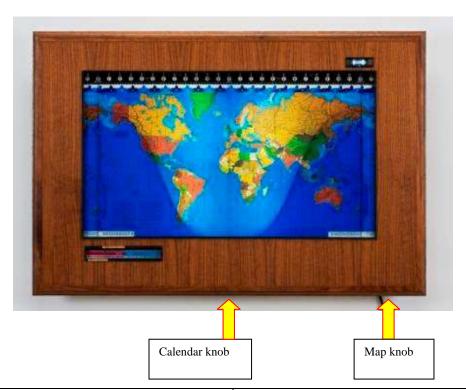# Setting the time and date

GEOCHRON ®

Getting started: The basics

Setting the Geochron requires the adjustment of both the map and calendar knobs. They are located on the bottom of the unit.

| Calendar knob | Map knob |

Calendar Adjustment	Map Adjustment
The calendar knob turns **clockwise only** and should **NOT** be pulled down.	The map knob must be pulled down to disengage it from the motors. It can be turned either direction.

Setting the time and date

GEOCHRON®

The following are step by step instructions for setting the time in your locale. As an example, we will be setting the time for a unit in Paris, France on Tuesday, May 7 at 9:15 a.m.

Step One: Set the map

- <u>Day of week:</u> Pull down the map knob – while holding it down, turn it until today's day of the week is pointing to the left in the windows along the bottom of the map, closest to the map knob. Depending on the day of week shown, it may take a while to turn the knob to the appropriate day of the week.
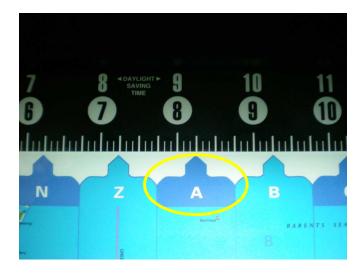

> The arrow for Tuesday is pointing left, and is pulled toward the map knob on the right side of the unit

- <u>Location and time zone:</u> Find your location on the map – the bold letters denote the time zone for the area. Paris is in time zone A as shown in the picture.
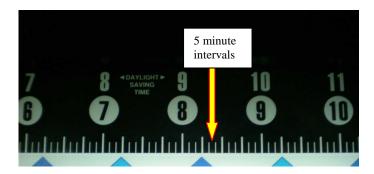
- Time zone arrow: Along the top of the map, locate your time zone arrow ("A" for Paris). These arrows point to the numbers on the black and white time band (explained in the next step).

- Notes about the time band: Before adjusting the map, it's important to understand the time band.
  - There are two rows of numbers (for clocks built after 1985). The top row represents daylight savings time, the bottom row is for standard time.
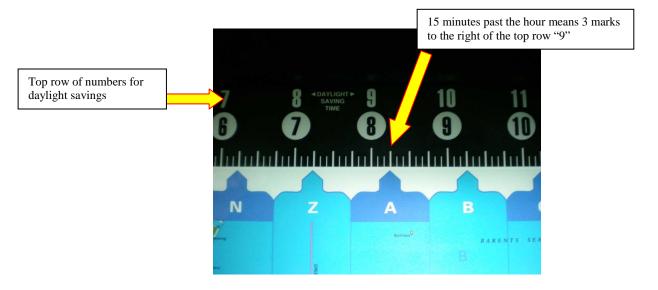

5 minute intervals

  - There are two time bands – 12 and 24 hour. The twelve hour time band is commonly referred to as civilian time, whereas the twenty-four hour band is referred to as military time
    - For example, 5pm will show "5" with the twelve hour time band and "17" with the twenty-four hour time band will show the number 17
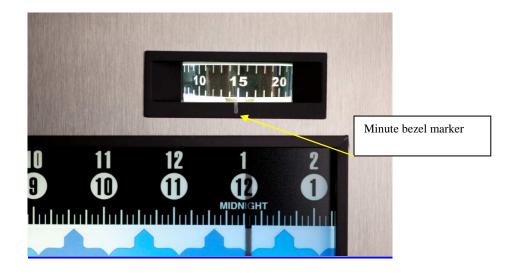 - The marks in between the hours represent five minute increments.

- <u>Adjust map:</u> Pull down the map knob and turn it until your arrow is pointed at appropriate spot on the time band
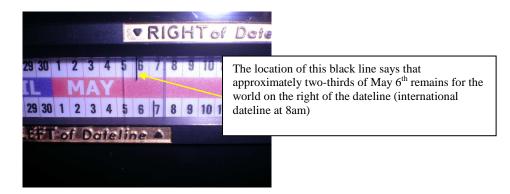   - o It is 9:15am in Paris (time zone A) in May (daylight savings time).

Top row of numbers for daylight savings

15 minutes past the hour means 3 marks to the right of the top row "9"

- o Once the arrow is set properly, release the map knob and wiggle until it pops up into place. Make sure it is up, otherwise the motor is not engaged and the map will not move.

- <u>Minute Dial (optional on some units):</u> Rotate the minute dial using the knob on the top of the Geochron, directly above the minute dial.
    - o 9:15 in Paris means the "15" on the minute dial aligns with the marker on the minute bezel.

Minute bezel marker

Setting the time and date
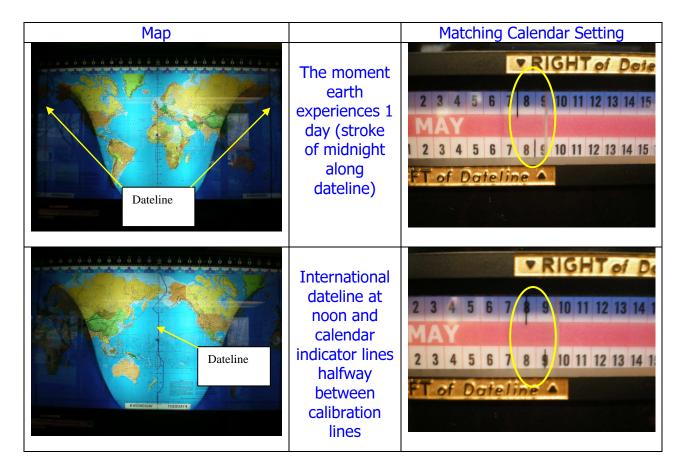
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Step Two: Set the calendar

About the calendar: The calendar window has two rows of dates. The top row is used for the world to the right of the map dateline, the bottom row for the world to the left. The offset black indicator lines behind the glass represent the dateline.

The location of this black line says that approximately two-thirds of May 6th remains for the world on the right of the dateline (international dateline at 8am)

Things to know: At any moment (other than the stroke of midnight along the international dateline), there are two days occurring simultaneously. The progress of the dateline across the map should match the progress of the black indicator lines between the calendar calibration marks. See below:

Map		Matching Calendar Setting
Dateline	The moment earth experiences 1 day (stroke of midnight along dateline)	
Dateline	International dateline at noon and calendar indicator lines halfway between calibration lines	

Dateline

International dateline at 6pm - calendar indicator lines 75% to the next day

- **Adjust calendar:** Turn the knob (it moves **CLOCKWISE ONLY**) until the progress of the black indicator lines match the progress of the dateline on the map
  - At 9:15am in Paris on May 7th, the international dateline intersects 8:15pm, leaving approximately four of the 24 hours in the day, which is around 17%. Precisely locating the indicator line at 17% is not realistic, so the best estimate is shown below.

In North America, the continent is right of the dateline and therefore the top row would be used

Since Paris is to the left of the dateline, the bottom row is used. Most of May 7th has passed from the perspective of the international dateline, so the black indicator line is close to the line separating the 7th and the 8th..

  - To improve the calendar indicator line synchronization with the international dateline, set the calendar when the international dateline is either at noon or midnight. Most people are okay with the rough estimate of the calendar date since the difference is imperceptible.