Raymarine®
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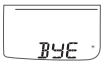
Quick Start Guide for Race Master

Notice:

For full user documentation for the Micronet family and for other useful infomation please refer to the CD-ROM supplied with your product, or to the Raymarine website at www.raymarine.com.

Display Features

Switching on and off

To switch your Race Master on or off, press ▼ for two seconds  

Standalone Operation (see page 4 for networked mode)

Top Pane

Heading is permanently displayed in the top pane.

Bottom Pane

There are three Functions ; ▼ scrolls through the Functions.

Race Timer (TMR), a countdown timer and elapsed time clock.

Wind Shift (WND), which displays wind shift information while sailing close hauled and the angle of the boat from the mean downwind direction while sailing downwind.

Line Bias (LiNE), for detecting the favoured end of the starting line.

The **Bar Graph** shows Wind Shift information (see page 5)

Power Management and Battery Life

Power status is shown by two icons: battery level  and charge rate  . The more bars showing, the higher the battery level/rate of charge.

Note: If the internal battery is fully charged, the charge rate icon will always indicate low.

Artificial light WILL NOT recharge the battery. Placing your Race Master close to an artificial light will seriously damage the display. Only recharge in natural daylight.

If the display is to be stored for a long period before next use, ensure that the battery is fully charged before storage.

Backlighting

To adjust the display backlighting press and hold ,. then use and to select from OFF, or levels 1,2,3.

Keylock

Keylock can be enabled in setup to protect from accidental key presses.

When keylock is enabled, pressing a key causes the unit to give the unlock key prompt. Press followed by to unlock the keys (the keys will function for one minute, after which the keys will automatically relock).

Before the Race

Set the Mean Wind Direction (MWD) and Tack Angle (TAK)

Go to the Wind Shift (WND) page.

Steer your average close hauled course on either tack.

Press and hold . Rotating lines will appear on the display.

When the display shows the pop-up “TAC NOW”, tack the boat and sail close hauled on the other tack.

The rotating lines will reappear on the display, hold your close hauled course until the tack angle pop-up appears.

The displayed tack angle can be adjusted using and ..

Capture the Line Perpendicular and the Line Bias

Go to the Line Bias (LiNE) page.

Sail directly along the start line, then press .

A pop-up is displayed showing the Line Bias angle and the favoured end of the start line based on the captured Mean Wind Direction (MWD). When the pop-up closes, the bottom pane shows the Line Perpendicular (the bearing at right angles to windward of the start line).

To check the direction of the Line Bias

If the wind changes prior to the start, you can check the Line Bias at any time as follows:

Go to the Line Bias (LiNE) page.

Steer the boat towards the eye of the wind until the Heading in the upper pane matches the Line Perpendicular in the lower pane.

If the wind is coming from the starboard side, the line is starboard biased. If the wind is coming from the port side, the line is port biased.

Set the Start Timer

Go to the Race Timer (TMR) page.

Press for 1 second, the last countdown value is shown, flashing.

If required adjust the countdown value using and .

Press to exit edit mode and prepare for countdown.

At the first "gun" press to start the countdown.

The timer will sound a single beep at the end of each minute.

During the last minute, the timer will sound a beep every ten seconds.

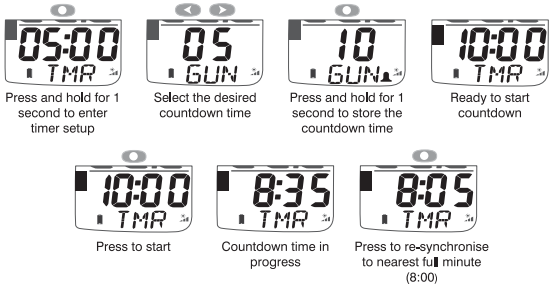
During the final ten seconds, the timer will beep every second.

“START” will be indicated by a triple beep.

At the end of the countdown, the Wind Shift (WND) page is displayed.

The timer will count the elapsed time in the background, until stopped by scrolling to the Race Timer (TMR) page and pressing for two seconds.

To adjust the timer at any time during the countdown, press to resynchronise the countdown to the nearest minute.



During the Race

Sailing upwind.

When the Wind Shift (WND) page is selected, Wind Shift is shown as a + (lifted) 

or - (headed) 

value in the lower pane.

Bar Graph above the centre line indicates a lift, below indicates a header (see page 5)

Oscillating wind pattern

If the wind is swinging regularly either side of the Mean Wind Direction (MWD), you should tack on headers to keep sailing on the lifted tack, i.e. you should tack on “-” digital or bar graph indications.

Permanent wind shifts

These can be recognised as a constant header on one tack, and a constant lift on the other tack. In this situation, you can adjust the Mean Wind Direction (MWD) as follows:

Sail close hauled on either tack.

If on starboard tack, press ➢. If on port tack tack, press ◄. The new Mean Wind Direction (MWD) is captured.

The Mean Wind Direction (MWD) pop-up is displayed.

If required, the value can be adjusted using ◄ and ➢..

Sailing Downwind

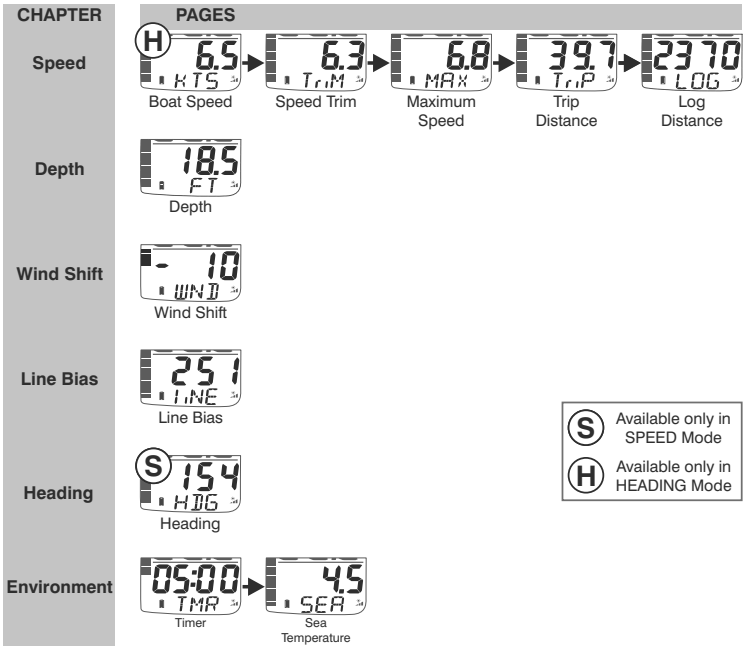
Gybe to keep the bar graph low, to sail on the headed tack.

When the Wind Shift (WND) page is selected, Downwind Angle is shown on the numeric display and the direction is shown by ↳ (Port) or ↲ (Stbd), e.g.the example shows that the boat is sailing 20 degrees to starboard of the mean down wind direction.

The bar graph displays the angle of the boat from the mean downwind direction in 2.5 degree steps from 0 to 50 degrees (see page 5)

Networked Mode Operation

When Speed, and Depth transducers are connected via the Hull Transmitter, the following data chapters and pages are available. Use ▼ to scroll through the chapters and ◄ and ➢ to move between the pages.



Display Modes

You can select from several display modes in setup, the most commonly used modes are:

Heading Mode (default): the top pane of the display always shows the boat's Heading and the Heading pages is removed from the bottom pane rollover. The bar graph can be configured to show **Wind Shift** (default), Depth or Speed Trim.

Speed Mode: the top pane of the display always shows Boat Speed and the Boat Speed page is removed from the bottom pane rollover. The bar graph can be configured to show **Speed Trim** (default), Depth or Wind Shift.

Depth Pop-up and Depth Shallow Alarm

To warn of shallow water, a depth pop-up and shallow water alarm can be configured in setup.

Depth Pop-up: when the depth is less than a pre-set value, the Depth page automatically replaces the data item displayed in the lower pane.

Depth Shallow Alarm: sounds to indicate that the water depth has fallen below a preset level. The “bell” icon is displayed in the lower pane.

Speed Trim

A speed trim function is available, the bargraph shows the percentage difference between the current boat speed and a reference speed.

The Race Master automatically calculates the reference speed as the rolling average of the boat speed over the previous two minutes; this value is shown in the lower pane of the Speed Trim (TriM) page.

If required, you can use the Speed Trim (TriM) page to lock the reference speed. Pressing captures the current boat speed as the reference for the trim function and the locked value is displayed. Once locked the reference speed remains fixed until the Race Master is switched off.

Bar Graph Functionality

The bar graph can be set to show one of the data items described below.

Wind Shift

Upwind, wind shift is indicated using a fixed scale of +/- 25 degrees about a central zero. Each segment of the graph corresponds to 2.5 degrees of shift.

Downwind, the graph indicates the angle sailed relative to the Mean Wind Direction (MWD) from a zero at the bottom of the graph. Each segment of the graph corresponds to 2.5 degrees of shift.

Depth

Depth is indicated using a fixed scale 0 to 20m with zero at the bottom of the graph. Each segment of the graph corresponds to 1m of depth. The bar graph always indicates depth in metres, even if other depth units are chosen for the digital display.

Speed Trim

Speed trim is indicated using a default scale of +/- 25 percent about a central zero. The scale can be set between +/- 25 and +/- 100 percent in setup.

Additional Micronet Functions

If other Raymarine Transmitters or external NMEA devices are connected to the network, additional modes and data pages are available. See the Race Master System guide for details

Setup and Calibration

To enter setup mode, press and hold for two seconds from any data page except Wind Shift (WND) or Timer (TMR).

Setup mode is structured into Chapters, each containing one or more related Pages

The button scrolls through the Chapters. The and buttons scroll forward and back between pages. Scroll to the chapter heading page before changing chapter.

To change a setting: press , the changeable value flashes, use and to edit the value.

To toggle a two state value, press .

For details of setup mode, see the full user guides.

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