



CHASE-DURER

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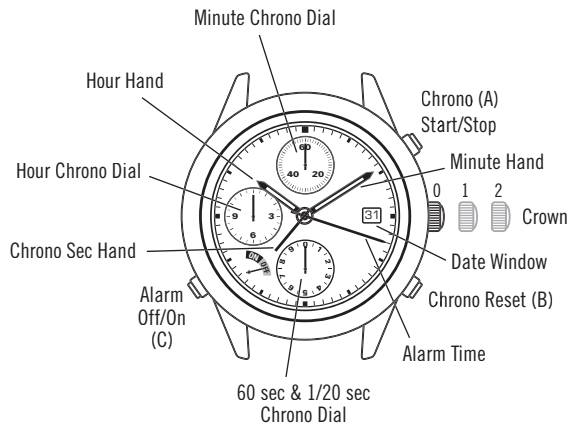


OPERATIONS MANUAL

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DIAL COMPONENTS



CROWN POSITIONS

Position 0 - Neutral

Position 1 - Setting Date / Alarm

Position 2 - Setting Time

A-1 WATCH OPERATION

Setting Date

- Unscrew crown counter-clockwise (toward you) to position 0
- Pull crown out to position 1
- **Turn crown counter-clockwise*** to set date
- Push crown in and screw-in until tight. (clockwise - away from you)

* **NOTE:** By turning crown clockwise with crown in position 1, the alarm hand will move. See "How To Use Alarm" section

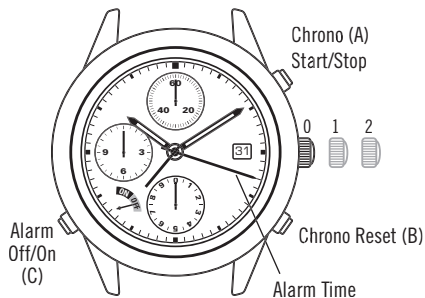
A-2 WATCH OPERATION

Setting Time

- Unscrew crown counter-clockwise (toward you) to position 0
- Pull crown out to position 2
- Turn crown to set hour and minute
- Push crown in while screwing-in clockwise. (away from you)

* **NOTE:** Do not set date between 9 p.m. to 1 a.m.

CHRONOGRAPH OPERATION



WHILE CHRONOGRAPH IS RUNNING

1. Minute chrono dial records minutes
2. Hour chrono dial records up 12 hours
3. 1/20th sec dial displays split sec when chrono is stopped

B-1 STOP WATCH TIMING

- Push Button B once to set watch in chronograph mode
- Push Button A (chronograph start/stop) once to start timing
- Push Button A (chronograph start/stop) again to stop timing and read **Elapsed Time / Split Second Time**
- Push Button B to reset chronograph to "0"
- Push Button B again to resume normal seconds mode

Note: The chrono at 6 O'Clock is a 1/20th sec while in stop watch mode and is a second counter while in normal mode. The 1/20th sec hand will stop at "0" sec position after running for 30 sec when chrono is running. When button A is pushed it will then advance to the correct 1/20th second reading.

B-2 ACCUMULATED ELAPSED TIME

- Push Button B once to set watch in chronograph mode
- Push Button A (chronograph start/stop) once to start timing
- Push Button A to stop chronograph and read partial time
- Push Button A again to resart chronograph timing
- Push Button A to stop and read total elapsed time
- Push Button B to reset chronograph to "0"
- Push Button B again to resume normal seconds mode

B-3 MANUALLY RESETTING CHRONOGRAPHS

IF CHRONOGRAPH HANDS DO NOT RESET BY PRESSING BUTTON B while watch is in stopwatch mode, they can be reset manually.

Chronograph Second Hand

- Unscrew crown
- Pull crown to Position 2
- Push Button A until hand is reset to proper place

Chronograph 1/20 Second Hand

- Unscrew crown
- Pull crown to Position 2
- Push Button B until hand is reset to proper place

B-4 HOW TO USE ALARM

- Unscrew crown counter clockwise - (toward you) to position 0
- Pull crown out of position 1
- Set Alarm by turning crown clockwise to desired time by (turning crown counter-clockwise will change date)
- Turn Alarm on by pulling button (C) out. Alarm will sound for 10-15 seconds
- Shut off Alarm by pushing in button (C)

****NOTE:** When alarm is set to “ALARM ON” position the watch is NOT Water Resistant

TACHYMETRE SCALE

Some Chase-Durer wristwatches include a ring or scale labeled TACHYMETRE. Its use and operation is described herewith.

What it does

The TACHYMETRE scale can be used to compute many things but its primary purpose is to compute a speed after noting how long it takes to travel a fixed distance (e.g., one mile or one kilometre). The dial is a logarithmic scale which computes the function:

$$\text{TACHYMETRE DIAL} = 3600 / \text{Elapsed Time in Seconds}$$

The scale is valid for all elapsed times from 7.2 seconds to 60 seconds. If the duration of the event is outside its range, then the answer on the dial is invalid.

What it does

For example, suppose you wanted to measure the average Speed a racecar was travelling. After starting the chronometer function when the car passes the starting line, and stopping it after the car travels exactly one mile, you note that the chronometer hand is pointing at the 4 o'clock position (i.e., 20 seconds have elapsed).

TACHYMETRE SCALE (cont.)

Looking beyond the 4 to the Tachymetre dial reveals the chronometer hand pointing to 180. This means the average speed of the car would be 180 MPH.

Let's say, instead of the race car speed, you are measuring something much slower like sailboat speed. In this case, you need to use a shorter distance because the elapsed time must fall within the 7.2-60 second range. For this example, let's say it took 36 seconds for your sailboat to travel 1/10 of a nautical mile. Reading the Tachymetre dial gives a speed of 100 knots. But, since we only traveled 1/10 of a nautical mile, the actual answer is 1/10 of that or 10 knots.

Now let's say you wanted to measure the speed of a very, very fast airplane: after traveling 10 kilometres, you noted that 10 seconds had elapsed. The Tachymetre dial gives an answer of 360 but we traveled 10 kilometres. Therefore, the answer is 10×360 , or 3600 km/hour.

There is really nothing magic about using the Tachymetre dial to measure speed. You can also use it to measure other things like gas consumption. Suppose it took 50 seconds to burn up a gallon of gasoline. Reading the Tachymetre dial shows that you are burning 72 gallons of gasoline per hour.

CONVERSION TABLE

1 GALLON OF	=	POUNDS	ONE (1)	=
alcohol	6.55		barrel (u.s. oil)	5.62 cu.ft
aviation gasoline	6.00		barrel (u.s. oil)	42 gal. u.s.
garbage	4.01		foot	30.48 cm
gasoline (auto)	6.14		foot	.167 fathoms
jet fuel (JP-4)	6.50		foot	.305 meters
kerosene	6.67		kilometer	3280.84 ft
oil (lubricating)	7.59		kilometer	.621 stat miles
oil (petroleum)	7.35		kilometer	.540 naut miles
			kilometer	1093.6 yards
			knots	51.44 cm/sec
			knot	1.69 ft/sec
			knot	.514 m/sec
			knot	1.15 stat mi/hr
			meter	.547 fathoms
			meter	3.28 feet
			nautical mile	1012.7 fathoms
			nautical mile	6076.12 feet
			nautical mile	1.85 kilometers
			nautical mile	1852 meters
			nautical mile	1.15 stat miles
			nautical mile	1 minute of lat.
			nautical mile	1 minute of Great Circle