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TripIntel™

Application note

TripIntel™

Feature Usage

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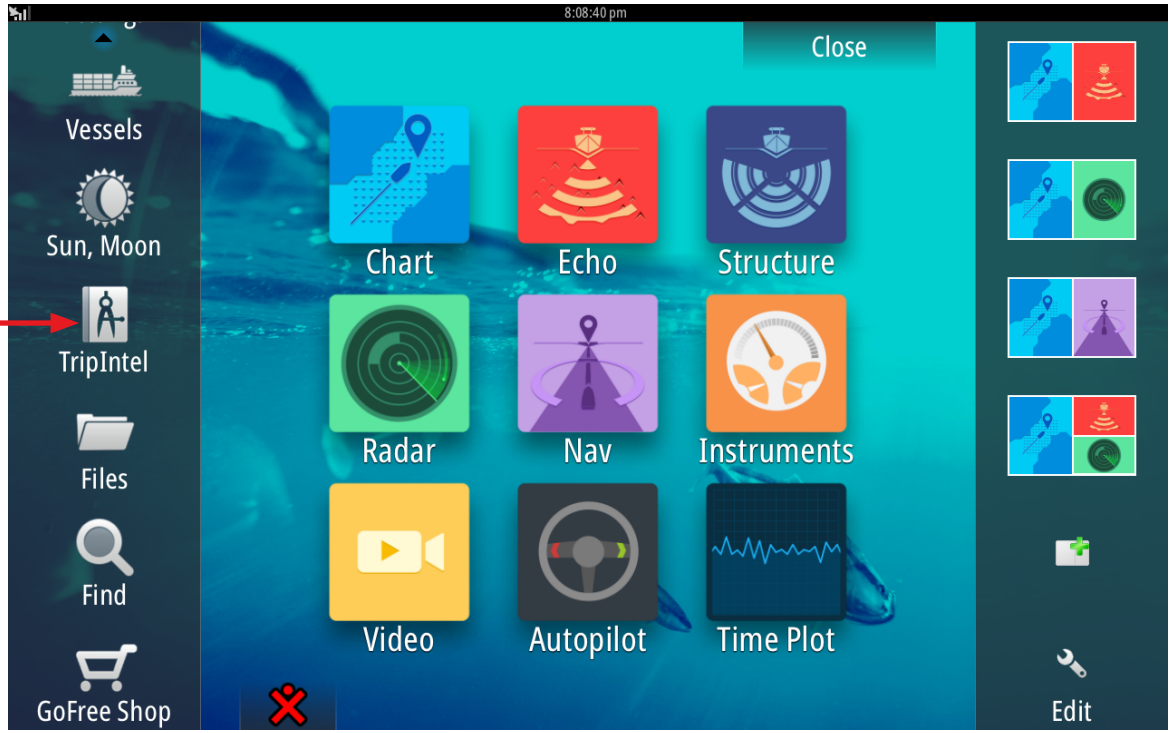
TripIntel™ - Feature Usage

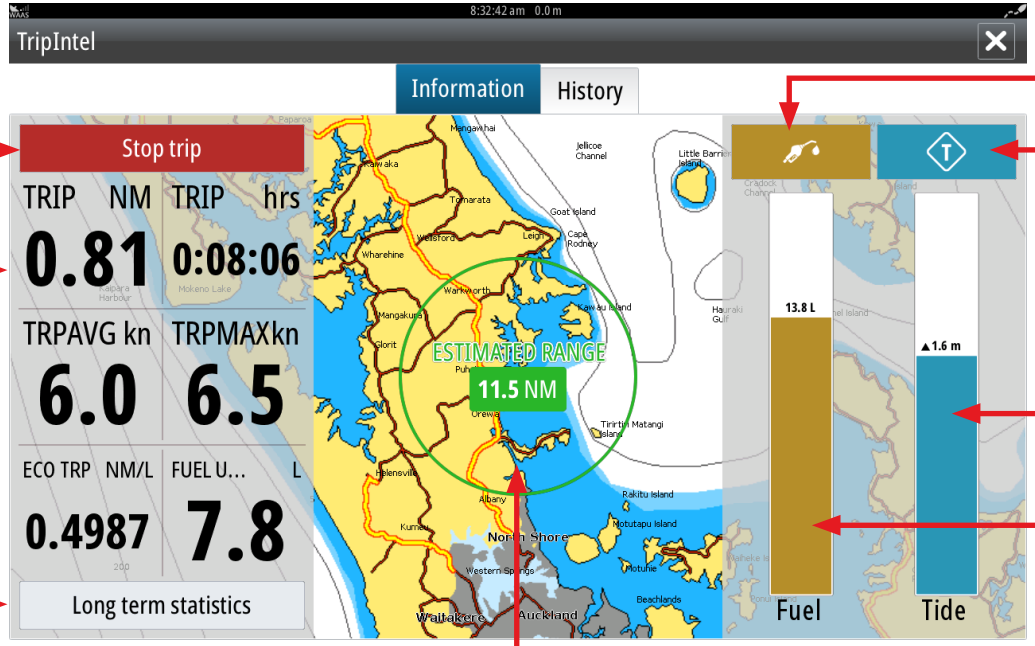
TripIntel is a tool designed for power boaters to plan and manage a day on the water. TripIntel enables the user to see how far they can travel on the fuel remaining in the tank and record the key trip information such as total distance travelled, the route taken, max speed, fuel used etc. All of the trips are recorded and can be viewed at a later stage.

TripIntel access button



TripIntel™ - Feature Usage

The TripIntel page presents everything you need to plan and manage the day on the water. Hit the refuel button to set the tank level after a refuel and watch the estimated fuel range circle update on the fly on the chart. From here the user can check safe passage by looking at the tide information and then begin the Trip by hitting the Start Trip button.



Start/Stop Trip

Current trip statistics

Long term statistics

Refuel

View Tides graphs or change Tide stations

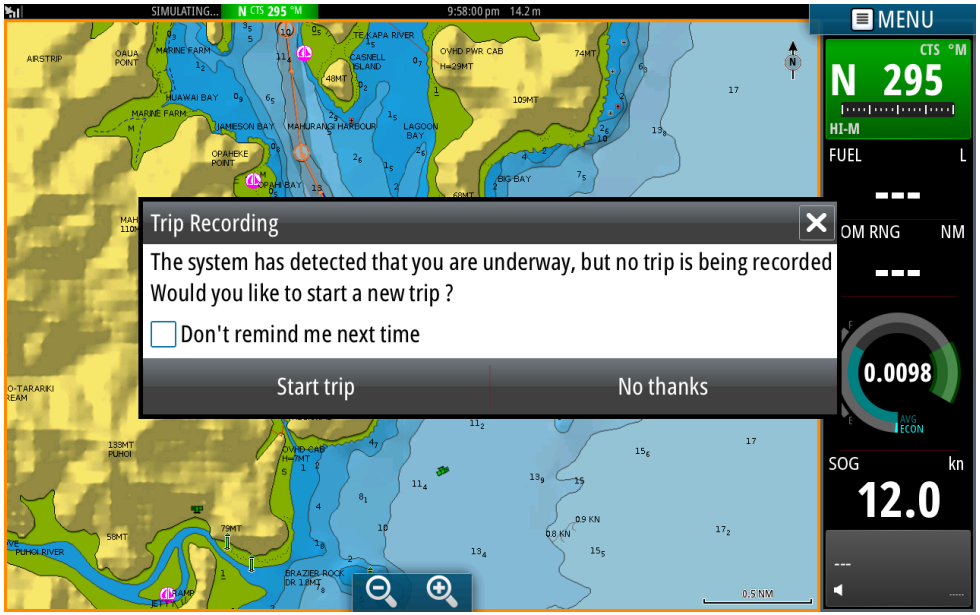
Tide information

Fuel tank gauge

Calculated range to empty based on average fuel burn

TripIntel™ - Feature Usage

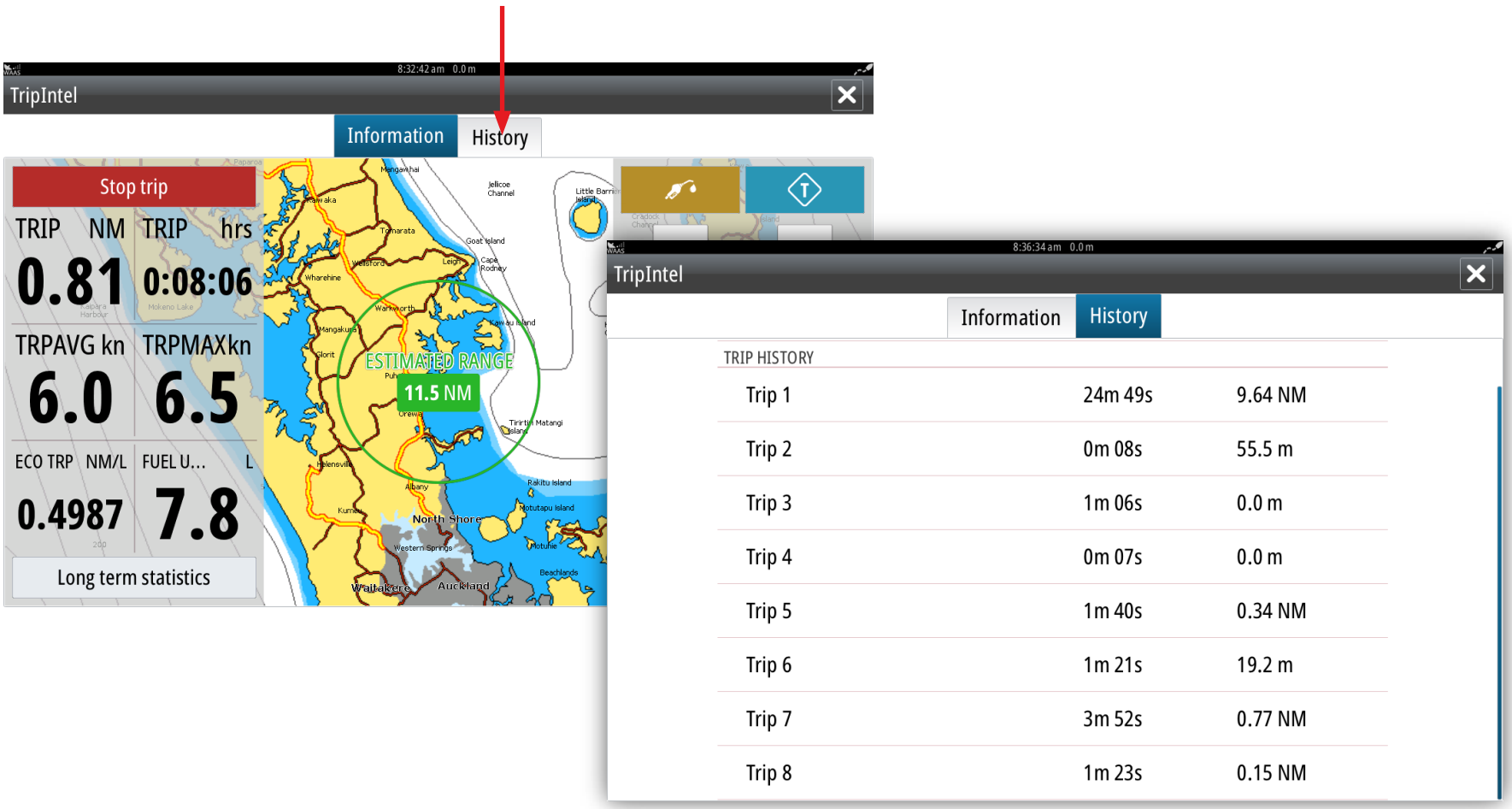
Optionally TripIntel will detect when the user has started a new trip. This is a great reminder to set the fuel level and begin the new day trip.



TripIntel™ - Feature Usage

All of the trip data is logged and when the trip is stopped by hitting the Stop Trip button, it is all saved under the History tab for later analysis.

Trip history tab



TripIntel™

Feature Setup

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TripIntel™ - Setup

TripIntel requires the following setup to be fully functional:

GPS Position

Ensure that the MFD has a valid GPS position. Running the auto source selection is the simplest way of doing this, otherwise manually select your GPS source under *Home > Settings > Network > Sources > Position*

- Make sure the correct time zone is configured so that tide stations report local time

Installed Cartography

TripIntel uses tide data from the installed cartography to show on the tide bar on the TripIntel page. Ensure that valid cartography with tide station information is installed if you want to have access to this function.

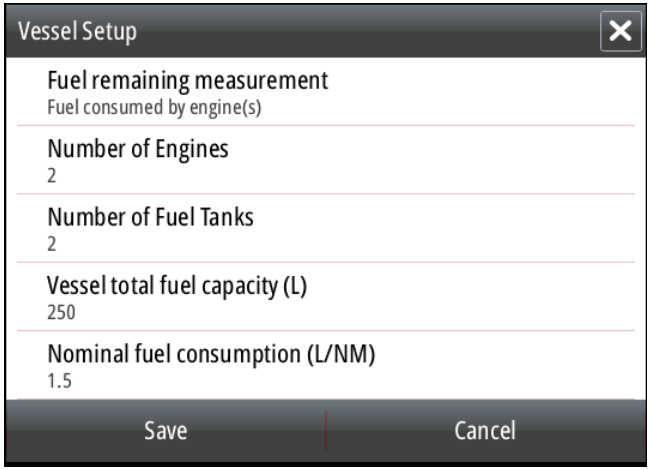
TripIntel™ - Vessel Setup

Vessel setup is accessed by pressing *Home > Settings > Fuel > Vessel Setup*

- The vessel setup page is shown below.

Ensure that the correct number of engines is chosen as well as the number of fuel tanks and total fuel capacity.

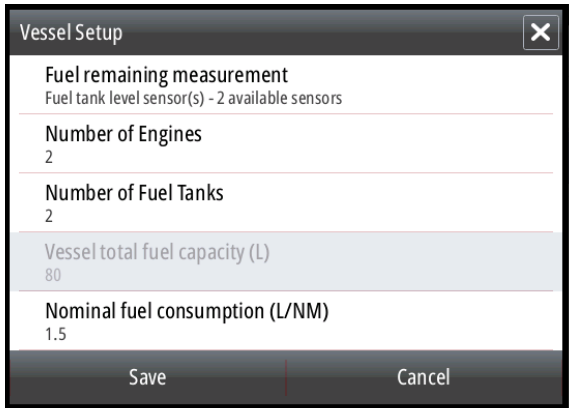
The nominal fuel consumption can be established through sea trials or provided by the manufacturer. This data is used for the Cruise performance indicator and not required to use TripIntel.



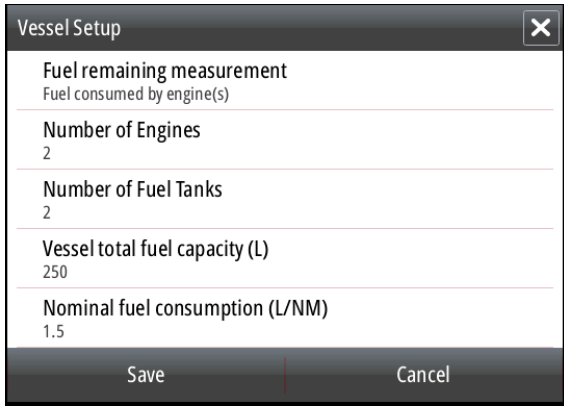
TripIntel™ - Vessel Setup

The Fuel remaining measurement field is key to getting full functionality out of the TripIntel feature. Tank level sensors should be chosen whenever available for best accuracy and do not require the user to manually choose “Refuel” after every top-up.

- If the vessel has calibrated fuel level sensors installed then these should be chosen and will be automatically detected, see example to the right of an install with 2 tank level sensors installed.



- If the vessel has fuel flow rate available on NMEA2000, but no fuel level sensors installed, then the fuel consumed by engines option should be selected.



TripIntel™ - Setup

If fuel consumed by engines is chosen as the fuel remaining source because no level sensors are installed then there must be a storage device available on the NMEA2000 network in order to accurately track fuel used by the engines. Without the storage device installed the fuel range circle, trip fuel used and fuel tank level gauge will not be displayed. The table below shows what is required for some typical installs where a fuel level sensor is not available.

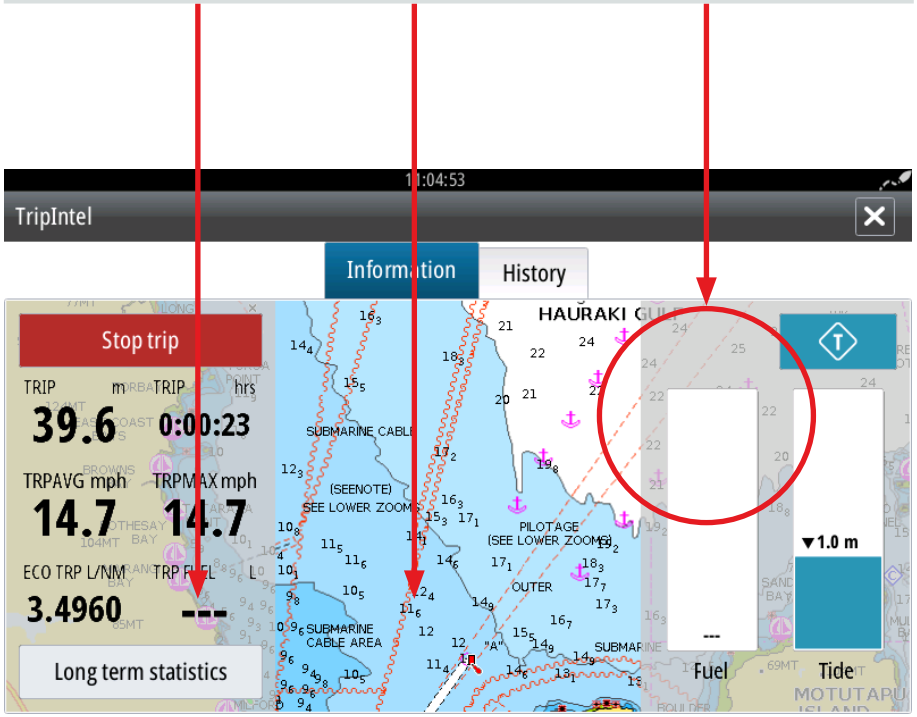
Engine	Fuel remaining setting	Do I need a storage device?
Mercury engine connected on NMEA2000 via Vesselview (VV4, VV7 or VesselView Link).	Fuel consumed by engines	No (vesselview includes storage device)
Yamaha engine connected on NMEA2000 via command link	Fuel consumed by engines	Yes, Fuel data manager (EP85)
Suzuki engine connected via NMEA2000	Fuel consumed by engines	Yes, there may already be one provided with the engine
Honda engine connected via NMEA2000	Fuel consumed by engines	Yes, Fuel data manager (EP85)
Evinrude engine connected via NMEA2000	Fuel consumed by engines	Yes, Fuel data manager (EP85)
Engine installed without NMEA2000 connectivity but with an EP60 fuel flow sensor installed	Fuel consumed by engines	No, Fuel flow sensor (EP60) includes storage
Volvo engine connected via NMEA2000 gateway	Fuel consumed by engines	Yes, Fuel data manager (EP85)

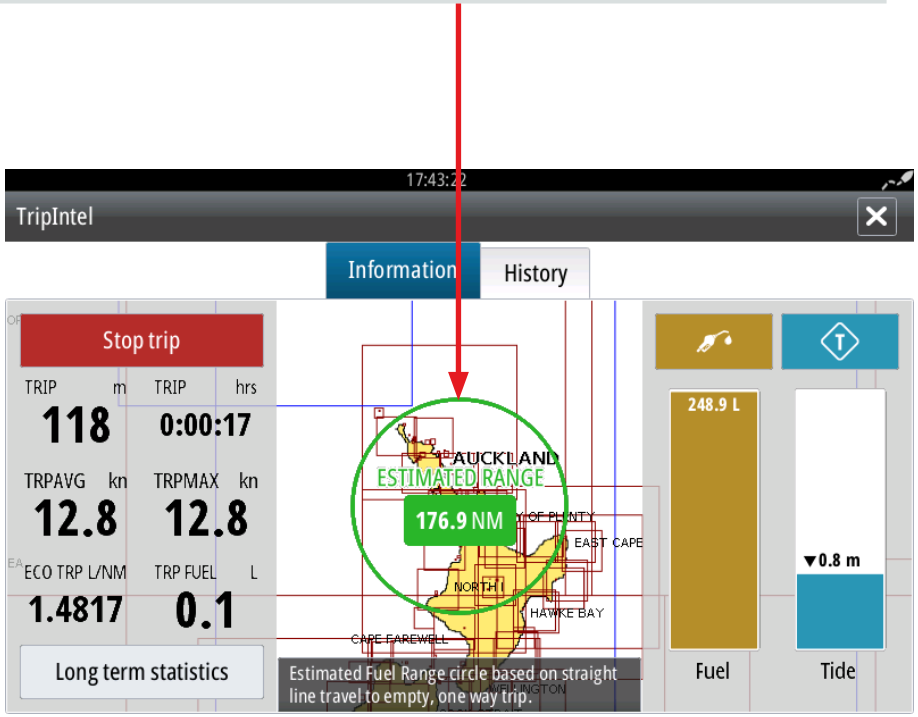
TripIntel™ - Understanding the data

Fuel Range Ring

This vessel **does not** have a fuel storage device installed, no fuel range circle, trip fuel or fuel gauge is shown.

This vessel has a fuel storage device installed.



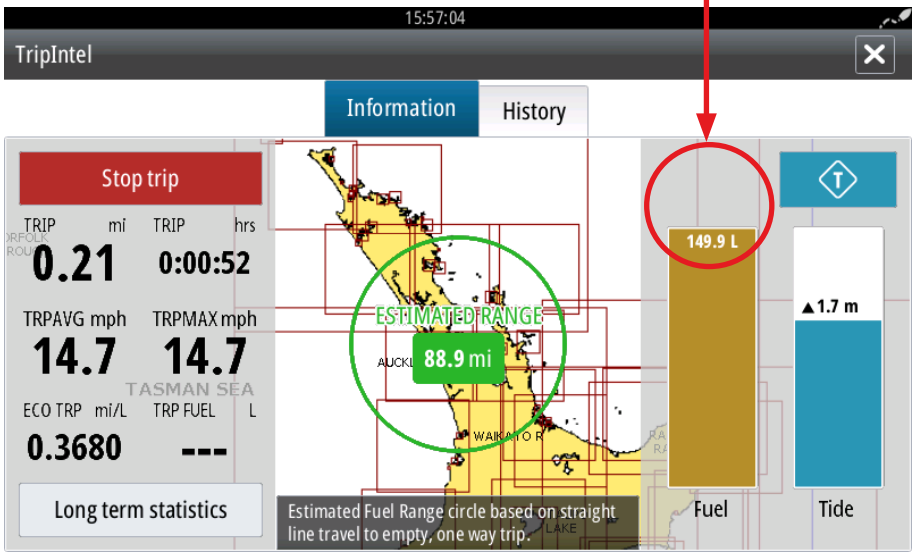


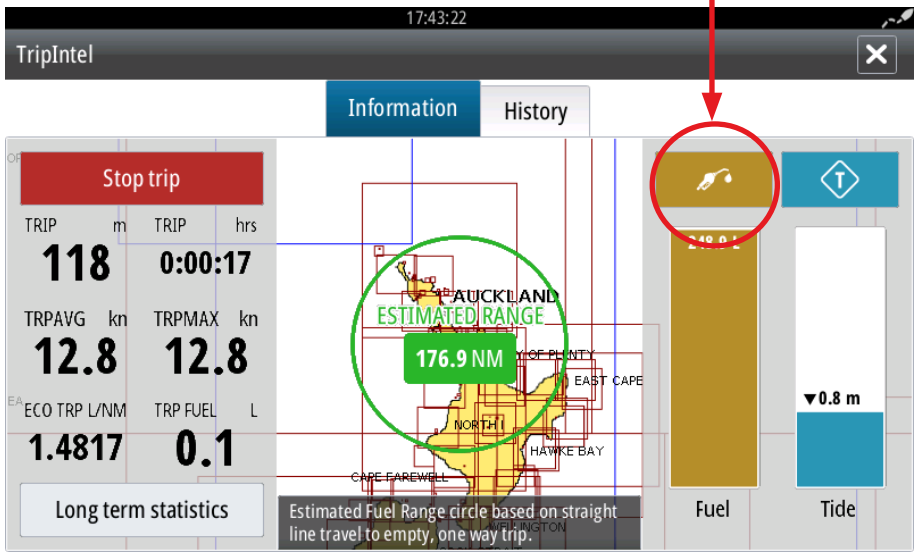
TripIntel™ - Understanding the data

Refueling

If the fuel remaining source comes from a fluid level sensor, then the refuel button is not shown on the TripIntel page because fuel levels are directly reported by the level sensor.

If the fuel remaining is calculated from fuel burnt by the engine, then the refuel button is shown on the TripIntel page. The user must remember to select this and add Fuel every time they put gas in the tank to properly keep track of the tank level

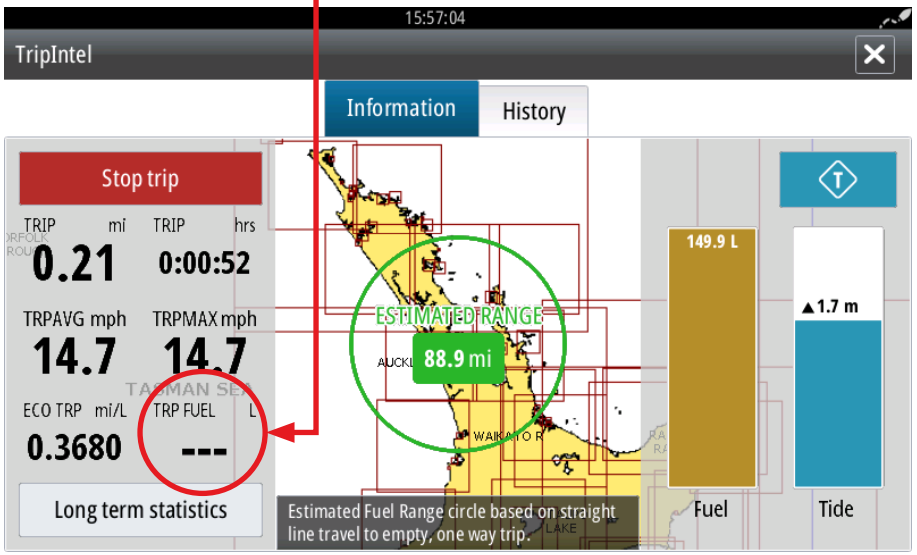




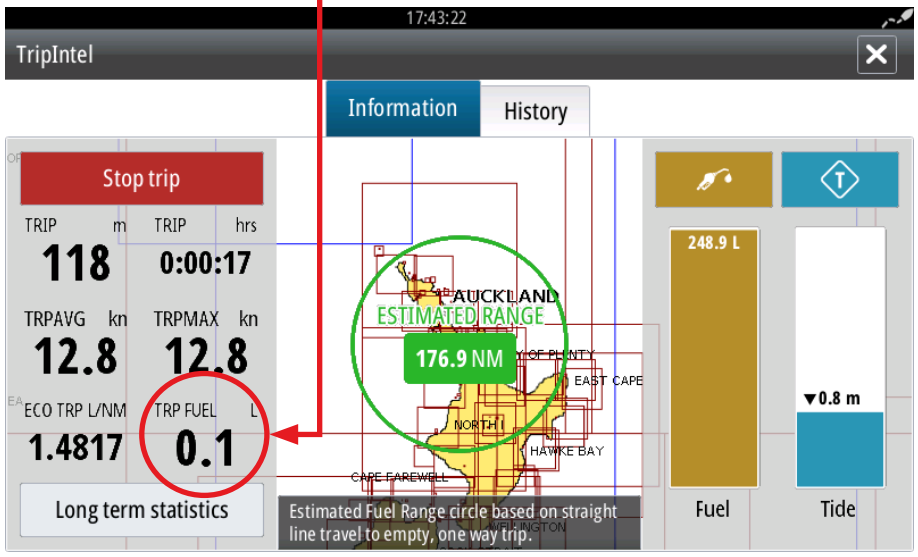
TripIntel™ - Understanding the data

Trip Fuel Used

The trip fuel data requires the presence of a storage device in order to properly store the fuel burnt during the trip. The example below shows a boat with a level sensor installed but no fuel data manager, as a result, the trip fuel field is invalid



This vessel has a fuel data manager installed and hence the trip fuel field is shown.

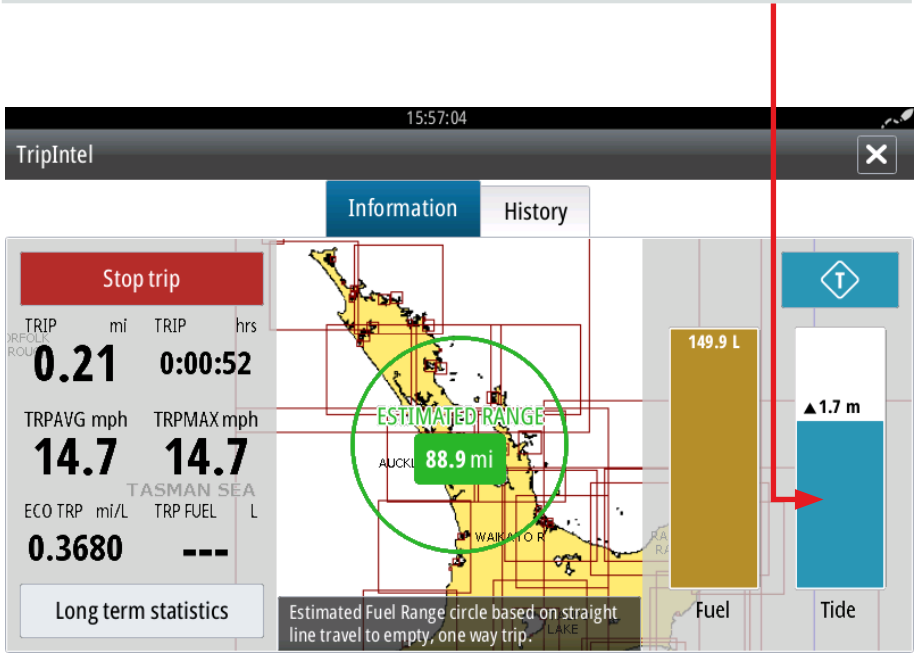


TripIntel™ - Understanding the data

Tide information

This vessel has valid cartography installed with tide stations. The tide indicator shows the current tide state

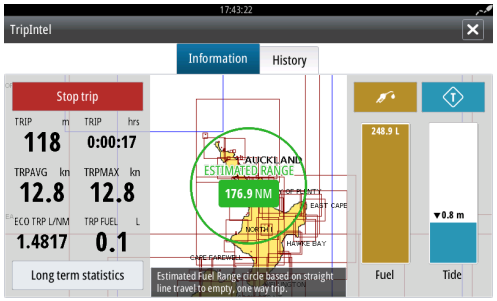
This vessel does not have valid cartography installed, no tide station data is shown



TripIntel™ - Recommended installations

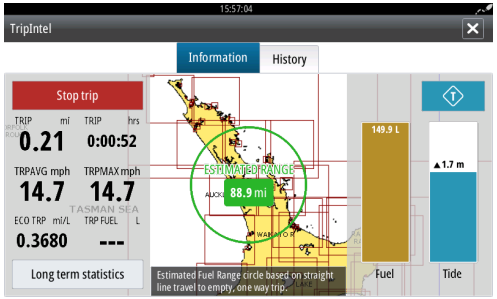
Good

- Engine fuel rate available on NMEA2000, or via NMEA2000 flow sensor for older engines
- Fuel data manager installed



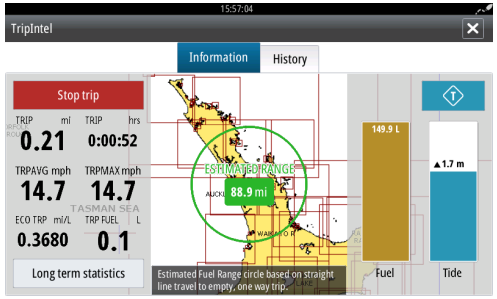
Better

- Engine fuel rate available on NMEA2000, or via NMEA2000 flow sensor for older engines
- Fuel level sensor installed



Best

- Engine fuel rate available on NMEA2000, or via NMEA2000 flow sensor for older engines
- Fuel level sensor installed
- Fuel data manager installed



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TripIntel™ - Navico Sensor Part Numbers

Fuel data manager (EP85)

000-11522-001

(aka Storage device)

Level sensor (EP65)

000-11518-001

Fuel flow sensor (EP60)

000-11517-001

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