



Model:

TZT9F/12F/16F/19F



Model:

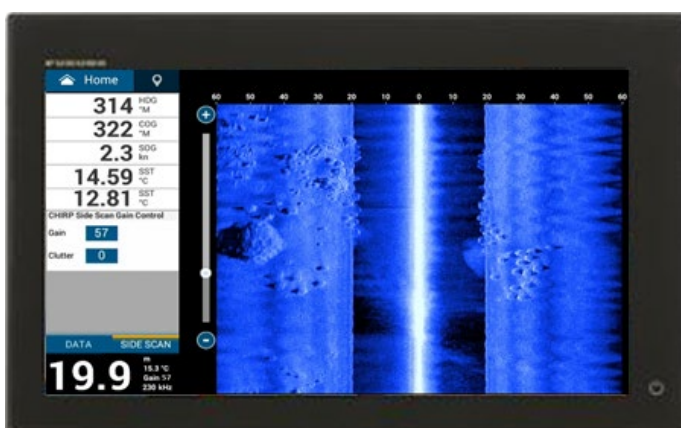
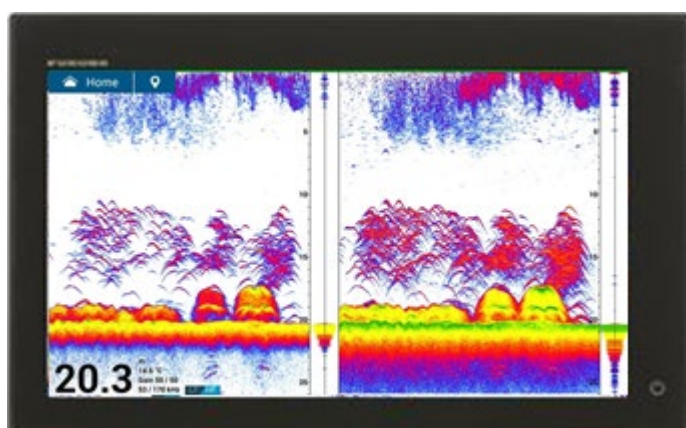
TZT2BB

New Software Versions

V3.01 for TZT9F/12F/16F/19F

V9.01 for TZT2BB

1. CHIRP Side Scan
2. Refined Fish Finder Operation
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4. Refined PBG Operation
 - 4.1. Spot Sounding by PBG with DFF3D
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 - 5.3. Enlarged Font Size of Route Bar
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7. Refined Data Box and Instrument
 - 7.1. Trim Tab Indication
8. Others
9. Details of Software Versions
10. Combination of MFDs and Software Versions

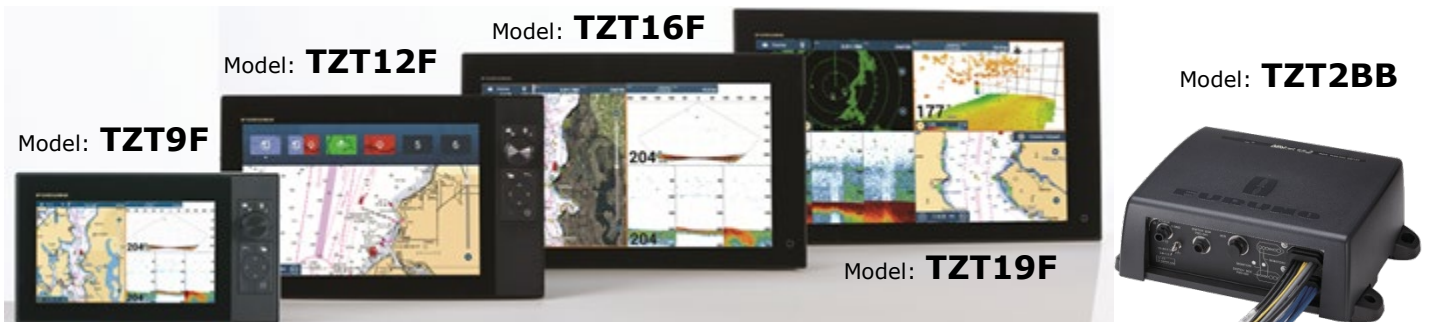


MFD Models

The TZT9F/12F/16F/19F from NavNet TZtouch3 series and TZT2BB from NavNet TZtouch2 are updated together.

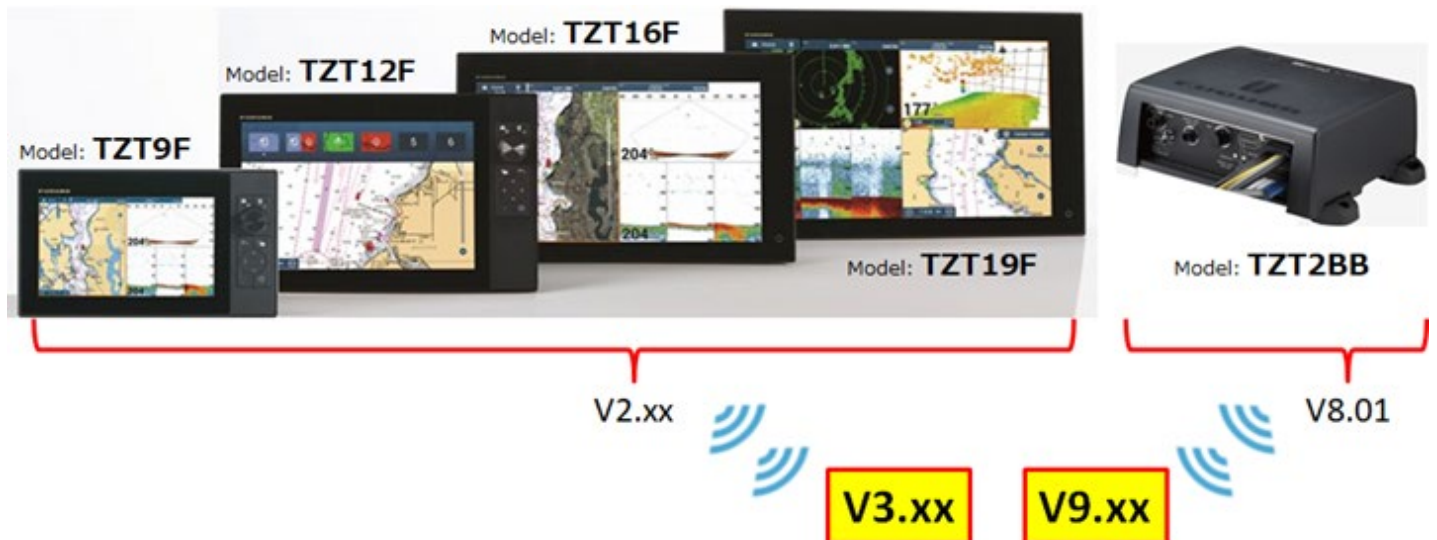
TZT9F/12F/16F/19F : Version **3.01**

TZT2BB : Version **9.01**



Update via Wireless LAN

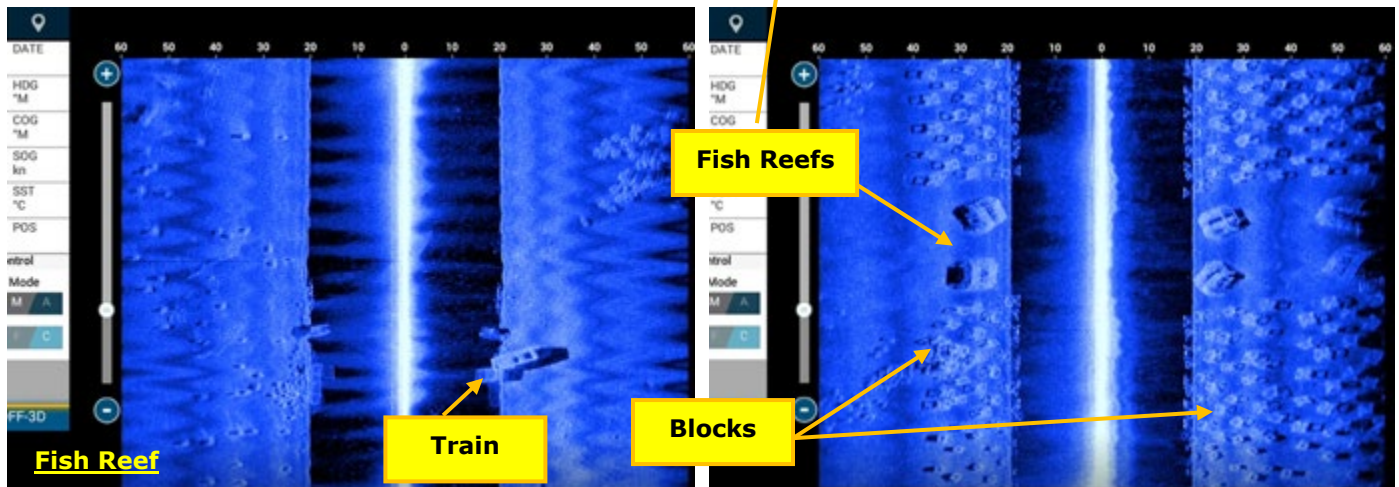
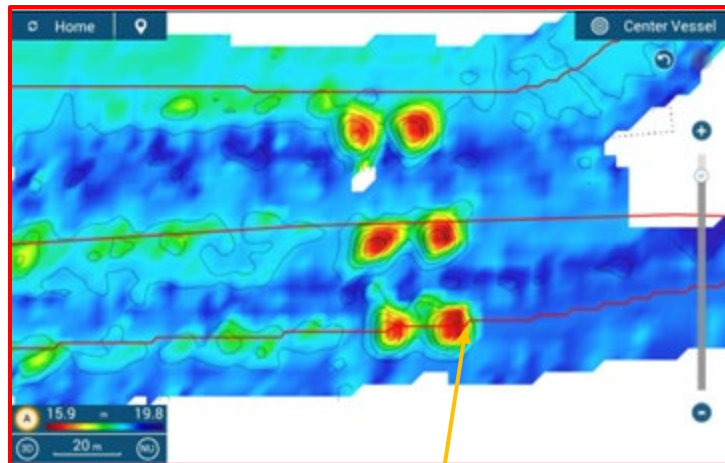
If the MFD currently has software v2.xx (TZT9F/12F/16F/19F) or v8.01 (TZT2BB) already loaded, they can be updated to v3.01 or v9.01 and later versions via Wireless LAN. Update via USB memory stick is also available.



1. CHIRP Side Scan

A New **CHIRP Side Scan** transducer can be connected to the **TZT12F/16F/19F – 12-pin transducer port** to view side scan images. TZT9F and TZT2BB can view and control CHIRP Side Scan images from a networked TZT12F/16F/19F.

In the following example, the area where PBG was previously recorded is then sounded with CHIRP Side Scan. While the structures are located by PBG, CHIRP Side Scan shows the shape and layout of structures such as trains, concrete blocks, and fish reefs.



Transducer Model: SS904 Thru-Hull

- Frequency : 230 kHz**
- TX power rating : 150 W**
- Temperature sensor built-in**
- 12m cable with 12-pin connector for TZT12F/16F/19F**
- Other mounting options will be available in the coming months**

See separate **CHIRP Side Scan bulletin** for more information

2. Refined Fish Finder Operation

2.1. Compatibility with DFF3-UHD

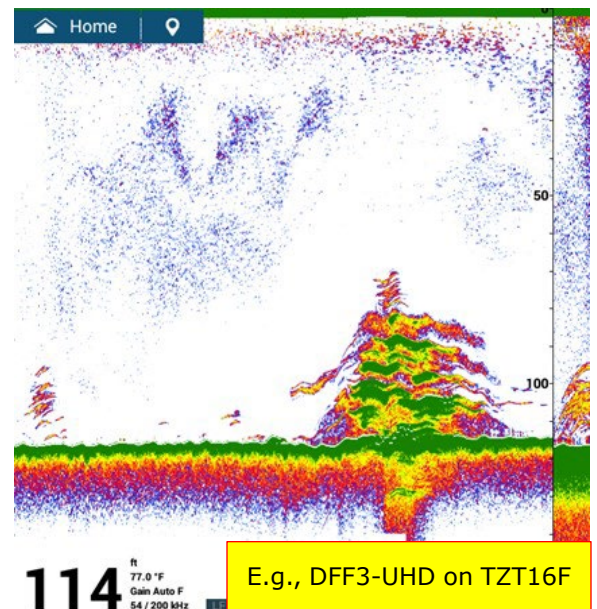
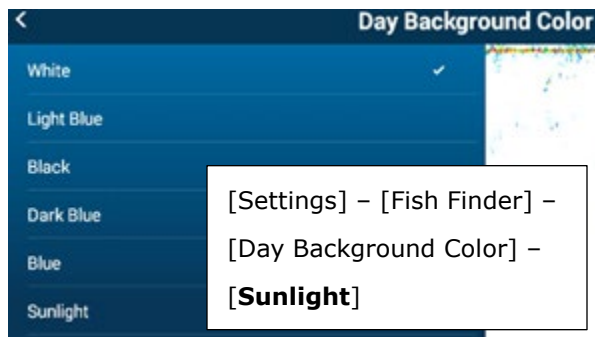
The **DFF3-UHD** is a new **Network Fish Finder compatible with 2/3 kW TruEcho CHIRP™ and CW** transducers. The DFF3-UHD can be networked with NavNet TZtouch3 MFDs and TZT2BB.



2.2. Sunlight Color

New color option, **Sunlight**, is available for the Fish Finder of **TZT9F/12F/16F/19F v3.01 and TZT2BB v9.01**. Note, this new color is available regardless of selected Fish Finder source.

Setting:

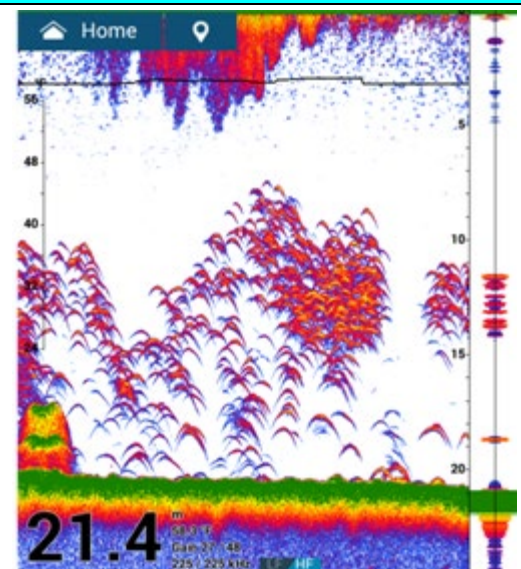


2.3. Color Range Expansion

New presentation mode, **Color Range Expansion**, is available with the **TZT9F/12F/16F/19F built-in Fish Finder, DI-FFAMP, and DFF3-UHD**. With the conventional color range, strong echoes from the seabed and large fish schools were shown in a similar color, i.e., brown to dark red. **With the new Color Range Expansion**, when the strength of echoes from the seabed and fish are slightly different, they are displayed in separate colors so that you can easily identify the fish over the seabed.

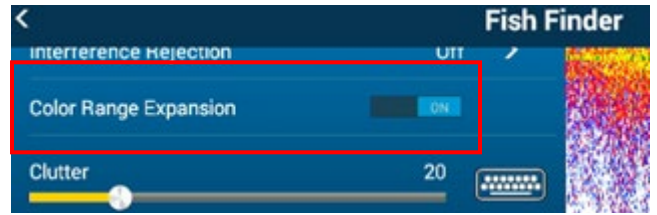
Note:

This color presentation is available in **Manual Gain** mode only.



Settings:

- (1) Menu: [Settings] – [Fish Finder] –
 [Color Range Expansion] – [ON]
- (2) Fish Finder screen: [Gain Mode] – [Manual Gain]



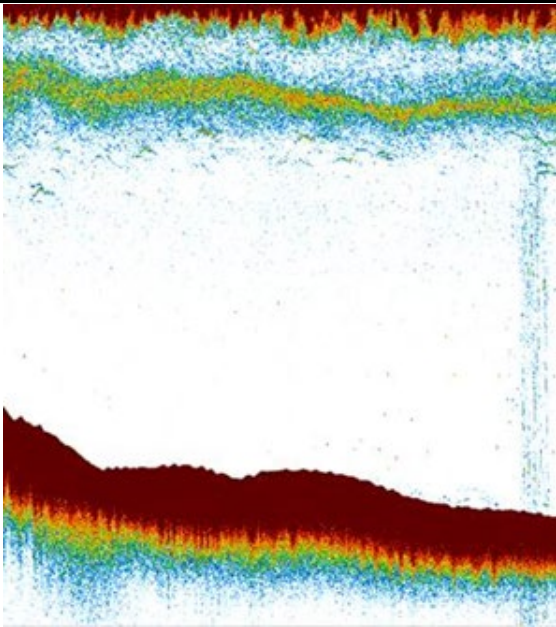
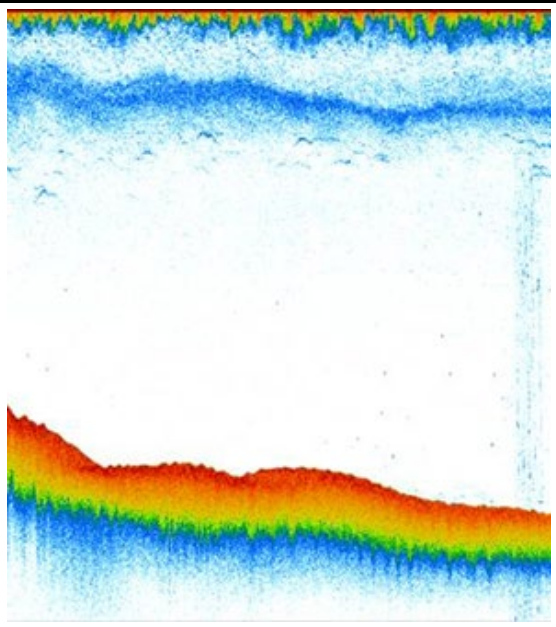
Note: TZT2BB v9.01, setting of Color Range Expansion is available when networked with a TZT9F/12F/16F/19F v3.01 built-in Fish Finder, DI-FFAMP, or DFF3-UHD and one of them is selected as the Fish Finder source. It is not available for the internal TZT2BB Fish Finder.

General Note and Tips – Appropriate Occasions of Color Range Expansion

In deep waters, where echoes are weaker than shallow areas, the Color Range Expansion mode may show hard targets such as seabed and a large school of fish in light colors: Targets at the surface to middle layer, which have weaker echoes, will be shown in lighter colors and may not be intuitively identified as fish targets. In such cases, turn off the Color Range Expansion mode to show targets in the conventional presentation mode.

The following example with the GP-1971F v4.0 shows the echo presentation in deeper water than the comparison shots above.

Transducer: TM165HW / Depth: 100 m

Color Range Expansion – OFF (Conventional)	Color Range Expansion – ON (NEW)
 <p data-bbox="94 1738 792 1915">While the seabed is presented in dark brown colors, targets at the surface layer are shown in red/yellow/orange colors, so that you may identify a school of bait fish.</p>	 <p data-bbox="815 1738 1513 1915">The seabed is shown in light color. The echo at the surface layer is in light blue, which looks like noise rather than a bait ball.</p>

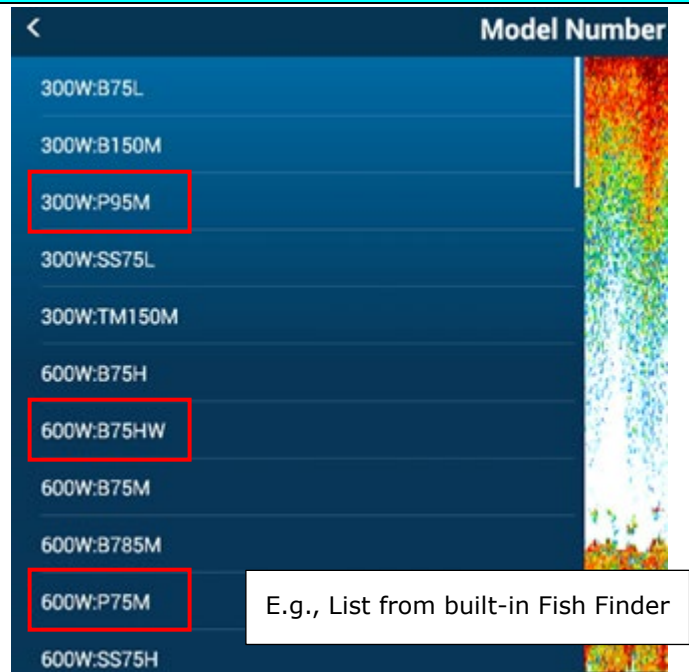
2.4. Transducer List Updated

The transducer list of TZT9F/12F/16F/19F is updated to add additional CHIRP transducers.

- ✚ 300W:**P95M** (built-in Fish Finder)
- ✚ 600W:**B75HW** (built-in Fish Finder)
- ✚ 600W:**P75M** (built-in Fish Finder)
- ✚ **165T-PM542LHW** (DI-FFAMP)

Note on TZT2BB v9.01

TZT2BB v9.01, the updated transducer list can be accessed for the networked TZT9F/12F/16F/19F v3.01 built-in Fish Finder and DI-FFAMP selected as a Fish Finder source.



3. Refined DFF3D Multibeam Sonar Operation

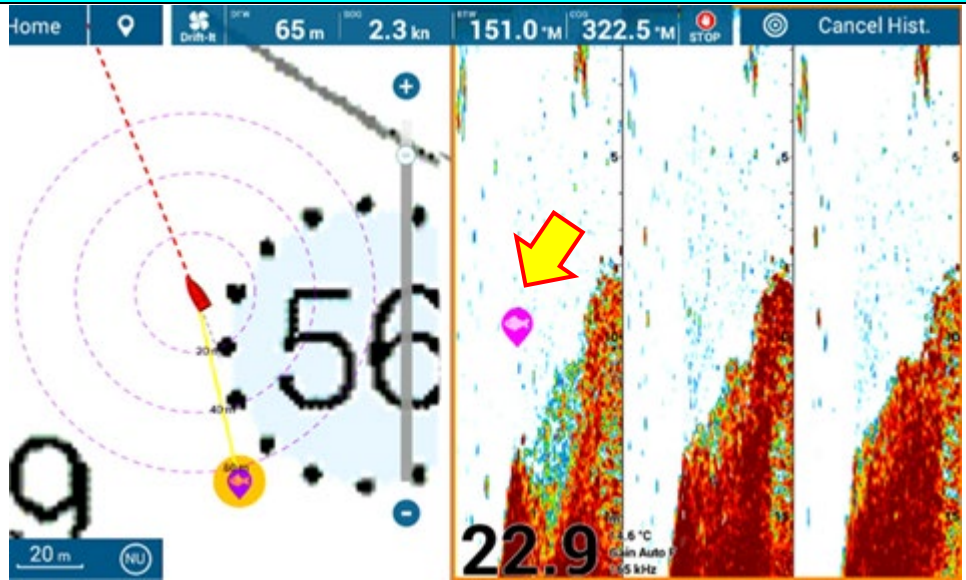
3.1. Sunlight Color

New color option, **Sunlight**, is available for the following DFF3D displays – **Cross Section** and **Triple Beam**, **NOT** on 3D History or Side Scan mode.

Sunlight	Menu Setting
	<p>[Settings] – [Multi Beam Sonar] – [Day Background Color] – [Sunlight]</p> <p>This color scheme based on green to purple helps ensure good visibility in sunlight.</p>

3.2. Fish-It on DFF3D Screen

The Fish-It icon is available on DFF3D screen. (Previously, only Fish Finder screens showed the Fish-It icon.)



4. Refined PBG Operation

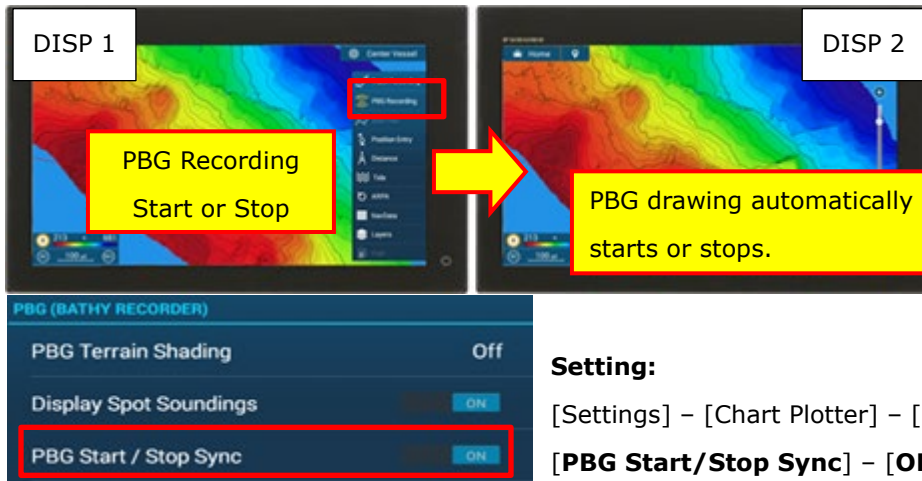
4.1. Spot Sounding by PBG with DFF3D

Spot soundings are now available for recorded PBG data.

PBG Spot Sounding – ON	OFF
<p>PBG (BATHY RECORDER)</p> <p>PBG Terrain Shading Off</p> <p>Display Spot Soundings ON</p> <p>PBG Start / Stop Sync ON</p>	<p>Setting:</p> <p>[Settings] – [Chart Plotter] – [PBG (BATHY RECORDER)] –</p> <p>[Display Spot Soundings] – [ON]</p>

4.2. Synchronizing Start and Stop PBG Recording

With previous software, to record PBG data on all the MFDs in the network, you needed to start PBG on each display.



Now, the action of Start/Stop PBG can be synchronized in the network. Edge-swipe at the right side and tap [PBG Recording], so that the other displays in the network will automatically start/stop recording PBG.

Setting:

[Settings] – [Chart Plotter] – [PBG (BATHY RECORDER)] –
[PBG Start/Stop Sync] – [ON]

Notes:

- (1) PBG data is **NOT** shared across the network. Only the Start/Stop action is synchronized.
- (2) If the MFD does not have enough capacity left on the microSD card or does not have a microSD card inserted into the rear slot of the TZtouch3 MFD, or each memory slot of the TZZ2BB*, the PBG Start/Stop synchronization will not work. In those cases, you will see a notification on the MFD that the PBG recording will be off.

*TZZ2BB has one chart/memory micro-SD card in the primary side of the processor. To also record PBG data to the secondary side of the TZZ2BB, a micro-SD card has to be inserted into that side as well.

4.3. PBG Speed Filter Alarm improvement

When moving to a different spot, you may travel at high speed and not want to record the bottom before arriving at the destination. The speed filter setting is useful to avoid inferior depth data recording while running fast: In [Home] – [Settings] – [Chart Plotter] – [PBG (BATHY RECORDER)] – [Use Speed Filter], set to [ON] and enter the required speed. It is set to 15 knots by default. With this setting, bottom mapping will stop at speeds over 15 knots. However, with the TZZ9F/12F/16F/19F v2.xx, the speed alarm remained on the screen while the speed exceeded the preset value. **Only** the audible notification was muted by acknowledging the alarm. The alarm bar would **only** disappear when the speed was lower than the preset speed, the alarm turned off, or the recording was turned off.

With new software version 3.01, the speed alarm bar will automatically disappear after five (5) seconds.



Note: This function was modified in the TZZ2BB during the previous software version update.

5. Refined Plotter Operation

5.1. Position Entry – Find and Create

Previous software version, 2.01, added the option of [Find] in the [Create Point] page in order to quickly find the location of an entered point by longitude and latitude (L/L). With v3.01, this page is refined.

V3.01 (NEW)	Tapping [Find], the Plotter page will show a bouncing red pin dropped on the entered position for your quick review. Tap the pin to enter a point or go back to the [Create Point] page to try a different spot. In order to create a point by position without finding it on the chart, just tap [Create]. The [✓] symbol with previous versions is now changed to [Create] for easier recognition of the action to be taken.

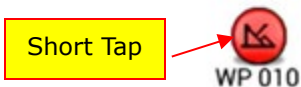
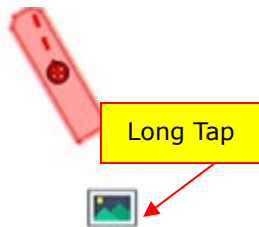
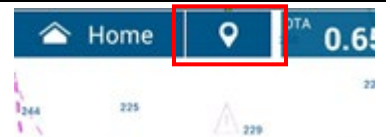
Comparison with v2.xx

Tapping [Find] after entering the L/L, the point was automatically created, and the Plotter page showed the location of the created point. If the location was not appropriate, you needed to delete the point and go back to the [Create Point] page for another attempt. In order to create a point without finding it on chart, you needed to tap [✓].

V2.xx (Previous)

5.2. Event Button – Short and Long Tap

The Event icon now offers you more versatile operation. In addition to the original short tap to enter an event, open the Event Window, etc., a **long tap** is now available.

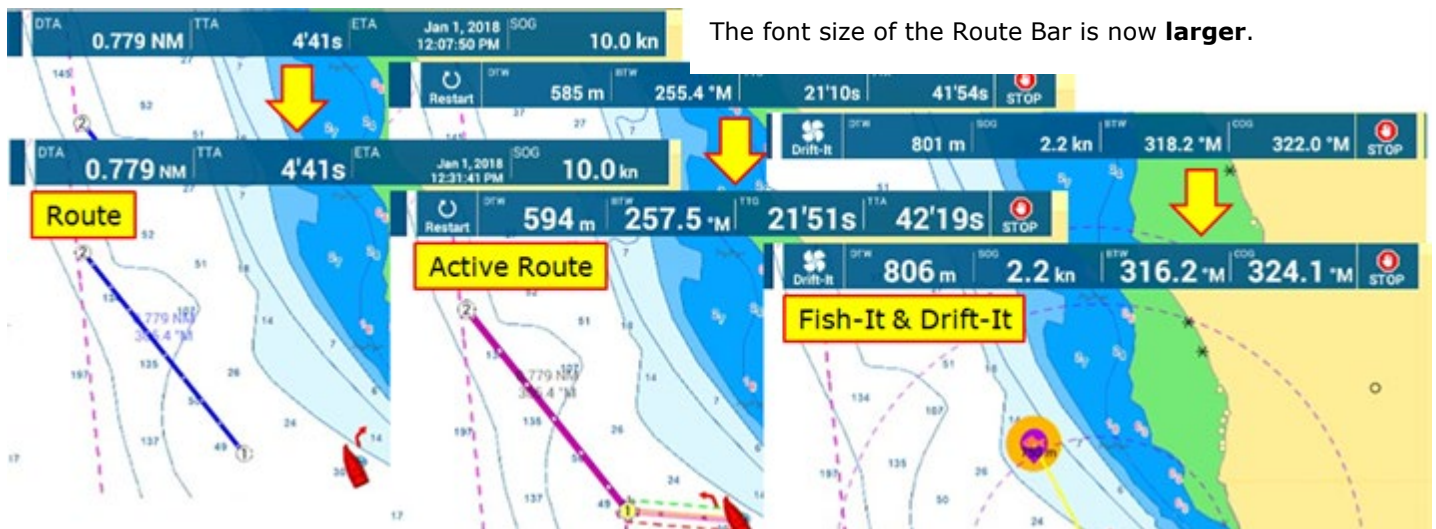


As an example, assign [Event Mark 1] to short tap and [Screen Capture] to long tap. When good echoes are observed on a Fish Finder screen, short tap the Event button to enter an Event Mark and then long tap it to take a screenshot. These actions can be taken quickly just by tapping on the Event button.

Settings: [points & Boundaries] [Event Button] There are six (6) available functions for each event.



5.3. Enlarged Font Size of Route Bar

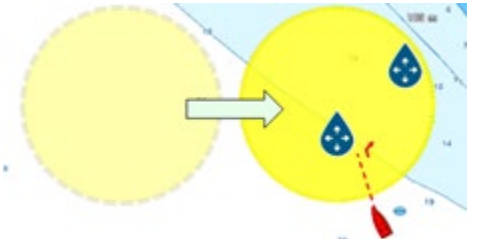


The font size of the Route Bar is now **larger**.

5.4. Circle Edit improvement with MCU-002/004/005

The Anchor Watch Circle and Boundary Circle can be shifted to the clicked spot with the **MCU-002/004/005**.

Previously, the location of the circle was changed by drag only, and the edit was terminated by clicking on the screen with the MCU-002/004/005 knob. New software versions enhance the operation with the MCU-002/004/005.



Note:

For operation by touch, the location of circle is changed by drag only. The edit will be terminated by tapping on the screen.

6. Refined Radar Operation

6.1. Compatibility with DRS4D X-Class

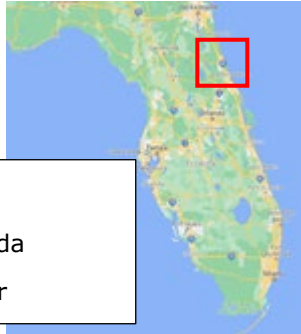
The **DRS4D X-Class** is a new Radar sensor model, replacing the DRS4D. Utilizing the highly sensitive receiver of X-Class series models, the proven target detection performance is incorporated on a 24" (60 cm) dome. The TZT9F/12F/16F/19F v3.01 and TZT2BB v9.01 are compatible with the new DRS4D X-Class (**Currently not sold in North America**).



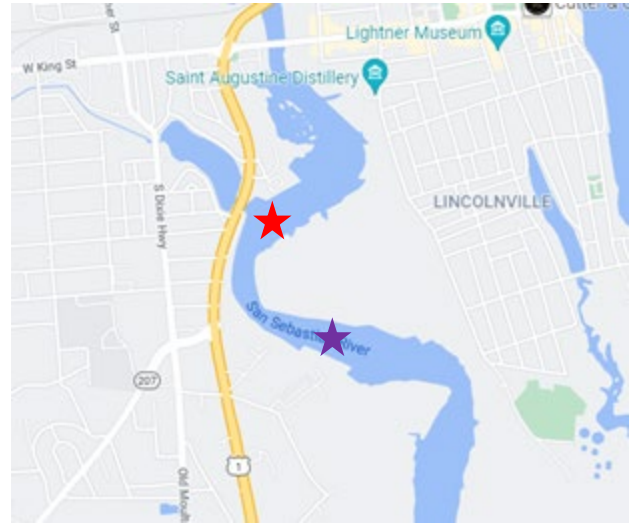
6.2. Channel Mode

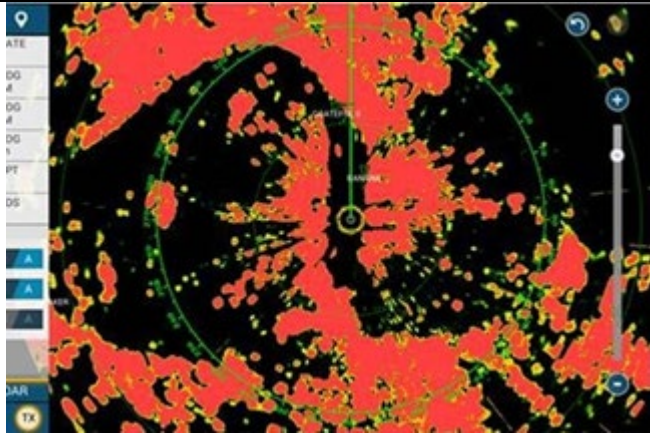
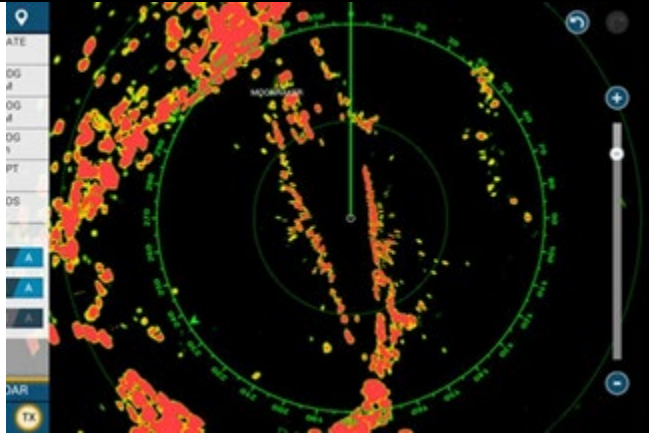

Auto Mode performance has been proven to clearly show targets by automatically eliminating sea and rain clutter, as well as adjusting gain. However, there were some cases where echoes became too weak, especially along channels or narrow waterways. With the new [**Channel**] mode, **stronger gain will be applied** compared to conventional [Adaptative] (ex. [Advanced]) or [Coastal], so that **thicker echoes will be available** in such locations.

The following screenshots are from the San Sebastian River in Florida. The boat is equipped with a DRS6A X-Class, normally used in Auto Mode. New Channel mode was used in comparison with Advanced or Coastal to compare the difference in discriminating the edge of the river.



Location:
St. Augustine, Florida
San Sebastian River



New Channel Mode ★	Conventional – Advanced or Coastal ★
 <p data-bbox="90 1409 787 1444">The edge of river is shown with a thick echo.</p>	 <p data-bbox="816 1409 1513 1444">The screen is very clean. The edge of river is thin.</p>
	<p data-bbox="764 1507 873 1535">Setting:</p> <p data-bbox="764 1556 1354 1583">Edge swipe at the bottom and select [Channel].</p>

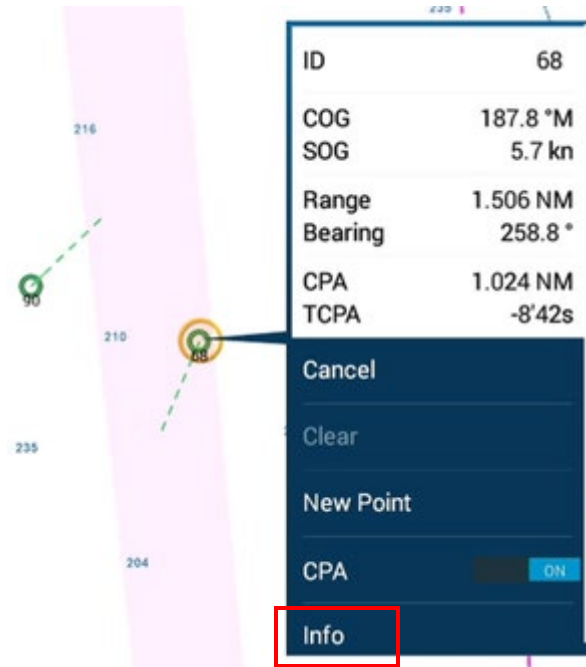
Notes:

- (1) DRS series models also need a software update for Channel mode.
 - ✚ DRS4DL+ is Not compatible with the new Channel mode
 - ✚ DRS software can be found on the Furuno USA website under the applicable radar sensor. (June 2022)
- (2) [Advanced] mode is renamed to [**Adaptative**].

6.3. Nickname on ARPA Target

Nickname of ARPA target ID can be set and displayed. When monitoring a specific fleet or vessels, automatically or manually acquire the targets. Then assign nicknames to each target to easily identify the targets to assist with monitoring.

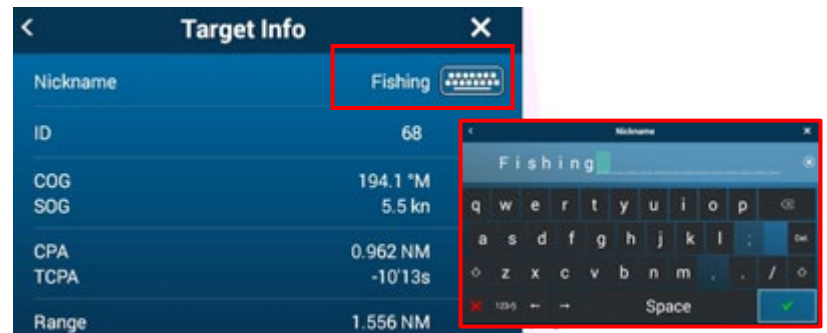
E.g., ARPA Target with Nickname



In this example, there are two targets currently tracked, one of them is assigned with the ID of [68] automatically.

(1) Tap the target and access [**Info**] to go to [**Target Info**] page. This page is also accessible by accessing [Home] - [List] - [ARPA] and selecting the required target ID from the ARPA List.

(2) Assign the nickname. E.g. [Fishing]



The ARPA List can be sorted by Nickname when multiple targets have nicknames.



Note:

If the targets are lost, assigned nicknames will also be reset. Make sure to reassign the nicknames again after reacquisition.

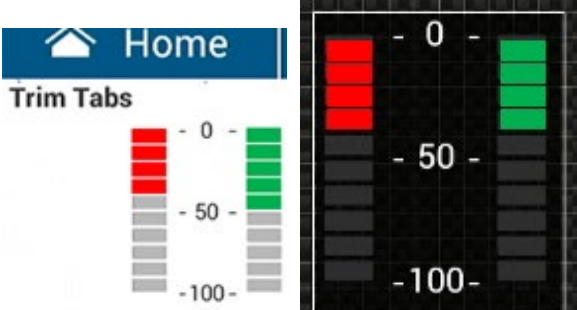


Note: You can also tap on the ID # in the pop-up box and from there assign a nickname.



7. Refined Data Box and Instrument

7.1. Trim Tab Indication

Trim tab information received via **NMEA2000 PGN: 130576 (Trim Tab Status)** can be displayed on the slide out Data Box and/or on any Instrument page, full or quarter.

Data Box (left) and Instrument Page (right) Trim Tab Indication	Dedicated trim tab indicator E.g., from Bennett Marine	Trim Tab (Port)
		

8. Others

- (1) **Improvement:** [Center Vessel] icon. Previously, the [Center Vessel] icon frequently appeared when zooming in. The tolerance has been changed to decrease this from happening as often.
- (2) **Improvement:** The default setting of COG Vector is changed from 1 hour to 2 minutes.
✚ TZT9F/12F/16F/19F only (already implemented with TZTL12F/15F and TZT2BB v8.01)
- (3) **Improvement:** WPT (waypoint) name will not disappear after Stop Nav.
- (4) **Improvement:** Menu indication of [PBG FILTER] is changed to [**PBG (BATHY RECORDER)**] to properly categorize all the available settings including new functions.
- (5) **Improvement:** Translation of some Spanish menu items on DFF3D setting page is improved.
- (6) **Improvement:** FLIR M300C video can now be shown via Ethernet. (Previously, the video over IP was not shown on MFDs, only analog was available.) (Only available for TZouch3 and TZT2BB, not TZtouch2 12" and 15")
- (7) **Improvement:** Analog camera input is stabilized. Previously, the analog video image was sometimes not displayed when quickly unplugging and re-plugging a video cable.
- (8) **Improvement:** The slider bar manual adjustment for gain and interference of Fish Finder will disappear after the setting is complete.
- (9) **Improvement:** Undo/Redo icons will not appear on the browser page.
- (10) **Improvement:** Icons for third party devices registered in the Quick Page are properly shown.
- (11) **Improvement:** When the NAVpilot mode is set to one that is not supported on the connected MFD, the mode can

be set to STBY from the MFD, i.e. [Tap for Stand-by] is shown. (Previously, no indication was available on the MFD.)

✚ TZT9F/12F/16F/19F only (already implemented with TZTL12F/15F and TZT2BB v8.01)

(12) **Improvement:** Alarms related to Sale Helm mode for NAVpilot-700 series and NAVpilot-300 can be muted with [Alarm] – [Notify when NAVpilot is engaged] – [OFF].

✚ TZT9F/12F/16F/19F only (already implemented with TZTL12F/15F and TZT2BB v8.01)

(13) **Improvement:** Three (3) waypoints are output via PGN: 129285 for an active route. (Previously, only two (2) waypoints were output.)



(14) **Improvement:** Fish Mapping function with SiriusXM receiver BBWX4 is improved: E.g., only available fish species are listed on the screen.

(15) **Improvement:** Indications on the screen during the update process are changed.

(16) **Improvement:** A notification for resolution adjustment will appear when connecting a monitor with a different aspect ratio. This may also happen if the HDMI video out is connected to a video switch matrix.

✚ TZT2BB only (not applicable to other models)

(17) **Improvement:** Default settings of NMEA2000 PGN output are changed.

(18) **Improvement:** NMEA2000 log recording function is improved.

(Already implemented with TZTL12F/15F and TZT2BB v8.01)

(19) **Improvement:** Default setting of TZT9F Fish Finder Demo is changed from Demo1 to Demo2.

✚ TZT9F only (not applicable to other models)

(20) **Fix:** Transducer output power settings are properly reflected.

(21) **Fix:** Unit settings are properly backed up. (Previously, there were some cases where unit settings such as depth would revert back to default settings.)

(22) **Fix:** Login to My TIMEZERO account with Apple ID is fixed.

9. Details of Software Versions

The following table shows the detailed indications of updated items on the TZT9F/12F/16F/19F and TZT2BB.

Items	TZT9F/12F/16F/19F	TZT2BB
First Boot	1950210- 03.01 (Prev. 02.05)	1950176- 09.01 (Prev. 08.01)
Second Boot *(1)	1950211- 03.01 (Prev. 02.05)	1950177- 09.01 (Prev. 08.01)
System Version (OS)	1950212- 03.01 (Prev. 02.05)	1950178- 09.01 (Prev. 08.01)
Application	1950213- 03.01 (Prev. 02.05)	1950152- 09.01 (Prev. 08.01)
Built-in Fish Finder: Main	1950203- 03.01 (Prev. 02.04)	Not updated (1950175-01.05)
HTML Package	Not updated (1950220-02.01)	
eGuide	E42-01903-F (Prev. -E)	E42-01409-K (Prev. -J)

*(1) The Second Boot version can be checked on Service Menu only

10. Combination of MFDs and Software Versions

The following table shows the compatible combination of MFDs and software versions for network.

Model	Ver.	Model	Ver.	Network
TZT9F/12F/16F/19F	v3.xx	TZT2BB	v9.xx	OK
TZT9F/12F/16F/19F	v3.xx	TZTL12F/15F	v8.01	OK: TZT9F/12F/16F/19F v3.xx should be turned on first.
TZT2BB	v9.xx	TZTL12F/15F	v8.01	OK: TZT2BB v9.xx should be turned on first.

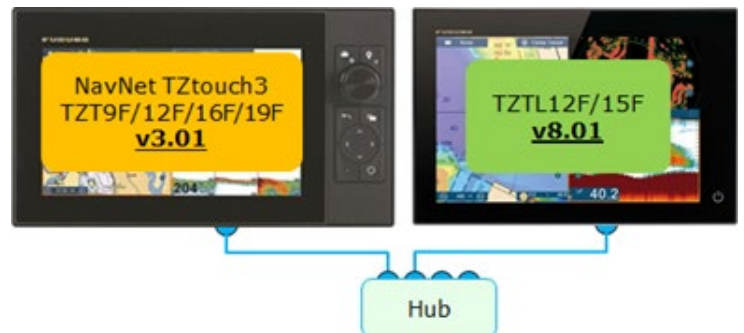
TZT9F/12F/16F/19F v3.01 and TZT2BB v9.01

Configuration with latest software versions has no limitation on startup order.



Configuration including TZTL12F/15F v8.01

When the TZTL12F/15F v8.01 is included in the network, make sure that **the TZT9F/12F/16F/19F v3.01 or TZT2BB v9.01 is turned on first.**



Note:

When the **DFF3-UHD** (See [Section 2.1](#)) is available in the network, **only the TZT9F/12F/16F/19F v3.01 and TZT2BB v9.01 can fully operate it.** Although the TZTL12F/15F v8.01 can see the DFF3-UHD as a source, operation is **NOT** supported. Dedicated menu structures to support the DFF3-UHD are not available in the TZtouch2, TZTL12F and TZTL15F.



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