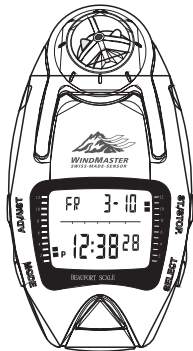




Instruction Manual

1.0 Introduction



Thanks of your purchase of the WINDMASTER.

Your WINDMASTER features a electronic sensor and a hybrid sensor that measures the outdoor conditions such as temperature, pressure, altitude, compass directions and wind speed.

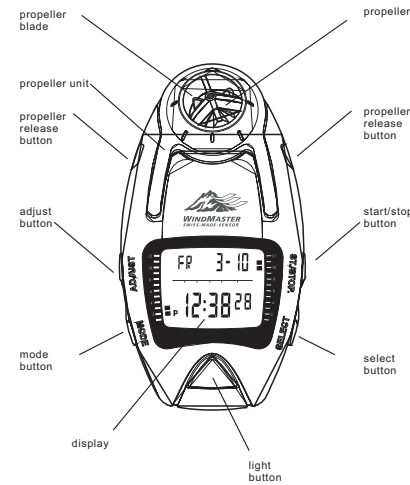
Your WINDMASTER provides the essential information at the time during you are performing hiking, climbing, wind surfing and other outdoor activities.

Your WINDMASTER also includes a normal time, alarm, chronograph, countdown timer and 3-phases yacht timer.

Your WINDMASTER is carefully designed and produced for outdoor activities, in order to utilize the functions of your WINDMASTER, it is advisable to read the following:

- Read the instruction before you use the WindMaster.
- Keep the propeller close to prevent dirt get into it.
- Keep the propeller unit in its normal position; only flip the propeller unit when measuring a wind speed.
- Cover your WindMaster with the nylon cover when take part in activities like mounting biking, the cover keeps your WindMaster away from dust and dirt.
- Avoid exposing your WindMaster to extreme conditions for an unreasonable time.
- Avoid rough usage or severe impact to your WindMaster.
- Do not open the WindMaster's case unless a certified service agency because this WindMaster contains precise electronic sensors and components.
- Clean your WindMaster with a soft cloth occasionally that working for a longer use life.
- Store your WindMaster in a dry place when it is not in use.

2.0 The WindMaster Parts and Its Functions



Mode Button

- To select among real Time and different time keeping modes.

Adjust Button

- Press and hold for 2 seconds enter setting modes.
- To recall lap memories in Chronograph Mode.
- To switch between Timer 1 and Timer 2.

Start/stop Button

- To start / stop the chronograph and timer.
- To switch between units in sensor measurement modes.
- To select the items in setting modes.

Select Button

- To select among real Time and different sensor modes.
- To increase value in setting modes.
- To record lap memory in Chronograph Mode.
- Press and hold for 2 seconds to reset lap memory in Chronograph Mode.
- To select timer preset value.

Light Button

- To turn on the EL back light for few seconds.

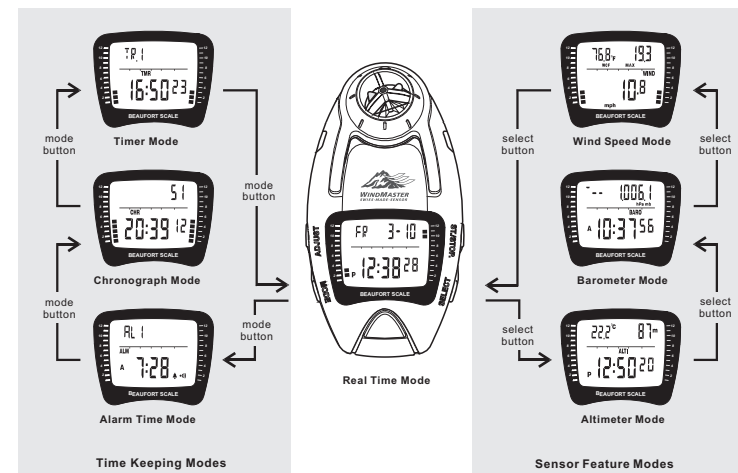
Propeller Blade

- To indicate the bearing directions.

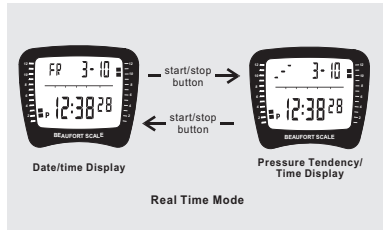
Propeller Release Buttons

- To release the propeller.

3.0 Change from Mode to Mode



4.0 Real Time Mode - Date/Time Display & Pressure Tendency /Time Display



Real Time Mode Sub-display

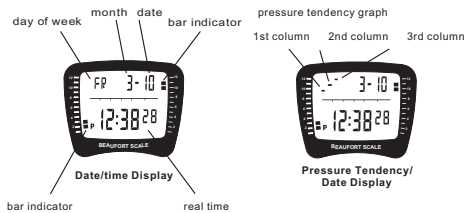
- Real Time Mode has two sub-displays: Date/ Time Display and Pressure Tendency/ Time Display.
- Press the [start/stop] button once to switch between the Date/Time Display and the Pressure Tendency/ Time Display.

Date/ Time Display

- Date / Time Display shows the day of week, month and day in the top row of the display.
- The bottom row of the display shows current time in hour, minute and second.
- The bar indicators on the left and right sides of the display stimulate the elapse of second.

Pressure Tendency/ Time Display

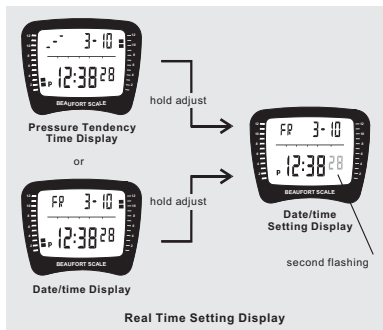
- The 1st column of the graph shows the relative pressure of the last 6 to 9 hours.
- The 2nd column of the graph shows the relative pressure of the last 3 to 6 hours.
- The 3rd column of the graph shows the relative pressure of the last 3 hours.
- Check the 'Implication of the Pressure Tendency Graph' section for more detail.



Features of the two Sub-displays

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4.1 Real Time Mode - Setting the Time and Date

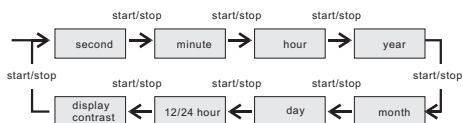


To Set the Time and Date

- To set the date and time, press and hold the [adjust] button for 2 seconds to change from Date/ Time Display or Pressure Tendency/Time Display to Date/Time Setting Display.
- The second digits flash on the display because they are being selected.

The Setting Procedures

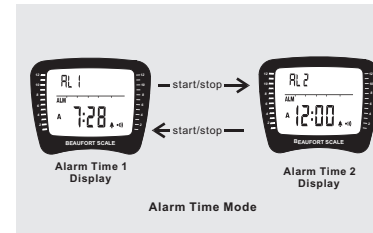
- Press [start/stop] button to change the selection as in the Real Time Setting Sequence.
- While digits are flashing (selected), press the [select] button to increase the number. Hold down the [select] button to change the number at a higher speed.
- While 12 or 24 hour format setting is being selected, press the [select] button to switch between the two formats.
- While display contrast setting is being selected, press the [select] button to select the contrast from 0 to 15. 15 gives a darker display; 0 gives a lighter display.
- After you set the time, date, display format and display contrast, press the [adjust] button to exit the Real Time Setting Sequence.
- If no any key operation in the setting display for about 3 minutes, the WindMaster will return to the Real Time Mode automatically.



Real Time Setting Sequence

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5.0 Alarm Time Mode - Alarm Time 1 & 2 Display, & Setting the Chime/Alarm On/Off



Alarm Time Mode

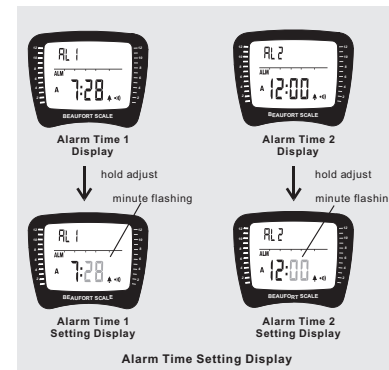
- Alarm Time Mode has two sub-displays: Alarm Time 1 and the Alarm Time 2.
- Alarm Time 1 and Alarm Time 2 work independently.
- Press the [start/stop] button to switch between the Alarm Time 1 Display and Alarm Time 2 Display.

To Set the Alarm and Chime On or Off

- In the Alarm Time 1 Display or Alarm Time 2 Display, press the [select] button to change the ON/OFF status of the hourly chime and alarm.
- When the alarm (A) is ON, the WindMaster sounds at the preset alarm time each day.
- To stop the sound, press any button to stop the alarm.
- When the chime (C) is ON, the WindMaster beeps every hour on the hour.

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5.1 Alarm Time Mode - Setting the Alarm Time 1 and 2

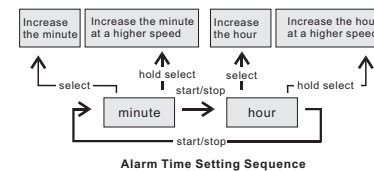


To Set The Alarm Time 1

- Press and hold the [adjust] button for 2 seconds to change from Alarm Time 1 Display to Alarm Time 1 Setting Display.
- The minute digits flash on the display because it is being selected.

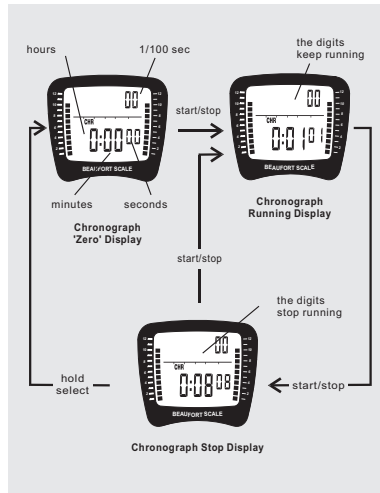
The Setting Procedures

- Press [start/stop] button to change the selection in the Alarm Time Setting Sequence.
- While any digits are flashing (selected), press [select] button to increase the number. Hold down the [select] button to change the number at a higher speed.
- After you set the alarm time, press the [adjust] button to exit the setting sequence.
- If no any key operation in the setting display for about 3 minutes, the WindMaster will return to the Alarm Time Mode automatically.
- Set the Alarm Time 2 in the same manner as Alarm Time 1.



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6.0 Chronograph Mode - Start/Stop the Chronograph



Chronograph Mode

- The Chronograph measures elapsed times and lap-times.
- The display shows the 'All Zeros' display when the chronograph is being selected the first time or the chronograph is reset.
- The chronograph resolution is 1/100 second.

To Start/Stop the Chronograph

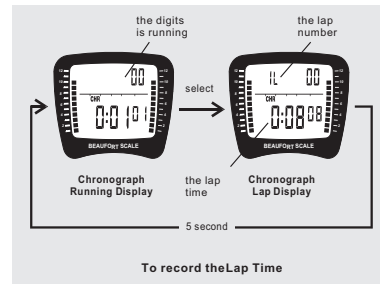
- When the chronograph is idle, press the [start/stop] button to start the chronograph; press the [start/stop] button once again to stop the chronograph.
- The elapsed time between the 2-[start/stop]-keystroke will be appeared on the display.
- Repeat the steps mentioned above to get another set of elapsed time.

To Reset the Chronograph

- Record a new set of elapsed time, press and hold the [select] button for 2 seconds to reset the chronograph to 'All Zeros' display after the chronograph was stopped.

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6.1 Chronograph Mode - Record/Recall a Lap Time



To record the Lap Time

To Record Lap Time

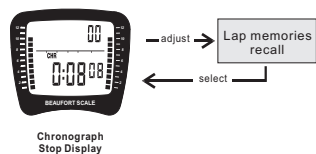
- The Chronograph Mode allows you to record up to 10 lap-times.
- Press the [select] button once to record the lap-time during the chronograph is running.
- The lap number will be displayed at the top left corner of the display for 5 seconds as well as the lap time display on the bottom row of the display. Then the chronograph start running again automatically.
- During the lap number and lap time are displaying, the chronograph keeps running.
- Repeat the steps mentioned above to get another set of lap time.

To Recall Lap-Time

- Press the [adjust] button to view the recorded lap memories when the chronograph stop running.

To Reset Lap-Time

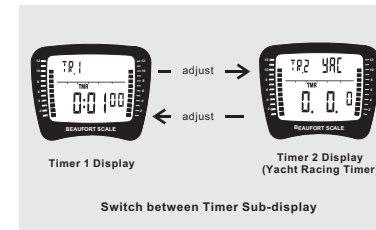
- Record new sets of lap time, press and hold the [select] button for 2 seconds to reset the chronograph lap memory after the chronograph was stopped.



To recall the Lap Time

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7.0 Timer Mode - Timer 1 and Timer 2 Display (Yacht Racing Timer)



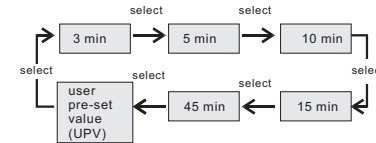
Switch between Timer Sub-display

Timer Mode

- Timer Mode has two sub-displays: Timer 1 Display and Timer 2 (Yacht Racing Timer) Display.
- Press the [adjust] button once to switch between the Timer 1 Display and Timer 2 Display.

To set the Timer 1

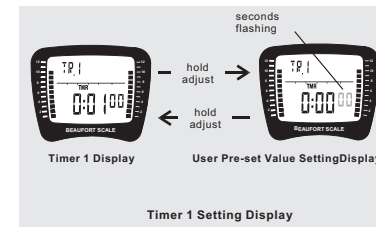
- Press the [select] button to select one of the 5 preset values and the existing User Pre-set Value (UPV) as in the Timer 1 Setting Sequence.
- To set the values other than the 5 preset values and the existing UPV, check the 'To Set the User Pre-set Value' section.



Timer 1 Setting Sequence

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7.1 Timer Mode - Setting the Timer 1



Timer 1 Setting Display

To Set the User Pre-set Value

- Press and hold the [adjust] button for 2 seconds to change the display to User Pre-set Value Setting Display.
- The second digits flash on the display because it is being selected.

The setting procedure

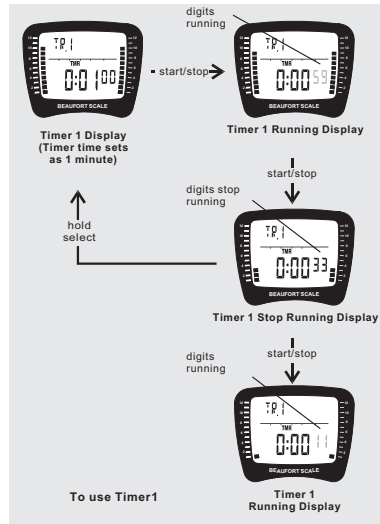
- Press [start/stop] button to change the selection as in the User Pre-set Value Setting Sequence.
- While digits are being selected (flashing), press the [select] button to increase the number. Hold down the [select] button changes the number at a higher speed.
- After you set the timer time, press the [adjust] button to exit the setting sequence.
- If no any key operation in the setting display for about 3 minutes, the WindMaster will return to the Timer Mode automatically.



User Pre-set Value Setting Sequence

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7.2 Timer Mode - Using the Timer 1



To Use the Timer 1

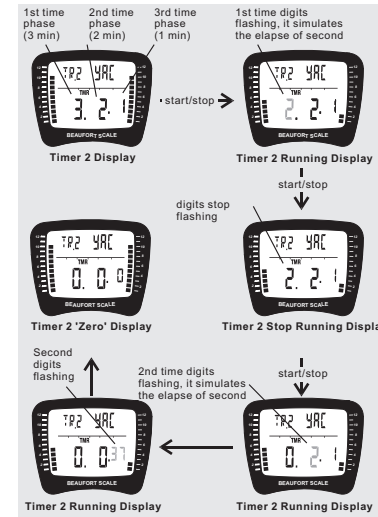
- When the Timer 1 is set, press the [start/stop] button to start the timer. Press the [start/stop] button again to stop the timer.
- The countdown time will be appeared on the display.
- The timer starts to beep every second when it is 5 seconds to the end of the countdown.
- As countdown time is reached, a long beep last for 2 seconds will be heard. Pressing any button in this period will terminate the beep sound prematurely. User preset time will be loaded automatically at the end of the beep sound.

To Reset the Timer 1

- Press and hold the [select] button for 2 seconds to reset the timer after it was stopped.

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7.4 Timer Mode - Using the Timer 2 (Yacht Racing Timer)



To Use the Timer 2 - Yacht Racing Timer

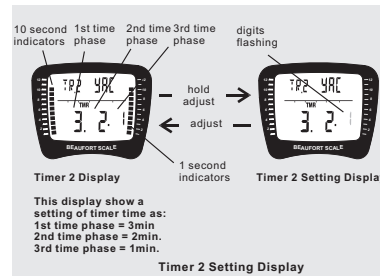
- When the Timer 2 is set, press the [start/stop] button to start the timer 2. Press the [start/stop] button again to stop the timer.
- Flashing digits in a particular phase indicate that the timer is counting. It represents the number of minutes left at first. As countdown time is less than 40 seconds for phase 1 or 60 for phase 2 and 3, it changes to represent the number of seconds left instead.
- Each bar indicator on the left hand side of the display represents 10 seconds; each bar indicator in the right hand side of the display represents 1 second.
- Number of seconds in a minute is equivalent to ((number of bar indicators on the left hand side X10) + number of bar indicators on the right hand side) seconds.
- Whenever the 1st or 2nd phase timer counts to zero, the alarm sounds and the timer starts to countdown the next time phase.
- When the 3rd phase timer counts to zero, the alarm sounds.

To Reset the Timer 2

- Press and hold the [select] button for 2 seconds to reset the timer to the previous setting after the timer was stopped.

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7.3 Timer Mode - Setting the Timer 2 (Yacht Racing Timer)



The Timer 2 - Yacht Racing Timer

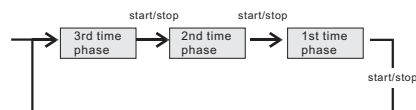
- Timer 2 is a three-phase countdown timer, it is specially designed for yacht racing or those activities that require time phases controlling.
- When the Timer 2 is being selected, you can made use of the 3-phase-timer to control the countdown time in 3 separate phases.
- The left digits indicate the 1st time phase.
- The middle digits indicate the 2nd time phase.
- The right digits indicate the 3rd time phase.

To set the Timer 2 - Yacht Timer

- To set the Timer 2, press and hold the [adjust] button to change the display from Timer 2 Display to Timer 2 Setting Display.
- The digits flash on the display because they are being selected. Press [start/stop] button to change the selection as in the Timer 2 Setting Sequence.
- While digits are flashing (selected), press [select] button to increase the number. Hold down the [select] button to change the number at a higher speed.
- After you set the timer time, press the [adjust] button to exit the setting sequence. If no any key operation in the setting display for about 3 minutes, the WindMaster will return to the Timer Mode automatically.

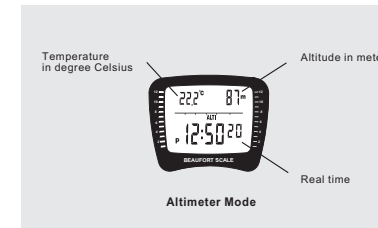
Timer 2 Setting Range

- The 1st time phase can be set between 0 to 39 minutes
- The 2nd time phase can be set between 0 to 99 minutes
- The 3rd time phase can be set between 0 to 99 minutes



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8.0 Altimeter Mode - Using the Altimeter



Altimeter Mode

- In the Altimeter Mod, the altitude displays on the top right corner of the display.
- The current temperature value displays on the top left corner of the display;
- The current time displays in the bottom row of the display.

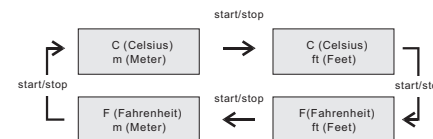
IMPORTANT: If the user intends to get an accurate reading of air temperature, the user must taken off the watch from the wrist for 20 to 30 minutes before the actual measurement. It allows no body temperature effect on the watch.

Absolute and Relative Altitude

- The altimeter can be operated in both absolute and relative modes.
- Absolute altitude is the difference between your current altitude and SEA LEVEL. (Assuming that air pressure at sea level is 1013.21mbar).
- Relative altitude is the difference between your current altitude and the altitude of a specific altitude level where you set the altimeter to 'Zero'.
- For expert users who intend to measure relative altitude, check the *How to measure Relative Altimeter* section for detail.

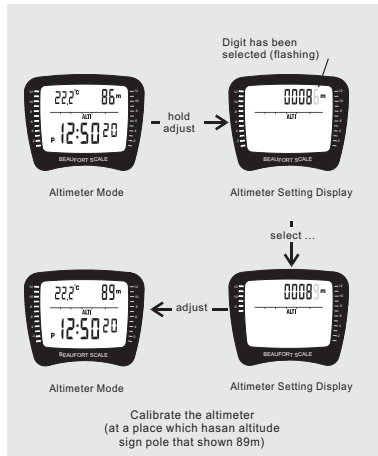
To Switch Between Units

- The WindMaster can display altitude in meter (m) or feet (ft); the WindMaster can display temperature in Celsius (C) or Fahrenheit (F).
- Press [start/stop] button to change the units as in the units select sequence.



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8.1 Altimeter Mode - Calibrate the Altimeter



To Calibrate the Altimeter

The WindMaster was calibrated for you in the factory, for normal use, you need not to calibrate the altimeter. But for vigorous users, a calibration procedure has been built-in the altimeter as well.

Before Calibrate the Altimeter

The altimeter's calibration procedure design for expert user in absolute altimeter mode.

As the absolute altitude is calculated from the air pressure, the change of air pressure would affect the altimeter reading. To achieve a more accurate reading, the WindMaster need to be calibrated from time to time as pressure may change gradually even within hours.

Calibrate the altimeter at the place which has a known altitude, such as at sea level or beside an altitude sign pole, because that altitude value has to input the WindMaster during the calibration procedure.

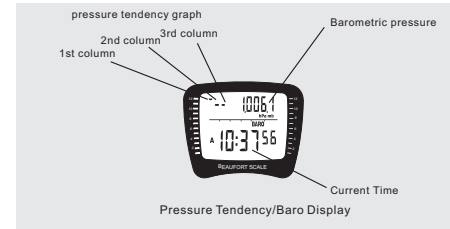
Important: Input a incorrect altitude in the calibration procedure, it results a mistaken altitude in future.

Altitude Calibration Procedures

- Press and hold the [adjust] button for 2 seconds to change the display from Altimeter Mode to Altimeter Setting Display.
- After entering the setting display, the right most digits will start flashing.
- Press [select] button to increase the number. Press [start/stop] button to select next digit for adjustment when the previous number has been set.
- After you set the altitude, press the [adjust] button to exit the setting sequence.
- To restore the WindMaster to previous altitude setting after a calibration by restoration.

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9.0 Barometer Mode - Pressure Tendency/Baro Display



Barometer Mode

Barometer Mode has two sub-displays: Pressure Tendency / Baro Display and Temp/Baro Display.

Pressure Tendency/Baro Display

In Barometer Mode, the pressure displays on the top right corner of the display.

The pressure tendency graph displays on the top left corner of the display. The current time displays in the bottom row of the display.

Pressure Tendency Graph

- The 1st column of the graph shows the relative pressure of the last 6 to 9 hours.
- The 2nd column of the graph shows the relative pressure of the last 3 to 6 hours.
- The 3rd column of the graph shows the relative pressure of the last 3 hours.
- For expert users who intend to adjust the sensitive of the pressure tendency, check the 'Pressure Tendency Value' and 'How to set Pressure Tendency Value' for setting the pressure threshold value.

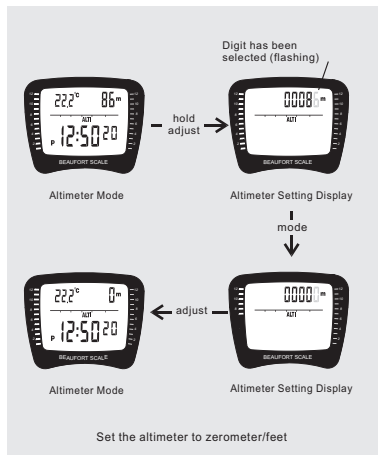
Implications of the Pressure Tendency Graph

- In general, a rise trend in the Pressure Tendency Graph forecasts a good weather ahead.
- A steady trend in the Pressure Tendency Graph forecasts a steady weather ahead.
- A fall trend in the Pressure Tendency Graph forecasts a bad weather ahead.
- Important: To get an accurate result, the user has to stay at the same altitude for over 9 hours.



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8.2 Altimeter Mode - Measure Relative Altitude



To Measure the Relative Altitude

The WindMaster can measure relative altitude, such as measure the ascending or descending altitude during a trek.

To measure the ascending or descending altitude by setting the altitude to 'zero' at a reference point such as the starting point of a trek.

The WindMaster display the altitude change automatically. You may keep monitoring your ascending/descending speed and limits by this reading.

To Set the Altimeter to Zero

Press and hold the [adjust] button to change the display from Altimeter Mode display to Altimeter setting display.

After entering the setting display the right most digits will start flashing.

To set the altitude to 'zero' meter or 'zero' feet, press [mode] button once.

After you set the altitude, press the [adjust] button to exit the setting sequence.

To Switch the Altimeter back to Absolute Altitude

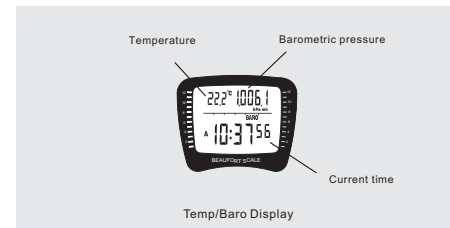
To switch the altimeter back to Absolute Measurement mode after a relative measurement by: calibration or restoration.

For calibration, check the 'Altitude Calibration Procedures' for more detail.

Restoration can be done by entering the Altimeter Setting Mode and then press [adjust] button to quit the setting mode immediately without changing any figure.

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9.1 Barometer Mode - Temp/Baro Display



To Change to Temp/Baro Display and Switch Between Units

Press [start/stop] button once to change the display from Tendency/Baro Display to Temp/Baro Display. Press [start/stop] button once again to change the units as in the unit select sequence.

Temp/Baro Display

In Temp/Baro display, the pressure appears on the top right corner of the display. The current temperature displays on the top left corner of the display. The current time displays in the bottom row of the display.

IMPORTANT: If the user intends to get an accurate reading of air temperature, the user must taken off the watch from the wrist for 20 to 30 minutes before the actual measurement. It allows no body temperature effect on the watch.

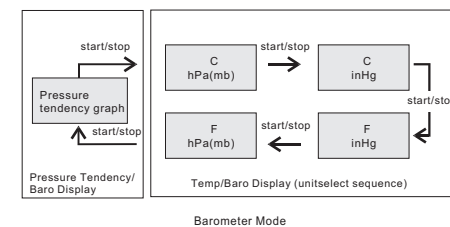
Pressure Tendency Value (PTV)

The PTV adjusts the sensitive of the pressure tendency graph. The WindMaster has a default PTV value of 2.00 hPa(mb). A smaller PTV implies that the pressure tendency graph will become more sensitive to the pressure change. A bigger PTV implies that the pressure tendency graph will become less sensitive to the pressure change.

To Set the Pressure Tendency Value (PTV)

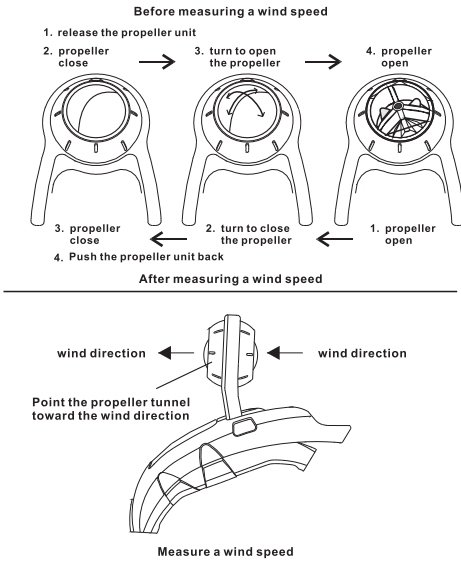
Press and hold the [adjust] button to change the display from Barometer Mode to Barometer Setting Display. The right most digit will start flashing. Press the [select] button to increase the number. Press the [start/stop] button to select the next digit for adjustment when the previous number has been set.

After you set the value, press the [adjust] button to exit the setting sequence. If no any key operation in the setting display for about 3 minute, the WindMaster will return to the Barometer Mode automatically.



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10.0 Wind Speed Mode - Before Measuring a Wind Speed



How WindMaster Measures Wind Speed

- WindMaster features a propeller that is similar to an aerovane. When the propellers facing the wind, it rotates at a rate that is direct proportional to the wind speed.

Before Measuring a Wind Speed

- Press the both Propeller Release Buttons together to release the propeller unit.
- Turn the ball-shape propeller by your thumb and index fingers until the propeller blades are entirely opened to air current and is not sheltered by the case.

To Measure Wind Speed

- Select Wind Speed Mode.
- Point the propeller's tunnel direct towards the wind direction.
- Make sure that the propeller blades are free to rotate.
- Whenever the wind pass through the propeller, the blades rotate.
- The WindMaster starts to measure and shows the average wind speed or wind chill factor, maximum and current wind speed.

After Measuring a Wind Speed

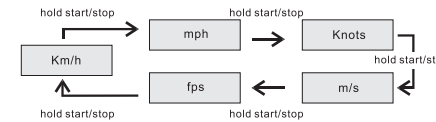
- **Important:** After a wind speed measurement, close the propeller to prevent dirt gets into it.
- Push the propeller unit back to its normal position until a 'click' sound.

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10.2 Wind Speed Mode - Wind Chill Factor & Beaufort Scale

Beaufort number	m/s	MPH	International Description	Observed conditions
0	<1	<1	Calm	Calm: smoke rises vertically
1	1	1-3	Light air	Directions of wind shown by smoke drift but not by wind vanes
2	2	4-7	Light breeze	Wind felt on face; leaves rustle, vanes moved by wind
3	4	8-12	Gentle breeze	Leaves and small twigs in constant motion; wind extends light flag
4	7	13-18	Moderate	Raises dust, loose paper, small branches moved
5	10	19-24	Fresh	Small trees in leaf begin to sway; crested wavelets form on inland waters
6	12	25-31	Strong	Large branches in motion; whistling heard in telephone wires; umbrellas used with difficulty
7	15	32-38	Near gale	Whole trees in motion; resistance felt walking against wind
8	18	39-46	Gale	Breaks twigs off trees; impedes walking
9	20	47-54	Strong gale	Slight structural damage occurs
10	26	55-63	Storm	Trees uprooted; considerable damage
11	30	64-72	Violent storm	Widespread damage
12	≥33	>73	Hurricane	

Beaufort Scale



What is Wind Chill Factor

- The wind chill factor is a temperature factor that combine the temperature and wind blowing effects. As blowing wind makes you feel as though the temperature is bottom than the actual one.
- For instant, if it is 10 degree Celsius and the wind blows at 10 miles an hour, people feel as if the temperature is minus 9 degree Celsius at no wind condition. In this case, the wind chill factor is minus 9 degree Celsius.

What is Beaufort Scale

- Beaufort Scale is the longest and most widely used set of criteria to describe the wind.
- Beaufort Scale is a standard that describes wind conditions and its effects on land as well as at sea. Beaufort Scale standardize the wind speed into 13 categories, from 0 (calm) to 12 (hurricane).
- Check the 'Beaufort Scale' table for detail.

To Switch among Units

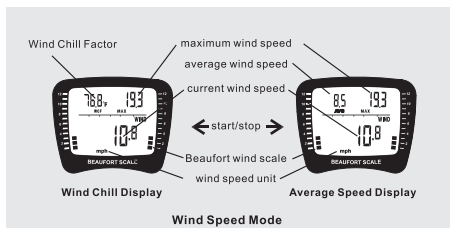
- The WindMaster displays wind speed in Km/h (Kilometer per hour), mph (mile per hour), Knots, m/s (meter per second) and fps (feet per second) unit.
- Press and hold [start/stop] button to change the unit as in the unit selection sequence. Release the button as desire unit was displayed.

Wind Speed Mode Auto Return

- In Wind Speed Mode, if there is no key operation for 30 minutes and the current wind speed is zero, the WindMaster will return to Real Time Mode.

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10.1 Wind Speed Mode - Wind Chill Display & Average Speed Display



Wind Speed Mode

- Wind Speed Mode has two sub-displays: Wind Chill Factor Display and Average Wind Speed Display.
- Press [start/stop] button to switch between the Wind Chill Factor Display and Average Wind Speed Display.

Average Wind Speed Display

- When the average wind speed display is being selected, the average wind speed will be displayed on the top left corner of the display. The maximum wind speed displays on the top right corner of the display. The current wind speed displays on the bottom row of the display.
- The bar indicators on the both sides of the display indicate the current wind speed in Beaufort Scale.

Wind Chill Display

- When Wind Chill Display is being selected, the wind chill factor will be displayed on the top left corner of the display. The maximum wind speed displays on the top right corner of the display. The current wind speed displays on the bottom row of the display.
- The bar indicators on the both sides of the display indicate the current wind speed in Beaufort Scale.

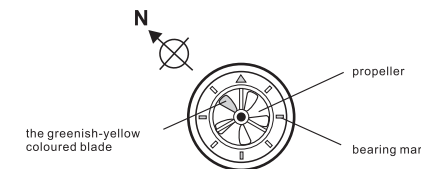
IMPORTANT: If the user intends to get an accurate reading of air temperature as well as wind chill factor the user must taken off the watch from the wrist for 20 to 30 minutes before the actual measurement. It allows no body temperature effect on the watch.

To Reset the Maximum Wind Speed

- Press and hold the [Adjust] button for 2 seconds to reset the maximum wind speed, when the maximum wind speed is displaying.

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11.0 Mechanical Compass - Use the Propeller as a Mechanical Compass

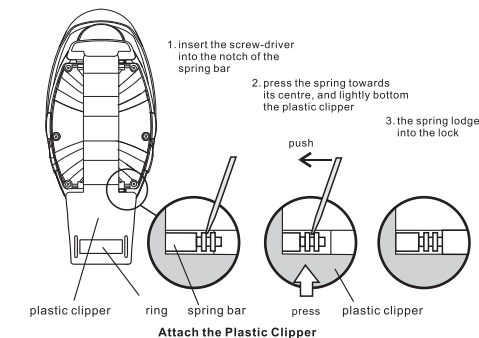
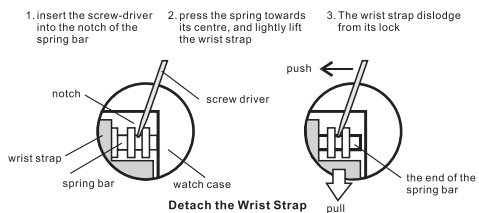


Use the Propeller as a Mechanical Compass

- Your WINDMASTER measures temperature, pressure, altitude, wind speed, the WindMaster tells compass directions as well.
- One of the propeller blades was colored to indicate the north pole.
- Eight bearing marks (North, North-East, East, South-East, South, South-West, West, and North-west) were engraved on the propeller unit as reference points.
- To use the Mechanical Compass
- To check bearing, make sure the propeller is opened and the propeller unit in it's normal position.
- Tilt your WindMaster until the propeller blades are parallel to horizon. The propeller blades should be free to rotate.
- Minimize the air current pass though the propeller tunnel when you taking a compass reading.
- The greenish-yellow coloured blade of the propeller indicates the direction of north pole.
- Make use of the bearing marks on the propeller unit to check out other directions.

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12.0 Accessories - Accessories and its Use



Accessories

- Your box contains a neck-cord and a plastic clipper. These accessories are included for the user to wearing the WindMaster on their neck or the likewise.
- Your box also contains two soft nylon clothes. One is a nylon pouch which you can store your WindMaster and its accessories while travelling. Another one is a nylon cover which you can cover your WindMaster while taking part in activities like mounting biking. This cover keeps your WindMaster away from dust and dirt.
- Your accessories was packed inside the paper cover. Lift up that cover by pressing the places that printed with a 'PRESS' on the sides of the cover.

To Detach Wrist Strap from the WindMaster

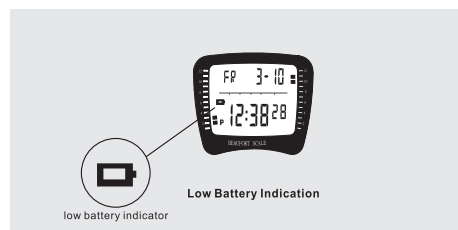
- Detach the upper and bottom wrist-straps from the WindMaster by using a small screw driver.
- Insert the tip of the screw driver into the notch of the spring bar.
- Press the spring bar towards its centre, then lightly lift the wrist strap, the wrist strap will dislodge from its lock.

How to Attach the Plastic Clipper to WindMaster

- Remove the spring bars from the wrist-straps and insert these two spring bars back into the plastic clipper's spring bar holder.
- Place the plastic clipper on the back of the WindMaster as in the diagram.
- Insert the tip of the screw driver into the notch of the spring bar.
- Press the spring bar towards its centre, then lightly lower the plastic clipper until it lodges into the lock.

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13.0 Battery Low Detection



Low Battery Detection

- When a battery low indicator appears on the display it means that the capacity of the battery is low. It is recommended to replace a new battery (CR-2032).
- Complete the battery replacement by a certified service agency, because this WindMaster contains precise electronic sensors and components.
- However, if the appearance of battery low indicator is caused by an extremely low temperature, the indicator will be disappeared when normal temperature returns.

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14.0 Specifications

Real Time Mode

- Hour, minute, second, am, pm, month, day day of week or barometer pressure tendency display (Selectable between day of week)

Time System

- 12-hour or 24-hour format

Calendar System

- Auto-Calendar pre-programmed from the year 1997 to 2049

Alarm Mode

- 2 daily alarms
- Hourly chime

Alarm Sounds

- Sounds for 30 seconds at preset time of real time clock

Chronograph Mode

- 1/100 second resolution

Measuring Range

- 23 hours 59 minutes 59.99 seconds

Measuring Mode

- 10 lap memories
 - Recall lap memories and total time
- ### Timer Mode
- 1 second resolution

Count Down Timer

- Quick set function (3, 5, 10, 15 and 45 minutes)
- One user-define timer up to 23 hours 59 minutes 59 seconds

Operation Mode

- Count down

Timer Sounds

- Beep at last 5 seconds and
- Sounds for 2 seconds when count to zero

Yacht Racing Timer

- Three steps of count down timers
- Step 1
Programmable from 0 to 39 minutes
- Step 2
Programmable from 0 to 99 minutes
- Step 3
Programmable from 0 to 99 minutes

Operation Mode

- Count down

Timer Sounds

- Step 1: Two beeps per second for 2 seconds when count to zero

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14.0 Mode Specifications

- Step 2: Three beeps per second for 2 seconds when count to zero
- Step 3: Four beeps per second for 16 seconds when count to zero
- (If current step is the last one, the timer sounds same as step 3)

Altimeter Mode

- 1m or 3.28ft resolution

Measuring range

- -702m to 9164m or -2306ft to 30065ft (Assume sea level is 1013.21 hPa/mbar and 0m)

Display range

- -9164m to 9164m or -30065ft to 30065ft (Depends on the altitude reference setting)

Altitude Reference Setting

- 0m to 8999m or 0ft to 29999ft

Sampling Interval

- First 3 minutes: 1 second
- After 3 minutes: 1 minute

Barometer Mode

- 0.1 hPa/mbar or 0.01 inHg resolution

Measuring range

- 300.0 hPa/mbar to 1100.0 hPa/mbar or 8.84 inHg to 32.44 inHg

Display range

- Same as measuring range

Pressure Tendency Setting

- 0.01 hPa/mbar resolution
- 0.00 hPa/mbar to 99.99 hPa/mbar

Sampling Interval

- First 3 minutes: 1 second
- After 3 minutes: 1 minute

Thermometer

- 0.1 C or 0.18 F resolution

Measuring range

- -10.0 C to 60.0 C or 14.0 F to 140.0 F

Sampling Interval

- First 3 minutes: 1 second
- After 3 minutes: 1 minute

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14.0 Specifications

Wind speed Mode

- 0.1 Km/h resolution

Display range

- 0.0 Km/h to 300.0 Km/h

Selectable units

- Km/h (Kilometer per hour)
- mph (Mile per hour)
- Knots
- m/s (Meter per second)
- fps (Feet per second)

Beaufort bar display range

- 0 to 12

Wind Chill Factor

- 0.1 C or 0.18 F resolution

Display range

- -40.0 C to + 80.0 C or -40.0 F to +176.0 F

Back light

- Electro-Luminescent (EL) back light

Battery

- Single 3V lithium battery (CR2032)

Battery Life

- Approximately 1.5 years under the following conditions
 - 30 seconds alarm operation per day
 - 5 seconds EL back light operation per day
 - 3 minutes sensor mode operation per day

Battery Low Detection

- Battery voltage less than 2.2V +/- 0.2V

Leads you to the extremes... WindMaster