



NAUTEK
TACTICAL ELECTRONICS

RACE SCREEN user guide.



✓ TAKE A GOOD START

with the distance to the start line.

✓ SAIL FASTER

by optimizing your upwind and downwind angles.

✓ IDENTIFY THE WIND SHIFTS

and current shifts thanks to the tactical compass.

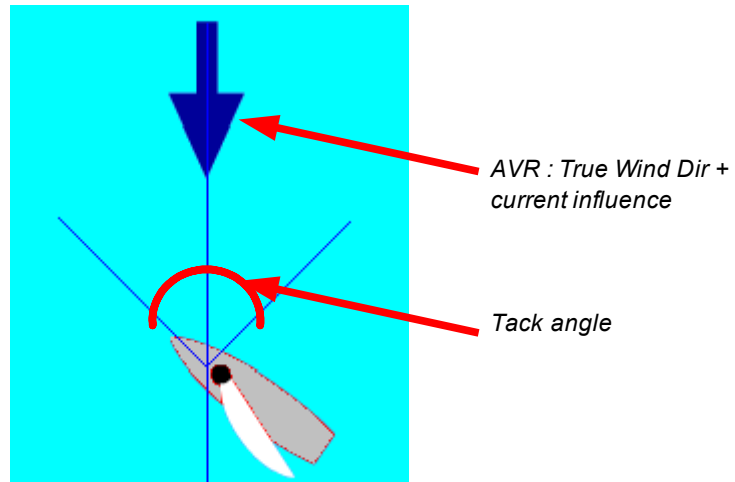
Up to the V2.0 firmware :

- New automatic synchronisation of the race countdown timer at any subsequent gun to the nearest full minute.
- New short cut for quick access to the start line extremities settings instead of the VTD setting.
- New confirmation message when recording each extremities of the start line.
- Full waypoints and routes management for coastal races.

Content

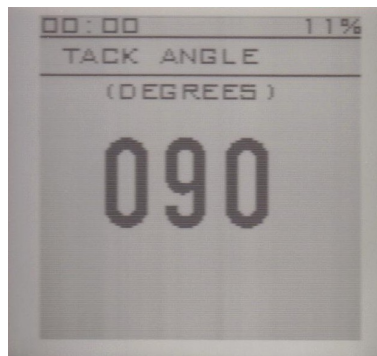
1/ Before going on the water :	2
2/ Once on the race zone, set the actual True Wind Direction:	3
3/ Using the distance to the starting line:.....	4
4/ Use the race screens in automatic mode	7
5/ Once the first race run is finished.....	8

1/ Before going on the water :



- Verify that your Tack angle is set to the correct value :
 - for a sportboat : use a 90° standard value.
 - for a sport catamaran : use a 110° standard value.

Main Menu / TUD - VMG settings / Tack angle

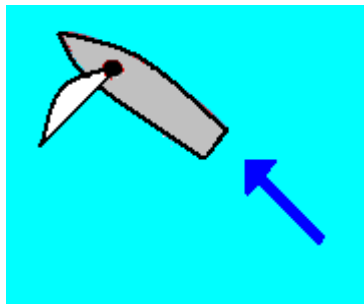


Or launch a calibration process by sailing on your best upwind by recording your mean course on each tack.

2/ Once on the race zone, set the actual True Wind Direction:

As your SC200 displays a COG value and not a magnetic heading, it needs speed to display a bearing information. You cannot get a bearing value when your speed is equal to zero.

-Take a wind direction measurement in sailing downwind for example. Note this value and add to it 180° or use the value given by the committee, if it is available.

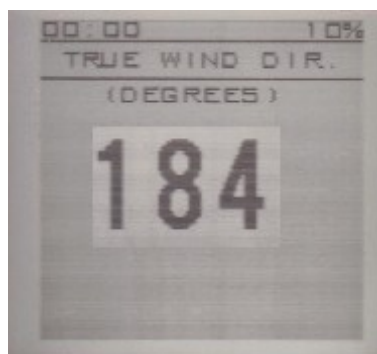




COG = 4°
so TWD = 184°


From any display mode of your device, you can set the True Wind Dir by pressing simultaneously



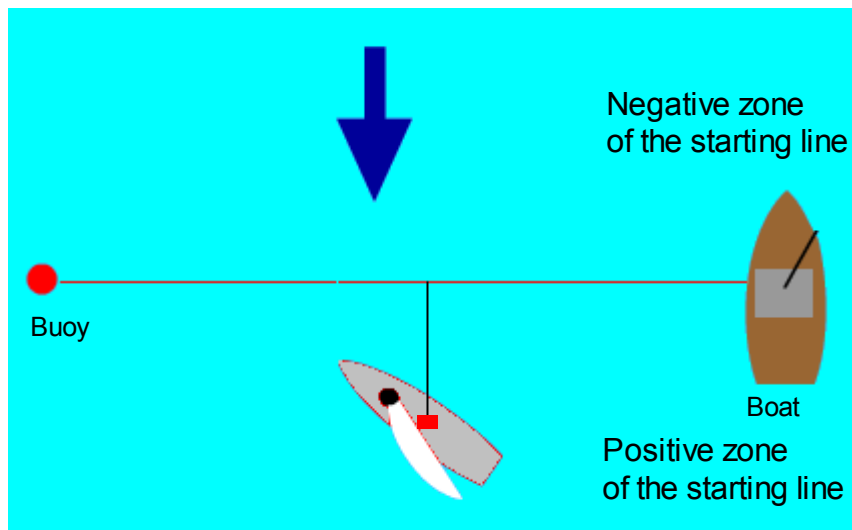
and



and set the correct value by using  and 

Press  to come back to your previous screen.

3/ Using the distance to the starting line:



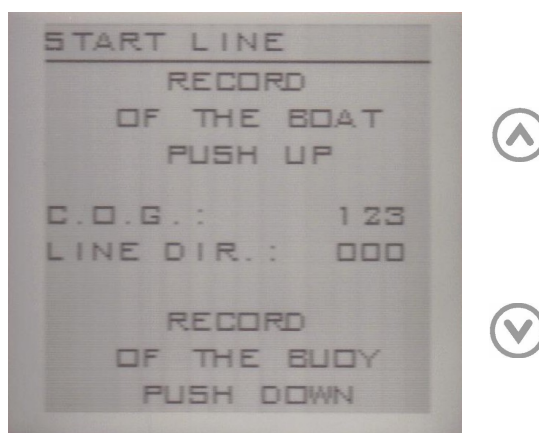
From any display mode of your device, MULTI SCREEN, or RACE SCREEN, you can set at any time the features of the starting line, by recording the position of the committee boat and the end of line buoy.


-To fix these positions, press simultaneously on  and 

(In RACE SCREEN mode, press DOWN, keep DOWN pressed and press on MODE in order to prevent to stop the automatic display mode)

-Once close the the committee boat, press : 


An **OK** confirmation message is then displayed on the screen of your SC.



-Once a first extremity recorded, sail to the other extremity of the line. When close to the end of line buoy, press 

A second **OK** confirmation message is then displayed on the screen of your SC.

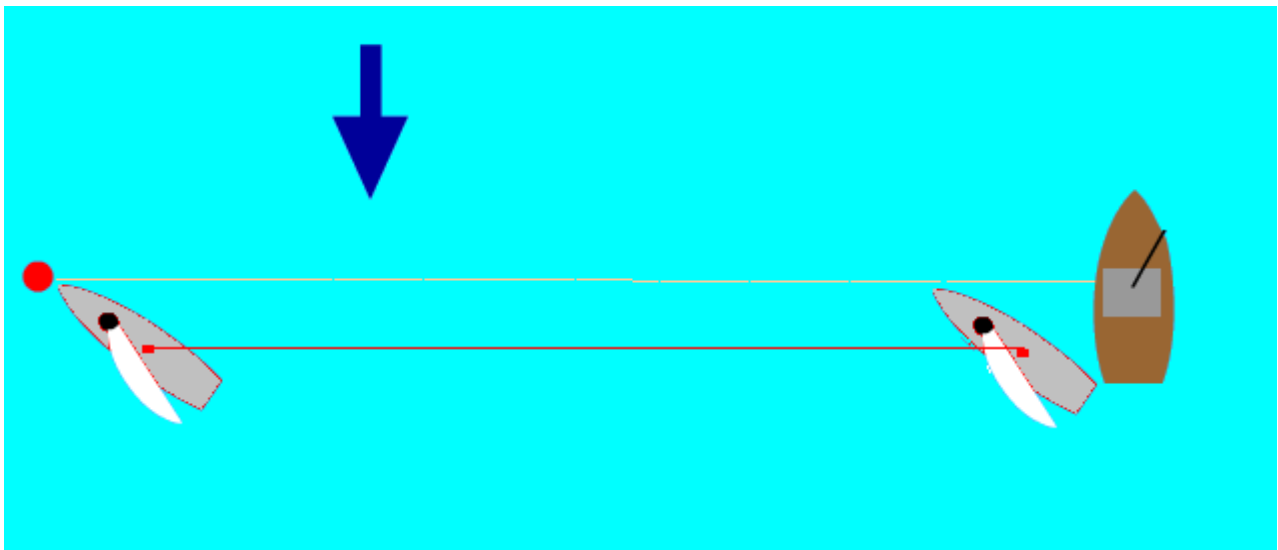
(Please note that the bearing you are following when you are sailing along the line is displayed as COG on this screen).

-At any time, press  to come back to your previous navigation screen, where you will be able to time the initial gun.

Remark 1: *You are free to record the 2 extremities of the line in the order you can.*

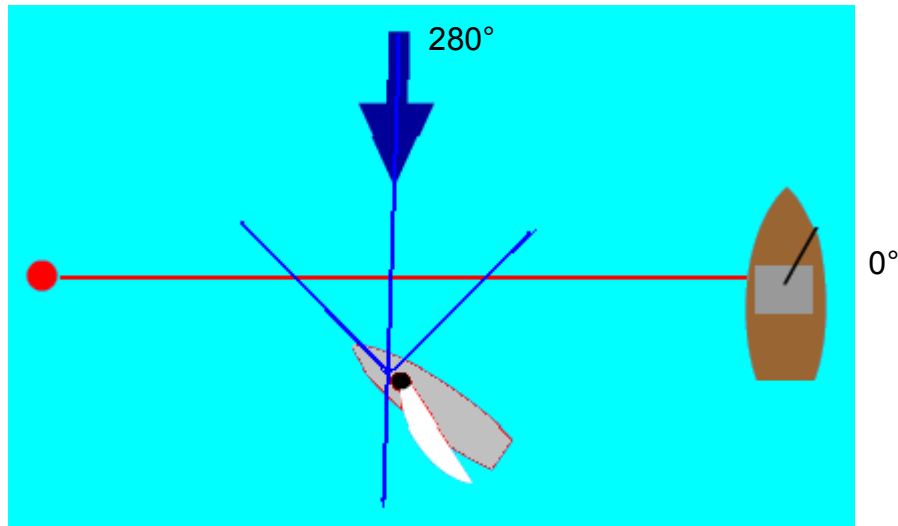
As long as you don't store a new position for one of the two extremities, the previous position stay stored in your device.

Remark 2: *Try to keep the same boat angle to the the line when you are recording the positions of the two extremities in order to decrease the error of the distance [bow of your boat to SC200]*




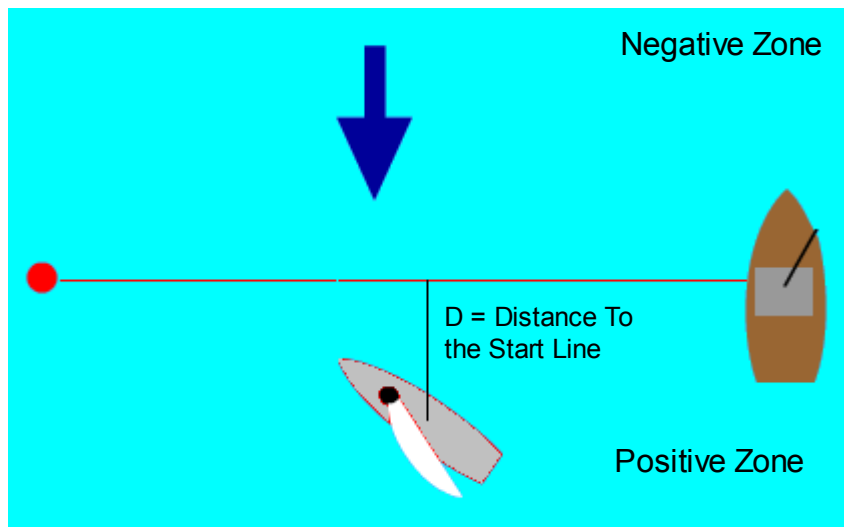
-Once the two line extremity positions are recorded (do not care of the recording order) the bearing of the start line [boat to buoy] is calculated and displayed as *LINE DIR.*

This LINE DIR. can help you to determine the line bias and to choose the best side of the line for starting.



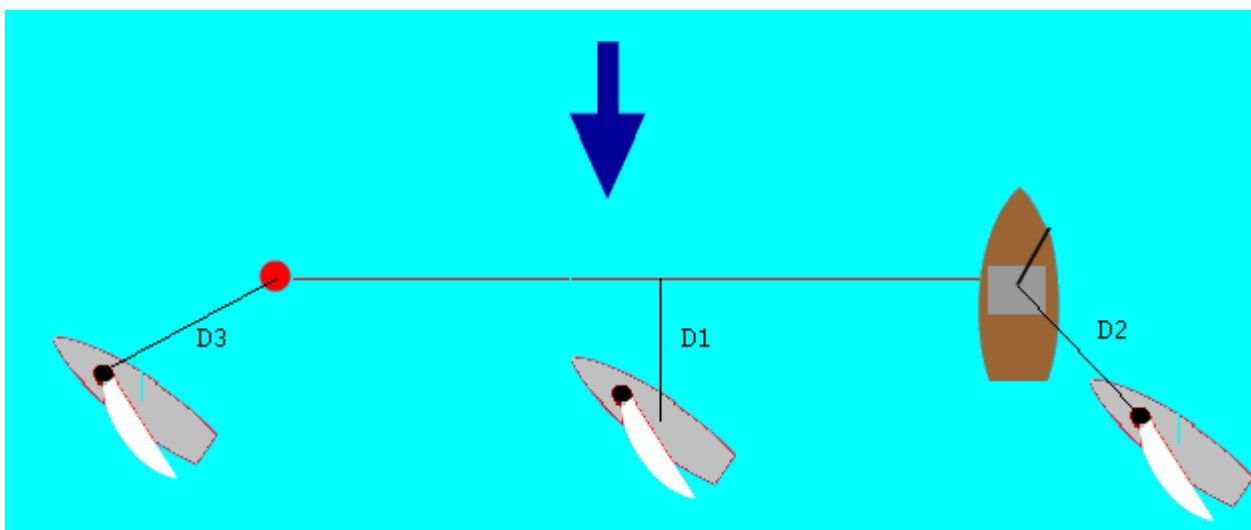
On this example, the start line looks to be 10° biased on star board from the calculation of your device. Prefer to start close to the boat.

-Press  and choose the RACE SCREEN mode to follow the variation D of the distance to the start line in meters or in feet (depending on your setting).



Before the start, if the Distance info is positive, then you are on the correct side of the line. If the Distance info is negative, then you should have crossed the line.

Please remember that the SC200 standard accuracy for position is around 3 meters (10 feet).



-The SC200 displays the shortest distance D1 when the boat is sailing along the segment [committee-end of the start line]

-The SC200 displays the distance to the committee when the boat is sailing above the committee: distance D2, and the distance to the end of the starting line buoy when the boat is sailing below the buoy distance D3.

Remark 1 : As the SC200 does not use the same formula to calculate D1, D2, D3; please note that the accuracy of D1 can be better than the accuracy of D2 and D3.

Remark 2 : On the same way, and for the calculation of D1, it is not when the boat will be closer of one extremity of the starting line that the accuracy of the distance D1 will be on its best, but the crew can have in this case a correct visibility to the mark.

Remark 3 : That is around the middle of the starting line than the D1 distance will be the more accurate.



Remark 4 : Please keep in mind that the mean horizontal dilution for the GPS technology is 3m (50% of the time). So that when you feel to cross the line with '0' displayed on your SC200 screen, you may be in advance to the start...

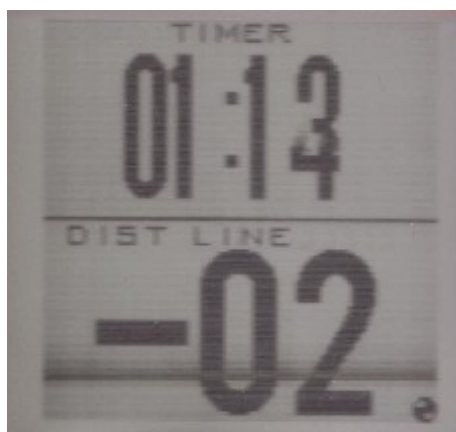
All the settings for your SC200 are now correct for this run !

4/ Use the race screens in automatic mode .

Main Menu / Race screen

-Press  until you have the countdown race timer displayed on your SC200.

-Press  to start the countdown of the race timer at the signal. You can synchronize the timer value to the nearest full minute, just by pressing 



-Once the timer has lapsed, the race screen # 1, which displayed time to start and distance to the start line will automatically disappear.

The new race screen #2 will automatically appear. This is the upwind race screen displaying SPEED / course shifts (TUD). It will be displayed while you keep in sailing upwind.



-Once arrived at the upwind buoy, and as soon as you will begin to sail downwind, the screen #2, the upwind screen displaying SOG/TUD will be automatically be replaced by the screen #3, the downwind screen, displaying SOG/VMG while you keep in sailing downwind






and so on...



This way, the SC200 displays alone and automatically the tactical information you need according your course over ground. You can now just think about making the boat go fast and not about how to use your electronics.

Please note : you can change the contents of the display of race screens #1, #2, #3 according your needs before going on the water in the menu : *Device Settings / race screens* and choose the content of race screen 1 Up (up side of screen 1), race screen 1 down (low side of screen 1) and so on...

5/ Once the first race run is finished.



Press  until the chrono is displayed and press  to stop it.
Press one more time  to set the timer to its default value for the next start.


This way, you have also recorded your GPS tracks while sailing your run from the starting signal to now.

On the first  press, the  record in progress icon disappears on the right bottom side of the screen.

For the next race signal just press again  to restart the countdown of the timer.

The automatic display switching mode is enabled again, and a new record is now in progress. At the end of the day, note that you will get as many records as many time as you have started the timer.

At any time of the race, please note that you can press simultaneously on  and  to reset the True Wind Direction if this one has changed, by increasing or decreasing the value.

Once done, just press  to go back to your previous race screen without disabling the automatic mode.