

# Operating Instructions for Tide & Time Quartz

The action of the tide is very complex and involves many factors which must be considered to describe exactly the tide at any given place, This tide clock does not claim to give you exact time of each of the tide at a given place, but, it will give you the average tide time, an indicator of best times to go boating, fishing, surfing etc.

The primary controller of the tides is the moon, and the average Orbit of the moon around the earth is 24 hours 50 minutes and 30 seconds. This is referred to as a "Lunar" or "Tidal" day. This means that the tidal day - to which the tide hand of your tide clock is geared - is 50 minutes longer than the solar day of 24 hours, to which the Hour and Minute hands of your clock are geared. The tide clock movement has four hands, giving you the Regular time of day and the Tidal Time of day. The Dial of the Tide Clock has a number of increments indicating High and Low Tides as well as rising and falling Tides. This information helps Mariners and Seafarers with Current Tide Times and Forecast Tide Durations.

## 1. Unpacking:

Carefully remove all packing and check your clock and that all parts are secure.

## 2. Fitting Battery:

Please insert a new 1.5 volt alkaline battery. Ensure the battery is inserted with the correct polarity to the terminals to avoid damage to the quartz crystal. The movement will now start to run.

## 3. Setting of hands:

- a) At the back of the movement you will find the hand adjustment knob. This is for time adjustment only.
- b) The tide hand is adjusted by hand from the Rear of the Dial. A Gear wheel at the bottom of the movement can be adjusted to move the Tide hand forward or backward to its correct position. This position can be given or calculated from local tide times.

A general rule is to set the hand at the "High Tide" position during a new or full moon.

## 4. Time regulation:

Your clock is set at the factory for a deviation of accuracy of approximately 1 minute per year at a room temperature of 20 degrees Celsius + or - 3 degrees. Please note that high temperature changes will also affect the accuracy.

## General information:

The west coast of Europe and Africa, also East coasts of North and South America follow the "semi-diurnal" pattern of two high and two low tides a day. Certain other coasts around the world such as the West coasts of North and South America are not semi-diurnal, and the tide indicating part of your tide clock will be of no use to you in these areas. Please remember that any alteration of the clock and normal time hands may affect the position of the tide hand. Therefore, after any major alteration of the setting of the time hands, the tide hand position should be checked and or corrected.

# Assembly Diagram

