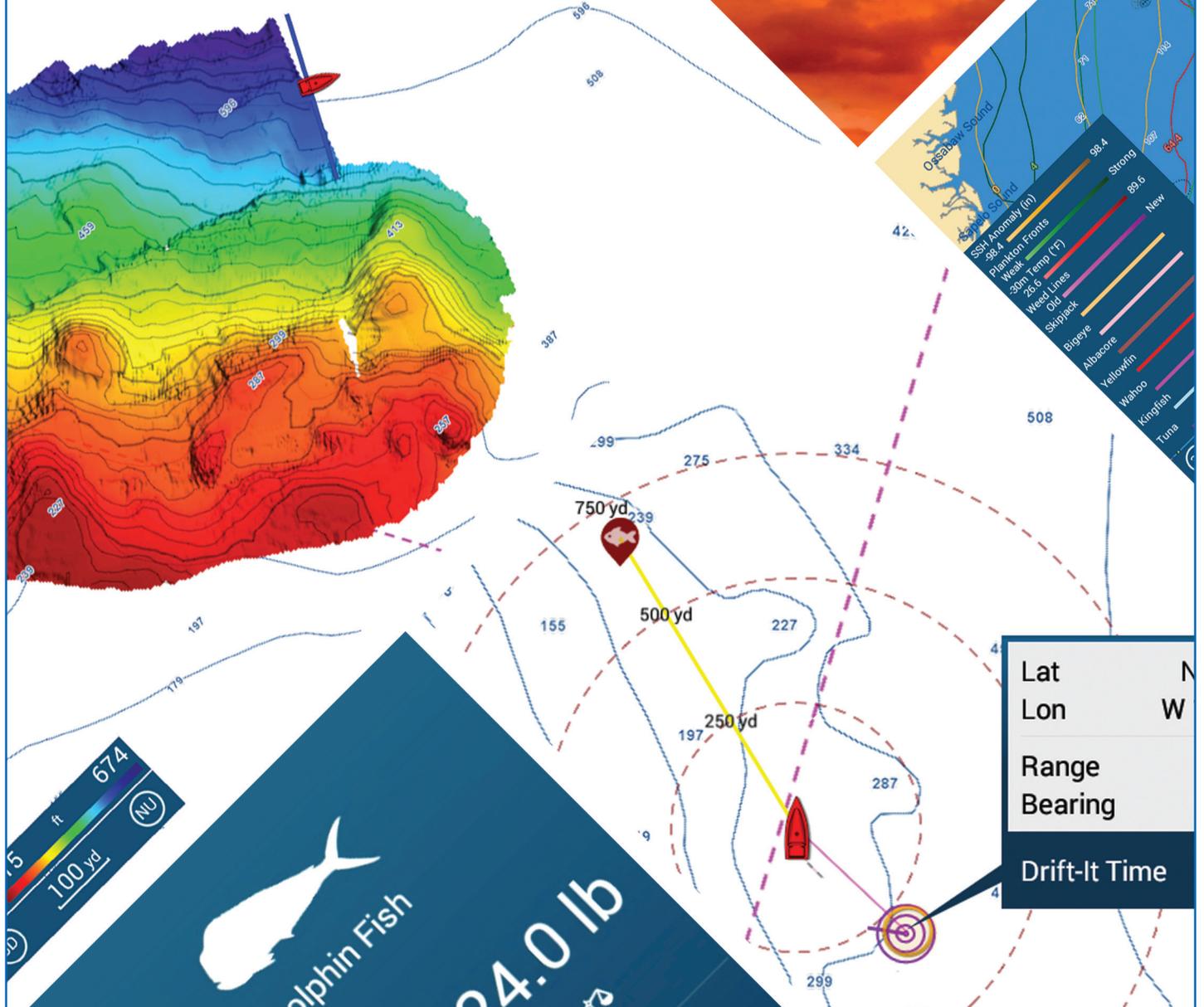


# Version 2.01 Software Overview

# NAVnet

## TZ3 touch



# Index

1. **New Network Capability**
  - 1.1. **Additional Third Party Devices via HTML**
  - 1.2. **FLIR Cameras – Display and Control via Ethernet**
  - 1.3. **Video Encoder for IP Streaming**
  - 1.4. **FUSION-Link via NMEA2000**
  - 1.5. **SiriusXM Fish Mapping™ Service (North America Only)**
  - 1.6. **Anchor Watch via TZ ecosystem**
  - 1.7. **Fleet Tracking via TZ Cloud**
2. **Refined Multi Beam Sonar Operation – DFF-3D**
  - 2.1. **Bottom Mapping (PBG) with DFF-3D**
  - 2.2. **More Access via Layer Menu**
  - 2.3. **Bottom Zoom and Bottom Lock on Multi-Sounder Mode**
  - 2.4. **Depth Box with Variety of Information**
  - 2.5. **Smoothed Depth Scale Bar**
  - 2.6. **Background Color – Blue**
  - 2.7. **Range Slider Bar Operation**
3. **Refined Fish Finder Operation**
  - 3.1. **More Access via Layer Menu**
  - 3.2. **Advanced Preset Frequency**
  - 3.3. **Marker Zoom Mode**
  - 3.4. **Zoom Reference Lines – Always ON**
  - 3.5. **Versatile Depth Box**
  - 3.6. **Background Color – Blue**
  - 3.7. **Smoothed Depth Scale Bar**
  - 3.8. **Range Slider Bar Operation**
  - 3.9. **Transducer Draft Offset – Shifting Screen**
  - 3.10. **Bottom Search Mode – OFF**
  - 3.11. **Noise Suppression below Transducer**
  - 3.12. **Improved Auto Gain with DI-FFAMP**
  - 3.13. **New Transducers Listed**
  - 3.14. **Paired Installation of Single Band CHIRP Transducers**
  - 3.15. **Built-in Fish Finder – External KP with DFF-3D**
4. **Refined Fishing Operation – Fish-It & Drift-It!**
5. **Refined Data and List Management**
  - 5.1. **Enhanced Screenshot Management**
  - 5.2. **User Objects – Listing by Date**
  - 5.3. **Editing Multiple User Objects**
6. **Refined Plotter Operation**
  - 6.1. **Point Entry by Position – Edit and Find**
  - 6.2. **Track Color by Day and Trip**
  - 6.3. **Improved Plotter Range Scale**
  - 6.4. **ACCU-FISH™ Icon – OFF**
  - 6.5. **Advanced Anchor Watch Operation**
7. **Refined Radar Operation**
  - 7.1. **Switching Radar Source in Layer Menu**
  - 7.2. **Improved Radar Overlay Color on Plotter**
8. **Refined Operation – Others**
  - 8.1. **Customizable Startup Wallpaper**
  - 8.2. **Improved Home Icon Size and Layout**
  - 8.3. **New Functions for Gesture**
  - 8.4. **Revised Default Settings**
  - 8.5. **Unified with NavNet TZtouch2 V7.01**
9. **Others**

# 1. New Network Capability

## 1.1. Additional Third Party Devices via HTML

The TZT9F/12F/16F/19F v2.01 supports four (4) additional third party devices for control via an HTML browser. See separate **Integration With Third Party Devices** document for details of settings, functions, and operation.

System/Manufacturer	Overview	Remarks
<b>HP WATERMAKER</b>	<b>Watermaker</b>	<b>New with v2.01</b>
<b>Omnisense</b>	<b>Thermal camera</b>	
<b>OSCAR</b>	<b>Camera, collision avoidance system</b>	
<b>Seakeeper</b>	<b>Gyro stabilizer</b>	
Quick SpA	Gyro stabilizer, thruster, windlass, etc.	Compatible with v1.08
Lumishore	LED lighting	
Shadow-Caster	LED lighting	
Victron Energy	Battery management, inverter, charger	

## 1.2. FLIR Cameras – Display and Control via Ethernet

### FLIR M300 Series

The TZT9F/12F/16F/19F v2.01 can be networked with the latest FLIR M-series cameras. While previous versions showed analog video images only, the new v2.01 shows images from the networked M 300 series camera via IP streaming as well as controlling on the Camera page. Setting the camera to **Parking** and **Home** position, which was operational with the JCU only, is now controllable with the TZT9F/12F/16F/19F v2.01.



### FLIR M232

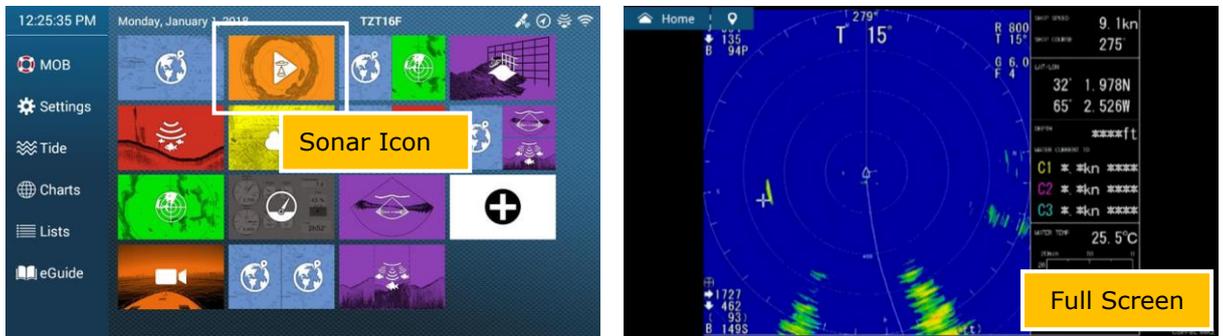
With new v2.01, the mode of FLIR M232 can be set to **Parking** through the TZT9F/12F/16F/19F – Layer menu.

### Note

For the M400, M400XR, and M500, input video images to TZT9F/12F/16F/19F via analog because IP streaming on the MFD is not verified.

## 1.3. Video Encoder for IP Streaming

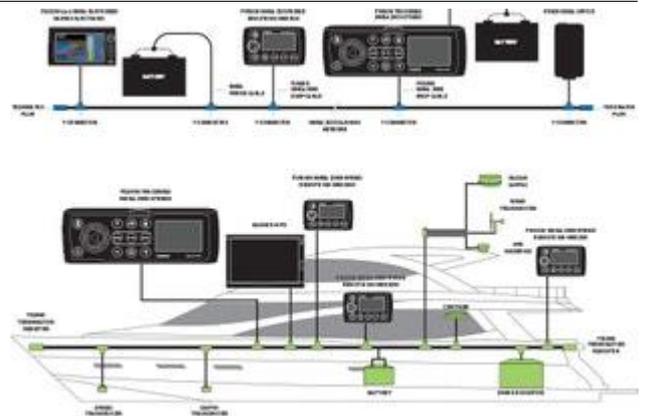
Video images can now be networked via off-the-shelf video encoders. This enables cameras other than FLIR or AXIS may be utilized. As another example of this feature, Sonar images from CSH-8L MARK-2 can be streamed to all TZtouch3 MFDs in order to monitor fish targets at both main and fly bridges. When inputting Sonar images to the MFD, the dedicated Sonar page icon can be created. See separate **IP Video Streaming** document for setup procedures.



## 1.4. FUSION-Link via NMEA2000

TZT9F/12F/16F/19F v2.01 can be networked with stereos from Fusion Entertainment via NMEA2000. Previous versions were networkable via Ethernet only. This limited the available connectable stereos to high end models with an Ethernet port. v2.01 offers more options to FUSION-Link stereos, which have an NMEA2000 interface only. See separate **Fusion Setup** document for details of FUSION-Link.

*Diagram from Fusion Entertainment*

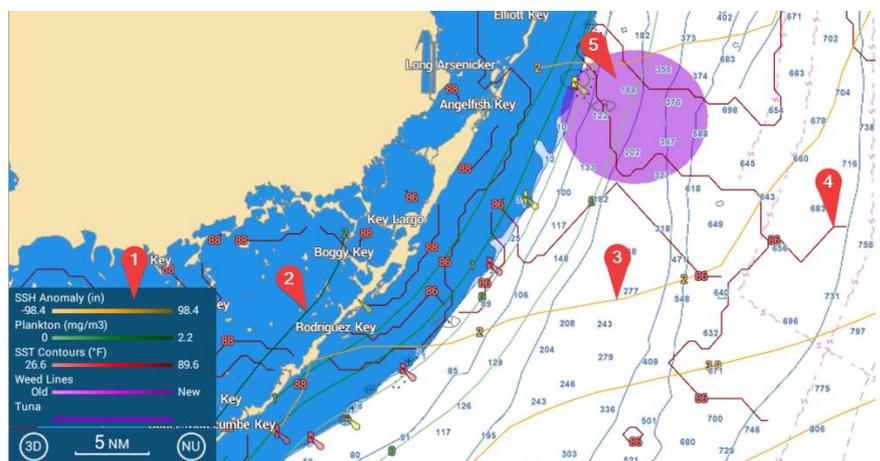


### Note:

When Fusion stereos are networked via NMEA2000, artwork will not be shown on the FUSION-Link page nor on the media bar of the TZT9F/12F/16F/19F. The artwork will be shown only with an Ethernet connection.

## 1.5. SiriusXM Fish Mapping™ Service (North America Only)

TZT9F/12F/16F/19F v2.01 with SiriusXM receiver BBWX4 is compatible with Fish Mapping service provided by SiriusXM. Fishing Mapping offers a variety of useful information related to fishing activities. Note that this service is available in the North America region only.



*E.g. Fishing Mapping information is shown on a dedicated Fish Mapping Page.*

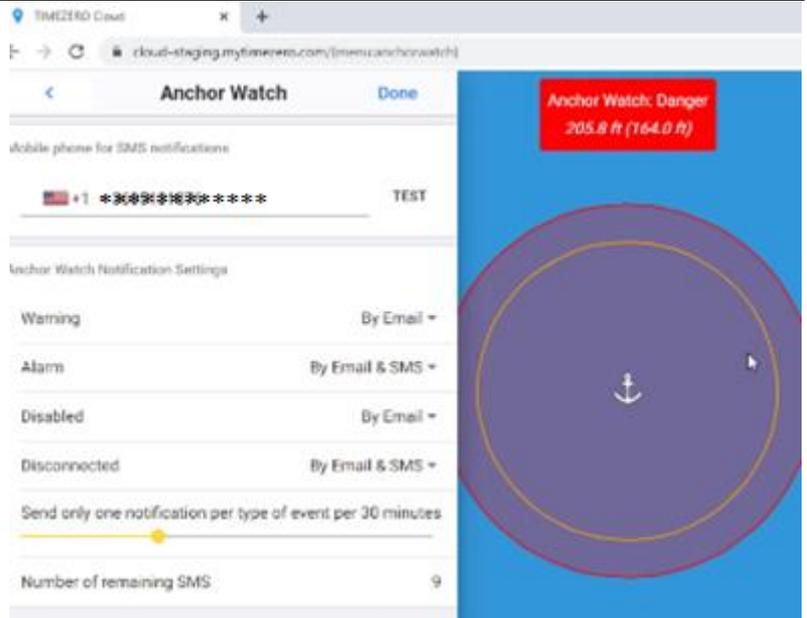
- (1) The Fish Mapping legend shows the data currently displayed and the color codes used.
- (2) Plankton concentration contours lines displayed in green color tones
- (3) SSH anomaly displayed in yellow/brown color tones
- (4) SST contours displayed in red color tones
- (5) Fishing recommendation for specific fish species (tuna in this example) displayed as colored area.

## 1.6. Anchor Watch via TZ ecosystem

The **Anchor Watch Alarm** is now available for the **TZ ecosystem**. The Anchor Watch Alarm is automatically synchronized on the local network like an active route and is available on all TZ devices. This allows you to drop the Anchor Watch conveniently from your phone (TZ iBoat, to be updated for this function) and see and adjust it from the MFD (by local sync).

It also allows you to be alerted from any TZ devices (phone or tablet). If an Internet access is available to login to the My TIMEZERO account with the TZ device(s), the connected device will report the position (Position Reporting) and the anchor watch status will be sent to the TZ Cloud, so that the status can be viewed remotely from any location using a web browser (cloud.mytimezero.com).

If you are logged in to the My TIMEZERO account with your phone, the TZ Cloud server can send you a text alert automatically in SMS. See separate **TZ Echo System** document for more details.



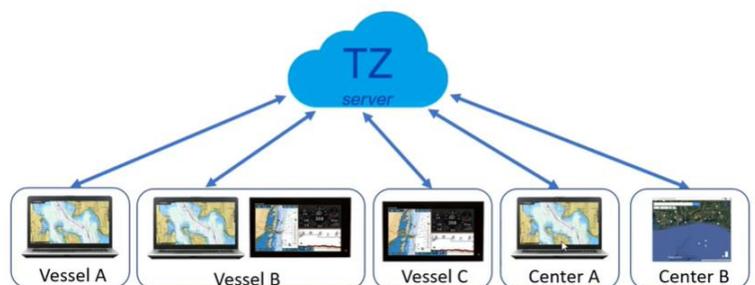
*Sample – Anchor Watch status shown on a web browser*

### Note:

The UI of Anchor Watch operation on the TZT9F/12F/16F/19F v2.01 is also improved as described in [Section 6.5](#).

## 1.7. Fleet Tracking via TZ Cloud

The Fleet Tracking feature available with TZ Professional V4.1 software is partially available with TZT9F/12F/16F/19F v2.01. Fleet Tracking provides the ability to share and transfer vessel positions, speeds, points, routes, boundaries, etc. between the fleet and the land station.

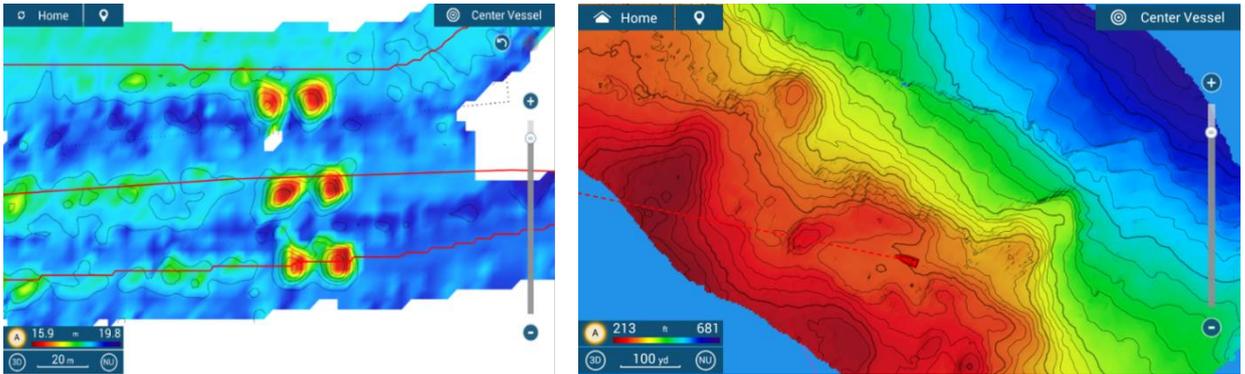


See separate **Fleet Tracking** document for details of this feature, as well as available functions on the TZT9F/12F/16F/19F.

# 2. Refined Multi Beam Sonar Operation – DFF3D

## 2.1. Bottom Mapping (PBG) with DFF3D

TZT9F/12F/16F/19F v2.01 is compatible with **bottom mapping**, called **PBG (Personal Bottom Generator)**, using the **Multi Beam Sonar DFF3D**. Bottom mapping helps to identify the latest bottom structure and find appropriate fishing spots, which are not easily found on charts. See separate **PBG Bottom Mapping** document for details.



**Note:** The Bottom Mapping function requires a heading input.

## 2.2. More Access via Layer Menu

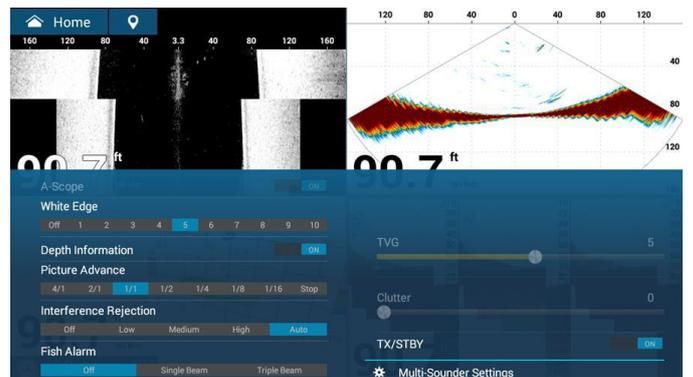
The content of Layer menus of DFF3D pages accessible by bottom edge swipe is increased for more adjustment without accessing the Settings page.

**Note:**

The Layer menu on the Fish Finder page is also improved as introduced in [Section 3.1](#).



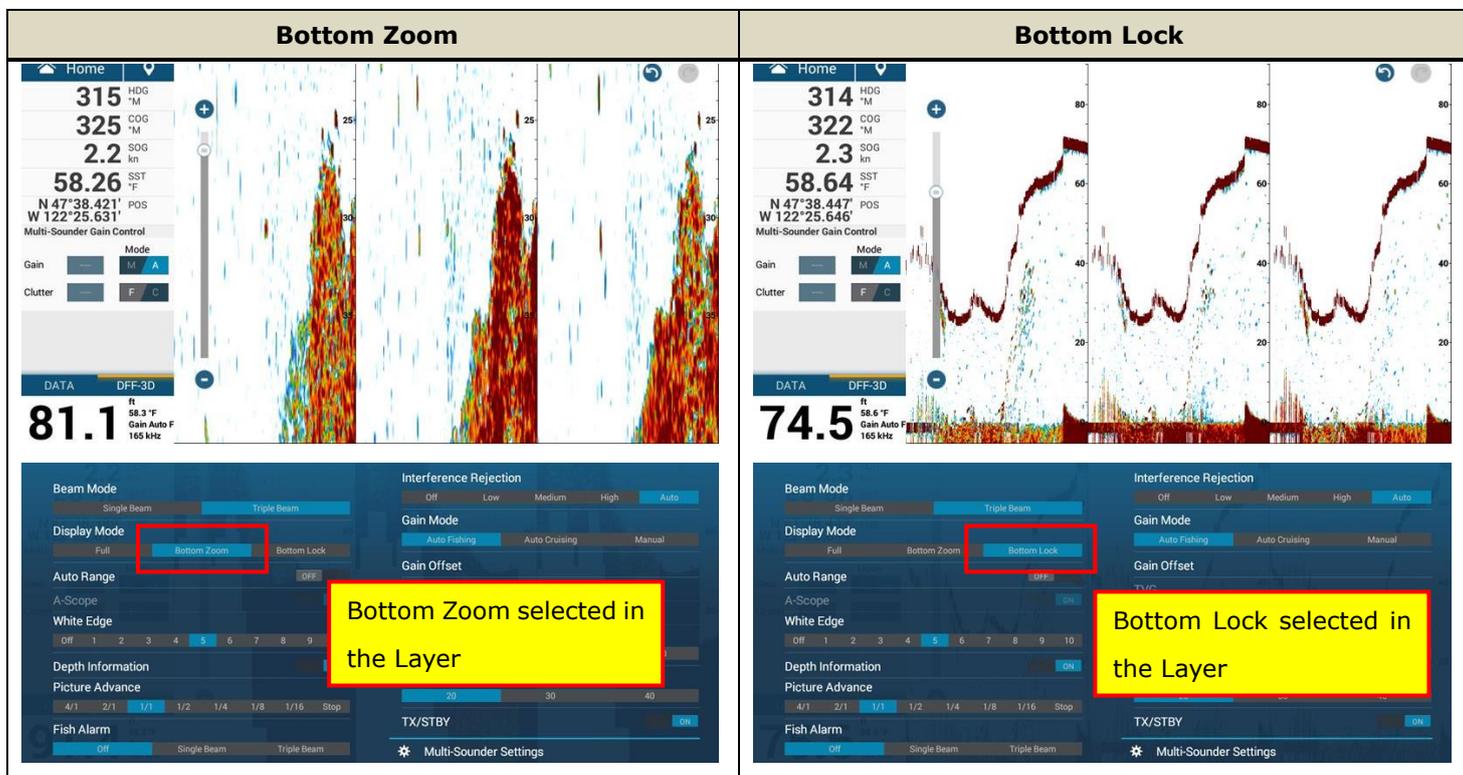
*E.g. Multi-Sounder*



*C.f. Comparison with previous versions for less menu item*

## 2.3. Bottom Zoom and Bottom Lock on Multi-Sounder Mode

The **Bottom Zoom** and **Bottom Lock** functions are available on the **Multi-Sounder** mode. The following example is from the Triple Beam display with the bottom zoomed and locked, so that you can focus on bottom targets at the port, center, and starboard sides.



### Notes:

- (1) The image on the Bottom Zoom and Bottom Lock modes are **digitally zoomed** to fit in the screen. When the range scale is deep, the resolution of zoomed images can be low.
- (2) The DFF3D screen shows only zoomed images on one screen. (Fish Finders show the full range screen at the right side and the zoom screen at the left.)

## 2.4. Depth Box with Variety of Information

The depth indication box is refined to show more information at a glance.



New

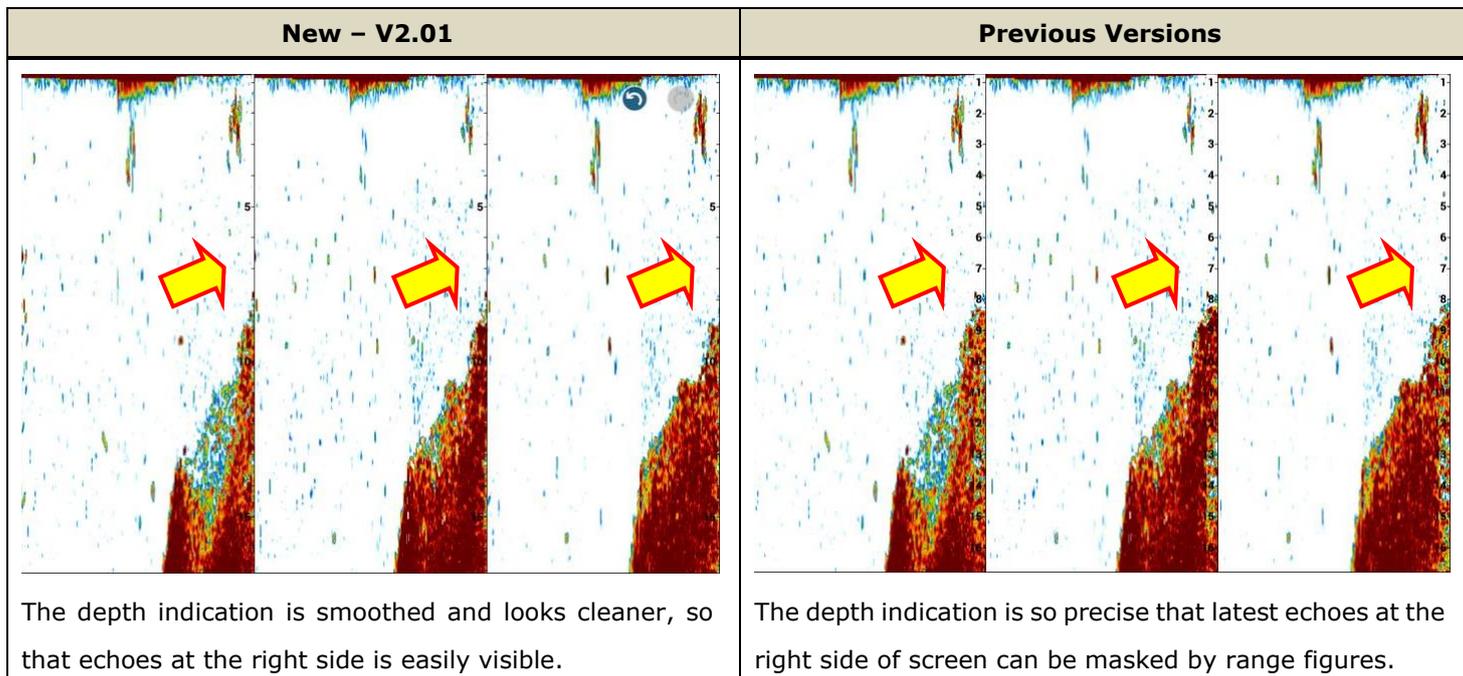
- ✚ Depth unit
- ✚ Water temperature
- ✚ Gain mode – Auto or Manual gain value
- ✚ Frequency

Previous:



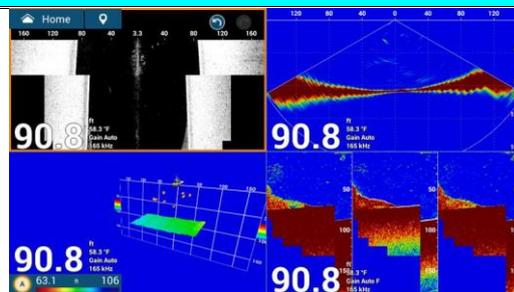
## 2.5. Smoothed Depth Scale Bar

The depth indication in the depth scale bar is smoothed with more areas for echoes secured than previous versions.



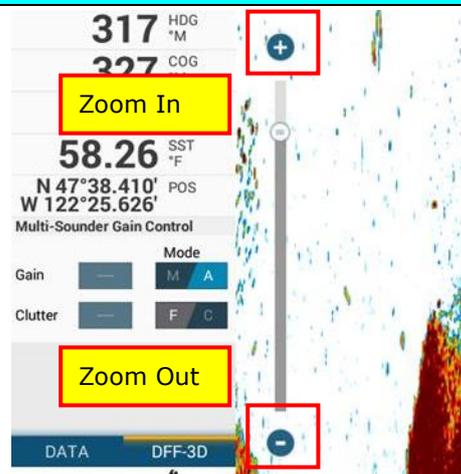
## 2.6. Background Color – Blue

The **Blue** background color is added to the DFF-3D and Fish Finder screens. This is the same color available with standalone Fish Finders such the FCV-1900. In order to change the color, access [Home] – [Multi Beam Sonar] – [Day Background Color] or [Night Background Color] and set to [Blue]. For Blue images on the Fish Finder screen, see [Section 3.7](#).



## 2.7. Range Slider Bar Operation

While the Plotter and Radar ranges are zoomed in by tapping [+] and out by [-], the DFF-3D and Fish Finder screens zoomed in/out oppositely with the previous versions. The new v2.01 has the unified reaction when tapping [+] and [-] icons on the range slider bar.



# 3. Refined Fish Finder Operation

## 3.1. More Access via Layer Menu

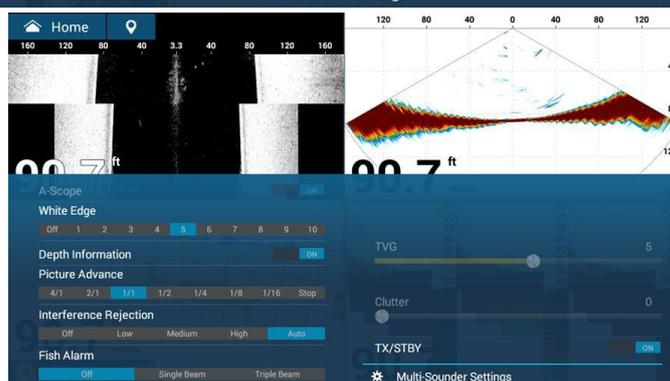
The content of Layer menu of Fish Finder page accessible by bottom edge swipe is increased for more adjustment without accessing the Settings page.

*E.g. TZT16F*



**Display Mode**, **Frequency**, **Auto Range**, and **Gain Mode**, which were selectable in the contextual menu are available in the Layer menu. The new **Preset Frequency** ([Section 3.2](#)) and **Bottom Search Mode** ([Section 3.10](#)) are also accessible from the Layer.

*C.f. Comparison with previous versions for less menu item*



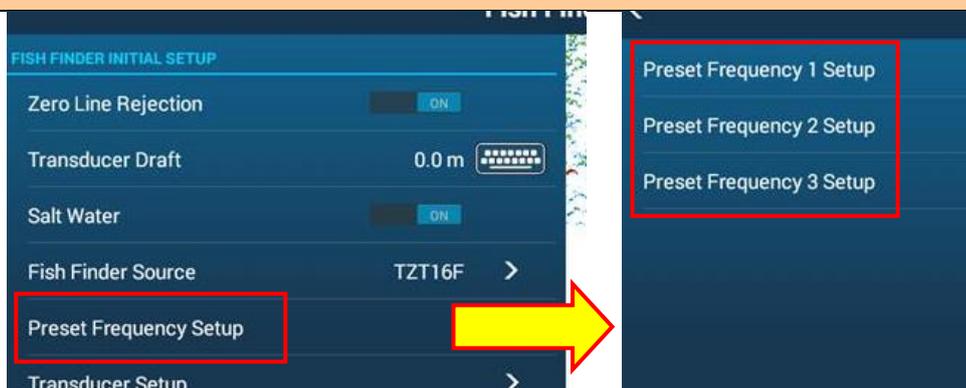
**Note:**

The Layer menu on the DFF-3D pages is also improved as introduced in [Section 2.2](#).

## 3.2. Advanced Preset Frequency

### Preset Frequency for Built-in Fish Finder

**A maximum of three (3) frequencies** of TZT12F/16F/19F built-in Fish Finder can be preset. This feature has been utilized with the DI-FFAMP and is now available with the built-in Fish Finder. On the TZT9F, the preset frequency menu is accessible with the TZT12F/16F/19F selected as the Fish Finder source.



**Nickname for Preset Frequencies**  
**– Both Built-in Fish Finder and DI-FFAMP**

The registered preset frequencies can have nicknames for easier recognition of required settings. As an example, target fish, depth, and operation scene may be entered as nicknames. In the example at right, the Preset Frequency 1 is nicknamed to [Shallow].

*E.g. Nickname set to [Shallow]*



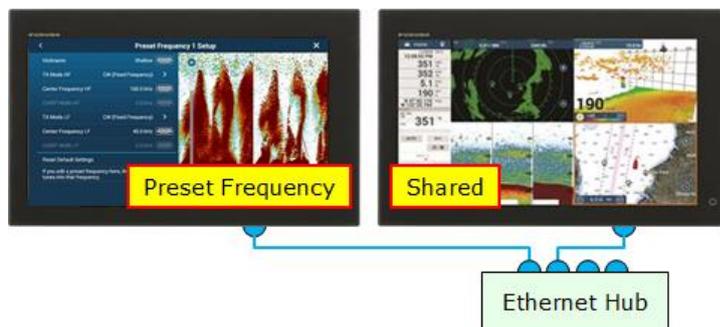
**Accessible via Layer Menu – Both Built-in Fish Finder and DI-FFAMP**

The Preset Frequency menu is available in the Layer. While the fishing location frequently changes, you can quickly switch from one setting to another. In the example at right, three (3) patterns of frequencies are registered under the nicknames of [Shallow], [Deep], and [Bottom]. The Layer menu shows these nicknames for easy selection of preset frequencies.



**Preset Frequency Setting Shared in the Network**  
**– Both Built-in Fish Finder and DI-FFAMP**

The preset content on one display is automatically shared with the other displays in the Ethernet network.



**Note and Limitation**

As general information, when the TZT12F/16F/19F is used with B265LH, CM265LH, and TM265LH, the **ACCU-FISH function is available but NOT bottom discrimination.**

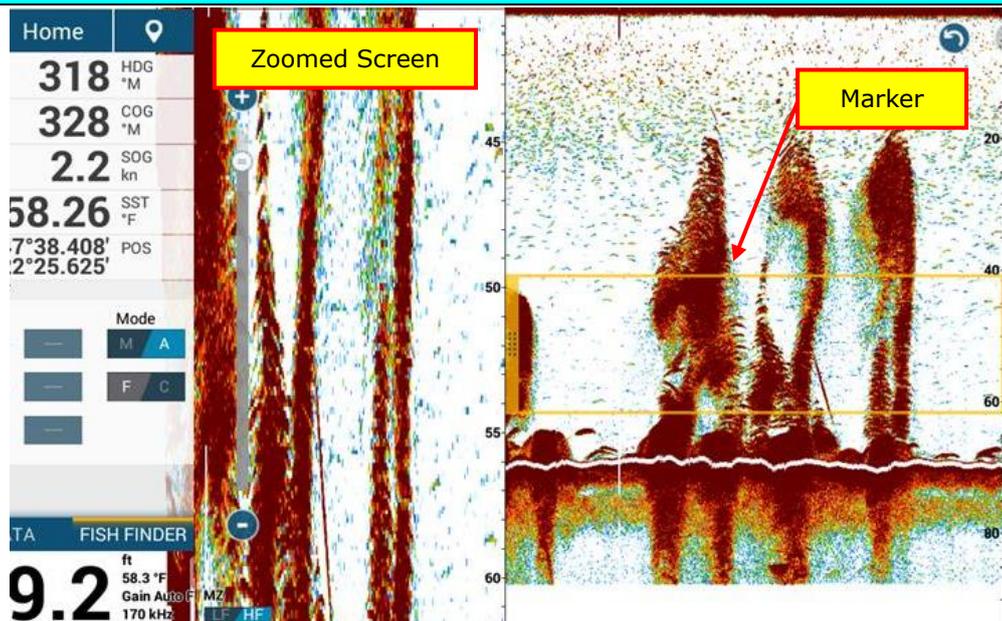
- ✚ However, if the **Preset Frequency** mode is set to [FM (Manual CHIRP)] or [CW (**Fixed Frequency**)], **ACCU-FISH becomes unavailable.**
- ✚ Even if the TX frequency is fixed to 50/200 kHz in [CW (**Fixed Frequency**)], the **Bottom Discrimination function is NOT available.**

In [FM (Manual CHIRP)], the center frequency can be shifted so that the 50/200 kHz cannot be transmitted. In the [CW (Fixed Frequency)], other frequencies than 50/200 kHz can also be set. Accordingly, the ACCU-FISH function will become unavailable if these settings are selected in the Preset Frequency. On the other hand, in the same reason, the Bottom Discrimination function is **NOT** available even if the TX frequency is fixed to 50/200 kHz in [CW (Fixed Frequency)].

In order to utilize the ACCU-FISH function with these transducers, make sure to use it in Auto CHIRP, not in Manual CHIRP or CW modes.

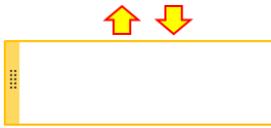
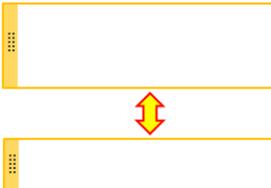
### 3.3. Marker Zoom Mode

In addition to conventionally available Bottom Zoom and Bottom Lock modes, the **Marker Zoom** mode is added. Once the Marker Zoom mode is selected, the right side shows whole echo images with the yellow marker to intuitively indicate the zoom area, and the left side shows zoomed images. The zoom area can be easily adjusted by shifting the yellow marker up and



downward and adjusting the marker height by touch operation, T/ZT9F/12F keypad, and MCU-002/004/005.

The marker can be easily adjusted in a variety of operation flows.

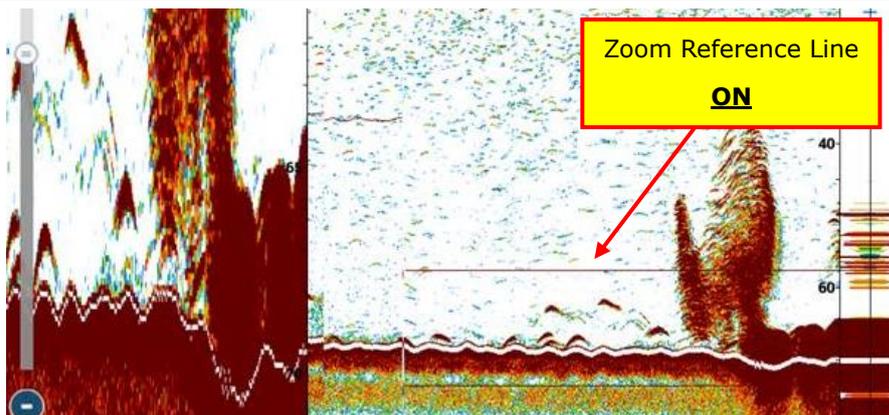
Action	Operation
Shift the marker up/downwards 	<ul style="list-style-type: none"> <li>✚ Touch: Drag the marker.</li> <li>✚ MCU-002: Press [+] / [-] keys.</li> <li>✚ MCU-004/005 and T/ZT9F/12F: Rotate the rotary knob (RotoKey™).</li> <li>✚ Menu: [Fish Finder] – [Marker Zoom Shift]</li> </ul>
Change the marker height 	<ul style="list-style-type: none"> <li>✚ Touch: Pinch to zoom on the marker.</li> <li>✚ Touch: Adjust it on the slider bar at the left side.</li> <li>✚ Contextual Menu: Tap on the Fish Finder page, select [Adjust Marker Zoom], and enter a required length.</li> <li>✚ Menu: [Fish Finder] – [Zoom Range Span]</li> </ul>

**Note:**

While zoom reference lines are shown on the right-side of the screen on Bottom Zoom and Bottom Lock modes, the Marker Zoom mode will not show the line: Utilize the zoom indication bar, which is more intuitive.

### 3.4. Zoom Reference Lines – Always ON

The zoom reference lines always appear on the Bottom Zoom and Bottom Lock modes. The previous versions had ON/OFF settings in the menu. While these lines are always useful, [Zoom Reference Lines] – [ON]/[OFF] menu is removed with v2.01.



New – V2.01	Previous Versions

### 3.5. Versatile Depth Box

The depth indication box is refined to show a variety of information at a glance. By tapping on the depth box or LF/HF box, the frequency mode can be switched between LF and HF.



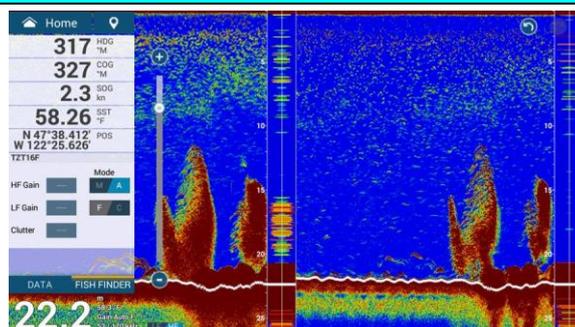
- Depth Unit
- Water Temperature
- Gain Mode (Auto Fishing or Auto Cruising) and Manual Gain Level
- Frequency (Center Frequency for TruEcho CHIRP™)
- Display Mode: BZ (Bottom Zoom), BL (Bottom Lock), and MZ (Marker Zoom)
- Selected Frequency Mode: LF or HF

C.f. Previous:



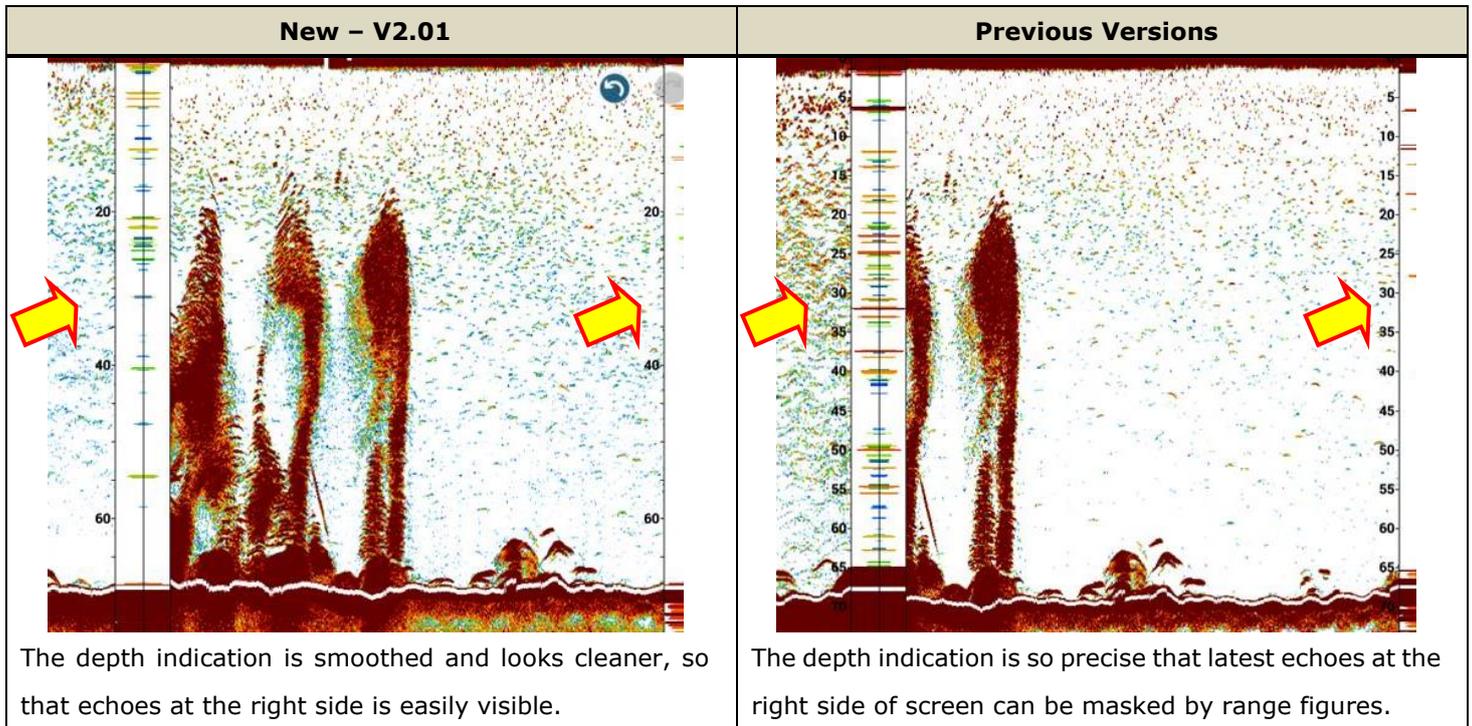
### 3.6. Background Color – Blue

The **Blue** background color is added to the Fish Finder and DFF3D screens. This is the same color available with standalone Fish Finders such as the FCV-1900. In order to change the color, access [Home] – [Multi Beam Sonar] – [Day Background Color] or [Night Background Color] and set to [Blue]. For Blue images on the DFF3D screens, see [Section 2.6](#).



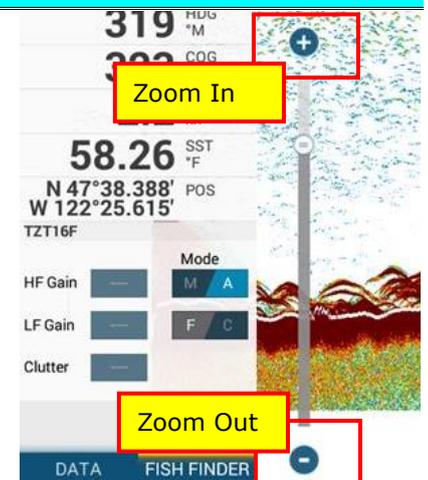
### 3.7. Smoothed Depth Scale Bar

The depth indication in the depth scale bar is smoothed with more areas for echoes secured than previous versions.



### 3.8. Range Slider Bar Operation

While the Plotter and Radar ranges are zoomed in by tapping [+] and out by [-], the Fish Finder and DFF3D screens zoomed in/out oppositely with the previous versions. The new v2.01 has the unified action when tapping [+] and [-] icons on the range slider bar.



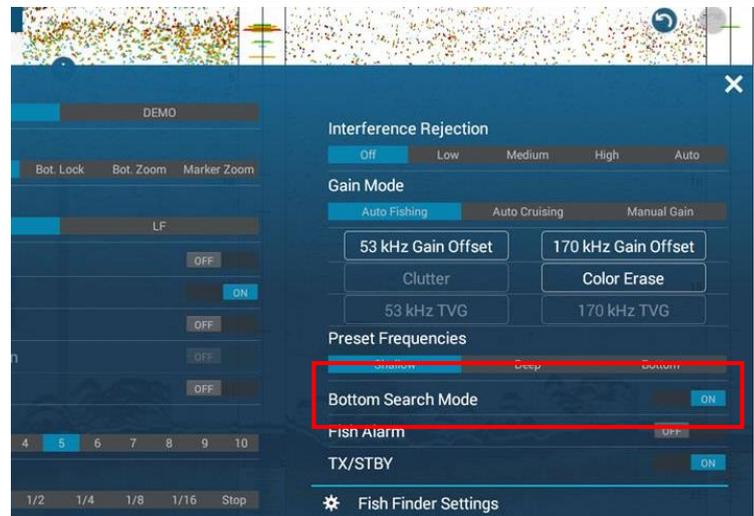
### 3.9. Transducer Draft Offset with Zero Line Rejection– Shifting Screen

Previous versions showed images from the area above the preset transducer draft. As an example, the transducer is located at 1 m below the draft and the water depth is 5 m only: The top 1 m area is masked in brown and only the other 4 m areas show echoes. The new v2.01 with **Zero Line Rejection – ON** automatically offset the preset draft area to show only echoes on the Fish Finder screen.

New – v2.01	Previous Versions
	
<p>The preset draft area is automatically shifted. In this example, the top of the Fish Finder screen starts from 2 m.</p>	<p>The draft area (top 1 m) is masked in brown.</p>

### 3.10. Bottom Search Mode – OFF

When searching at the surface to the middle layer of deep water, you may shift or zoom the screen to show such layers without showing the bottom echoes on the screen. However, the transmission speed can be slow if the bottom is always searched at deep water. In order to increase the transmission speed, the **Bottom Search Mode** can be turned off: Bottom edge swipe on the Fish Finder page to show the Layer and access [**Bottom Search Mode**] – [**OFF**].



Bottom Search – OFF	Bottom Search – ON
TX → TX → TX → TX → TX → TX	TX → TX → <b>Stop</b> (for search) → TX → TX → <b>Stop</b> (for search)
<p>With the [Bottom Search Mode] – [<b>OFF</b>], the Fish Finder will keep transmitting faster by 1.5 times compared with [ON].</p> <p><b>Note:</b> The Bottom Search can be turned off with the Manual Gain mode only.</p>	<p>While the screen shows only the surface to middle layer, i.e. no bottom displayed, the Fish Finder will stop the transmission once in three times in order to detect the bottom depth.</p> <p><b>Note:</b> The Bottom Search mode is always ON with the Auto Gain mode.</p>

### Compatible Fish Finders for Bottom Search Mode – OFF

The following models are compatible with Bottom Search Mode – **OFF**.

<ul style="list-style-type: none"> <li> <b>TZT9F/12F/16F/19F v2.01</b> with Built-in Fish Finder</li> </ul>	<ul style="list-style-type: none"> <li> <b>BBDS1 v2.01</b></li> </ul>
<ul style="list-style-type: none"> <li> TZT12F/16F/19F v2.01 with <b>DI-FFAMP</b></li> </ul>	<ul style="list-style-type: none"> <li> <b>DFF3 v2.01</b></li> </ul>
<ul style="list-style-type: none"> <li> <b>DFF1 v3.01</b></li> </ul>	<ul style="list-style-type: none"> <li> <b>DFF1-UHD v3.01</b></li> </ul>

## Notes:

- (1) The **DFF3D** is **NOT** compatible with the Bottom Search Mode – OFF setting.
- (2) When the **TZTL12F/15F/2BB (all versions) or TZT9F/12F/16F/19F v1.xx** is networked with a DFF1, BBDS1, DFF3, or DFF1-UHD, the Bottom Search Mode – OFF **cannot** be activated on the MFD because TZtouch2 MFDs do not have a Bottom Search ON/OFF menu setting.

## 3.11. Noise Suppression below Transducer

For TZT9F built-in Fish Finder, TZT12F/16F/19F built-in Fish Finder, and DI-FFAMP:

While previous versions applied TVG for Auto Gain to 1 m or deeper, the new v2.01 applies TVG to 0.1 m or deeper, which will help suppress noise right below a transducer.

## 3.12. Improved Auto Gain with DI-FFAMP

Previous versions sometimes showed weak echoes from fish targets or suppressed echoes above a large school of fish. The **Auto Gain performance of DI-FFAMP** connected to the TZT12F/16F/19F is improved with the new v2.01. The internal TVG curve adjustment is optimized in order to increase the gain at deep water while suppressing noise from shallow water.

## 3.13. New Transducers Listed

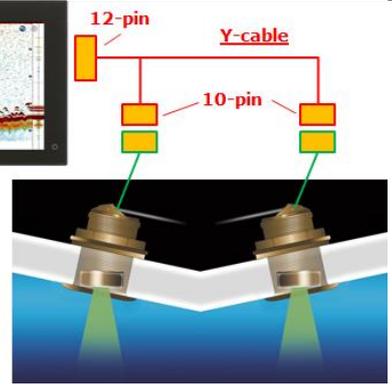
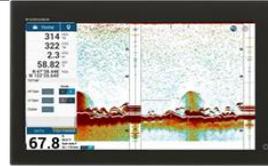
The following transducers are newly added to the transducer list for the built-in Fish Finder.

Model	Image	Power	Func.	Freq.	Mount Type	Housing
TM165HW for TZT9F/12F/16F/19F	<p><a href="#">TM165HW Wide-beam Chirp-ready Transom Mount</a></p> <p>Category: Chirp-ready Power: 600W Function: Depth, Temperature Frequency: 150-250 kHz Mount Style: Transom Housing Material: Plastic Bracket</p> 	600 W	Depth, Temp.	150-250 kHz	Transom	Plastic, Bracket
165T-PM542LM for DI-FFAMP	 <p><a href="#">(Link)</a></p>	2 kW	Depth, Temp.	30-60 kHz 80-130 kHz	Pocket	Plastic

The 165T-PM542LM is a transducer sold through Furuno USA, Inc. It consists of a DFF3D transducer element and 2 kW CHIRP transducer element enclosed in a plastic housing.

### 3.14. Paired Installation of Single Band CHIRP Transducers

One pair of Airmar single band CHIRP transducers (thru-hull type) listed below can be connected to the TZT12F/16F/19F transducer port via a Y-cable.



As an example, two sets of angled type transducers can be installed at both port and starboard to detect all the areas underwater. While there are physically two (2) sets of transducers, the TZT12F/16F/19F built-in Fish Finder, compatible with dual band CHIRP, processes dual frequencies from these transducers.

**Note:** The TZT9F does **NOT** support this installation because it is not compatible with dual-band CHIRP.

#### Combination of Transducers

Pair	Combination	Image	
1	<b>B75L</b> and <b>B75H</b>	<p><b>B75L</b></p> <p>Category: Chirp Power: 300W Function: Depth, Temperature Frequency: 40-75 kHz Mount Style: Thru-Hull Housing Material: Bronze</p> 	<p><b>B75H</b></p> <p>Category: Chirp Power: 600W Function: Depth, Temperature Frequency: 130-210 kHz Mount Style: Thru-Hull, Flush, Tilted Housing Material: Bronze</p> 
2	<b>SS75L</b> and <b>SS75M</b>	<p><b>SS75L</b></p> <p>Category: Chirp Power: 300W Function: Depth, Temperature Frequency: 40-75 kHz Mount Style: Thru-Hull Housing Material: Stainless Steel</p> 	<p><b>SS75M</b></p> <p>Category: Chirp Power: 600W Function: Depth, Temperature Frequency: 80-130 kHz Mount Style: Thru-Hull Housing Material: Stainless Steel</p> 
3	<b>SS75L</b> and <b>SS75H</b>	<p><b>SS75L</b></p> <p>Category: Chirp Power: 300W Function: Depth, Temperature Frequency: 40-75 kHz Mount Style: Thru-Hull Housing Material: Stainless Steel</p> 	<p><b>SS75H</b></p> <p>Category: Chirp Power: 600W Function: Depth, Temperature Frequency: 130-210 kHz Mount Style: Thru-Hull, Flush, Tilted Housing Material: Stainless Steel</p> 
4	<b>B175L</b> and <b>B175M</b>	<p><b>B175L</b></p> <p>Category: Chirp Power: 1kW Function: Depth, Temperature Frequency: 40-60 kHz Mount Style: Thru-Hull, Flush, Tilted Housing Material: Bronze</p> 	<p><b>B175M</b></p> <p>Category: Chirp Power: 1kW Function: Depth, Temperature Frequency: 85-135 kHz Mount Style: Thru-Hull, Flush, Tilted Housing Material: Bronze</p> 
5	<b>B175L</b> and <b>B175H</b>	<p><b>B175L</b></p> <p>Category: Chirp Power: 1kW Function: Depth, Temperature Frequency: 40-60 kHz Mount Style: Thru-Hull, Flush, Tilted Housing Material: Bronze</p> 	<p><b>B175H</b></p> <p>Category: Chirp Power: 1kW Function: Depth, Temperature Frequency: 130-210 kHz Mount Style: Thru-Hull, Flush, Tilted Housing Material: Bronze</p> 
6	<b>B175L</b> and <b>B175HW</b>	<p><b>B175L</b></p> <p>Category: Chirp Power: 1kW Function: Depth, Temperature Frequency: 40-60 kHz Mount Style: Thru-Hull, Flush, Tilted Housing Material: Bronze</p> 	<p><b>B175HW</b></p> <p>Category: Wide-Beam Chirp Power: 1kW Function: Depth, Temperature Frequency: 150-250 kHz Mount Style: Thru-Hull, Flush, Tilted Housing Material: Bronze</p> 

## Y-cable Arrangement

In order to connect these transducers to the TZT12F/16F/19F, use the following Y-cable sold through Furuno USA, Inc.

**Type: AIR-040-406-10**

<https://www.furunousa.com/en/products/air-040-406-10>



## 3.15. Built-in Fish Finder – External KP with DFF3D

The TZT12F/16F/19F v2.01 can synchronize the timing of transmission from the built-in Fish Finder with the DFF3D using an external KP line.

When multiple sounder products are available onboard, the timing of transmission may be synchronized among products using external KP lines. While the DFF1, BBDS1, DFF3, DFF1-UHD, and DFF-3D, as well as DI-FFAMP, have an external KP port, the TZT12F/16F/19F built-in Fish Finder does not have a dedicated KP port. As an example, when the TZT12F/16F/19F is used with the B265LH, the only option to avoid interference with the DFF3D was to use the Interference Rejection (IR) setting. While the IR setting has a reasonable effect on showing clean images, the TZT12F/16F/19F v2.01 now offers an external KP with the DFF3D utilizing the 7-pin port for DI-FFAMP connection.

### Interconnection

In this example, the B265LH (1 kW CHIRP) is connected to the TZT12F/16F/19F v2.01. The upcoming new external KP cable (code description TBD) is connected between the TZT12F/16F/19F DI-FFAMP pigtail/7-pin port cable and DFF-3D.



## Setup

Activate the KP function on the TZT12F/16F/19F, so that the display will transmit in synchronization with the DFF3D (as KP Master).

### TZT12F/16F/19F setting:

[Home] – [Settings] – [**Fish Finder**] – [FISH FINDER INITIAL SETUP] – [**External KP**] – [**ON**]

*E.g. for TZT16F – External KP: ON*

In this interconnection and setup, the DFF3D will work as the KP Master. **No setting on the DFF3D for KP is required:** [Multi Beam Sonar] – [Initial Setup] – [**External KP**] – [**OFF**].

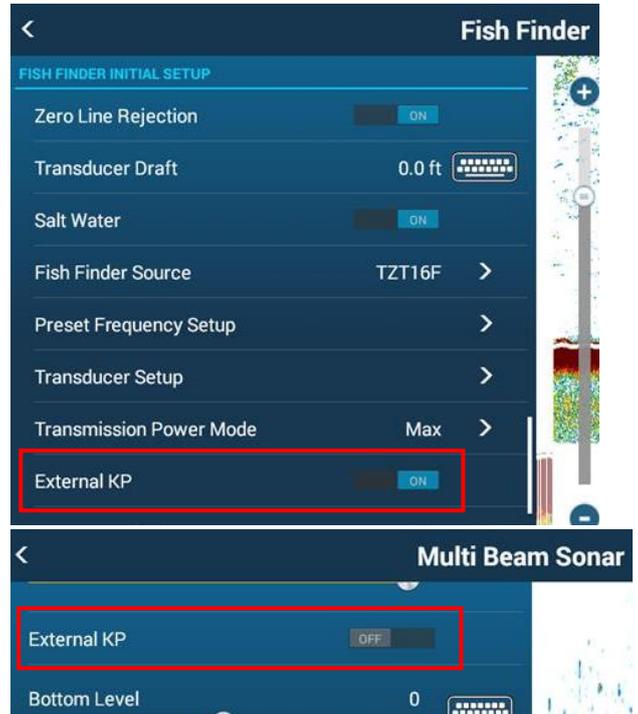
*E.g. for DFF-3D – External KP: OFF*

### Note:

With the external KP activated on the TZT12F/16F/19F built-in Fish Finder, the **Heave Correction with the built-in Fish Finder may NOT work properly**. The transmission timing, which is required for heaving compensation process, is not properly recognized with the external KP.

### Tips:

When the DI-FFAMP and DFF3D are connected with an external KP line, turn on the KP setting on the DFF3D: Access [Home] – [Multi Beam Sonar] – [Initial Setup] – [External KP] – [ON]. The DI-FFAMP will work as the KP Master and the heaving correction of Fish Finder will work.



## 4. Refined Fishing Operation – Fish-It & Drift-It!

### Drift over Required Spot for Fishing

When good echoes from fish are shown on a Fish Finder, you want to stay on the spot for fishing. Usually, you can enter a point on the spot, where good echoes appeared, and move to the point. As it is difficult to stay right on the point due to tidal current and wind, you may drift the boat around the target point while fishing. However, it is also difficult to effectively drift right over the required point. The boat may be drifted away from the spot even if you stop the boat close to the point.

The **NEW Fish-It & Drift-It** feature helps you to locate the spot, where you start drifting the boat, in order to effectively drift right over the required point. If this function is used by default, the **TZT9F/12F/16F/19F v2.01 will show you the spot, where you should start drifting the boat in order to pass right over the specified point in 3 minutes.** (The period of 3 minutes can be changed to 5, 10, 15, or 20 minutes by setting.)

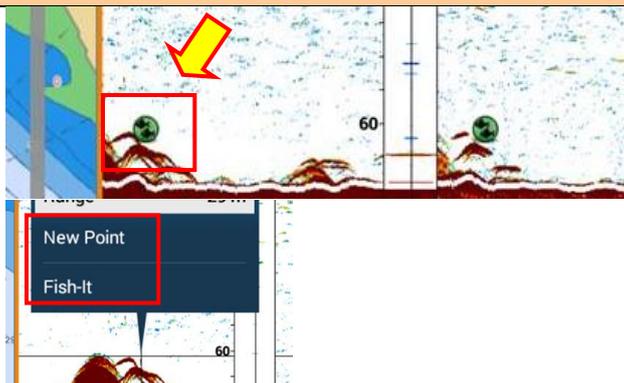
In order to use this feature, **position, SOG, and COG** information are all required – **NO heading sensor required.** As long as the MFD is used as the chart plotter, the data should already be available. You can Fish-It and Drift-It with the minimum configuration of the TZT9F/12F/16F/19F with a GPS input.

### Step 1 – Find a Fishing Spot!

If good echoes are observed on the Fish Finder or DFF3D screen, enter a point on that area: Tap on the echo and select [New Point] to enter a point.

**OR**

You can directly go to Step 2 by selecting [**Fish-It**].

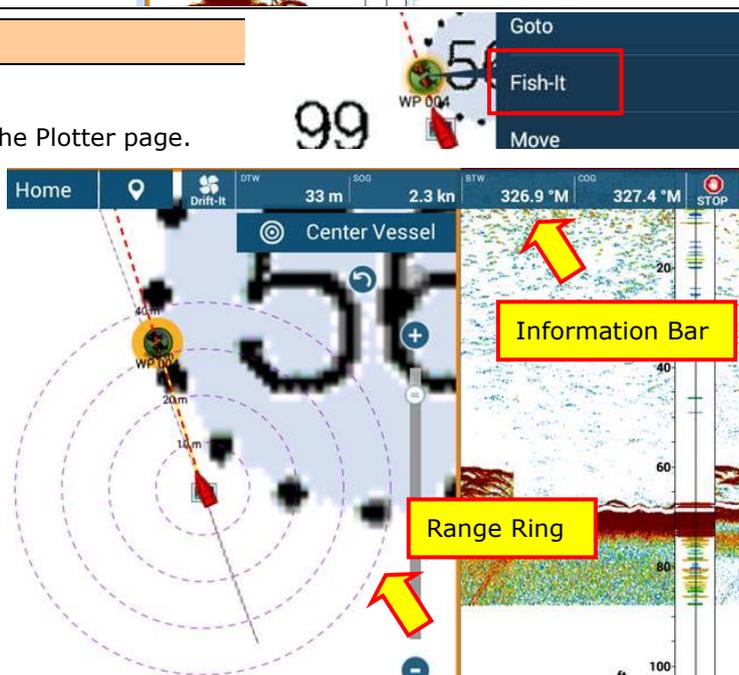


### Step 2 – Start "Fish-It"

(1) If you intend to drift over the entered point, show the Plotter page.

(2) Tap the point and select [**Fish-It**].

- ✚ A range ring, looking like VRM of Radar, will appear to help identify the distance between the point and the own ship.
- ✚ An information bar will appear at the top of the screen to show the distance and bearing to the point, as well as SOG and COG of the own ship.



### Step 3 – Start “Drift-It”

(1) After activating “Fish-It”, **stop the boat and let it drift as it is.**

(2) Tap [**Drift-It**] on the information bar.

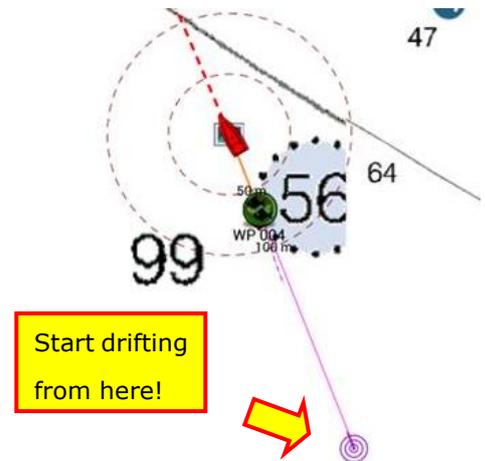
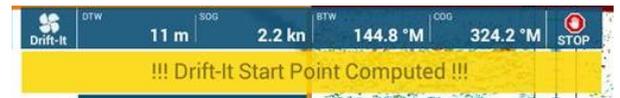
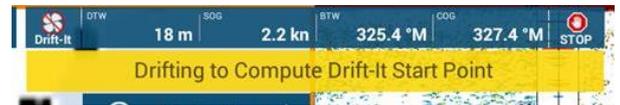
✦ The TZT9F/12F/16F/19F will calculate the best spot to start drifting the boat.

✦ The message [Drifting to Compute Drift-It Start Point] will appear during the calculation.

(3) After the boat **drifts for 30 m at a speed under 6 knots**, a purple icon will appear at the appropriate location, where you should start drifting the boat. Find the calculated spot on the chart.

✦ The message [!!!Drift-It Start Point Calculated!!!] will appear after the calculation finishes.

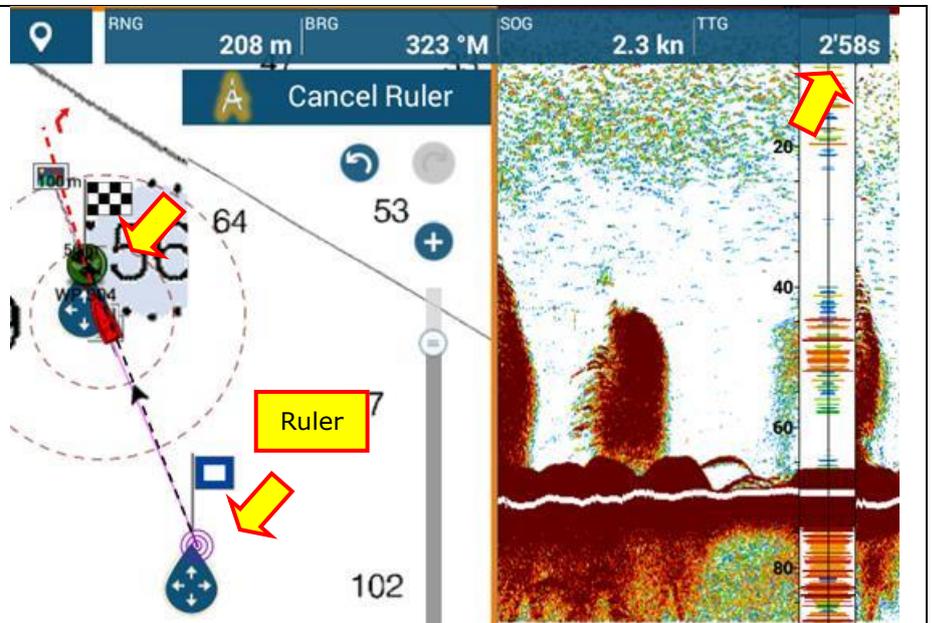
(4) Move to the spot and stop: Start drifting the boat and Enjoy fishing while drifting to the Fish-It point.



#### Tips:

By default setting, the purple icon is the spot, where you should start drifting the boat in order to pass right over the specified point in **3 minutes**. (The period can be set as introduced in the following tips.)

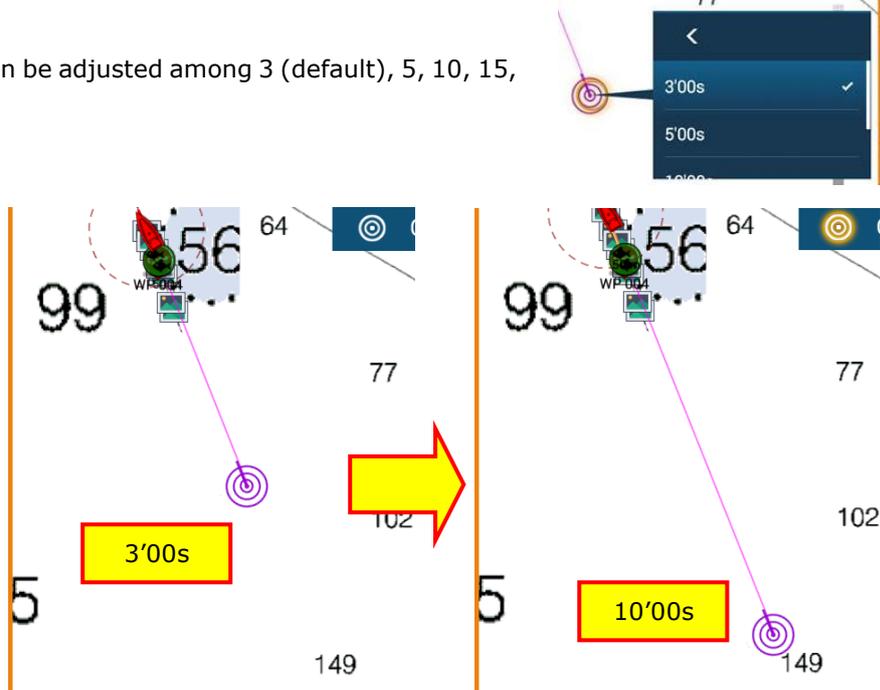
As an example, the distance between the Fish-It point and Drift-It point is measured with a ruler. The information bar indicates the TTG (Time to Go) of approx. 3 minutes if the boat maintains the currently running speed.



### Tips for longer Drift-It period:

If you tap the purple icon, the drifting time can be adjusted among 3 (default), 5, 10, 15, and 20 minutes.

As an example, if the setting is changed from [3'00s] to [10'00s], the starting point in purple will be shifted to a further location, so that you may drift the boat for a longer time from the further location.

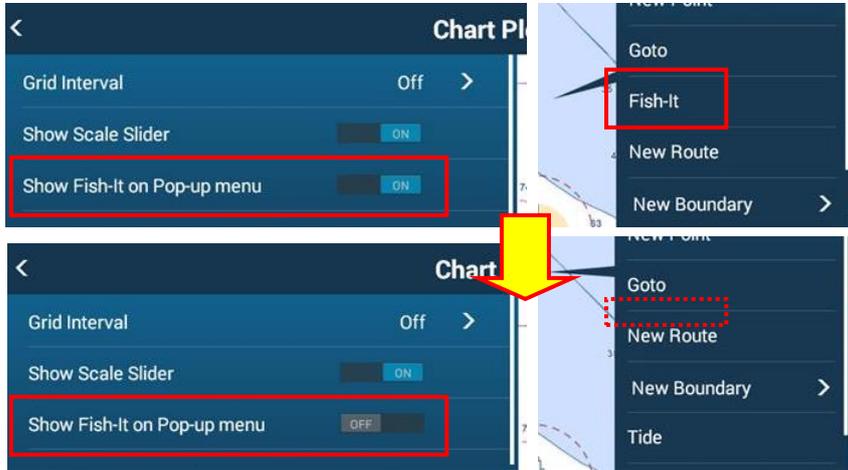


### Notes:

- (1) Make sure to drift the boat for **30 m at a speed under 6 knots** in order to calculate the spot to start drifting. If the boat is drifted slowly due to no tidal current or wind, the calculation may take long.
- (2) If the wind and current condition has changed since the calculation, the boat may not be drifted over the specified point.

### For non fishing operation purposes...

The [Fish-It] menu is accessible in the contextual menu on the Plotter, Fish Finder, and DFF-3D pages by default. If this function is not required, it can be removed in [Home] - [Settings] - [Chart Plotter] - [Show Fish-It on Pop-up Menu] - [OFF].

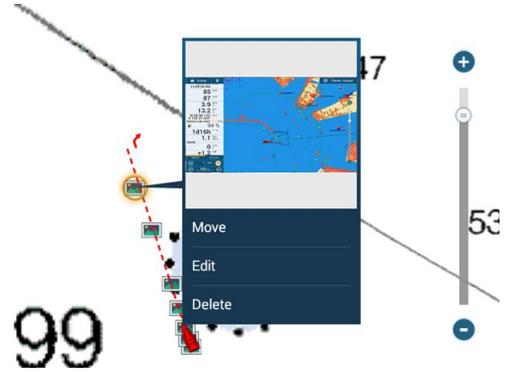


# 5. Refined Data and List Management

## 5.1. Enhanced Screenshot Management

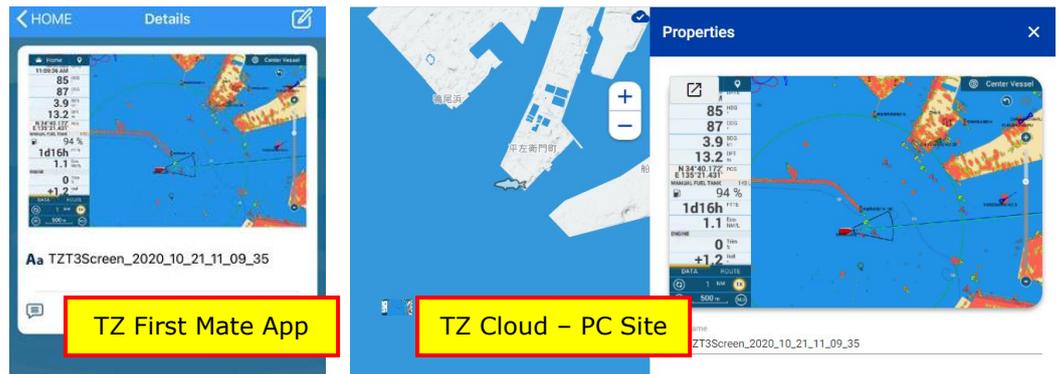
### Saved Internally as Photo

Screenshots can be taken with short or long dual tap gesture, as well as pressing the function key on the TZT9F/12F and MCU-002/004/005. While the previous versions saved screenshots to an inserted USB jump drive only, the new v2.01 can also save the data to the MFD as Photo data. If a USB jump drive is inserted, the data is saved to both the USB and MFD. Saved screenshots are shown with icons at the locations where they are taken. Tapping on the contextual menu, the screenshot can be shown in full screen.



### Screenshots Shared via Cloud

The saved screenshots on the TZT9F/12F/16F/19F v2.01 can be automatically uploaded to the TZ Cloud after one of the displays in the network is connected to the Internet. In the following example, the saved and uploaded screenshot is shared with the TZ First Mate app and TZ Cloud PC site.

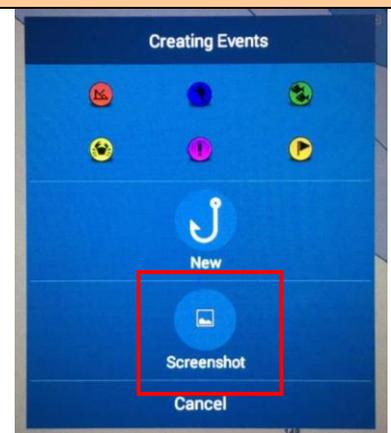


#### Note:

The shared screenshots cannot be downloaded to the local PC or smart devices.

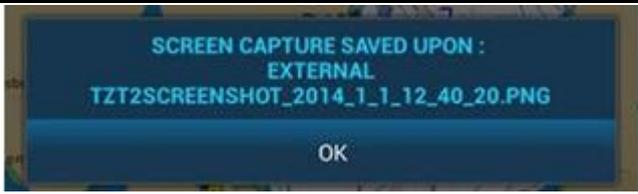
### Save Screenshot via Event

Screenshots can also be taken via the **Event mark window**: Tap the event icon next the [Home] icon and select [**Screenshot**]. If the screenshot is taken in this procedure, the Two Finger Tap and Long Tap can be assigned to other functions.



### No Acknowledgement Message Box

When a screenshot is taken, the previous versions showed a pop-up window, which needed to be closed by tapping [OK]. The new v2.01 shows a small pop-up at the bottom of the screen.

New – V2.01	Previous Versions and NavNet TZtouch2 Series
 <p>The box with [Screenshot taken] will appear for 5 seconds and disappear.</p>	 <p><i>Sample image from TZTL12F</i></p> <p>The message will appear: Click [OK] to close the box.</p>

### Note and Limitation

- (1) When the screenshot size is large, it may not be saved internally. While a screenshot is internally compressed by approx. 10% to be saved as Photos, the file with the size over 150 KB (approx.) after compression may not be saved. However, the compressed file size cannot be checked on the MFD. If the original screenshot (uncompressed) is saved to a USB jump drive, the size will be approx. 1.5 MB. If you find such a large file saved in the USB, you may notice that the screenshot is not found on the MFD. The full screen mode of Fish Finder with high gain of echoes or noise filled in full screen could be large in screenshot size.
- (2) When attending a customer's boat to take screenshots onboard, make sure to delete the photo data from the display if the data is not required by the customer.

## 5.2. User Objects – Listing by Date

User objects (points, routes, boundaries, catches, and photos) can be listed by **Date**.

The example at right shows the Points List. While a variety of points are saved in the unit, they can be listed for [TODAY], [YESTERDAY], [MONDAY] (e.g.), [LAST WEEK], etc., in the order of new to old. It helps to intuitively identify the point entered in a specific timeframe and review the activity of the day.

TODAY				
●	Name	N 25°49.594'	1/1/2018	Range
	WP 003	W 80°04.888'	1:14 PM	5.586 NM >
●	Name	N 25°47.927'	1/1/2018	Range
	WP 002	W 80°03.972'	1:14 PM	5.735 NM >
●	Name	N 25°47.397'	1/1/2018	Range
	WP 001	W 80°06.265'	1:14 PM	3.604 NM >
●	Name	N 0°25.535'	1/1/2018	Range
	WP 034	E 0°34.623'	12:45 PM	4,916 NM >
YESTERDAY				
●	Name	N 0°29.440'	12/31/2017	Range
	WP 035	E 1°22.740'	12:44 PM	4,959 NM >
LAST WEEK				
●	Name	S 0°19.310'	12/30/2017	Range
	WP 036	E 1°33.102'	12:43 PM	4,988 NM >

Each data type is listed in the following rules.

- ✚ Point and Route : In the order of last update
- ✚ Boundary, Catch, and Photo : In the order of created date

### Note and Tips:

When user objects are entered while a demo file is running or without actual GPS time received, they may be registered with the system time, i.e. time kept by CPU, so that they may be listed in an incorrect category.

## 5.3. Editing Multiple User Objects

Multiple of user objects can be commonly edited to have the same color and shape, as well as common comments at once. The following example shows how multiple points are edited: All the points from today will be edited to have the common color.

**Multi-Selection Icon**

**Selecting items to edit or delete**

**Editing at once**

**Today's points all in green fish icon**

Points		Date	Name	Icon	Color
TODAY					
<input type="checkbox"/>	Name	N 47°38.417'	1/1/2018	Range	
<input type="checkbox"/>	WP 004	W 122°25.629'	12:50 PM	32 yd	
<input type="checkbox"/>	Name	N 47°38.423'	1/1/2018	Range	
<input type="checkbox"/>	WP 001	W 122°25.632'	12:09 PM	44 yd	
<input type="checkbox"/>	Name	N 37°11.301'	1/1/2018	Range	
<input type="checkbox"/>	WP 001	E 136°22.338'	12:03 PM	4,523 NM	
<input type="checkbox"/>	Name	N 34°37.499'	1/1/2018	Range	
<input type="checkbox"/>	Tai 11/2	E 135°02.137'	12:02 PM	4,687 NM	
<input type="checkbox"/>	Name	N 34°36.601'	1/1/2018	Range	

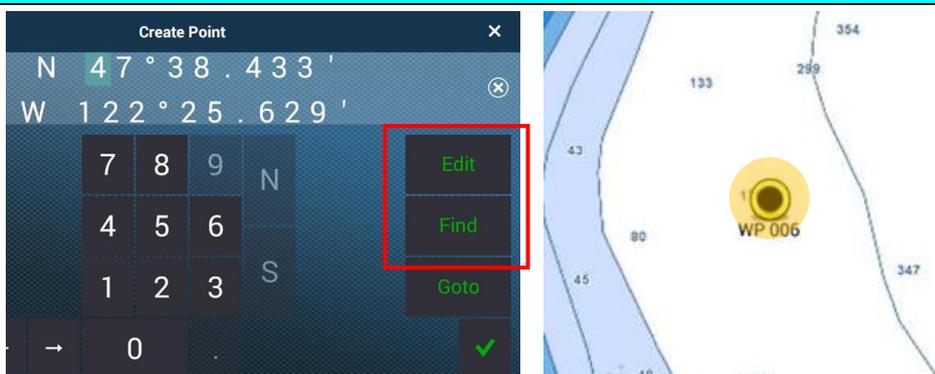
Point	
EDIT	
Name	(multiple names) [text input]
Comment	(multiple comments) [text input]
Color	[color picker]
Symbol	[symbol picker]
Save & Close	

Points		Date	Name	Icon	Color
TODAY					
<input checked="" type="checkbox"/>	Name	N 34°38.093'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT115	E 134°53.171'	2:53 PM	4,693 NM	>
<input checked="" type="checkbox"/>	Name	N 34°36.386'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT154	E 135°01.091'	2:53 PM	4,689 NM	>
<input checked="" type="checkbox"/>	Name	N 34°37.213'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT76	E 135°02.823'	2:53 PM	4,687 NM	>
<input checked="" type="checkbox"/>	Name	N 34°34.482'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT186	E 134°53.466'	2:53 PM	4,696 NM	>
<input checked="" type="checkbox"/>	Name	N 34°36.366'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT132	E 134°53.645'	2:53 PM	4,694 NM	>
<input checked="" type="checkbox"/>	Name	N 34°35.050'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	BF Tai Jun	E 135°02.238'	2:53 PM	4,689 NM	>
<input checked="" type="checkbox"/>	Name	N 34°36.514'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT161	E 134°55.081'	2:53 PM	4,693 NM	>
<input checked="" type="checkbox"/>	Name	N 34°40.162'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT87	E 134°55.329'	2:53 PM	4,690 NM	>
<input checked="" type="checkbox"/>	Name	N 34°36.549'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT180	E 135°00.556'	2:53 PM	4,689 NM	>
<input checked="" type="checkbox"/>	Name	N 34°38.473'	1/1/2018	Range	>
<input checked="" type="checkbox"/>	PT187	E 134°55.093'	2:53 PM	4,694 NM	>

## 6. Refined Plotter Operation

### 6.1. Point Entry by Position – Edit and Find

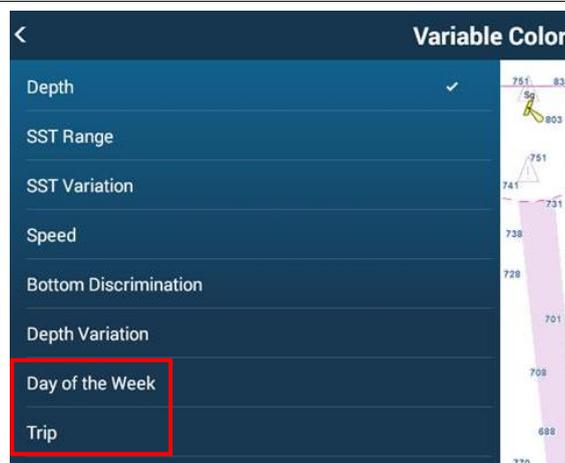
Usability of Point Creation page is improved. When creating a point by position, i.e. L/L, swipe from the right side of Plotter screen and open the Create Point page to enter a required position. The created point can be edited in [Edit] and found on the chart by [Find]. When the point is searched on the chart, the target point is highlighted in orange.



### 6.2. Track Color by Day and Trip

In order to differentiate each log shown on the chart, you may change the track color for each fishing and navigation activity. However, if you forget to preset the color before leaving a harbor, the track will be drawn in the same color as the one from the previous trip.

New v2.01 has additional options to change the track color by [Day of the Week] and [Trip]: Access [Home] – [Ship & Track] – [TRACK] – [Variable Color] – [Day of the Week] or [Trip].



#### Day of the Week

Variable colors can be assigned from Monday to Sunday. The track will be drawn in the preset color of the day even if the display is restarted in the same day. If the time passes 00:00 and the day changes, the track color will change to the next one even while the Plotter is running. A common color can be assigned to multiple days.

#### Trip

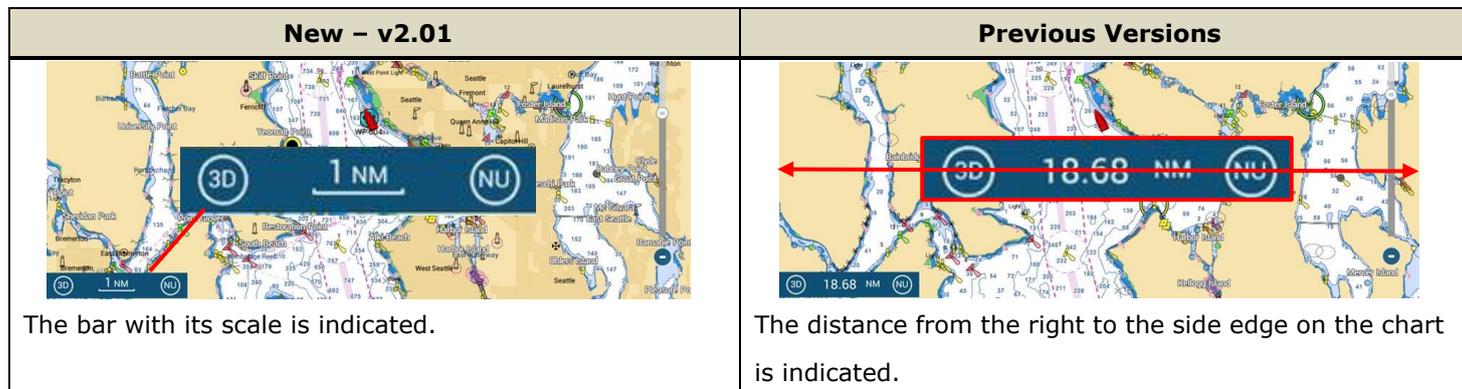
The period while the display is turned on is regarded as one cycle of trip. The track color will change in the order of Red, Cyan, Green, Yellow, Purple, Brown, Blue, and back to Red automatically at each trip.

#### Notes:

- (1) The track color will not change even when the day changes to the next day.
- (2) If the display is turned off for less than 4 hours, the track color will not change. As an example, if the display is temporarily turned off to refill the fuel or go out for lunch, the track will be drawn in the same trip color.
- (3) The order of color variation cannot be changed, or the color type cannot be fixed to specific ones.

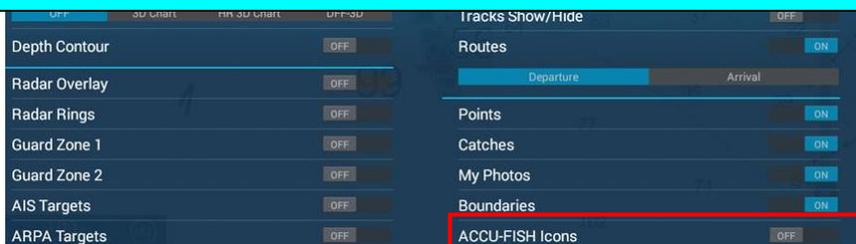
## 6.3. Improved Plotter Range Scale

New v2.01 shows the range scale in the same indication as generic chart application such as Google Map.



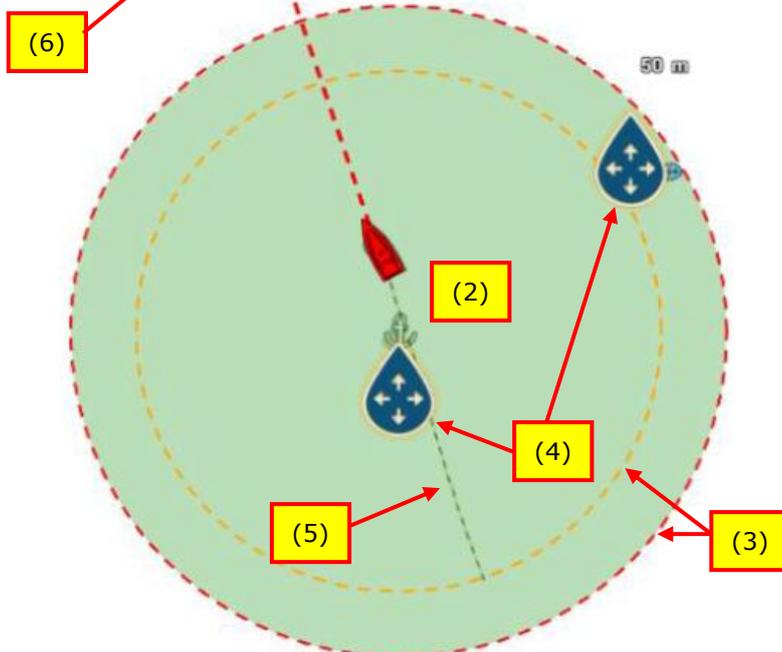
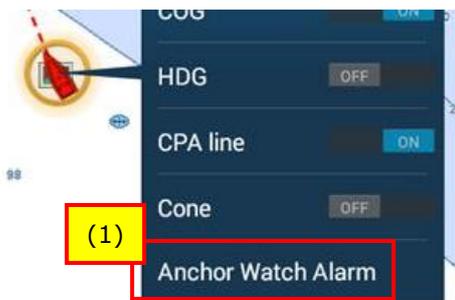
## 6.4. ACCU-FISH™ Icon – OFF

ACCU-FISH™ icons can be turned off from the chart: Bottom edge swipe on the Plotter page to open the Layer and access [ACCU-FISH] – [OFF].



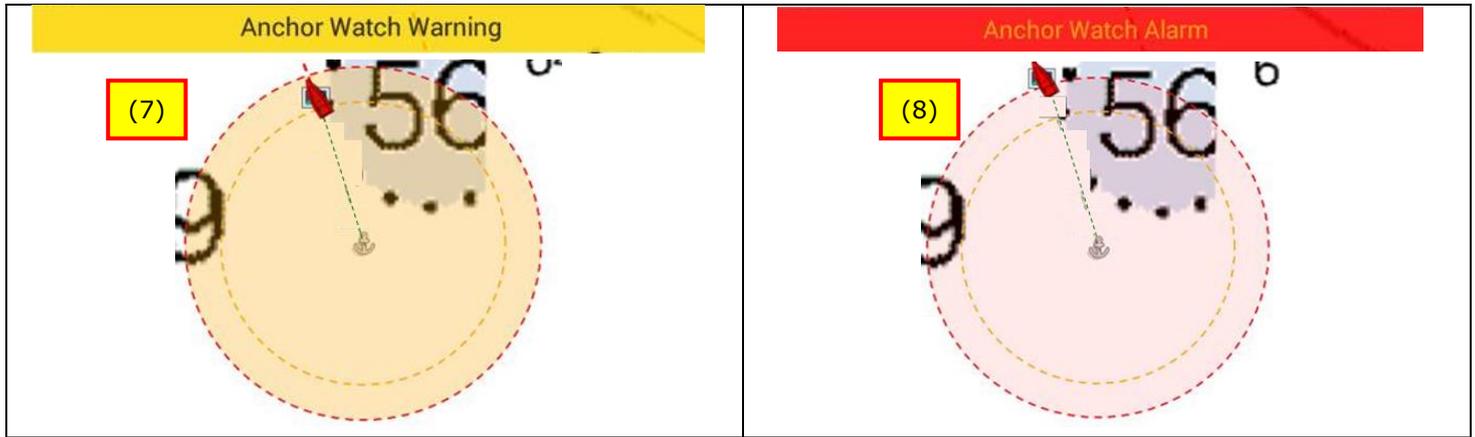
## 6.5. Advanced Anchor Watch Operation

The UI of Anchor Watch Alarm is improved to be more intuitive than before.



### Content

- (1) Alarm activation
- (2) Anchor Icon
- (3) Anchor Alarm: Warning and Alarm Zones
- (4) Zone adjustment
- (5) Trail
- (6) Information bar
- (7) Warning
- (8) Alarm



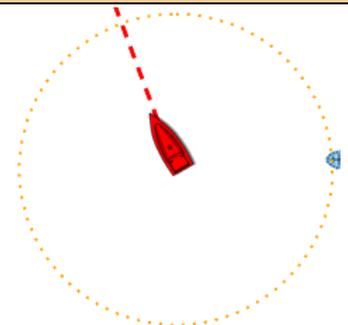
- (1) The Anchor Watch Alarm can be activated from the **contextual menu** shown by tapping on the own ship icon.
- (2) The anchor icon is dropped **at the bow of the bow**, not at the GPS position. (For accurate location of anchor drop, a heading sensor should be used.)
- (3) **Dual circles** are drawn: **Red for alarm and yellow for warning at the 80% zone**. While the own ship is located inside the zone, the zone is shown in light green color.
- (4) The alarm zone can be **easily moved and resized** by tapping on the anchor icon to select [**Edit Anchor Watch Alarm**].
- (5) A **trail from the own ship icon** is shown automatically, which allows you to see how the boat has moved since the Anchor Watch Alarm was activated.
- (6) While the alarm is set, the **information bar** shows the distance to the alarm line, as well as boat SOG, as well as depth and wind speed. The alarm can be stopped, or the anchor alarm location can be reset to the current location.
- (7) When the own ship **reaches the 80% zone**, a **warning** will be generated. The alarm circle will change to **yellow**.
- (8) When the own ship reaches or moves past the red circle, the **alarm** will be generated. The alarm circle will change to **red**.

**Notes:**

- (1) The GPS position, which is used to trigger the anchor watch alarm, can be averaged in order to avoid false alarms when the condition of GPS signal reception is unstable.
- (2) While averaging the position will delay the anchor watch alarm, we recommend that the alarm zone be adjusted to a smaller radius than usual.
- (3) The Anchor Watch Alarm is synchronized across the TZ Echo system.

**Comparison – Anchor Watch Alarm Operation with Previous Versions**

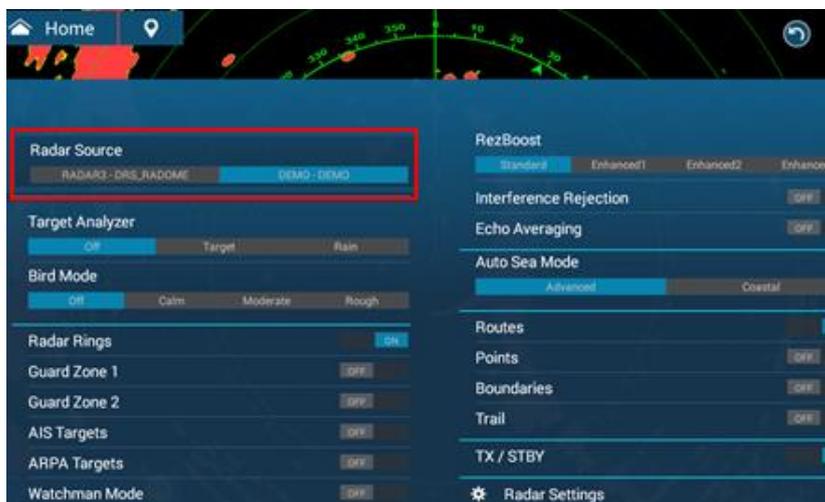
- ✦ The anchor watch alarm can be activated in the Alarm menu only.
- ✦ The alarm zone can be resized in menu operation only.
- ✦ Once the alarm is set, a circle in orange dot will appear around the own ship.
- ✦ If the boat reaches the preset alarm zone, an alarm will be generated with the circle color changed to red.
- ✦ If the boat passes the alarm zone, turn on the alarm in the Alarm menu again to restart or stop the anchor watch.



# 7. Refined Radar Operation

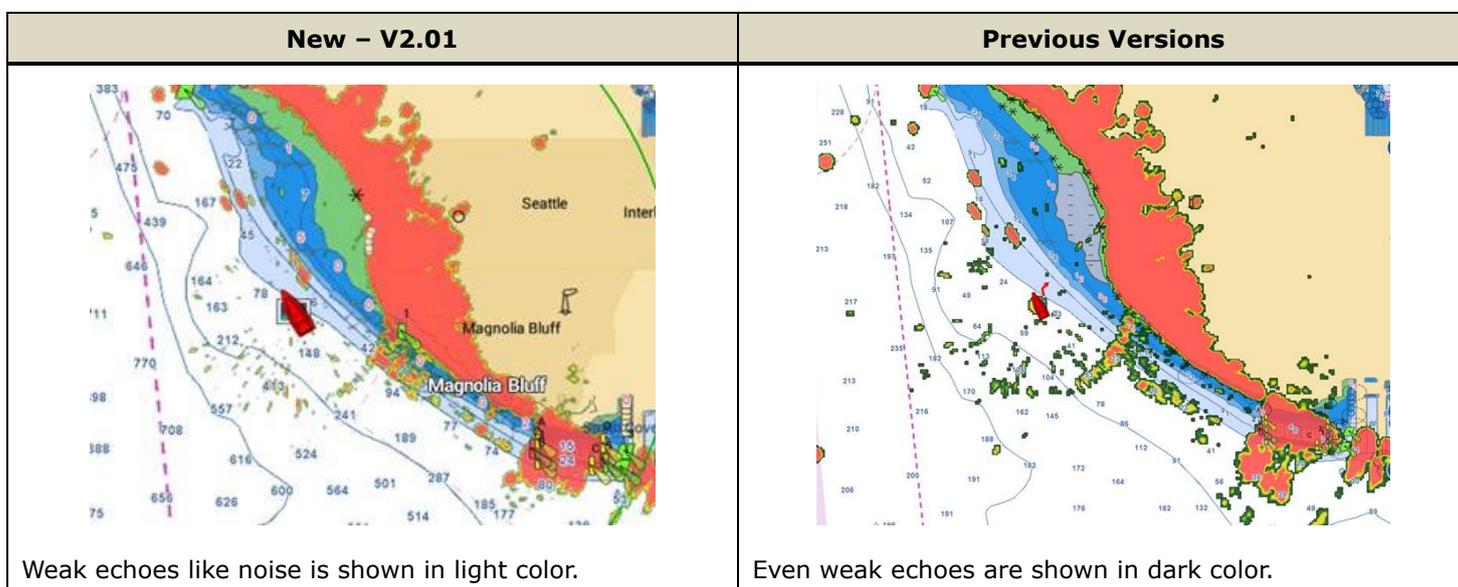
## 7.1. Switching Radar Source in Layer Menu

With dual Radar sensors installed onboard – combination of dome and open array for example, the Radar source may be switched when a boat moves from a harbor to the open sea. While the previous versions required access the Radar menu to switch the source, the operation with new v2.01 is much easier and quicker: Bottom edge swipe on the Radar page to show the Layer and switch from one sensor to the other.



## 7.2. Improved Radar Overlay Color on Plotter

The previous versions showed weak echoes in dark, thick green color when Radar echoes are overlaid on charts, so that some chart objects were masked. The new v2.01 shows such echoes in light green color to secure better visibility of charts.



**Note:**

This color presentation is also achieved with the TZTL12F/15F/2BB v7.01.

## 8. Refined Operation – Others

### 8.1. Customizable Startup Wallpaper

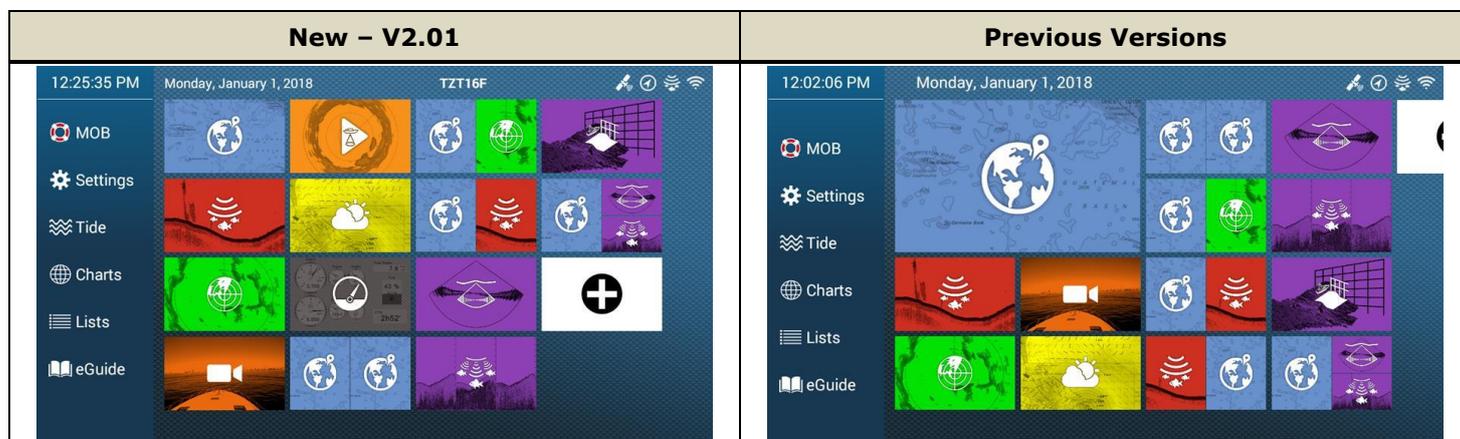
When the TZT9F/12F/16F/19F is turned on, it will start up with a NavNet TZtouch3 logo screen by default. The design of startup screen can be customized with the new v2.01. An image from boats, photos, etc. can be set as the wallpaper. See separate **Custom Wallpaper document** for details of setup procedures.

*E.g. TZT16F – Startup with boat image*



### 8.2. Improved Home Icon Size and Layout

The previous versions always showed the Plotter icon in large size on the Home page. New v2.01 can show the Plotter icon in small size by default to allocate all 16 icons fit on the Home page. This layout is useful to allocate a variety of screen modes when many sensors are installed.



### 8.3. New Functions for Gesture

The following functions are added to the gesture tap list. Two finger tap or Two finger long tap: Access [Home] – [General] – [Two Finger Tap Function] or [Two Finger Long Tap Function] and set to required function.

New Items	Descriptions
<b>Gain Control</b>	This is available in Fish Finder, Multi Beam Sonar (DFF3D), and Radar pages. Tapping on the screen, the gain adjustment bar will appear for manual adjustment in the same operation flow as the MCU-005 – [GAIN] key.

	<p> <b>Fish Finder</b> : <b>Gain (HF)</b> → <b>Gain (LF)</b> → <b>Clutter</b> → <b>Close</b>  <b>DFF-3D</b> : <b>Gain</b> → <b>Clutter</b> → <b>Close</b>  <b>Radar</b> : <b>Gain</b> → <b>Sea</b> → <b>Rain</b> → <b>Close</b> </p> <p>The adjustment bar can be closed by tapping [Done] or pressing the [CANCEL] key on the TZT9F/12F panel or MCU-002/004/005.</p>
<b>Anchor Watch Alarm</b>	An anchor watch alarm can be activated and deactivated with a two finger tap or long tap. (The previous versions required access to the Alarm menu to set the alarm on.) This function is also accessible through a contextual menu as introduced in <a href="#">Section 6.5</a> .
<b>Edge Swipe</b>	The Edge Swipe function can be activated in the same procedure as pressing the MCU-004/005 – [EDGE] key and MCU-002 – [ENT] key. When the touch screen is locked on the TZT9F/12F, which has a keypad, edge swipe is also operational using the [*] (Function) key and cursor key.

## 8.4. Revised Default Settings

The factory default settings are changed.

Menu		New – V2.01	Previous Versions
General	Auto Scroll	<b>ON</b>	OFF
	Two Finger Long Tap	<b>Screen Capture</b>	Home
Ship & Track	COG Vector Time	<b>1 Hour</b>	2 minutes
	Heading Line Thickness	<b>3</b>	2
	Track Thickness	<b>3</b>	2
	Time Interval (for Track Interval – Time)	<b>30 seconds</b>	5 seconds
	Distance Interval (for Track Interval – Distance)	<b>0.01 NM</b>	0.02 NM
	Automatic Track Deleting	<b>ON</b>	OFF
Radar	Trail Length	<b>3 minutes</b>	15 seconds
Fish Finder	ACCU-FISH Info	<b>Fish Size</b>	Depth
	Transducer Draft	<b>0 ft / 0 m</b>	3 ft / 1 m
Multi Beam Sonar	Bottom Range Shift Area	<b>75%</b>	50%
Alarm	Notify when NAVpilot is engaged	<b>OFF</b>	ON
Initial Setup	External Transducer Draft	<b>0 ft / 0 m</b>	3 ft / 1 m
	Keel Draft	<b>0 ft / 0 m</b>	3 ft / 1 m

**Note:**

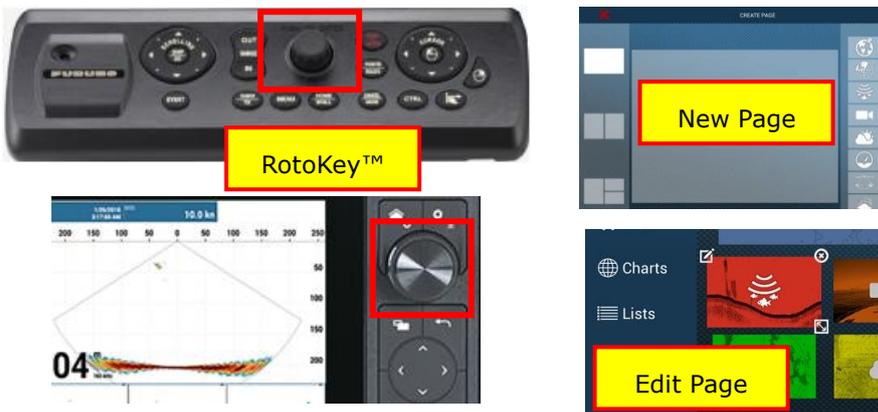
For displays already installed with the previous versions, the default settings above will not be reflected after update: The settings already applied will be kept even after update to v2.01. Make sure to adjust each setting if any changes are required.

## 8.5. Unified with NavNet TZtouch2 V7.01

The following functions, which were added to NavNet TZtouch2 MFDs – TZTL12F/15F/2BB v7.01, are also available on the TZT9F/12F/16F/19F v2.01. (For the content of TZTL12F/15F/2BB v7.01 see separate **TZtouch2 v7 Overview** document.

### Customizing Display Layout with RotoKey™

Pages on the Home page can be created and edited with the **RotoKey™** of **MCU-005** and **TZT9F/12F**.



### Nickname on Home Page

A **nickname** can be shown on the **Home page**. As an example, displays at the bridge are connected to a monitor at the salon. You can easily identify which display is image is currently shown at the salon.



### Switching Active Window with MCU-004

An **active window** can be switched with the **MCU-004**. (Previously an active "display" was switched.)

MCU-004 – [Switch Disp.] key



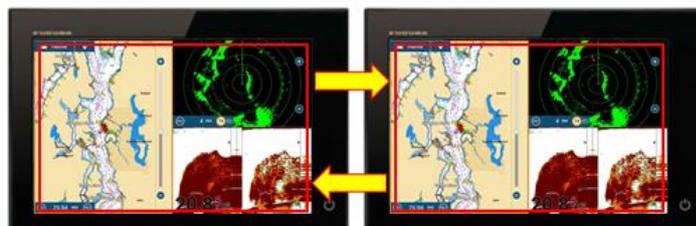
#### New – V2.01



**Short** press: Switch active windows

**Long** press: Switch active displays

#### Previous Versions

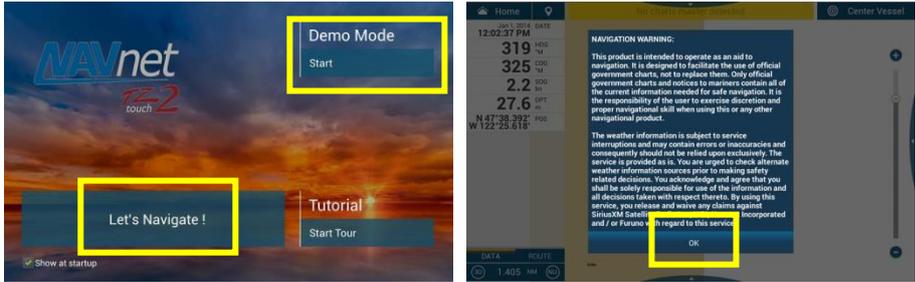
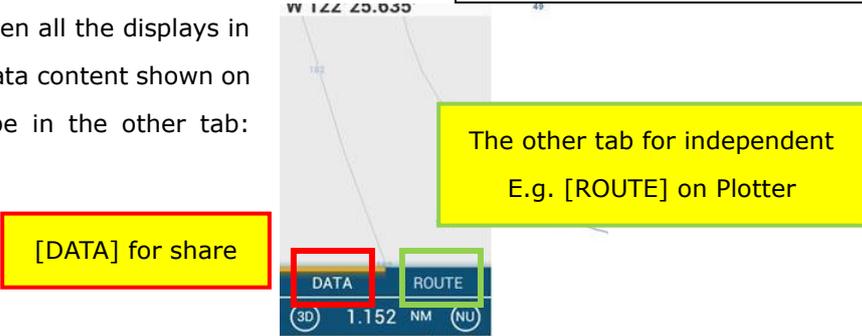


Active displays are switched by pressing the [Switch Disp.] key.

Note: The MCU-005 is NOT compatible with this function

## Synchronization among Displays

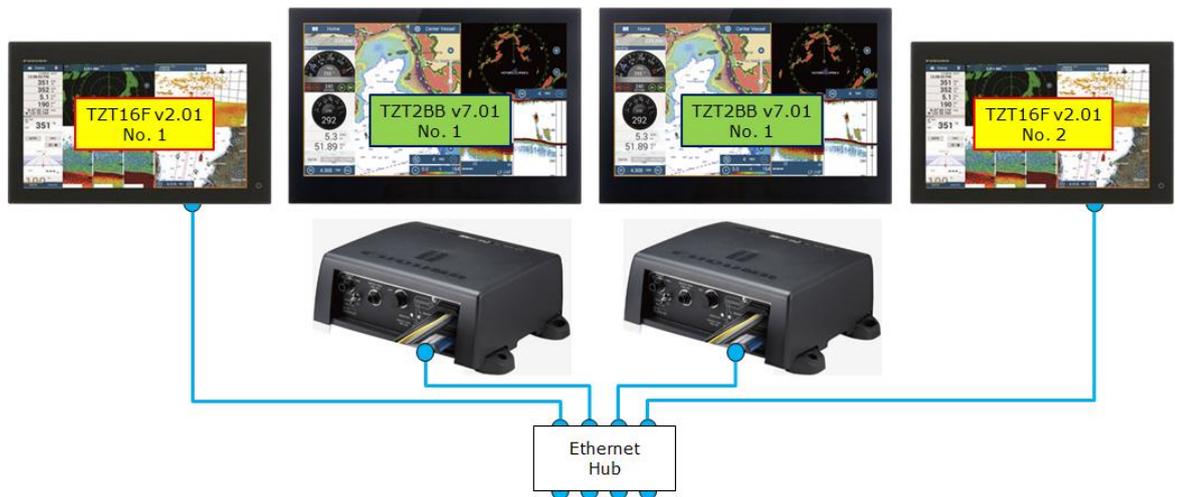
The following items are synchronized among TZT9F/12F/16F/19F v2.01 displays and TZTL12F/15F/2BB v7.01.

No	Item	Synchronization between...
1	<p><b><u>Actions on the Welcome Screen</u></b></p> <p>After the application starts up, the Welcome Screen will appear: On selecting [Demo Mode] or [Let's Navigate] on one of the displays, the other displays will start the selected mode. The acknowledgement of disclaimer window will also be shared: Tapping [OK] on one of the displays will acknowledge all the other displays.</p> 	<p><b>TZT9F/12F/16F/19F and TZTL12F/15F/2BB displays</b></p>
2	<p><b><u>Icons on Home and Quick Page</u></b></p> <p>Icons created on the Home and Quick Pages will be synchronized in the network, so that all the displays have the common Home and Quick pages. <b>Note the limitation on sharing with NavNet TZtouch2 MFDs below. *(1)</b></p> 	<p><b>TZT9F/12F/16F/19F displays</b></p>
3	<p><b><u>Data Box – [DATA] Tab</u></b></p> <p>The Data Box at the left side on the screen has the [DATA] tab. The content in the [DATA] tab is synchronized between all the displays in the network. In order to have different data content shown on each display, set the required data type in the other tab: [ROUTE], [RADAR], [FISH FINDER], etc.</p> 	<p><b>TZT9F/12F/16F/19F and TZTL12F/15F/2BB displays</b></p>
4	<p><b><u>Weather Data</u></b></p> <p>Downloaded weather on one of the displays is shown on all other displays in the network.</p>	<p><b>TZT9F/12F/16F/19F and TZTL12F/15F/2BB display</b></p>

**\*(1) Note on Limitation – Home and Quick Page Sharing:**

In the integrated network with NavNet TZtouch3 v2.01 and TZtouch2 v7.01 MFDs, **the Home and Quick page settings are shared among the MFDs from the same series, which is turned on first.**

In the following example, multiple sets of TZT16F v2.01 and TZT2BB v7.01 are networked.



If the TZT16F No. 1 is turned on first, the Home and Quick page settings will be shared with the TZT16F No. 2. However, when the TZT2BB No. 1 or 2 is turned on later (after TZT16F No. 1), the Home and Quick page settings on the TZT2BB will not be shared among TZT2BB No. 1 and 2 or TZT16F.

On the other hand, if the TZT2BB No. 1 is turned on first, the Home and Quick page settings will be shared with the TZT2BB No. 2. However, when the TZT16F No. 1 and 2 are turned on later (after TZT2BB No. 1), the Home and Quick page settings of TZT16F will not be shared among TZT16F No. 1 and 2.

Home and Quick page sharing among NavNet TZtouch3 and TZtouch2 MFDs is planned with the future update of NavNet TZtouch2 series.

In the integrated network with NavNet TZtouch2 v7.01 and TZtouch3 v1.xx MFDs, **make sure that the NavNet TZtouch3 MFD is turned on first in order to properly synchronize items above among NavNet TZtouch3 MFDs.**

## 9. Others

- (1) **New:** Turkish and Polish language menus are added.
- (2) **New:** The Fluid Instance number of IF-NMEAFI can be set from 0 to 5, so that a maximum of six (6) analog tank level sensors can be connected. (Make sure that the IF-NMEAFI version is v1.02.)
- (3) **New:** In the Sensor List page, the Device Instance and System Instance of NMEA2000 sensors can be edited. In order to differentiate multiple sensors by instance numbers, this page can be utilized to assign unique numbers to each device.
- (4) **Improvement:** While the display is turned on, AIS target information will be stored even after the target is lost.
- (5) **Improvement:** AIS vessel names are shown in wider ranges.
- (6) **Improvement:** In the Initial Setup menu, detected engines and tanks are shown in the order of instance numbers. The previous versions showed them in the order of detection.
- (7) **Improvement:** TTM sentence information is output to the Ethernet port. (Note that this function can be activated in the Service Menu for used with specific projects only. This sentence is not used/received by our product models.)
- (8) **Improvement:** The brilliance on the Camera page (except HDMI IN screen) corresponds to the Brilliance mode setting. If the mode is changed to Dusk or Night, the Camera page will also dim down.
- (9) **Improvement:** The login page for My TIMEZERO account is assessable without GPS connected for the actual

date/time information. While the browser at the server has been revised prior to the v2.01 release, the login without GPS time is also possible with NavNet TZtouch2 MFDs (TZTL12F/15F/2BB v7.01) accordingly.

- (10) **Change:** While the Fleet Tracking function is added, the "My Friends" function is removed.
- (11) **Fix:** In [Home] – [Settings] – [Points & Boundaries], the [Record Event Mark 1 Automatically] setting works properly.
- (12) **Fix:** A CZone alarm can be removed by taping on the alarm bar. Critical level alarm is shown in red and others in yellow. After ACK, the alarm bar will disappear.
- (13) **Fix:** When selecting [Catch] on the Fish Finder screen, the catch log icon will be shown on the tapped spot.
- (14) **Fix:** The local time offset in PGN: 129033 is output. If the TZT9F/12F/16F/19F v2.01 is used as the date/time source for other devices, this PGN output can be utilized.
- (15) **Fix:** On the Plotter page with the Radar Overlay mode, the Radar range scale can be adjusted under 0.5 NM with the MCU-002.
- (16) **Fix:** Icons on the Welcome Screen can be selected with RotoKey™ or rotary knob on TZT9F/12F and MCU-005.
- (17) **Fix:** When the RotoKey™ or rotary knob on the TZT9F/12F and MCU-005 was pressed, the area where the cross cursor was previously located reacted. The issue is fixed with v2.01.
- (18) **Fix:** Layer menu operation with MCU-004 EDGE key is fixed.
- (19) **Fix:** Data content in each Data Box tab is properly saved.
- (20) **Fix:** The own ship vessel is stable when the chart is zoomed in. No [Center Vessel] icon will appear frequently.
- (21) **Improvement:** Quick Page items can be selected with the RotoKey™ or rotary knob on the TZT9F/12F and MCU-004/005.
- (22) **Improvement:** DHCP Control ON/OFF setting is added in the Service Menu.
- (23) **Fix:** Radar echoes will be shown immediately after TX (when using Netgear PoE hub GS108PE).
- (24) **Improvement:** SiriusXM High Frequency Base Radar Extended Tiles – Weather Radar display will be updated every 2.5 minutes.
- (25) **Improvement:** SiriusXM Weather Radar data will be displayed right after reception.
- (26) **Fix:** MCU-004 key operation is properly detected.
- (27) **Fix:** NavNet Remote app can be reconnected after disconnection.
- (28) **Fix:** The DFF3D motion sensor source can be properly switched.

--- END ---

- All brand and product names are registered trademarks, trademarks or service marks of their respective holders.