

MAVnet



Software version 7.01

Including compatibility with TZtouch3, FAR2xx8 Radars, TZ ecosystem, and TimeZero v4 software.

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1. Improved Visual Impression

1.1. New Welcome Screen

The TZtouch2 v7 starts up with a New Welcome Screen for users to easily select between three (3) options.

- **↓** [Demo Mode] [Start] to launch the built-in demo file
- **↓** [Tutorial] [Stat Tour] to learn the basic operation
- [Let's Navigate!] to start using the system



1.2. More Access and Indication on One Screen

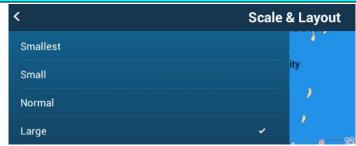
The TZtouch2 v7 offers more direct access and data information on a single screen. The following screenshot is from the Plotter page.

- The <u>Event icon</u> located next to the Home icon creates an Event mark at the own ship position from any screen.
- <u>Undo/Redo icons</u> are grouped to one location for easier access. These icons automatically appear when points and routes are entered, edited, or removed.
- ♣ The <u>new Route Bar</u> allows you to stop or restart navigation by one tap.
- ♣ The <u>Alarm and Notification Bar</u> will not overlap the active route bar.
- The data on <u>Navigation Data Box</u> is shown in **bold font**.



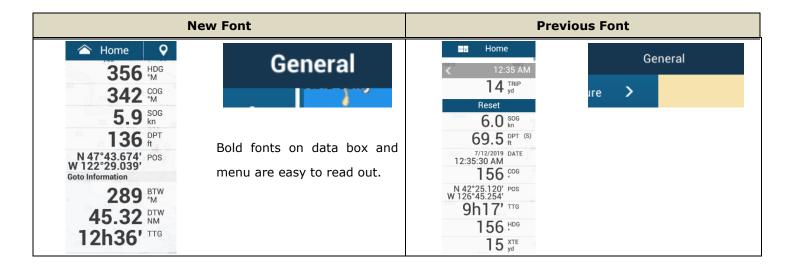
1.3. Customizable UI Size and Scale

The UI size and scale can be customized in [Settings] – [General] – [Scale & Layout] to show numbers and characters in small or large size.



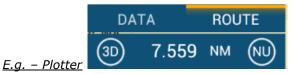


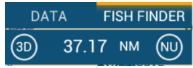
1.4. Bold Data and Menu Fonts



1.5. Data Box Improvement

Tabs on the data box is reduced to two (2). While the left side tab [DATA] is always accessible from any page, the right side tab is dynamic and linked to the active display. As an example, when the Plotter page is active, the [ROUTE] tab automatically appears. When the Fish Finder page is active, the [FISH FINDER] tab appears.

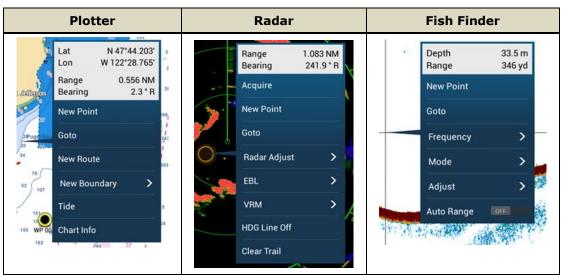




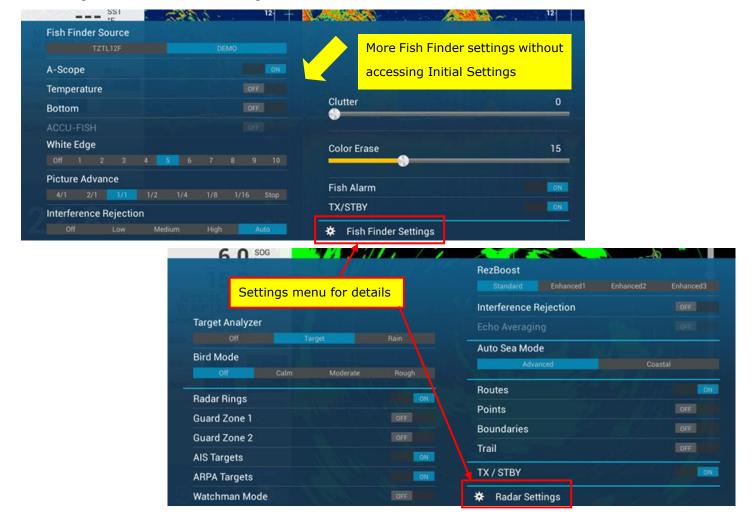
<u>E.g. – Radar</u>

1.6. Refined Contextual and Bottom Edge Swipe Menus

When tapping a screen, a pop-up menu appears: Accessible settings are limited to around seven (7) frequently used functions.

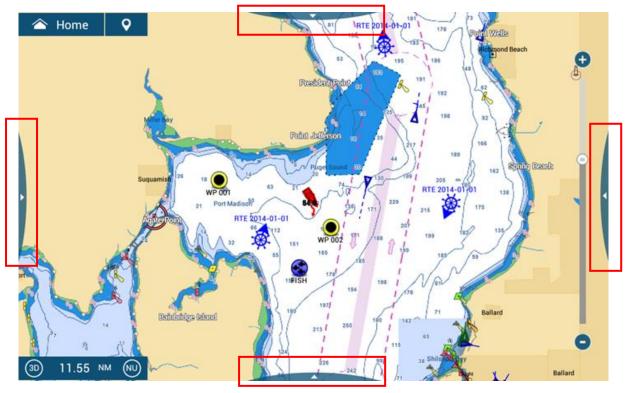


Lesser used functions are moved to the **bottom edge swipe menu**. For more detailed settings, you can quickly access the Settings menu from the bottom edge menu.



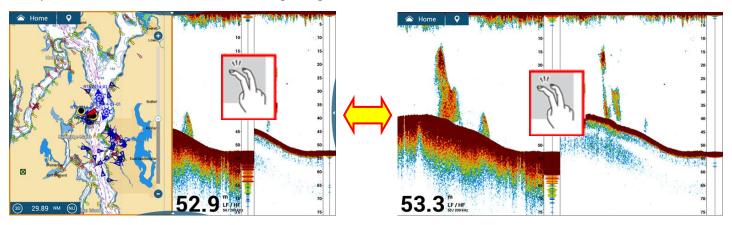
1.7. Edge Swipe Guide

When any page is open, the edge swipe guide will appear at four (4) edges to notify you that edge swipe functions are available. This guide is available by default in [Settings] – [General] – [Edge Swipe Guide] – [ON].



1.8. Two Finger Tap for Full Screen Indication

Two (2) options of Dual Tap are available: One quick tap and one long tap. In order to utilize split screen modes, [**Full Screen**] is also added to the function. In the following example, one quick tap is set to [Screen Capture] and long tap to [Full Screen]. While the Fish Finder page is shown on a 1/2 split screen, hold the screen with two fingers in order to closely monitor fish echoes, so that the Fish Finder screen will be shown in the full screen mode. To go back to the original 1/2 split screen, hold the screen with two fingers again.



1.9. Customizable Quick Page

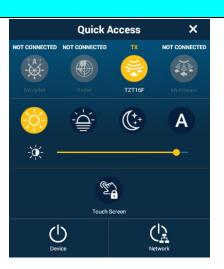
A maximum of six (6) pages can be set for quick access by top edge swipe. In order to set each page, open one of the required screen modes, swipe from the top, and hold down one of the screens to pin the current display.



1.10. Power/Brill and Quick Access Window

Pressing the power key, a large Quick Access window appears for the following actions.

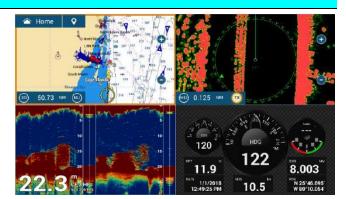
- Turn off the power
- Adjust the brilliance
- ♣ Set the Day/Dusk/Night mode
- ♣ Turn on/off the transmission of Radar, Fish Finder, and DFF-3D (NEW)
- ♣ Activate or deactivate the NAVpilot-700/711C/300 control (**NEW**)



1.11. Split Screen

The split screen is optimized for operation by touch.

- When you touch a display on one of the split screens, the screen flashes indicating it is now active. A contextual menu will not pop up on the first touch. After the display is active, the contextual menu box will pop up by touch.
- ♣ The active orange outline is thicker than previous models.



(Quad screen only available for TZT3 and TZT2BB)

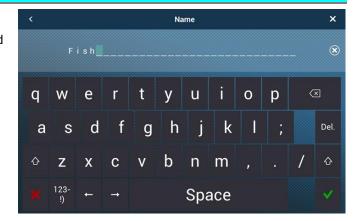
1.12. Menu Scroll Bar

Menu scroll bar is now always visible on the side of the menu, changed to white and made thicker as well. Previously, it was shown only while you were actively scrolling.



1.13. Character Entry in Lower Case

When entering names and comments on points, routes, and boundaries, characters can be entered in **lower case**.



1.14. Character and Number Entry with USB Key Board

Characters and numbers can be entered with a USB keyboard including both upper and lower cases. It helps enter long comments quickly.



1.15. Data Protection by Pin Code Lock

Once the pin code is set, TZtouch2 can only be unlocked by entering the preset 4-digit pin code. The pin code protects private, confidential user data.

Note:

(1) This function is turned off by default.



- (2) If the pin code is forgotten, the display must be reset to the factory default. A master reset will clear all so user data, such as points, routes, marks, etc. Make sure to keep a copy of the pin code in a secure location.
- (3) The pin code will **not** be shared in the network. Make sure to set the pin code on all the displays onboard.

2. Plotter

2.1. Improved Search Function

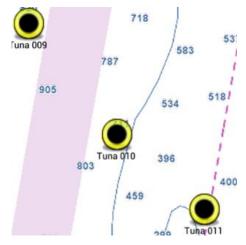
In the List page, any point, route, or boundary can be searched by its name or comment. The search result will be shown by full or **partial** match.



2.2. Automatic Naming

When entering a point, the prefix is automatically added to the point name. In the following example, [Settings] – [Points & Boundaries] – [Automatic Naming] is [ON] and the prefix of [TUNA] is set. While entering points, the name of [TUNA 001], [TUNA 002], [TUNA 003]... will be entered.





2.3. Go To by Position Entry

A new point is created by entering Latitude and Longitude in the right edge swipe menu. You can activate GOTO from the page as well.



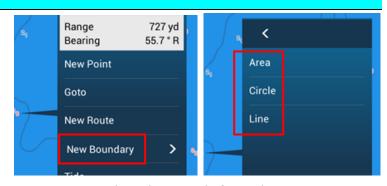
2.4. Route Bar Operation

When navigating on an active route, navigation can be stopped or restarted by operation on the route bar. When the own ship is deviated from the active route, you may tap [Restart] to re-navigate from the current location. After the navigation finishes, you may tap [STOP] to [Bestart] 15.05 NM [BTW] 201.4 °M [TG] 201.4 °M

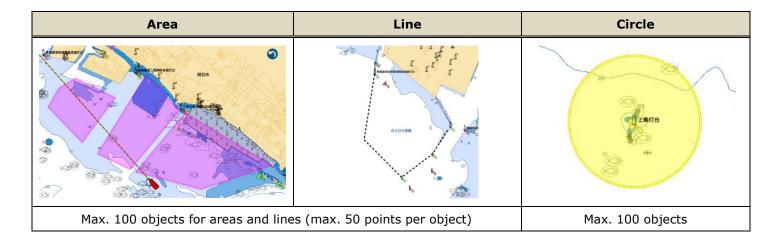
2.5. Boundaries - Creation

deactivate the route.

Three (3) types of boundaries can be created on the Plotter screen to create own chart such as no-entry zone, no-fishing zone, etc. Tap on the Plotter screen and select [New Boundary] in the contextual menu. Select [Area], [Circle], or [Line].



Each object can be created by tapping on required spot or entering Latitude and Longitude for each point.

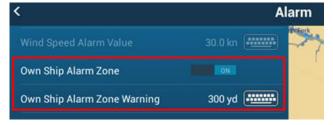


2.6. Boundaries - Proximity Alarms

Proximity alarms can be activated for created boundaries. When the own ship approaches and enters one of the boundaries, alarms will be generated.

In this example, the area named [No entry] is created.

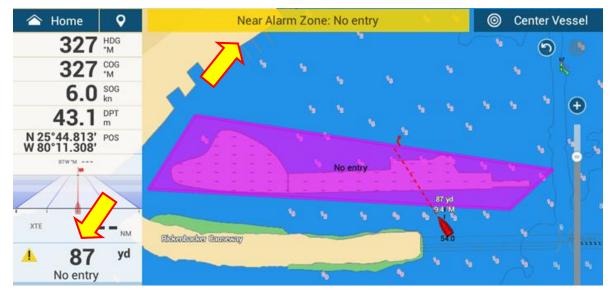
(1) In [Settings] – [Alarm], [Own Ship Alarm Zone] is set to [ON] and [Own Ship Alarm Zone Warning] is set to [300 yd].



- (2) Tap on the target area and set [Alarm] to [ON].
- (3) In the Data Box, create the box of [Boundary Alarm Zone].



When the own ship approaches the area within 300 yd, Near Alarm will be generated. While the alarm bar shows the message [Near Alarm Zone: No entry], the data box shows the distance to the area with an alert icon [!] in yellow.

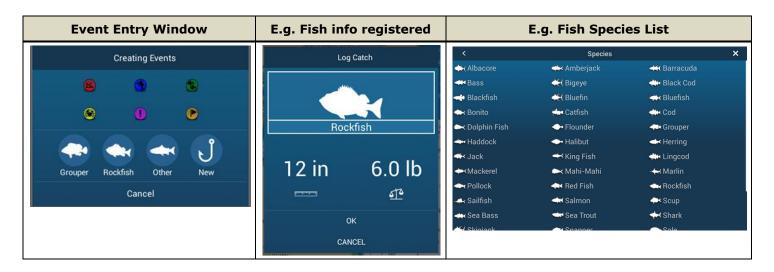


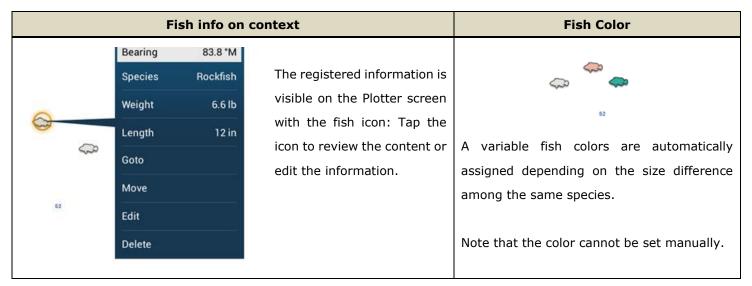
After the own ship enters the area, In Alarm Zone will be generated. While the alarm bar shows the message [In Alarm Zone: No entry], the data box shows an alert icon [!] in red.



3. New Catch Log

In addition to waypoints on the Plotter, **a maximum of 1000 fish objects** can be entered as a catch log. When entering an Event mark, details of fish species, size, and weight can be registered.





With the new **TZ First Mate app**, photos can also be registered and synchronized with the TZTl12F/15F/and TZT2BB.

4. Radar

4.1. Easier Access to Radar Adjustment

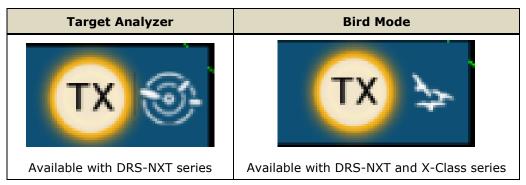
Radar has a variety of operation options depending on navigation and fishing conditions. The newly designed bottom edge swipe menu offers quick access to **Target Analyzer**, **Bird Mode**, **RezBoost™**, **Echo Averaging**, and

Interference Rejection.



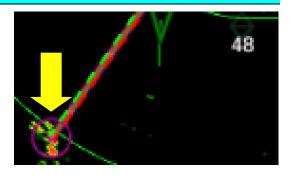
4.2. Target Analyzer and Bird Mode Icon

When the DRS-series is in the Target Analyzer or Bird Mode, the current operation mode is described with the dedicated icon.



4.3. Visible Echo under GOTO Point

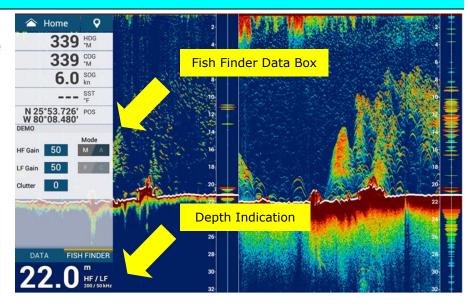
When activating a route to a target echo, previous models masked the echo with the GOTO point. TZtouch2 v7 shows the GOTO point by circle, so that the target below the GOTO point is visible.



5. Fish Finder

5.1. Visual Impression

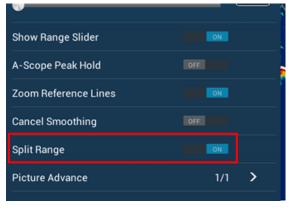
The Fish Finder page is refined with large font for depth indication and dedicated Fish Finder data box.

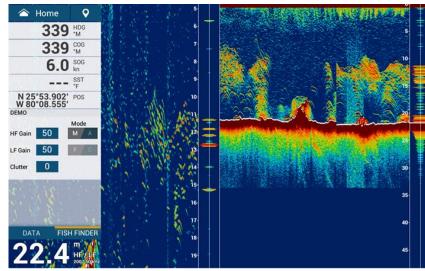


5.2. Split Range

The **Split Range** function helps refer to different layers among LF and HF screens. As an example, while focusing on the middle layer for a group of baits with one frequency, you can focus on the bottom targets below the bait area with the other frequency. In the following example, HF is in shorter range and LF in longer range.





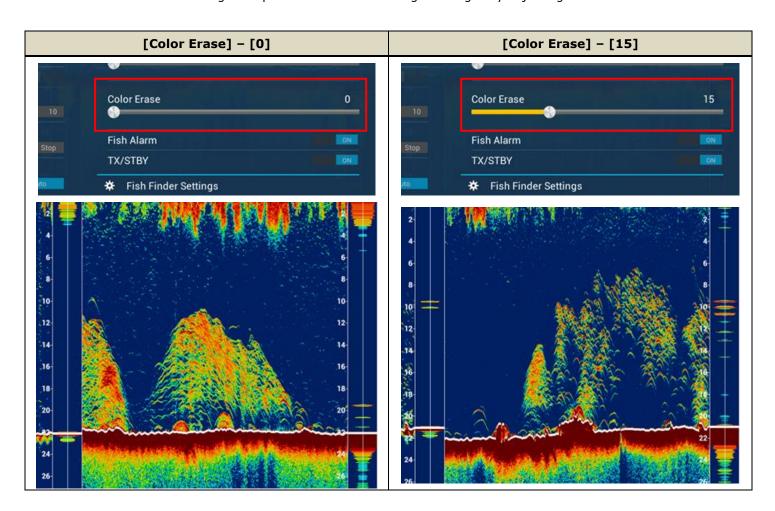


Note:

ACCU-FISH™ is **NOT** available while Split Range mode is ON.

5.3. Color Erase

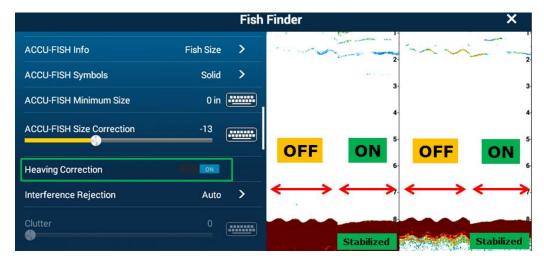
The Color Erase function is added to remove specific colors from the screen and highlight required targets. As an example, noise or weak targets may be erased while only strong echoes for large targets may stand out by adjusting the color erase menu. The following example shows how color images changes by adjusting the Color Erase menu.



5.4. Heaving Correction

Heaving correction is available for connected black box sounders in combination with a SATELLITE COMPASS such as SCX-20 and SC-33. The following screenshot shows how effectively the seabed is stabilized while [Heaving Correction] is set to

[ON].



6. Instrument

6.1. Refined Default Layout with Title Indication

The default instrument layout is refined to fit a variety of operations. While swiping left/right to scroll pages, you can find the title of the scrolled page.



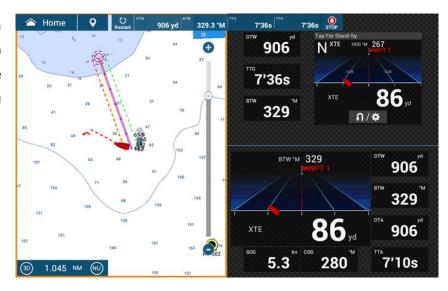
6.2. New Full Highway Screen

The Highway Mode is available in a full screen.



6.3. NAVpilot Control Window

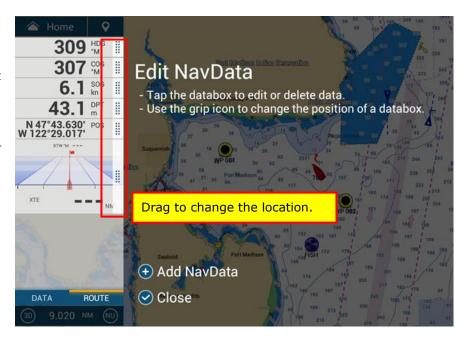
The NAVpilot control window has more data boxes than previous models. In combination with 1/4 Highway display, the half size of the display can be fully used to show the steering status.



7. Data Box

7.1. Refined Data Box Setting

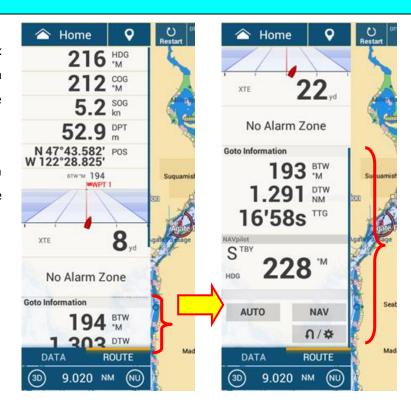
The data box can be easily customized. Swipe at the left edge to open the data box, press and hold in the box area, and select [+] to add the data type. In order to change the location of each data, hold the right side (grip icon) of the box and drag it upwards or downwards.



7.2. Scrollable Data Box

When there are many types of data in the data box area, the bottom pieces of data can be hidden from the screen. To refer to these boxes, scroll down the screen

The scroll bar at the right edge of the data box area indicates that more boxes are available at the bottom or top.



8. New Ferry Mode

The TZTL12F/15F/TZT2BB in combination with DRS series Radar sensors and SATELLITE COMPASS SCX-20, SC-33, or SC-30 offers a new Ferry Mode. On shuttle ferries with one Radar and heading source, heading output from the SCX-20 or SC-33/30 as well as Radar heading of the sourced DRS is offset by 180° when pressing an external event switch.

Target Boat Types

Simplified double ended ferries with one Radar and compass on top such as road ferries are the main target of this function.





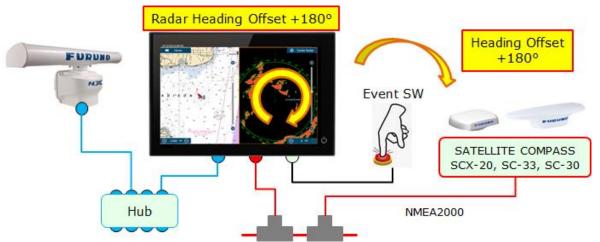
Compatible Sensors

The process of output heading offset utilizes the **NMEA2000 standard PGN: 126208 (Command Group Function)** to send a command to the compatible SATELLITE COMPASS and **proprietary PGN: 130818** to edit the heading offset value. The SCX-20, SC-33, and SC-30 support these PGNs. Any Radar sensor compatible with the TZTL12F/15F/TZT2BB can be used as the Radar sensor.

SATELLITE COMPASS	SCX-20, SC-33, and SC-30 (discontinued)
Radar Sensor	DRS2D/4D/4A/6A/12A/25A, DRS4D-/6A-/12A-/25A-NXT, and DRS6A/12A/25A X-Class

Interconnection and Setup

- (1) Network the TZTL12F/15F/TZT2BB with DRS series via Ethernet and SCX-20 or SC-33/30 via NMEA2000.
- (2) Connect an external switch to the TZTL12F/15F/TZT2BB.



(3) On the TZTL12F/15F/TZT2BB, access [Settings] – [Initial Setup] – [Event Input Configuration] and select [Ferry].

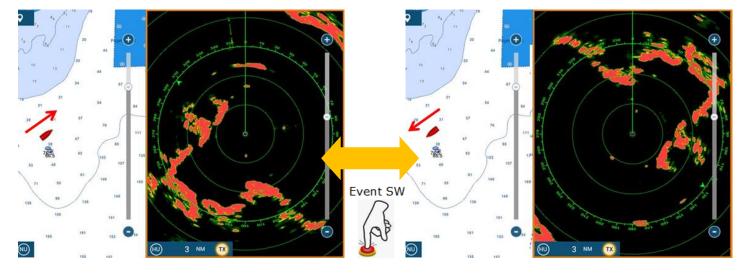


(4) Select one of the Radar Sensors as the Radar source and adjust the Radar heading to show echoes in proper location.

How It Works

- (1) When the boat steers in one way, use the Radar and Plotter as it is.
- (2) When the boat steers in the other way, press the event switch. The TZTL12F/15F/TZT2BB will send an offset command to the SCX-20 or SC-33/30 to offset the heading output by 180°, while changing the Radar heading line by 180°.

You can see that the Radar echo as well as own ship icon on the Plotter are offset by 180°.



9. Demo Mode and Tutorial

9.1. Demo Mode

The new demo data recorded around Seattle is built in the unit.

- ♣ Target Analyzer ON and OFF can be played.
- The Camera page shows one movie file when no camera is connected. (Left)
- Engine and tank data is also available on the Instrument page. (Right)





9.2. Tutorial

The tutorial movie is available to demonstrate basic operation flow. You can launch it from the Welcome screen at start up or access [Settings] – [General] – [Show Welcome Screen] and select [Start Tour].



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