

WatchMate Vision® User Guide

We hope you'll find your new WatchMate Vision to be easy and enjoyable to use. We've worked hard to make it intuitive and encourage you to experiment with the various settings.

In this guide you'll find a collection of usage notes, hints and suggestions. By putting it on-line we can add to it and make improvements quickly and we can post new information whenever we have more to share.

Select a topic to learn how to get the most from your WatchMate Vision AIS transponder

- Using the WatchMate Settings Menu
- Adjusting the plotting range
- What is the magnifier and why does it appear?
- Target counts on the plotting screen
- *Alarm Profiles* and how to switch profiles
- Changing the alarm settings
- How to use filters
- Interpreting the crossing situation vectors
- What is the warning symbol (exclamation point inside a triangle) at the top of the screen?
- Viewing a target's details
- Adjusting settings associated with a particular target
- Managing targets that have settings associated with them
- Using Heading Up mode
- Changing the display brightness

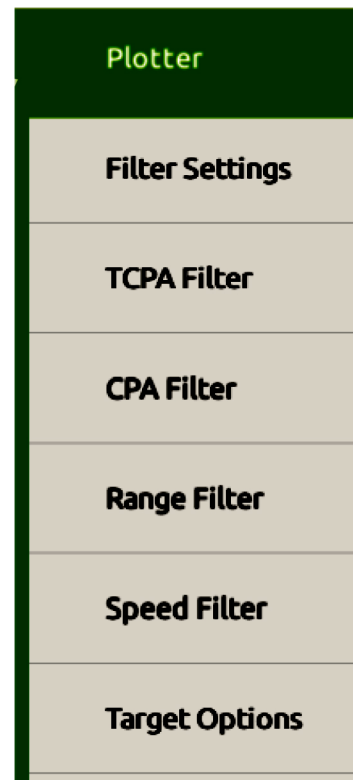


Using the WatchMate Menu

Use the WatchMate Settings Menu to select various options and settings. To activate the menu, touch the off-screen area to the right. The menu slides out and you can move it by sliding your finger over the off-screen area. When you see the item you wish to select, simply touch it. Often this causes a dialog to open where you can change settings.

Once a dialog is opened it must be closed before the menu will slide out again.

The menu automatically disappears after a few seconds if its left open. Alternatively touch an unused area on the plotter view to dismiss the menu.

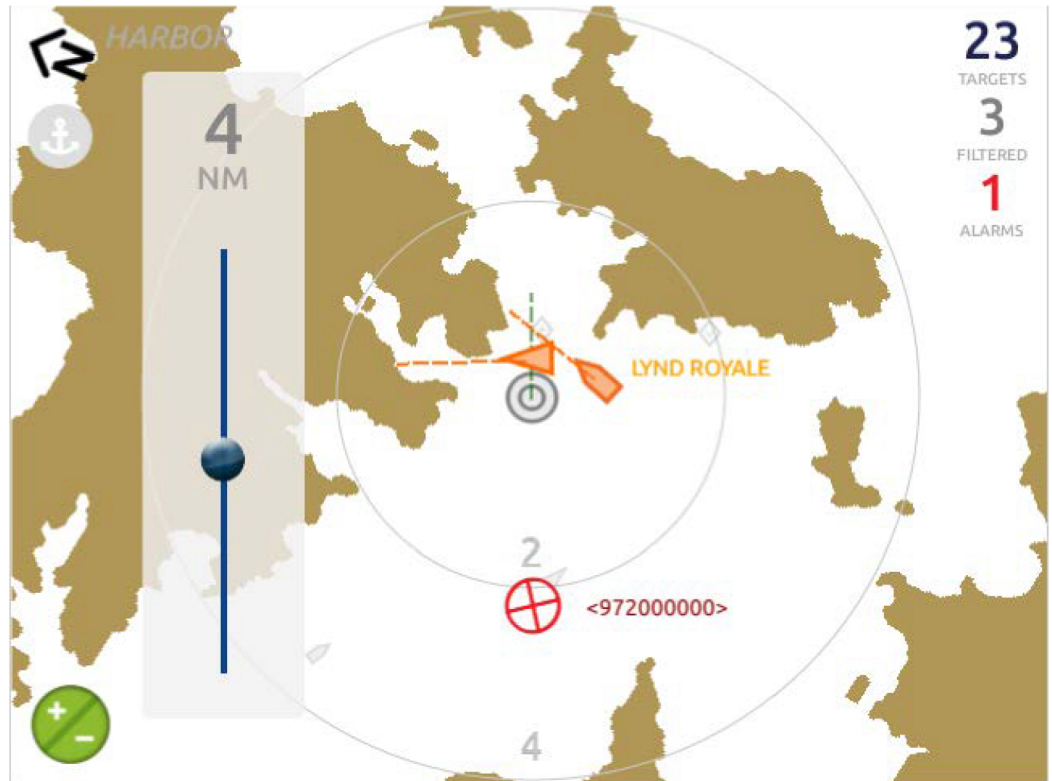


Adjusting the plotting range

Touch the range icon in the lower left corner of the plotting screen to display the adjustment slider.

Touch a location on the slider corresponding to the new range you wish to use.

Whenever the range is changed, two icons appear in the lower left corner of the plotting screen. Touch one of these icons to revert your range adjustment to its previous setting or to accept it as the current range.

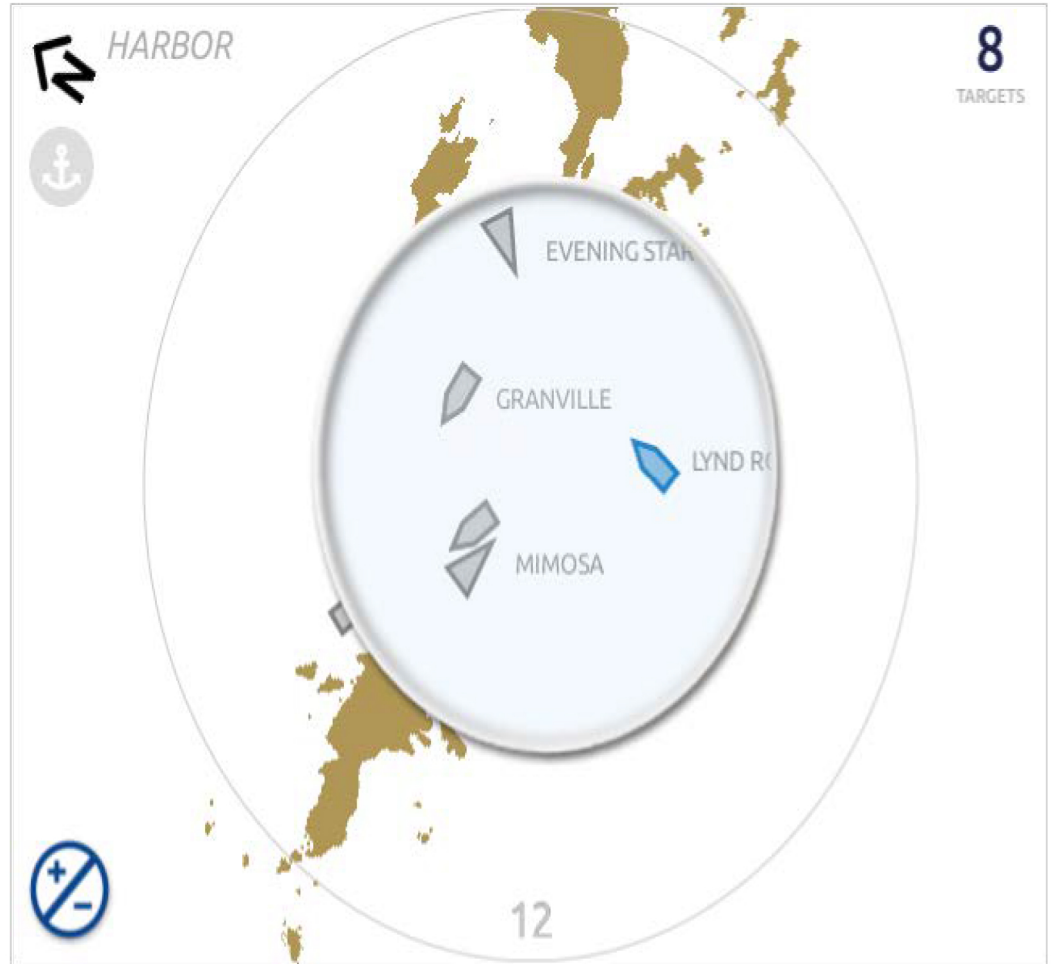


What is the magnifier?

When you attempt to select a target by touching the screen and there are multiple targets in the vicinity of your touch, the magnifier appears. It zooms in on the area around your touch point to give you the opportunity to select the correct target.

If there are still too many targets, touching again will zoom in more. This will repeat until you select a target or dismiss the magnifier.

To dismiss the magnifier, just touch somewhere outside of it.



Target counts on the plotting screen

There are three target counts that may be displayed:

- "Targets" is the total number of targets that are being received.
- "Filtered" are the ones that are visible due to your filter settings. This number indicates the number of targets that are filtered into your view.
- "Alarms" are the targets that are currently in an alarm state.

If filters are turned off or there are no targets in an alarm state then those counts will not appear.

The target counts are shown on the plotting screen or on the associated mode buttons.



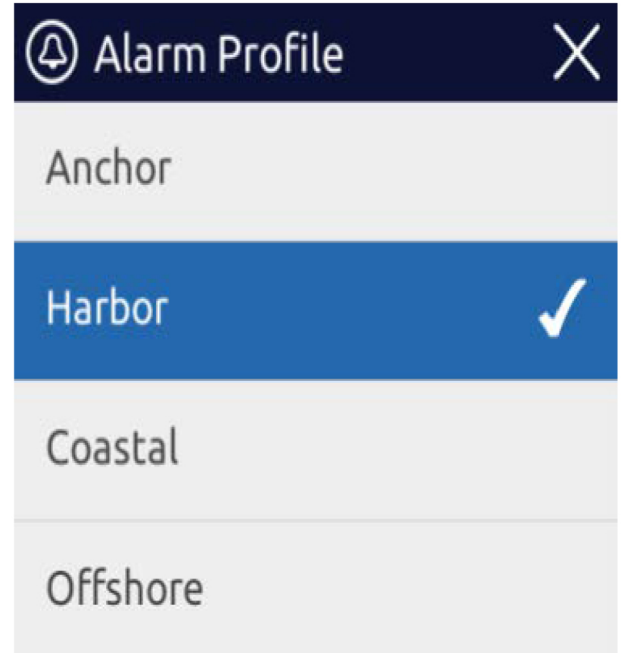
Alarm profiles and how to switch profiles

Profiles are used to group various alarm settings together for quick access. Each profile has three alarm settings associated with it:

- *Guard Alarm* is used to set a range around your vessel. Whenever a target penetrates your range setting, an alarm is triggered.
- *Collision Alarm* is triggered when a target meets your alarm criteria.
- *Collision Warning* causes a target to be displayed in a warning state when it meets this criteria.

The name of the currently active profile appears in the upper left corner of the plotting screen. Hint: Touch the current profile name to switch to a new one. Alternatively, change it using "Select Profile" from the WatchMate Alarms Menu. Then select the profile you wish to activate.

Alarm Profiles do not affect your filter settings. These are independent and may be changed, enabled or disabled directly on the plotting screen.

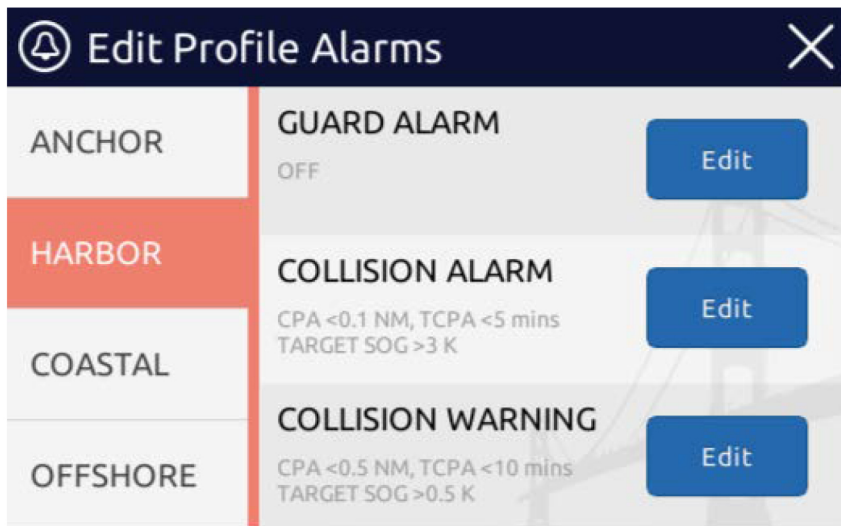


Changing the Alarm Profile settings

Each Alarm Profile has three settings associated with it. Select Profile Alarms from the Alarms Menu to adjust these settings.

- *Guard Alarm* is used to set a range around your vessel. Whenever a target penetrates your range setting, an alarm is triggered.
- *Collision Alarm* is triggered when a target meets your alarm criteria.
- *Collision Warning* causes a target to be displayed in a warning state when it meets this criteria.

On the left side of the dialog are the four profiles. Touch a profile to change the three settings associated with each profile.



When adjusting the alarm and warning settings there are three controls which work together to determine the criteria. For a target to meet the alarm or warning criteria it must meet each of the settings.

- *CPA* is the closest point of approach. It is the distance that the target will come to your vessel if both continue on their same course and speed. If you want an alarm for any target that will come within a half mile of you at some point in the future, then set this value to 0.5nm.
- *TCPA* is the time of CPA. It is the number of minutes before the target will reach its closest point to your vessel. Use this setting to suppress alarms unless the CPA will be soon. For example, if you set this to 10 minutes it means that you will get an alarm when a target is going to come closer than your specified CPA within the next 10 minutes.
- *Target speed* allows you to suppress alarms for slow moving, or stationary targets. This is very helpful when operating in a harbor where there are many moored or anchored vessels.



How to use filters

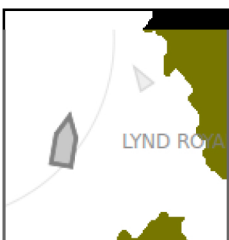
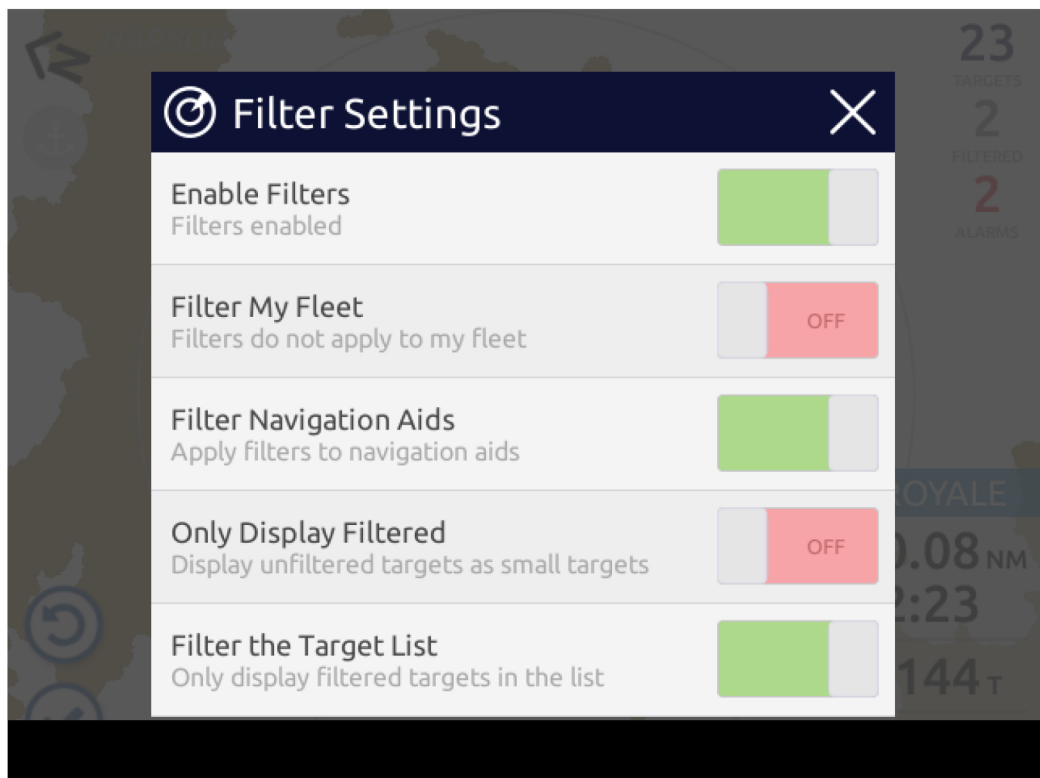
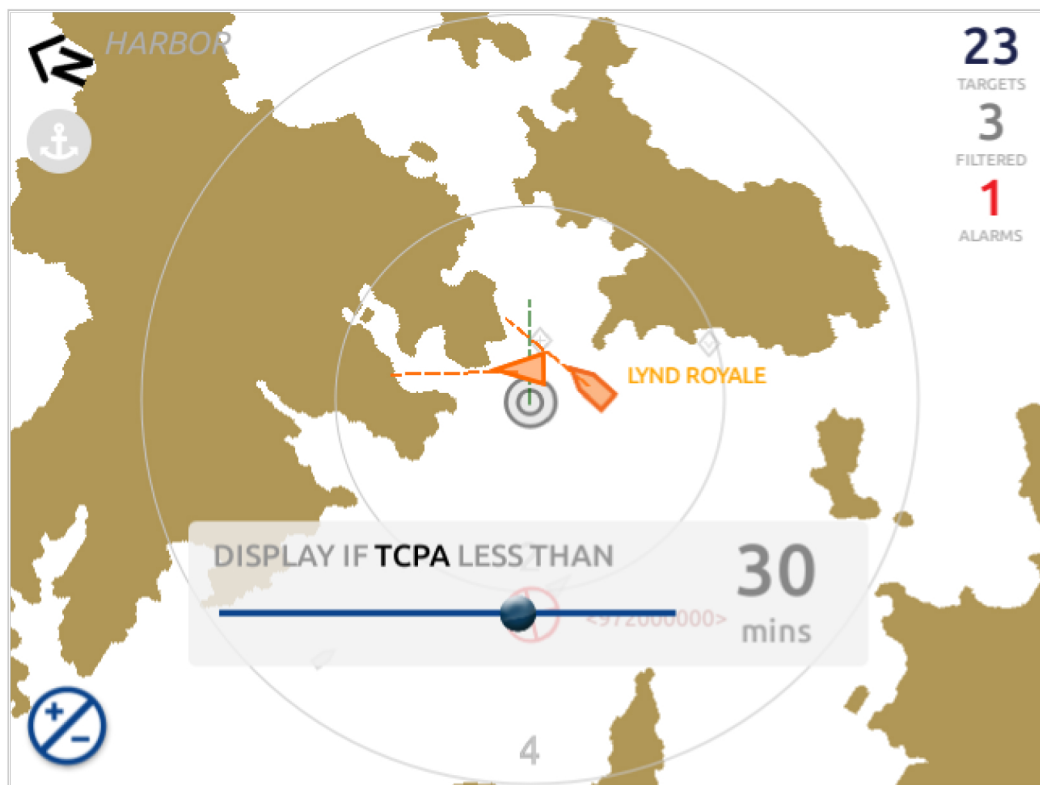
Filters are used to control whether a target is displayed as an ordinary target or as a tiny almost-invisible target. In busy areas this allows you to reduce clutter on the screen and help you to focus on the targets that are most important. There are four filters and a target is shown as an ordinary target only if it passes each filter. At that point the target is known as "filtered" meaning it will show up in the count of filtered targets and will appear on the screen as an ordinary target.

Each type of filter is accessed by selecting it from the WatchMate Wheel when in plotting mode. The types are:

- *Speed* adjusts the minimum speed a target must be moving to be shown.
- *Range* adjusts the maximum range of a target to be shown.
- *CPA* adjusts the maximum CPA (closest point of approach) for a target to be shown. This allows you to view only those targets that will come close to your vessel at some point in the future.
- *TCPA* adjusts the maximum TCPA (time of CPA) for a target to be shown. This allows you to view only those targets that will come close in a short amount of time.

Remember that the four types work together. A target must pass all four filters to become "filtered" and consequently displayed as an ordinary target.

You can switch all the filters on or off at any time by using the Filter Settings dialog. This dialog can be accessed from the Plotter Menu. Even when filters are switched off, you can still adjust their settings and then make them active later by switching them on in the Filter Settings dialog.



Targets that do not pass one or more of the filters is shown with a small icon. It's name is not displayed but it may still be selected by touching it.

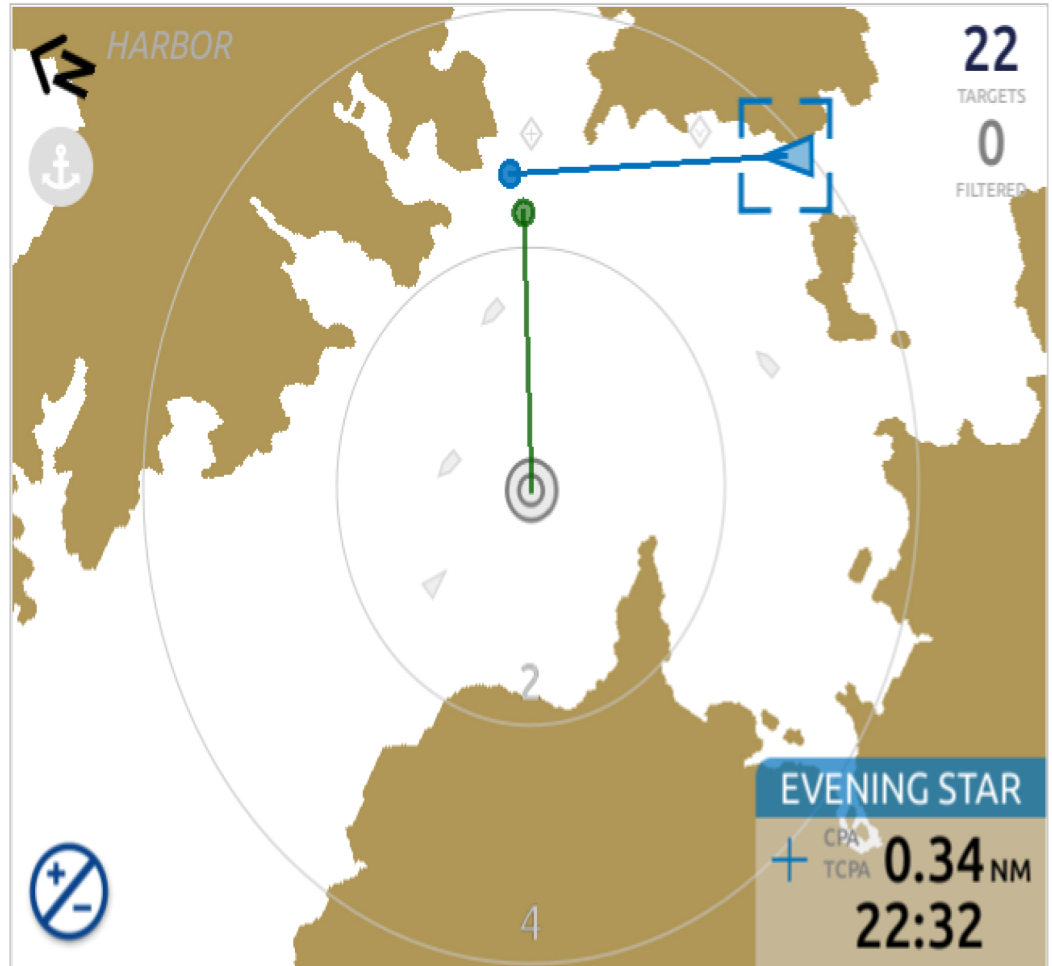
Alternatively if you want to hide targets that do not pass the filters from the plotter, or from the list, use the options in the Filter Settings.

Interpreting the crossing situation

When you select a target a vector appears from the target and your own vector changes. A colored dot appears at the end of each vector to show where each vessel will be at the time of CPA (closest point of approach). In essence this means that the vector length is the TCPA (time until CPA).

In the example shown, the CPA is 0.34nm and the TCPA is 22:32. This means that the target and your vessel will be within 0.34nm of each other in 22 minutes and 32 seconds. This assumes both vessels maintain their current course and speed. The blue dot indicates the predicted position of the target vessel at the time they will both be closest to each other (22:32). The green dot indicates your vessel's position at the same time. This example shows that the target vessel will pass in front of you.

Note: If either your vessel or the target vessel is not moving, or moving very slowly, that vessel's dot may appear directly on top of the corresponding icon. This is consistent because it is telling you that at the time of CPA that is the predicted location of the vessel.



Transmit warning indicator

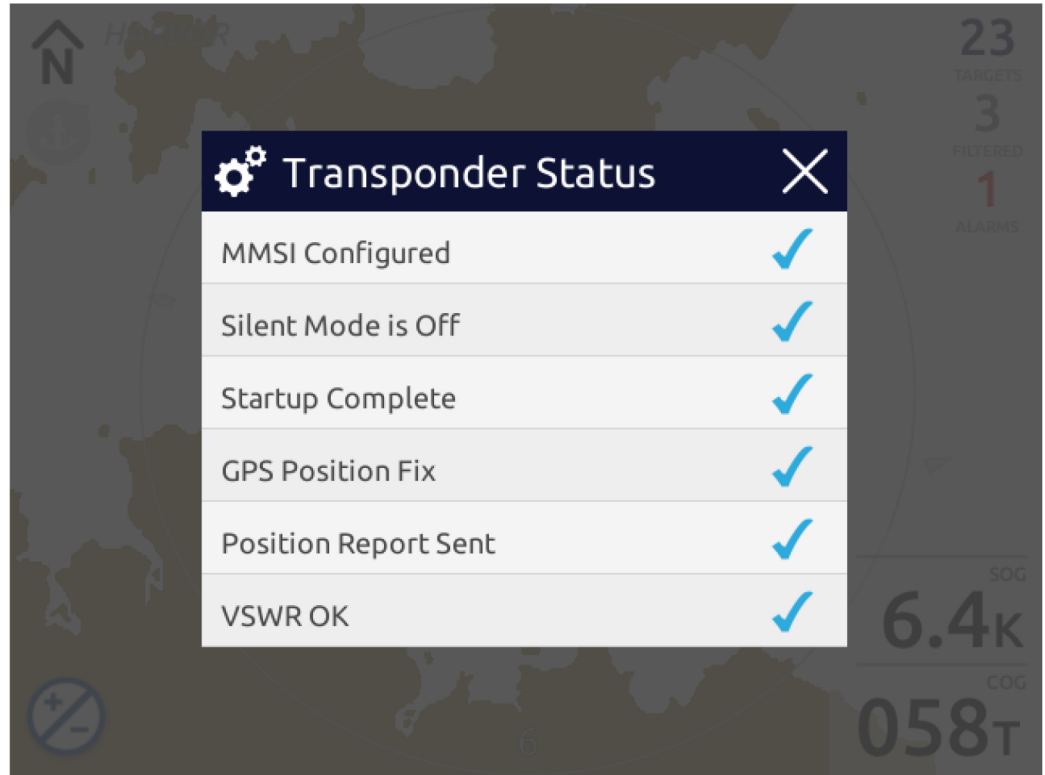


When you see the transmit warning status indicator it indicates that your WatchMate Vision is not transmitting your vessel position and other information. Touch the warning symbol to determine why transmission is disabled.

The *AIS Transponder Settings* screen has controls to disable transmission manually by selecting silent mode. It also allows you to set or review your vessel details. By touching the status or advanced icons you will receive further information.

In order for transmissions to occur the following requirements must be met:

- A valid MMSI must be configured. Your MMSI may have been entered already by your dealer. If you do not have an assigned MMSI, contact the relevant authority in your country. Do not enter a false or unassigned MMSI number. Once you save the MMSI number you cannot change it. If you need to change the MMSI, please contact an authorized dealer or [Vesper Marine](http://www.vespermarine.com).
- Silent mode must be switched off. When silent mode is on your WatchMate Vision will continue to receive both GPS and AIS and will operate normally. However, transmissions will be disabled.
- There is a one minute startup period while your WatchMate Vision assesses the background signal levels and prepares itself for transmission.
- You must have a valid GPS fix at all times for transmission to occur. It is very important that you have a good and stable fix since you will be automatically transmitting your position, course and speed to other vessels. If you are unable to acquire and hold a stable GPS fix using the internal patch antenna, you must attach a Vesper Marine external GPS antenna.
- When all requirements are met, your WatchMate Vision will begin transmissions. It transmits your position, course and speed every 30 seconds when your vessel is moving faster than 2 knots. When you are moving slower than 2 knots these transmissions will occur once every 3 minutes. Regardless of speed, every 6 minutes your vessel name, size, call sign, size and other details are transmitted. It is normal in very heavy traffic areas to occasionally miss a transmission due to congestion. When this happens the *Position Report Sent* warning indicator will come on until the next scheduled transmission.
- Finally, your VHF antenna system is a critical component in achieving the best performance from your WatchMate Vision. All cables must be in good condition and connections must be well made, tight and secure. The antenna must have low VSWR at the 162 MHz AIS frequency.



Displaying target details

Touch a target to see a brief summary of its details. The summary appears in the lower right corner of the screen and shows:

- *CPA* is the closest point of approach. It indicates the closest distance that target and your vessel will be from one another if both vessels continue on the same course and speed.
- *TCPA* is the time until CPA. It is the amount of time that will elapse before the closest point will be reached.
- *BRG* is the current bearing to the target. It is displayed in either magnetic or true degrees, depending on a user setting.
- *RNG* is the current distance in nautical miles to the target.

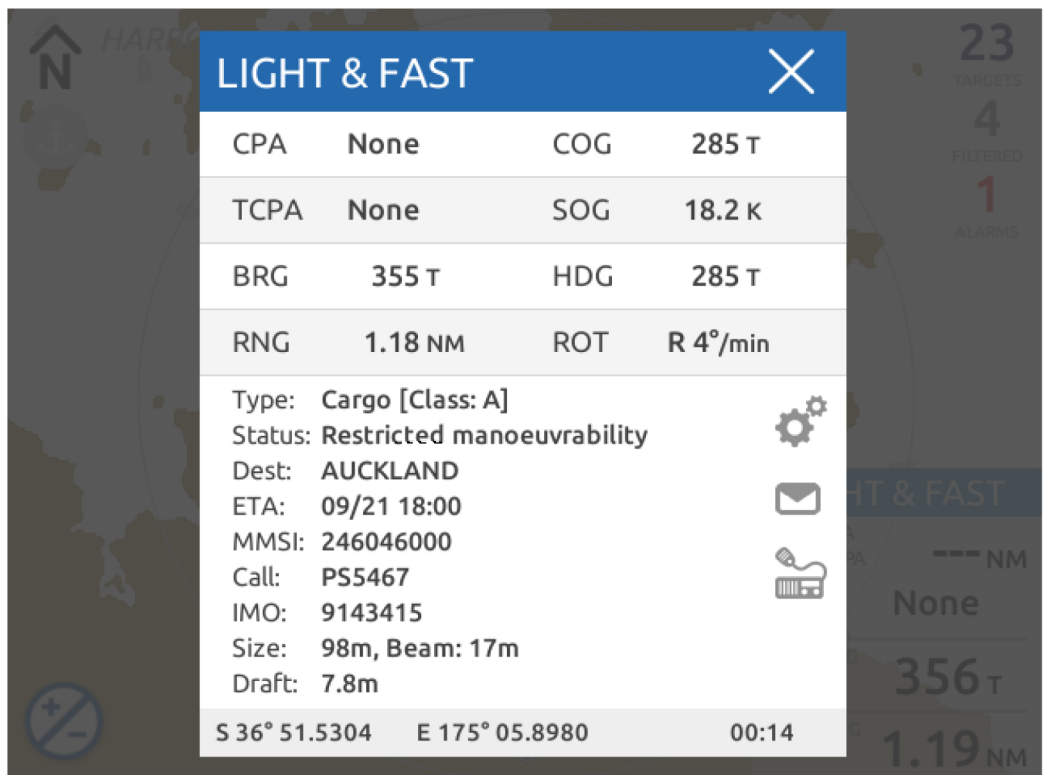
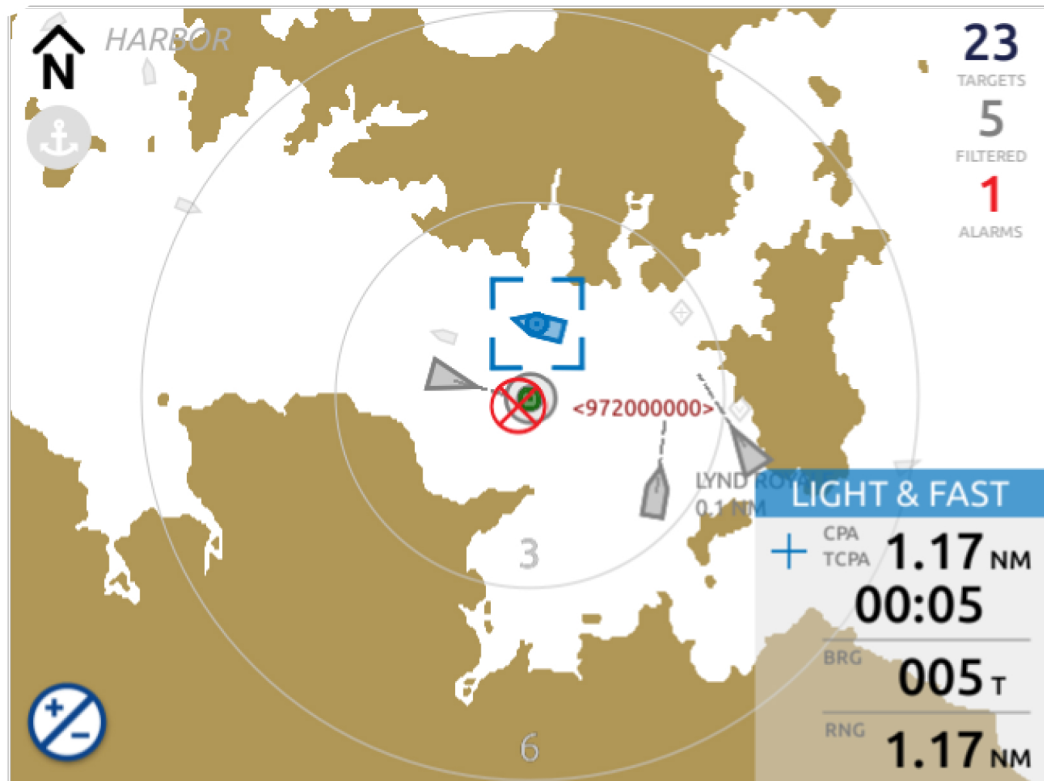
Hint: If you want to further preserve screen real estate you can also reduce the size of this details view to just show CPA and TCPA. This can be done from the Target Options under the Plotter Menu.

Touch these details to bring up the full target details display. This view shows all available information about the target. The exact information will depend on the type of target and information that has been received.

AIS transmissions occur over time and it is normal for it to take several minutes for all target information to be available.

A unique feature of your WatchMate Vision is its ability to remember the target details for each vessel it has encountered. As a result, your WatchMate Vision "learns" about the targets you encounter frequently and makes their information available immediately without having to wait for it to be received each time that target appears again.

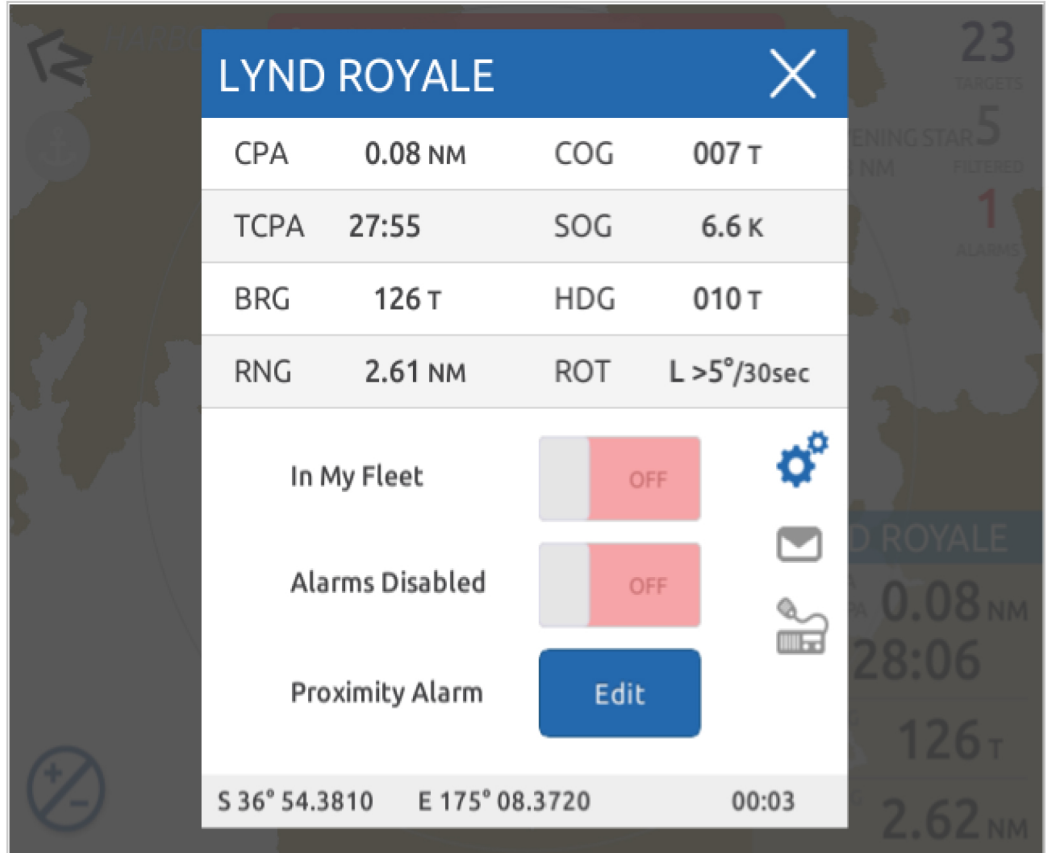
An important piece of information is how recently the position of the target was last received. Consult this time at the bottom of the target details to determine the accuracy and validity of the target's position.





Target-specific settings

Each unique target can have individual settings associated with it. There are three settings you can adjust that are permanently associated with a given target. You can change or remove them at any time later.

- Fleet* is used to include specific targets as members of your "fleet". Fleet members might be friends or co-workers and whenever a fleet member is displayed on the plotting screen its icon has a small "F" inside it. You can also alter a system-wide setting which controls if fleet members can be affected by filters.
- Disable Alarms* is used to turn off all alarms for this particular target, even if it would otherwise trigger an alarm condition. Use this setting carefully, but it can be handy for targets that you know you never want to trigger an alarm. An example is a commonly encountered ferry or a co-worker's vessel that ordinarily operates closely.
- Proximity Alarm* allows you to set a range around a specific target that will trigger an alarm if your vessel enters within that range. An example might be a dive vessel that you always want to stay clear of.



LYND ROYALE			
CPA	0.08 NM	COG	007 T
TCPA	27:55	SOG	6.6 K
BRG	126 T	HDG	010 T
RNG	2.61 NM	ROT	L >5°/30sec
In My Fleet	<input type="checkbox"/>	OFF	
Alarms Disabled	<input type="checkbox"/>	OFF	
Proximity Alarm	<input type="button" value="Edit"/>		
S 36° 54.3810		E 175° 08.3720	
00:03			

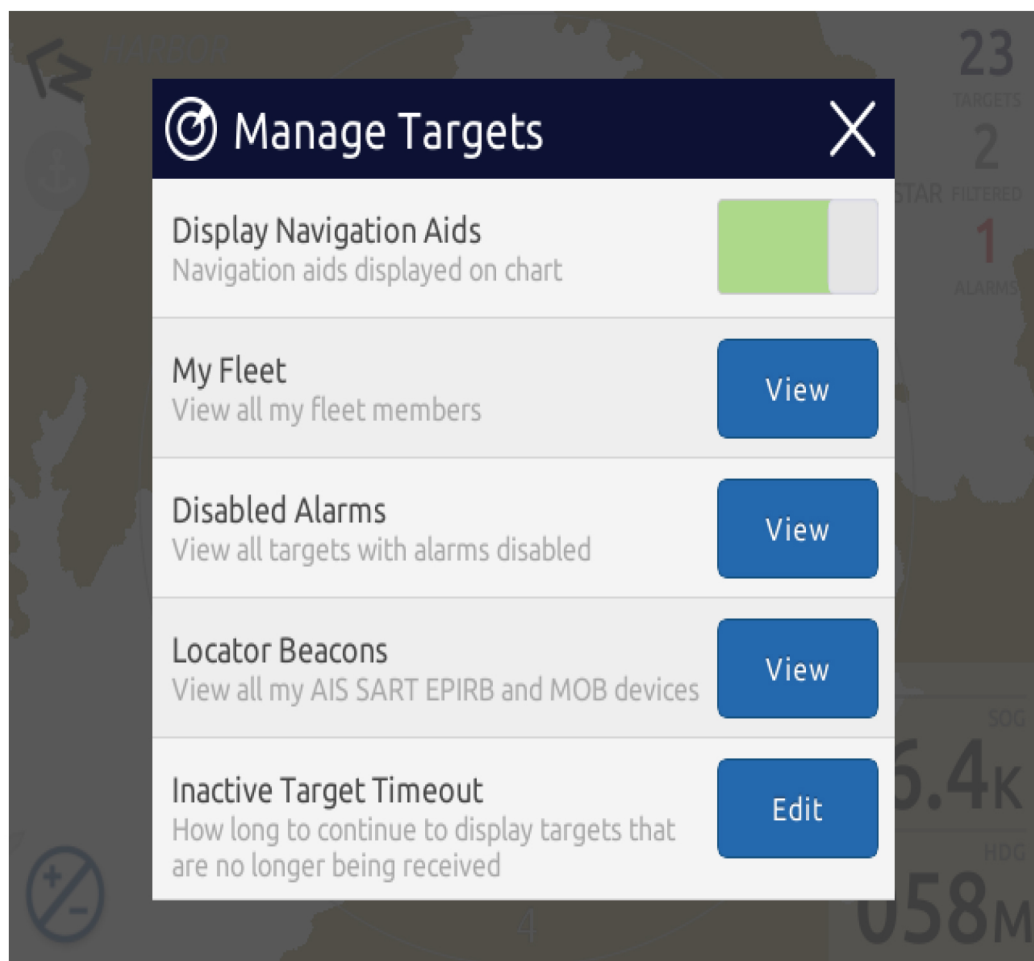
To adjust the target settings touch the gear icon. The lower half of the target details dialog will be replaced with an area showing the current settings for this target and allowing you to adjust them. When you are done, you can touch the gear icon again to resume display of the full vessel details. Changing your selection to another target also resumes display of the vessel details.

Managing target-specific settings

Use the *Manage Targets* dialog from the Plotter Menu to review the targets you have added to your fleet, those that have disabled alarms, or to manage your MOB device labels.

In those areas that are cluttered with AIS Navigation Aids you can opt to remove them from your plotter view.


Targets are inactive when they are no longer being received. However, they will remain on the screen in their last known location for some time after their last transmission was received. You can control this amount of time using the *Manage Targets* dialog. If a target hasn't been received in this amount of time, it will no longer be displayed. The time you select applies to all targets and not just those that have specific settings such as fleet or disabled alarms.



Using Heading Up mode

Heading Up mode rotates the display to match your current heading. It uses heading if there is a heading/compass sensor on the NMEA 0183 or 2000 network. However, if a source of heading data isn't available, then COG (course over ground) is used.

You can toggle between Heading Up and North Up by using the Plotter Menu.

 The compass indicator in the top left hand corner always points toward north.



Changing the display brightness

You can access the brightness control from the Settings Menu. Hint: the screen brightness level has the largest impact on your overall power consumption. You can set it to a very low level to conserve power when not actively in use.

However, if the screen becomes too dim to read, press and hold anywhere on the screen for three seconds to automatically raise the brightness to a visible level and allow further adjustment.

