



waterstars
Your digital training partner

WATERSTARS STORM

User Manual

V 1.3
2014/07/02

1. Acknowledgements

Waterstars have to give acknowledgement to all the people, companies, associations and clubs, who have helped during the long development; always encouraged us, saying that the global community of the rowers has a need for a new and innovative product line to help, improve the efficiency and increase the pleasure of rowing and sculling.

2. Warranty

Waterstars tries to think in a sustainable way. Our instruments are made of the lowest energy and material consumption what is possible.

Please contact your local distributor in case of any malfunction.

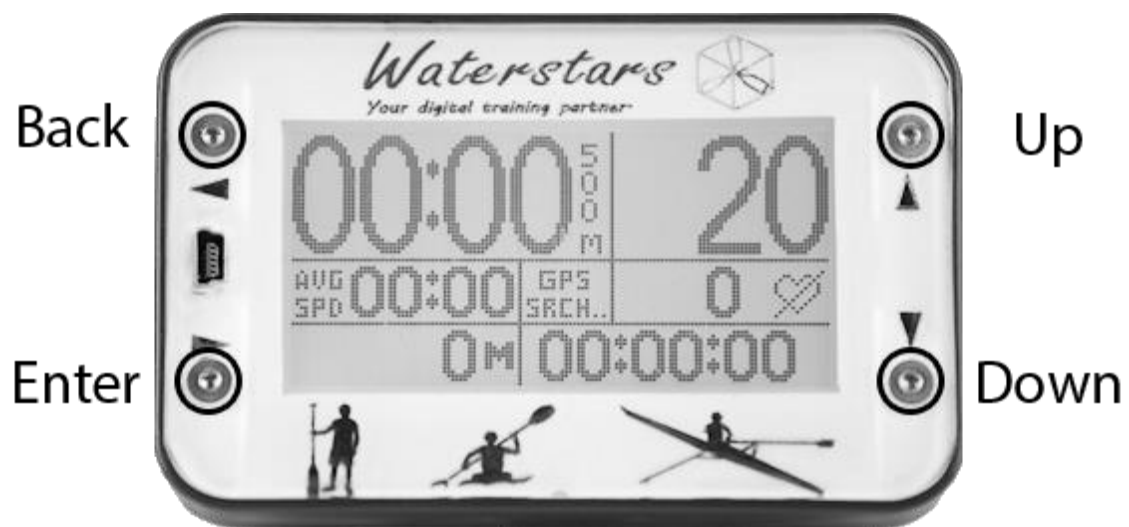
Waterstars gives a 30 months warranty for electrical and mechanical components of all the instruments, and 1 year for the battery.

Waterstars believes that the instruments are designed and manufactured for a much longer period. If you have any problem with your instrument of any age, please do not hesitate to contact us, and we will find the best solution with a generous discount, if your instrument needs to be replaced.

For further assistance and any questions according to the instrument itself, maintenance and technical support, please write us to info@waterstars.eu, or call us on our technical hotline +36305676424.

3. Installation

The installation of any Waterstars instrument is very easy. Just stick the velcro to the bottom of the instrument, fix the T-bar or to the footstretcher with the screws or the double sided tape included in the package, stick the other side of the velcro on the T-Bar, and you can just place the Waterstars to the console. The instrument can be fixed to any smooth surface with the velcro, if you are not intending to use the mounting. Kayak or canoe users can purchase the *Angle mount* for horizontal surface mounting.



4. Operation

4.1 Switch on/off and the menu system

Waterstars Storm has touch buttons to ensure the best user experience and long life of the instrument by eliminating moving components. The touch buttons are the screws on the front face of the device.

To turn on the instrument, you must hold your finger on the left bottom button for at least 3 seconds. If the instrument does not switch on, you most probably have to charge it.

To switch off the instrument, please go to the menu with the back button, navigate to „Switch Off” with the up and down buttons and push the enter button.

Waterstars has an easy to use menu system to access the desired feature quickly. To enter the menu system, push the back button. Waterstars Storm has the following menu tree:

- Mode
 - o Just row
 - o Coach mode
 - o Analysis
 - o Training mode
- Settings
 - o Backlight
 - o Date & Time
 - o Logging ON/OFF
 - o Heart Rate Sensor
- Switch off

4.2 Mode menu

Just row mode

When the device switches on, you will see the „Just row” mode as default. The screen automatically refreshes the stroke rate, the speed, the heart rate and the stopwatch. To start/pause the stopwatch, press the down button. To reset the stopwatch, press the up button.

Summary:

- Back button: Enter menu
- Enter button: No function
- Up button: Pause/Reset Stopwatch
- Down button: Start/Stop timer

Analysis mode

We suggest using this feature in the case of a competition/interval where you need immediate feedback about your overall performance in the time domain.

The instrument saves the average stroke rate and the number of strokes every 10 seconds to a temporary memory, until the last 128th interval. This means 1280 seconds or 20 minutes. The instrument always saves the last 128 interval. When the interval is longer than 20 minutes, the last 20 minutes will be saved.

The analysis can be accessed from the „Mode” menu item. There are two types of analysis:

Normal mode

In normal mode, the Just row screen shows the stroke rate and stroke number according to the given interval. The interval can be selected by the up and down button.

Summary:

- Back Button: Back to menu
- Enter Button: No action
- Up Button: Change interval up (earlier)
- Down Button: Change interval down (later)

Graph mode

The stroke rate versus time is shown on a graph. Each column represents an interval, and the height of the column is proportional to the stroke rate. With this mode, a quick stroke-rate analysis of the training or competition can be carried out.

Summary:

- Back Button: Back to menu
- Enter Button: No action
- Up Button: No action
- Down Button: No action

Coach mode

The coach mode is useful for coaches to measure the stroke rate, and split times by using Waterstars Basic. The timer starts by touching the down button.

To measure the actual stroke rate, the down bottom must be touched at the beginning (or any other certain part) of each stroke. The instrument calculates the stroke rate from the elapsed time between two touches.

The up button pauses the time, the second touch resets the timer. The split times can be measured by touching the enter button.

Summary:

- Back button: Back to menu
- Enter button: Split time
- Up Button: Pause/Reset Timer
- Down button: Start time/Measure Stroke Rate

Training mode

Training mode is designed to set up and execute training plans in a user friendly and intuitive way to increase the efficiency and joy of your training.

4.3 Settings menu

Backlight

To set the required backlight level, push up and down button until reach the desired level of backlight brightness.

Summary:

- Back Button: Back to menu
- Enter Button: No action
- Up Button: Increase backlight
- Down Button: Decrease backlight

Logging

Waterstars can save the measured data (time, acceleration, stroke rate, speed and GPS coordinates) of any training for further analysis. On default, the intervals are saved to the internal memory in separate files. In case of full trainings

With the Enter Button, then the system returns a message: „Now logging!“ in the case the logging is on. By pushing the enter button again, the message is „Logging stopped!“, in this case the instrument does not save any data to the internal memory until the next restart.

The logging mode has no relation with the „Memory mode“.

Date & Time

This menu is to display and set the time and date.

The Date and Time is displayed in the order: Year/Month/Day. By touching the enter button, it is possible to step between each character. Set the values with the Up/Down buttons. Then by touching the back button, the system asks to save changes, then returns to the main menu.

Summary:

- Back button: Security question
- Enter button: Switch between the characters
- Up Button: Change the value one higher
- Down Button: Change the value one lower

Heart Rate Sensor

Waterstars Storm can be equipped with two type of heart rate sensor: a 5.3kHz and the ANT+ protocol. You can decide which mode to use according to the heart rate strap you have, or what kind of measurement would you like to carry out.

The 5.3kHz module senses the signals of older and low-cost straps, the ANT+ is the state of the art technology to measure heart rate in a very accurate way, without the risk of interchanging the straps' signals.

In case of the ANT+ mode, the strap must be approximated to a small vicinity (1 cm, 0.5") of the



instrument to pair them together.

5. Maintenance

The instrument does not require any special maintenance. Waterstars is waterproof, the USB connector too. If water entered into the connector, we are suggesting you let it dry before connecting to the computer or charger to maintain the proper operational conditions.

Please use a cotton cloth and clean water to clean the instrument and remove grit.

6. Technical specifications

Dimensions: 100 (W) X 65 (H) X 25 (D) [mm]

Weight: 129 g