

The pilot in the previous example wishes to know how far he will have traveled when his climb is finished. His average true air speed is 120 miles per hour and he is aided by a tail wind of 20 miles per hour.

**Solution:** Set 140 miles per hour (120+20) on the Bezel scale opposite "MPH" on fixed scale. Opposite 14.8 minutes (computed from example 6) on fixed scale read 34.5 miles on Bezel scale.

**8: NAUTICAL AND STATUTE MILE CONVERSION**

On the fixed Inner scale both nautical (NAUT.) and statute miles (Stat.) are shown. The conversion from statute to nautical or nautical to statute miles is read directly on the Bezel.

**Example:**

Known: 60 Statute Miles.

Required: Nautical miles.

**Solution:** Set 60 on Bezel opposite to "STAT." Read 52 nautical miles on Bezel opposite to "NAUT."

## WATER RESISTANCE

The water resistance indicated on your timepiece serves only as a guide. Actual water resistance may vary depending on a number of important factors including temperature, water salinity, and actual use under water.

The water resistance of your timepiece may eventually be compromised over time with general wear and tear and the use of your watch under adverse conditions.

Always remember to employ the screw down crown (if available) to maintain the water resistance of your timepiece. Warranty may be voided if the screw down crown has not been properly employed.

Note that you should **NEVER** wear your watch in a jacuzzi, hot shower or steam room where steam may enter the case despite the watertight seals used to protect your watch.

The steam may cause condensation inside your watch, which may affect and damage the inner workings of your watch – which would also not be covered by the warranty.