

FURUNO



Total Control, Simply Refined

NAVnet

TZ2
touch

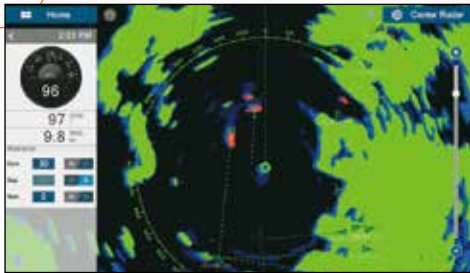


Total Control, Simply Refined

With a sleek all glass front, refined graphical user interface, built-in RezBoost™ Fish Finder, and internal GPS antenna, NavNet TZtouch2 is a beauty to behold and use.

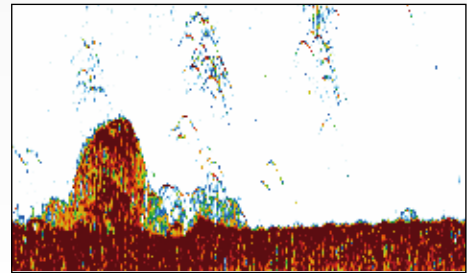


NEW



Target Analyzer with Echo Trail

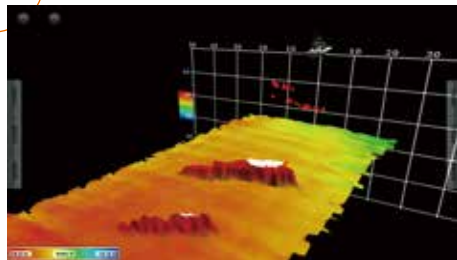
Revolutionary Target Analyzer function instantly identifies hazardous targets with Echo Trail.



Built-in Fish Finder with RezBoost™

RezBoost™ technology makes it easier to spot individual fish in tightly packed fish schools as well as discerning game fish from bait fish.

NEW



Advanced multi-beam technology with DFF-3D*

Deep and wide-range water column and seabed are displayed in real time. *Coming soon



Instrument Display & Customization

An instrument display like nothing you have seen before. Totally customizable, totally simple.

NEW



Digital Switching At Your Fingertips

Monitoring and Controlling digital switching CZone system from your NavNet TZtouch2.

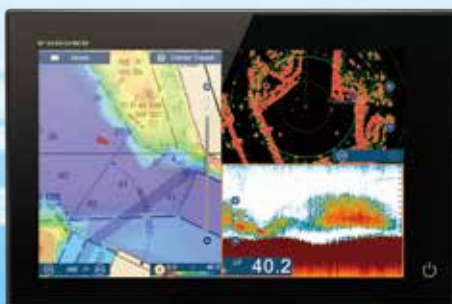


iOS & Android™ Apps

View information from your NavNet TZtouch2 and control it on your iOS and Android™ devices.

Simply refined, simply beautiful

Following in the footsteps of the original NavNet TZtouch, TZtouch2 features a refined user interface that is all about usability. Whether you are searching for hot fishing grounds, plotting your next route, using your Radar to navigate through the fog, you can expect smooth operation with familiar touch gestures. Sporting an edge-to-edge glass front, NavNet TZtouch2 is beautifully designed, allowing you to build a navigation suite that is not only functional, but offers a luxurious look and feel.



Model **TZTL12F**

12.1" Multi Function Display

Resolution: WXGA (1280 x 800 pixels)
Brightness: 1300 cd/m² (typical)



Model **TZTL15F**

15.6" Multi Function Display

Resolution: FWXGA (1366 x 768 pixels)
Brightness: 1000 cd/m² (typical)



All-glass front, smooth to the touch



Bonded LCD - Clear Readability

Our bonded LCDs offer a fog-free design that is used in both the TZTL12F and TZTL15F. This bonding ensures that the display is protected from condensation by sudden temperature changes. Optical bonding works by closing the air gap between the LCD and the cover glass, something that also enhances contrast.



Polarized Friendly - Clearly Remarkable

NavNet TZtouch2 TZTL12F and TZTL15F have an LCD screen that does not "black out" when wearing polarized sunglasses. You are free to move around the vessel while maintaining clear visibility from virtually any angle.



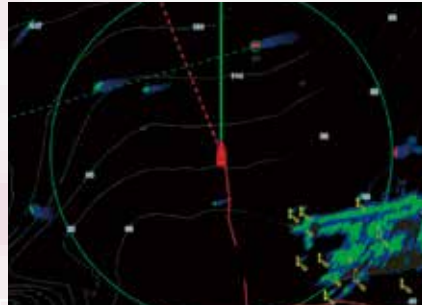
Multi Touch Control

With NavNet TZtouch, FURUNO introduced the industry's first multi touch MFD, and NavNet TZtouch2 is no disappointment. Improved touch control gives better response, as well as allowing you to swipe your fingers from the edge of the screen. Looking around your vessel in 3D, with the comprehensive charts available, Multi Touch Control makes navigating as simple as touch... and go!

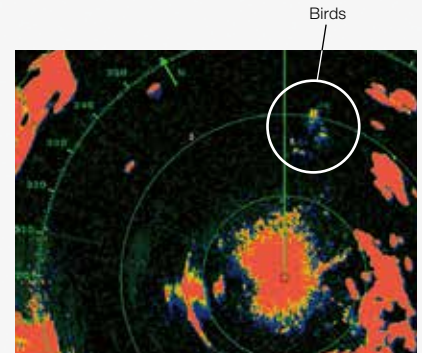
New Features

Echo Trail/Echo Average

Echo Trail and Echo Average features have been added to the latest version of NavNet TZtouch2 series. Using the new functions, Bird mode detects and accurately tracks birds, providing a clear view of the target by reducing noise. Echo Trail enhances and amplifies the Target Analyzer and doppler technology to help prevent hazardous situation and gives an intuitive understanding of nearby vessel's movements.



True Echo Trail



Bird mode with Echo Average

CZone Digital Switching

CZone digital switching simplifies the installation and operation of complex electrical systems. Change effortlessly from Dock Mode to Cruising Mode with a single press on your iPad, remote Keyfob or directly from your Navnet TZtouch2 display.



NMEA2000



CZone Control & Monitoring

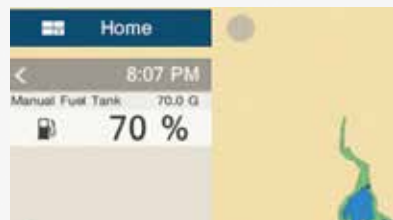


CZone, engine, navigation and various NMEA2000 data can be laid out on the same screen.

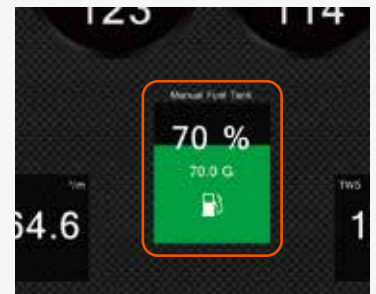
Manual Fuel Management*

NavNet TZtouch2 calculates and displays the remaining fuel based on the manually entered tank capacity, as well as fuel consumption information from NMEA2000 network.

The gauge allows the user to evaluate precisely the fuel level without equipping the ship with a fuel gauge. The NavNet TZtouch2 gives you the low fuel alarm when the fuel runs out.



Data box



Manual Fuel Tank display in Instrument mode

* 1) NMEA 2000 PGN127489 (Fuel Rate) input is required.

2) While the engine is running, at least one TZTL12F/TZTL15F in the network should be always turned on in order to keep calculating the fuel consumption.

3) The fuel indication may be inaccurate if the values entered are not correct, or the fuel rate sensor is not functioning correctly.

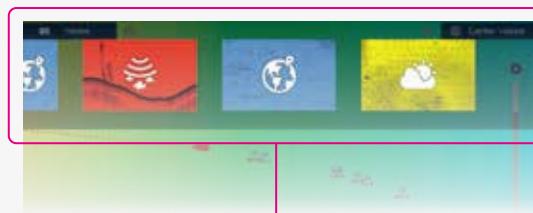
*All new functions require software v4.01 or later.

New Graphical User Interface

NavNet TZtouch2 features a graphical user interface that has been renewed and refined, focusing on usability and ease of operation.

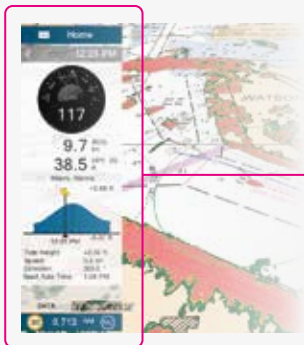
Home Screen

The new home screen, with its bright and crisp graphics, is easy to understand and operate. The colors and icons have been carefully chosen to provide maximum visibility, allowing you to know instantly which screen is displayed, just by seeing the color and icon. Changing to different display screens is just a simple matter of dragging and dropping.



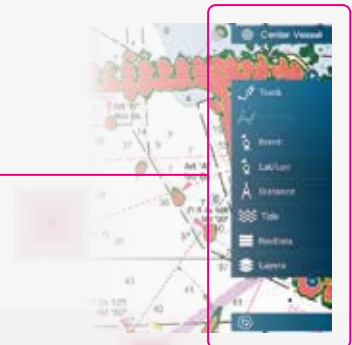
Quick Page

Swiping your finger down from the top edge of the screen displays the Quick Page. As the name implies, the Quick Page allows you to quickly change between the different screens from your current display. With bold colors, the previews are easy to differentiate and quickly choose from.



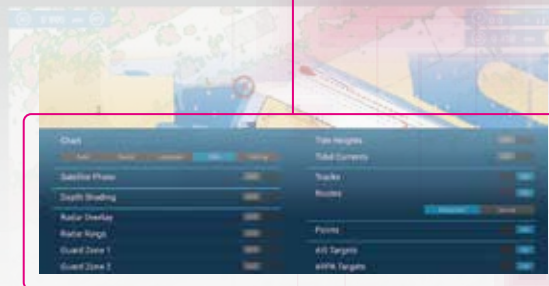
NavData

Swiping from the left edge of the screen reveals the NavData panel, where you can customize contents to simplify navigation and chart usage. You can set the autopilot, check tide information and much more.



Slide-Out Menu

The slide-out menu provides quick and easy access to often-used functions, and is available in every mode.



Layers

One of the new features is the layers menu, just swipe up from the bottom edge of the screen. The layers menu is a practical way of changing settings on the fly without having to venture into deeper menu systems. Since the screen is visible at all times, understanding and using the different settings becomes a breeze.

Instrument display set up



Instruments

The instrument page is impressive just on its own rights, but where it really shines is its customizability. No matter if it is for navigation, engine and tank motoring, autopilot control, or a combination, data can be displayed according to your personal tastes and needs.



Fully Customizable

Instrument rearrangement is available at your fingertips. You are free to customize the display to precisely fit your unique needs. Also note that instruments can overlap each other, giving you even more space to work with.

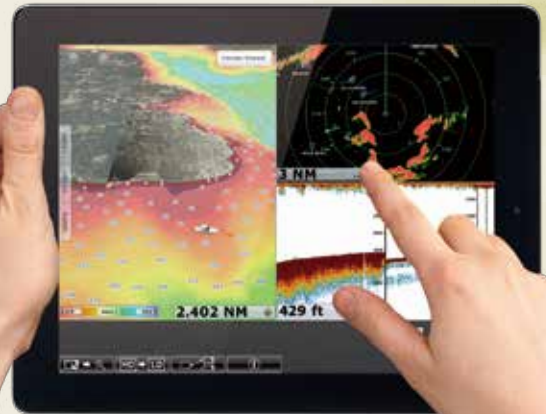
APPS

View information on your smart devices via wireless network

NavNet TZtouch2 open the door to cutting edge Wireless LAN features, such as iOS and Android™ apps, real-time weather data, software updates and much, much more.

NavNet Remote App

Take full control of your NavNet TZtouch2 in a whole new way. The NavNet Remote app allows you to remotely operate and view your system with your smart devices when connected to the Wireless LAN network.



NavNet Viewer App

Conveniently view instruments as well as the fish finder of your NavNet TZtouch2 on your smart devices over the Wireless LAN network. Key navigational information such as Depth, Temp, Wind, COG as well as Engine information can all be accessed from the palm of your hand. Even if you change the display on your NavNet TZtouch2, you can still view the fish finder on your smart devices.



NavNet Controller App

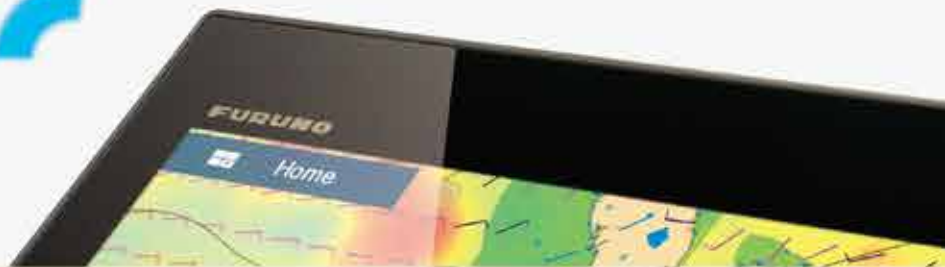
Wirelessly control the NavNet TZtouch2 with touch controls just like the real thing. With a scroll pad, cursor pad and dedicated keys within the app, controlling the NavNet TZtouch2 is simple and straightforward.



	NavNet Remote	NavNet Viewer	NavNet Controller
Compatible NavNet products	NEW NavNet TZtouch2 (TZTL12F/TZTL15F) - software version 4.01 or later.	NavNet TZtouch2 (TZTL12F/TZTL15F)	NavNet TZtouch2 (TZTL12F/TZTL15F)
Languages	English/Japanese		



WIRELESS



Marine Weather Forecast

The weather tool is completely free and easy to use, giving you unlimited access to weather forecasts worldwide 24 hours a day provided by NavCenter. Select the coverage you want, what type of data it is you need and for what time period, then it is simply a matter of choosing how to download the data. Navnet TZtouch2 can display up to 16 days of downloaded weather forecasting.



ActiveCaptain*, points of interest directly on your NavNet TZtouch2



NavNet TZtouch2, the world's first Multi Function Display with ActiveCaptain functionality. Share the experience together with other boaters around the world, browse and discover new points of interest. With a community of 250,000 users, reliable and updated information on fuel prices, marinas and obstructions are all available at the tip of your fingers. You can even rate and comment on points of interests, such as marinas and anchorages, straight from your NavNet TZtouch2.

*Software version 3.01 or later is required.



My TimeZero™ Cloud Data Service*

My TimeZero™ cloud data service allows you to back up your data on the cloud and synchronize it among your TimeZero™ devices. Connect your NavNet TZtouch2 to the internet and login on your My TimeZero™ account, and you are able to back up or restore points, routes, tracks and settings to/from the cloud server. Plan routes on your tablets at home and transfer them to your NavNet TZtouch2 onboard through cloud. You won't have to carry memory cards from device to device ever again.

*Coming soon.

BBWX3 – Sirius Satellite Weather Receiver*

Keeping track of weather is easier than ever with Furuno's BBWX3 Third-Generation Sirius Satellite Weather Receiver! The weather information is obtained from the weather industry's leading experts and is delivered via digital receiver through Sirius' Marine Weather services. You can receive high-quality and comprehensive weather information and forecasting for use while navigating.



*Satellite weather receiver service is available for all NavNet TZtouch2, TZtouch and NavNet 3D models. Requires Sirius weather service subscription, sold separately. Sirius weather coverage is currently available only in U.S and Canada.

NavNet TZtouch2 Network



RADAR



Radar Sensor
 DRS4DL/DRS4D/NXT
 DRS6A X-Class/DRS12A X-Class
 DRS25A X-Class

Ethernet

FISH FINDER



Network Fish Finder
 DFF1-UHD/DFF1/DFF3

Bottom Discrimination Sounder
 BBDS1

Multi Beam Sonar
 DFF-3D

Ethernet

Ethernet

Ethernet

AIS



AIS Receiver
 FA-30

Class-B AIS Transponder
 FA-50

Class-A AIS Transponder
 FA-170

Ethernet

Ethernet

Ethernet

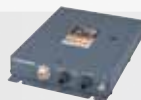
NMEA0183

WEATHER/ PC PLOTTER



TIMEZERO
 Marine Software

Ethernet



Network Weather
 Facsimile Receiver
 FAX-30

Ethernet



Network Satellite Weather
 and Radio Receiver
 BBWX3*1

Ethernet



OTHERS



Marine Entertainment System
 MS750 Series, etc.

Ethernet



Analog Camera

Video

Digital Switching System



CAN bus

CONVERTER



NMEA Data Converter
 IF-NMEA2K2

CAN bus NMEA0183



Analog NMEA Data Converter
 IF-NMEA01

CAN bus ANALOG



Internal GPS Antenna



NavNet TZtouch2 is NMEA2000 certified. NMEA2000 offers improved data transfer rates and true plug-and-play operation.

*1 Sirius weather coverage is currently available only in U.S and Canada. Sirius subscription required.

Perfect match!

NavNet TZtouch2, NAVpilot-711C and the FI-70 have been designed to match each other beautifully, both in appearance and in function. Sporting a clean and functional design in all black, they will make a great addition to your helm.



NavNet TZtouch2



NAVpilot-711C



FI-70



NAVpilot-700

CAN bus NMEA0183



NAVpilot-711C

CAN bus NMEA0183

AUTOPILOT



Integrated Heading Sensor
PG-700

CAN bus



Satellite Compass
SC-30

CAN bus



Satellite Compass
SC-50

NMEA0183

COMPASS



GPS/WAAS
Receiver Antenna
GP-330B

CAN bus



GPS Navigator
GP-33

CAN bus

GPS



Depth/Speed/Temp Sensor
DST-800

CAN bus

SENSOR



Internal Fish Finder
with RezBoost™ technology



FI-70

CAN bus

INSTRUMENT



Remote Control Unit
MCU-004

USB



Remote Control Unit
MCU-002

USB



SD Card Unit
SDU-001

USB

OPTION

Nothing Is Faster Than TimeZero™

NavNet TZtouch2 TimeZero™ technology delivers chart processing like you've never seen before – seamless chart handling, zooming and panning without the screen disappearing. TimeZero™ technology redefines the meaning of stress-free operation by smoothing out your chart handling actions.



The Only Acceptable Wait Time is Zero: TimeZero™ Technology Changes Your Perspective on Chart Redraw

Equipped with powerful TimeZero™ technology, NavNet TZtouch2 will completely transform the way you navigate. You can scroll, pan, zoom in/out with a smooth, fast and seamless graphics engine. Navigating in a 3D environment offers you a true perspective and wider area of view around the ship, which allows you to better plan your routes. TimeZero™ technology updates the information on your screen with virtually no redraw as you go.



Chart Plotter

Mapmedia Vector and Raster Chart Library

With NavNet TZtouch2 it's possible to freely choose the charts that fit your individual needs. With the optional NOAA raster and vector charts, Mapmedia brings an authentic vector and raster chart library to your NavNet TZtouch2. "C-MAP" as well as "Datacore by Navionics" vector cartography are optional charts that can be downloaded to your TZtouch2 with ease. Mapmedia cartography integrates cutting edge algorithms with high resolution image processing techniques to deliver a fusion of digital navigation charts and satellite photography.



2D Raster

2D Vector

Satellite PhotoFusion™

Satellite photography is included in the Mapmedia Raster and Vector charts, simply called Satellite PhotoFusion™. Land areas (zero depth) are completely opaque, displayed as satellite photos on the chart. As the depth increases, the satellite image is merged with the chart data to provide you with added detail on seabed areas in shallow water, without losing vital chart information. In deeper water, where the satellite photos have no detail to offer, the chart is displayed without alteration.

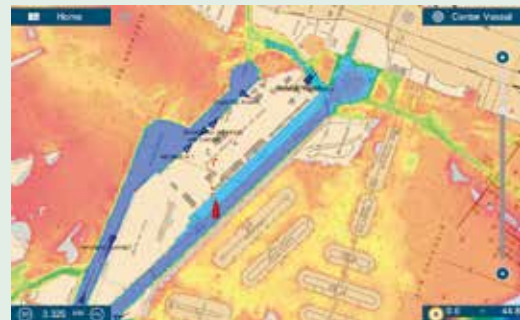


Raster+Satellite

Vector+Satellite

Depth Shading

A depth color scale can be applied to both 2D and 3D vector and raster charts. Transparency levels can be adjusted so that chart data is visible beneath the color shading. This unique feature allows you to view water depths at-a-glance with vibrant colors. No more searching for depth numbers, when you can simply set depths to your specified colors. Whether you want to see the depth for navigation or fishing purposes, this feature makes it easier than ever before.



AIS Target Tracking

When connecting a FURUNO FA-30/50/170 AIS unit to your NavNet TZtouch2, up to 100 AIS targets can be tracked and displayed on the Chart Plotter screen. The Automatic Identification System (AIS) improves safety during travel by sharing the status and position of your vessel with other AIS-equipped vessels nearby. You can easily read detailed information about AIS-equipped vessels nearby such as speed, heading, Closest Point of Approach and Time to Closest Point of Approach.



Fish Finder

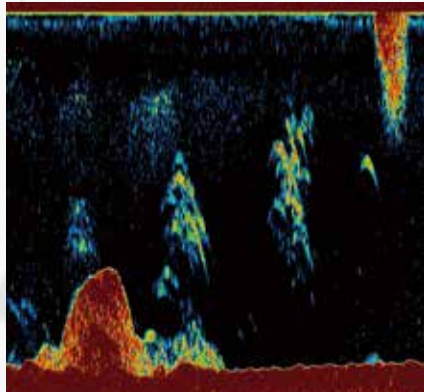
NavNet TZtouch2 is the first product from FURUNO to feature the brand new RezBoost™ technology. Accurately spot individual fish and increase your catch.



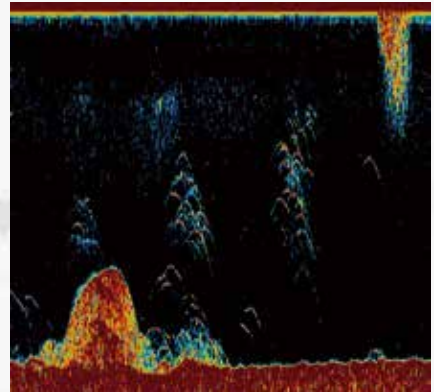
Up to 8 times
sharper image than
conventional FDF*¹

RezBoost™

Rezboost™ is a revolutionary new technology utilizing FURUNO's advanced digital signal processing to provide fantastic resolution without having to change your transducer.



Conventional Signal Processing



RezBoost™ Signal Processing

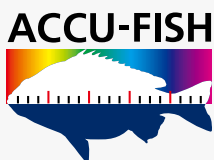
RezBoost™ improves target separation close to the seabed, as well as giving an unprecedented boost in resolution. With RezBoost™ technology, resolution and target separation previously limited to FURUNO commercial-grade Fish Finders can now be achieved. RezBoost™ technology makes it easier to spot individual fish in tightly packed fish schools, as well as discerning game fish from bait fish. Since RezBoost™ technology is software based, you can use transducers* already installed on your vessel.

* To check if your transducer supports the "Enhanced Mode".
* In-hull mounted transducers not compatible with RezBoost™ technology.
* ¹ RezBoost™ performance may vary depending on depth, range and signal frequency used.



FURUNO Digital Filter (FDF™) Fish Finder

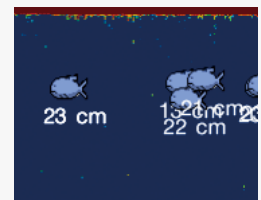
FURUNO Digital Filter (FDF™) fish finders feature advanced filtering capabilities and digital auto tuning, which eliminates noise. FURUNO FDF™ fish finders deliver the ability to spot individual fish with clarity, accuracy and detail. Whether in shallow or deep water, FURUNO FDF™ fish finders give you what you would expect from a fish finder at all times.



ACCU-FISH™ (Fish Size Analyzer)

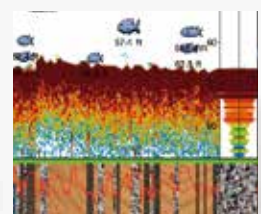
The ACCU-FISH™ algorithm analyzes echo returns in order to compute individual fish size. The algorithm is capable of computing fish size ranging from 10 cm up to 199 cm long. Fish depth can also be displayed.

In some instances, fish size indicated on the NavNet TZtouch2 may differ from its actual size. Please carefully read the operator's manual prior to utilizing this feature.



Bottom Discrimination Display

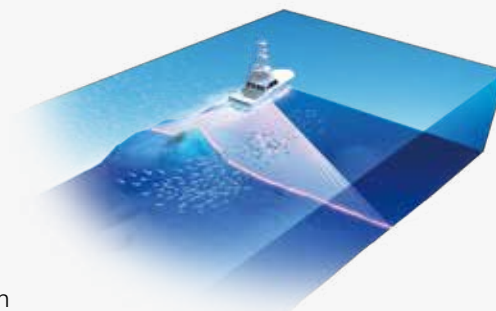
Bottom discrimination provides detailed information about Knowing the make-up of the seabed, categorizing it into four different categories; "Rocks", "Gravel", "Sand" and "Mud". The make-up of the seabed can be tremendously helpful information when looking for fishing grounds, as well as for finding good anchoring spots.



Multi-Beam Sonar

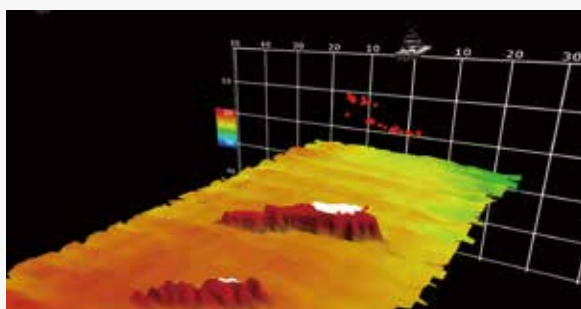
Innovative tool for exploring a wide range of water column and seabed

New Multi-Beam Sonar model DFF-3D gives you real-time 120 port-starboard view of the water column and seabed up to 200m depth*. The DFF-3D allows you to explore fishing spots and find fish in deep water by far faster than conventional single beam sounders. On the other hand, the main beam penetrate right under the boat at a depth of approximately 300 m*. Installation is made easy, thanks to a compact transducer design. The built-in motion sensor gives you clear images under your boat even in rough water.

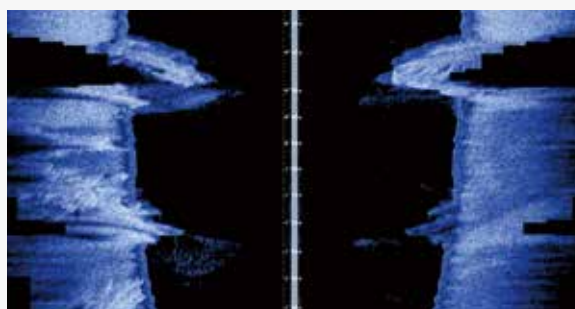


Scanning image of Multi Beam Sonar

* Maximum depth dependent on installation, bottom type and water conditions.



3D history



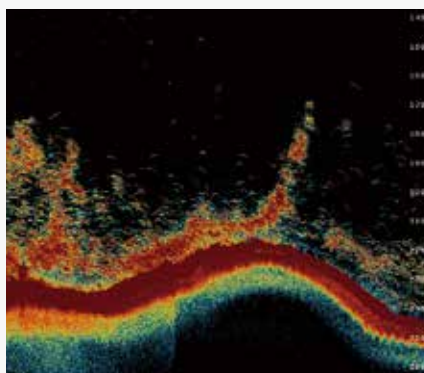
Side Scan

Find More Fish With TruEcho CHIRP™ Fish Finder

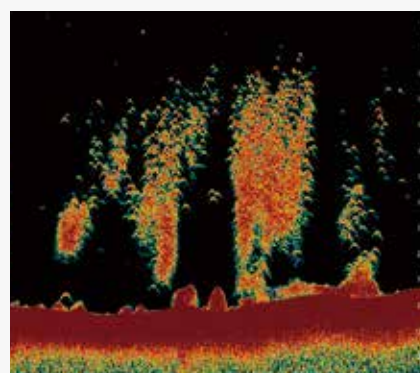
An advanced technology for both professional and enthusiast fishermen. Designed to operate across a wide range of frequencies utilizing a broadband transducer, the TruEcho CHIRP™ network fish finder delivers significant advantages in signal clarity and target definition. Due to the constant sweep of frequencies the TruEcho CHIRP™ network fish finder is capable of gathering more and higher quality data than a traditional single frequency fish finder. The clear presentation marks individual game fish and bait fish, even when tightly schooled together.



Up to 10 times sharper image than conventional FDF*2



High Frequency CHIRP



Low Frequency CHIRP

*2 TruEcho CHIRP™ performance may vary depending on depth, range and signal frequency used.



BLACK BOX NETWORK FISH FINDER



BLACK BOX NETWORK FISH FINDER



BLACK BOX NETWORK MULTI BEAM SONAR***

	Internal Fish Finder	DFF1-UHD	DFF3	DFF-3D NEW
Frequency	Dual frequency 50kHz and 200 kHz	Dual frequency 50±20 and 200±25 kHz	The synthesized transducer works with dual frequencies between 28 and 200 kHz	165 kHz
Range Scale	Up to 1,200 m		Up to 3,000 m	Up to 1,200 m
Transducers	600 W or 1 kW*	1 kW	1, 2 or 3 kW	800 W
3D Mode	N/A			Available
ACCU-FISH™	Available**			N/A
Bottom Discrimination	Available		N/A	N/A
TruEcho CHIRP™	N/A	Available	N/A	N/A
RezBoost™	Available	N/A		
Display Mode	Auto (Fishing/Cruising/Manual), Bottom Zoom, Bottom Lock, A-Scope			Triple/Single Beam Sounder, Side Scan, Cross Section, 3D history

DFF1/BBDS1 are fully compatible with NavNet TZtouch2.

*Matching Box MB-1100 required for some specific FURUNO transducers.

** For DFF3, with 50/200-1T transducer only.

***Coming soon.

Radar



Model DRS25A X-Class



Model DRS12A X-Class

Model DRS6A X-Class

Model DRS4DL

Model DRS4D-NXT

Radar Sensors



Winner of the NMEA awards
2008, 2009, 2010, 2011,
2012, 2013, 2014 and 2015



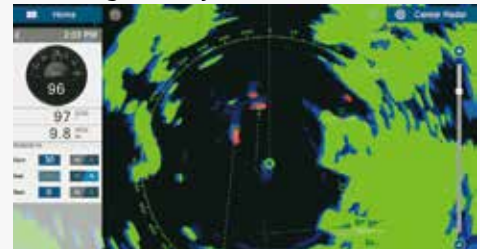
Exclusive DRS4D-NXT features

DRS4D-NXT, the NXT step in Radar technology

Solid-State Radar with pulse compression, Target Analyzer and Fast Target Tracking™ utilizing Doppler technology. Combined with FURUNO exclusive RezBoost™ technology for echo sharpening, DRS4D-NXT packs the performance of an open array radar, in a compact 24" radome. Target Tracking™ automatically show you hazardous targets by displaying them in bright red. Stationary targets are displayed in green.

* TZtouch2 software version v3.01 or later.

New Target Analyzer function*



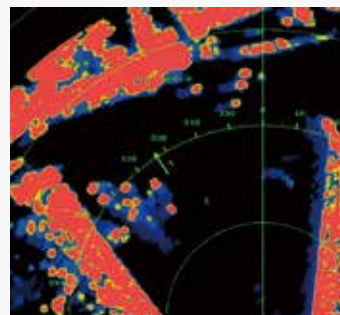
With Target Analyzer, hazardous targets are displayed in red

X-Class series a whole new class of Radar

Pushing the boundaries of what is possible with conventional Radar technology, X-Class series mark yet another leap forward for FURUNO. Improved in almost all aspects, X-Class Radar features improved short range detection as well as an impressive long range detection of up to 96 nautical miles. And that's not all, the new "Bird Mode" gives you incredible bird detection performance.

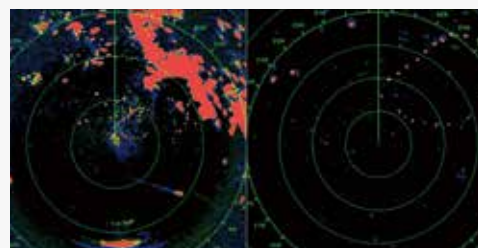
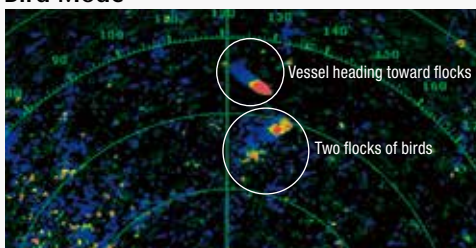
*1 TZtouch2 software version v3.01 or later.

*2 Bird mode is also available with DRS4D-NXT.



The radar detects and distinguishes several small yachts with high accuracy.

Bird Mode*



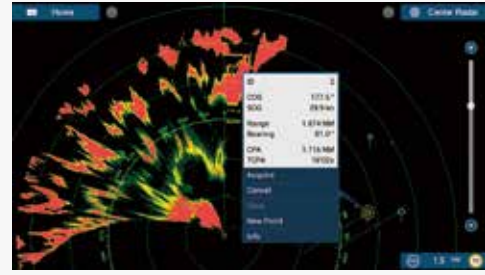
Bird mode and navigation mode can both be displayed via a simultaneous dual mode scanning. Possibility to track the birds while navigating safely

* DRS X-Class Series

ARPA Target Tracking

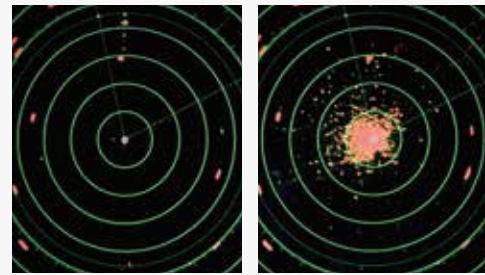
With ARPA Target Tracking enabled, up to 30* different targets can be tracked simultaneously. Targets can be acquired either manually or fully automatically. Automatic Radar Plotting Aid (ARPA) calculates the tracked objects course and speed, as well as the CPA (Closest Point of Approach). With this information, the Radar is capable of predicting possible collision courses and sound relevant alarms. In combination with AIS, this spells increased security and ease of mind on your vessel.

*100 different targets for DRS4D-NXT, not available on DRS4DL



Real-Time Digital Auto Gain/Sea Controls

NavNet TZtouch2 employs revolutionary real-time digital auto Gain/Sea controls to deliver a crystal clear radar presentation. With this new technology, NavNet TZtouch2 computes and applies an adaptive omni-directional anti-clutter filter with variable intensity according to vessel bearing. With the use of this technology, automatic gain and sea clutter have achieved such a high level of proficiency that one rarely needs to venture into the manual modes. Set the Radar to auto and focus on more important things at hand.

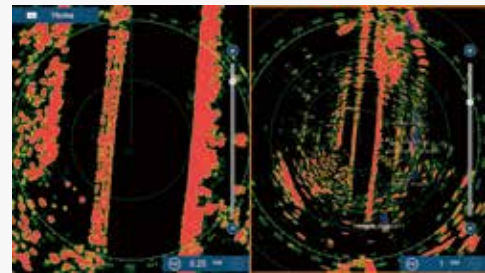


Auto Gain/Sea Controls On Auto Gain/Sea Controls Off

Simultaneous Dual Range Radar Scanning

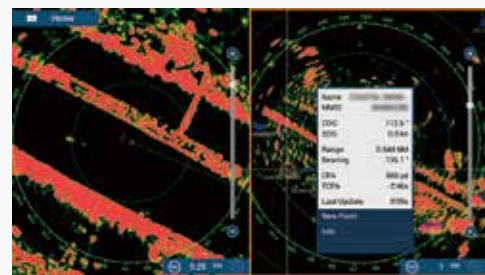
Simultaneous scanning technology sends out a dual progressive scan that is processed and presented on the NavNet TZtouch2. This technology allows for two different radar ranges to be displayed simultaneously, each range with autonomous control over gain and anti-clutter settings.

Not available on DRS4DL, Limited to 12 nm on DRS4D-NXT



AIS Target Tracking

When connecting a FURUNO FA-30/50/170 AIS unit to the NavNet TZtouch2, up to 100 AIS targets can be tracked and displayed on the Radar screen. The Automatic Identification System (AIS) improves safety during travel by sharing the status and position of your vessel with other AIS-equipped vessels nearby. You can easily read detailed information about AIS-equipped vessels nearby such as speed, heading, Closest Point of Approach and Time to Closest Point of Approach.



NavNet TZtouch2 Radar Sensor Options

	DRS4DL	DRS4D-NXT	DRS6A X-Class	DRS12A X-Class NEW	DRS25A X-Class NEW
Output Power	4 kW	Solid-state, 25 W	6 kW	12 kW	25 kW
Size	19 inch	24 inch	3.5 ft/4 ft/6 ft	4 ft/6 ft	4 ft/6 ft
Antenna Type	Radome	Radome	Open	Open	Open
Beam Width	Horizontal	5.2°	3.9°	2.3°/1.9°/1.4°	1.9°/1.4°
	Vertical	25°	25°	22°/22°/22°	22°/22°
Max. Range	36 nm	36 nm	96 nm	96 nm	96 nm
48 rpm Capability	—	•	•	•	•
Functions	Head-up, North-up*	Head-up, North-up*, Echo Trail, Target Analyzer, Bird mode, Fast Target Tracking, AIS	Head-up, North-up*, Echo Trail, Bird mode, Fast Target Tracking, AIS	Head-up, North-up*, Echo Trail, Bird mode, Fast Target Tracking, AIS	Head-up, North-up*, Echo Trail, Bird mode, Fast Target Tracking, AIS
Dual Range Scanning	—	• (Range is limited to 12 nm)	•	•	•
ARPA	—	•	•	•	•
MFD version required	2.0	3.01	3.01	4.01	4.01

* Heading input required. ** Not available for 12 V.

The radar antenna complies with IEC62252 Ed. 1:2004 (Clauses 4.33, 5.33, Annex D) relevant to radio characteristic. Not available for NavNet 3D.

Specifications

Model **TZTL12F**



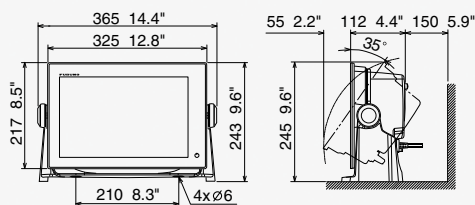
Bracket is optional supply.

MULTI FUNCTION DISPLAY		TZTL12F	
DISPLAY UNIT			
Type	Color TFT multi touch LCD		
Screen Size	12.1" Wide		
Screen Resolution	WXGA 1280 x 800		
Screen Brightness	1300 cd/m ² (typical)		
Language	English (US & UK), French, Spanish, German, Italian, Portuguese, Swedish, Danish, Norwegian, Finnish, Greek, Chinese (simplified Chinese characters), Japanese		
GPS/WAAS			
Receiver Type	GPS	56 channels	
	SBAS	1 channel (C/A mode, WAAS)	
Receiving Frequency	L1 (1575.42 MHz)		
Time to First FIX	100 s (cold start)		
Tracking Velocity	999 kn		
SBAS	WAAS, EGNOS, MSAS		
ACCURACY			
Internal Antenna	GPS	10 m Max	
	WAAS	3 m Max	
	MSAS	7 m Max	
CHART PLOTTER			
Cartography	MapMedia mm3d chart (C-MAP/Navionics/NOAA)		
Memory Capacity	30,000 user points, 30,000 points for ship's tracks, 200 planned routes (500 points per route)		
Alarms	Anchor Watch, XTE, Proximity, Depth, Temperature, Speed, etc.		
RADAR			
Display Modes	Head-up, North-up* *Heading input required.		
Target Tracking**	30 Targets* *Heading input required.		
FISH FINDER (Built-in)			
Transmit Frequency	50/200 kHz		
Transmission Power	600 W or 1 kW* *Matching Box MB-1100 required for some specific FURUNO transducers		
Modes	RezBoost™, ACCU-FISH™, Bottom Discrimination, A-Scope, Auto (Fishing/Cruising/Manual), Bottom Zoom, Bottom Lock		
INTERFACE			
CAN bus/NMEA2000	1 Port		
Interface (CAN bus/NMEA2000)	Input	059392, 059904, 061184, 060928, 065280, 126208, 126720, 126992/996, 127237/245/250/251/257/258/488/489/505, 128259/267, 129025/026/029/033/038/039/040/041/291/538/540, 129793/794/798/808/809/810, 130306/310/311/312/313/314/316/577/578/817/818/820/822/823/826/827/828/880	
	Output	059392, 059904, 061184, 060928, 126208/464/720/992/996, 127250/251/257/258, 128259/267, 129025/026/029/033/283/284/285, 130306/310/312/313/314/316/821/822/823/827	
NMEA0183	1 Integrated Output Port		
Interface (NMEA0183)	Output	AAM, APB, BOD, GGA, GLL, GNS, GSA, GSV, RMB, RTE, VTG, WPL, XTE, ZDA, DPT***, DBT***, RMC***, TTM***	
LAN	1 Port (100BASE-TX)		
USB	1 Port (USB2.0)		
Video Output	1 Port (HDMI)		
Video Input	2 Ports (NTSC/PAL)		
AUX I/O	1 Port (External Event/MOB Input/Operator Fitness/Alarm Output)		
SD Card Slot	1 Slot (Micro SDXC, rear), 2 Slots Card Unit (optional)		
Wireless LAN	IEEE802.11b/g/n, Transmit frequency: 2.4 GHz band		
Transducer	1 Port		
ENVIRONMENT			
Temperature (IEC60945)	-15°C to +55°C		
Waterproofing	IP56		
POWER			
	12-24 VDC		
	3.0-1.5 A		

** Not available with DRS4DL

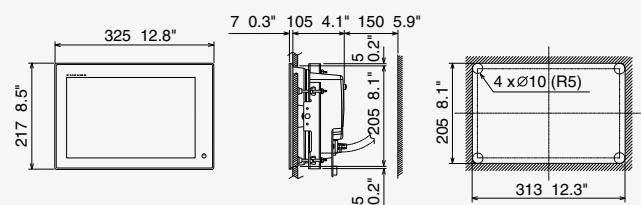
***Available with v4.01 or later

Multi Function Display (Tabletop Mount) TZTL12F
3.8 kg 8.4 lb



Bracket is optional supply.

Multi Function Display (Flush Mount) TZTL12F
3.7 kg 8.2 lb



Model **TZTL15F**

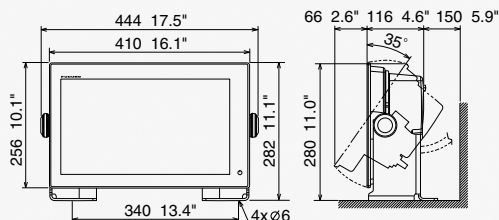


Bracket is optional supply.

MULTI FUNCTION DISPLAY		TZTL15F
DISPLAY UNIT		
Type	Color TFT multi touch LCD	
Screen Size	15.6" Wide	
Screen Resolution	FWXGA 1366 x 768	
Screen Brightness	1000 cd/m ² (typical)	
Language	English (US & UK), French, Spanish, German, Italian, Portuguese, Swedish, Danish, Norwegian, Finnish, Greek, Chinese (simplified Chinese characters), Japanese	
GPS/WAAS		
Receiver Type	GPS SBAS	56 channels 1 channel (C/A mode, WAAS)
Receiving Frequency	L1 (1575.42 MHz)	
Time to First FIX	100 s (cold start)	
Tracking Velocity	999 kn	
SBAS	WAAS, EGNOS, MSAS	
ACCURACY		
Internal Antenna	GPS WAAS MSAS	10 m Max 3 m Max 7 m Max
CHART PLOTTER		
Cartography	MapMedia mm3d chart (C-MAP/Navionics/NOAA)	
Memory Capacity	30,000 user points, 30,000 points for ship's tracks, 200 planned routes (500 points per route)	
Alarms	Anchor Watch, XTE, Proximity, Depth, Temperature, Speed, etc.	
RADAR		
Display Modes	Head-up, North-up* *Heading input required.	
Target Tracking**	30 Targets* *Heading input required.	
FISH FINDER (Built-in)		
Transmit Frequency	50/200 kHz	
Transmission Power	600 W or 1 kW* *Matching Box MB-1100 required for some specific FURUNO transducers	
Modes	RezBoost™, ACCU-FISH™, Bottom Discrimination, A-Scope, Auto (Fishing/Cruising/Manual), Bottom Zoom, Bottom Lock	
INTERFACE		
CAN bus/NMEA2000	1 Port	
Interface (CAN bus/NMEA2000)	Input	059392, 059904, 061184, 060928, 065280, 126208, 126720, 126992/996, 127237/245/250/251/257/258/488/489/505, 128259/267, 129025/026/029/033/038/039/040/041/291/538/540, 129793/794/798/808/809/810, 130306/310/311/312/313/314/316/577/578/817/818/820/822/823/826/827/828/880
	Output	059392, 059904, 061184, 060928, 126208/464/720/992/996, 127250/251/257/258, 128259/267, 129025/026/029/033/283/284/285, 130306/310/312/313/314/316/821/822/823/827
NMEA0183	1 Integrated Output Port	
Interface (NMEA0183)	Output	AAM, APB, BOD, GGA, GLL, GNS, GSA, GSV, RMB, RTE, VTG, WPL, XTE, ZDA, DPT**, DBT**, RMC**, TTM**
LAN	1 Port (100BASE-TX)	
USB	1 Port (USB2.0)	
Video Output	1 Port (HDMI)	
Video Input	2 Ports (NTSC/PAL)	
AUX I/O	1 Port (External Event/MOB Input/Operator Fitness/Alarm Output)	
SD Card Slot	1 Slot (Micro SDXC, rear), 2 Slots Card Unit (optional)	
Wireless LAN	IEEE802.11b/g/n, Transmit frequency: 2.4 GHz band	
Transducer	1 Port	
ENVIRONMENT		
Temperature (IEC60945)	-15°C to +55°C	
Waterproofing	IP56	
POWER		
	12-24 VDC	
	3.6-1.8 A	

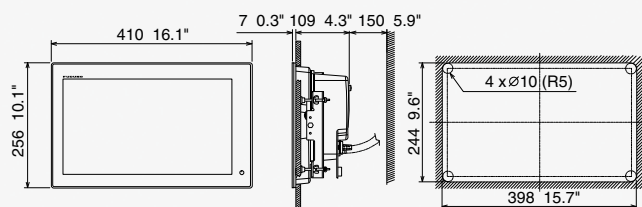
** Not available with DRS4DL
***Available with v4.01 or later

Multi Function Display (Tabletop Mount) TZTL15F
5.5 kg 12.1 lb



Bracket is optional supply.

Multi Function Display (Flush Mount) TZTL15F
4.9 kg 10.6 lb

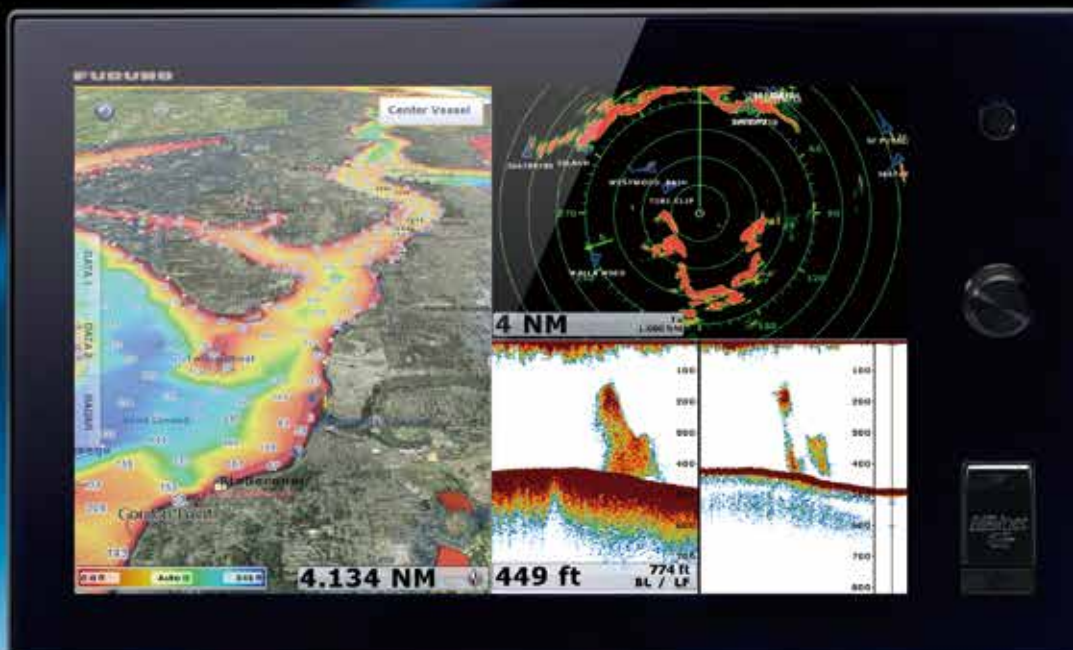


FURUNO

Total Control at your Fingertips

NAVnet

TZ
touch

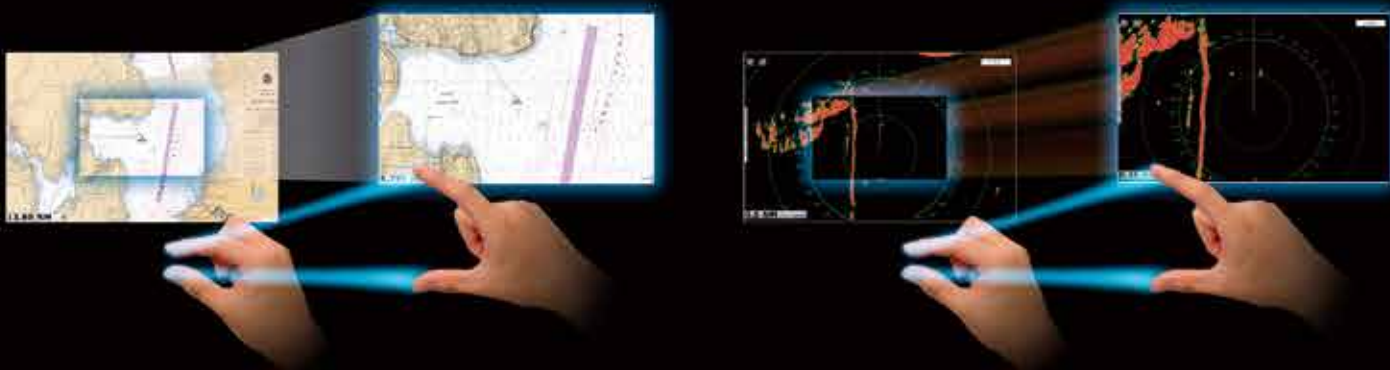




Multi Touch Control · Wireless · TimeZero™ · Digital Revolution

Pinch-To-Zoom

NavNet TZtouch brings you pinch-to-zoom capability, as well as other multi touch gestures for the most intuitive navigation experience.



High Performance Technology Beyond Your Expectations



Tablet & Smartphone Apps

Custom apps allow you to wirelessly view and control TZtouch from iOS and Android™*.



Wireless Hotspot Connectivity

TZtouch has wireless connectivity to hotspots, enabling the ability to download useful updates, such as real-time weather data, via the Internet.



TZtouch Delivers A Huge Step Forward In Touch Screen Technology

Today's NavNet has come a long way from the first multi function display. Take one look and you will see just how far. A generous 9" or 14.1" display with edge-to-edge glass makes for a clean and stylish installation. The LED backlighting pushes light through every pixel on the screen for remarkable brightness. Anti-reflective glass coating is visible under any lighting condition. Configure the displays with a wide variety of sensors to build a navigation suite that meets your individual requirements.

With the NavNet TZtouch, model TZTBB, the display unit is selectable from virtually any size of wide or non-wide monitor supporting multi touch controls.

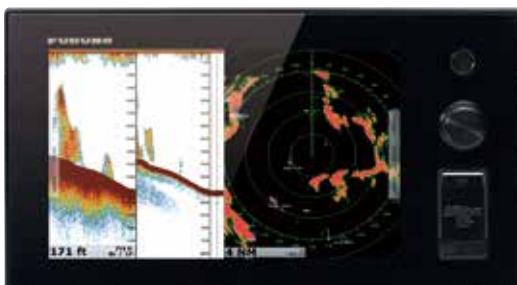
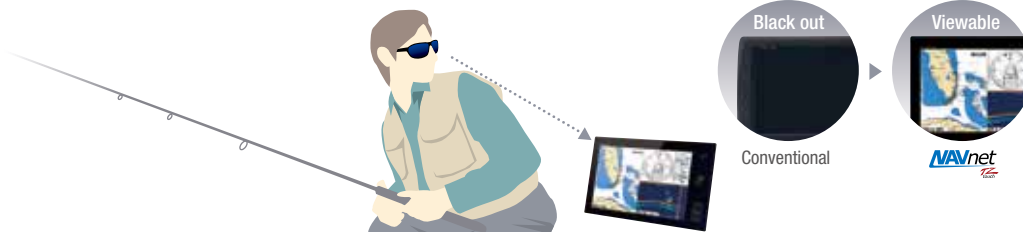
Bonded LCD - Clear Readability

Our bonded LCDs offer a fog-free structural design that has been applied to both the TZT9 and TZT14. This ensures the display will never be affected by water condensation, caused by an air gap between the LCD and the front cover plate.



Polarized Friendly - Clearly Remarkable

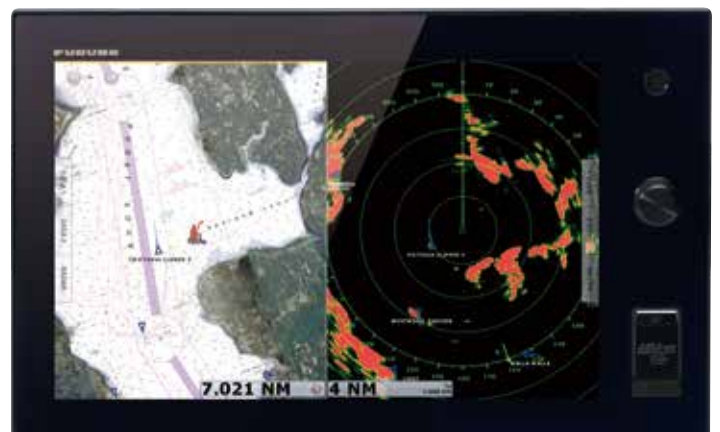
NavNet TZtouch TZT9 and TZT14 have an LCD screen that does not "black out" when wearing polarized sunglasses, providing clear visibility from virtually any angle.



Model **TZT9**

9" Multi Function Display

Resolution: WVGA (800 x 480 pixels)
 Brightness: 900 cd/m² (typical)



Model **TZT14**

14.1" Multi Function Display

Resolution: WXGA (1280 x 800 pixels)
 Brightness: 900 cd/m² (typical)



NEW



Model **MCU-004**



Model **MCU-002**

Remote Control Unit

Take control of your NavNet TZtouch series with a remote controller.

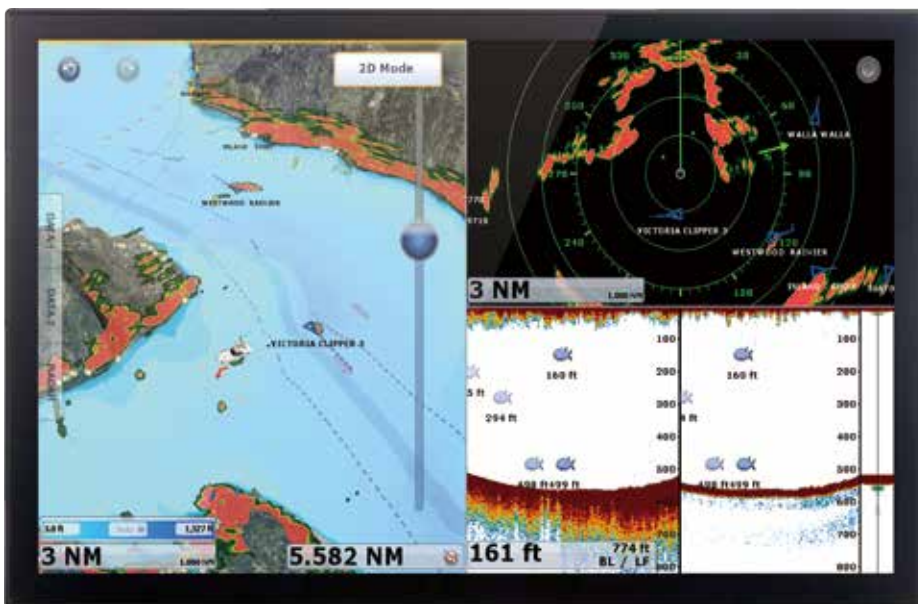


Photo: Multi-touch marine display* with TZTBB processor (model MPU-002)
* Local supply

Model **TZTBB**

Multi Function Display Black Box

Supports both wide and non-wide resolutions:
1280 x 720 (16:9), 1280 x 800 (16:10),
1280 x 960 (4:3), 1280 x 1024 (5:4)

«« Ethernet

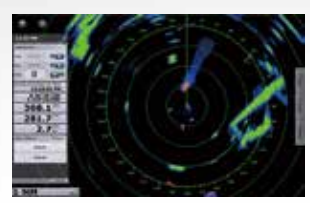


NEW



RADAR

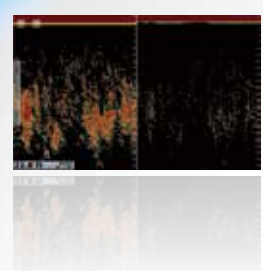
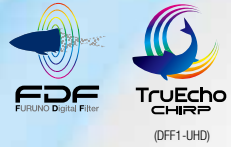
Ultra High Definition Radar Sensors



FISH FINDER



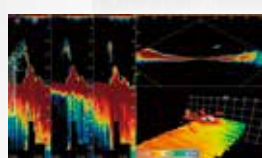
Network Fish Finder
DFF1-UHD/DFF1/DFF3/BBDS1



NEW



Multi Beam Sonar
DFF-3D

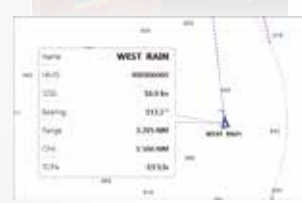


NavNet TZtouch Net

AIS



AIS Receiver
FA-30
Class-B AIS Transponder
FA-50
Class-A AIS Transponder
FA-170



PC



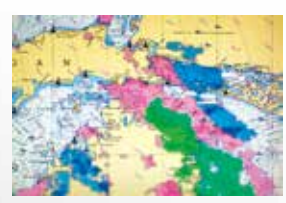
TIMEZERO
Marine Software



CAMERA



IP Camera



SIRIUS



Network Satellite Weather and Radio Receiver
BBWX3

SiriusXM weather coverage is currently available only in U.S. and Canada. Sirius subscription required.



AUDIO



Marine Entertainment System
MS750 Series

CAN bus >>>



GPS



GPS Antenna
GP-330B

GPS Navigator
GP-33



INSTRUMENT



FI-70



AUTOPILOT



NAVipilot-700 Series



COMPASS



Satellite Compass
SC-30



Integrated Heading Sensor
PG-700

REMOTE DISPLAY

SENSORS



Depth/Speed/Temp Sensor
Airmar DST-800



Remote Display
RD-33



NMEA0183 to CAN bus converter available

The optional IF-NMEA2K2 converts NMEA0183 sentences to FURUNO CAN bus PGNs, enabling conventional NMEA0183 navigation devices to be incorporated into the NavNet TZtouch network.

work: Building Block Solution

NavNet TZtouch is built on an Ethernet network, allowing you to add as few or as many components as you desire, along with up to six displays, as well as CAN bus and NMEA2000 devices, to create your perfect navigation suite.

The NavNet TZtouch system is built upon the most advanced chart plotter technology. Add to this a UHD™ Doppler Radar and an FDF™ Fish Finder, along with your choice from a wide variety of sensor options. It is easy to see how a NavNet TZtouch chart plotter display is the genesis to begin building the most sophisticated navigation suite available.

*All stated CAN bus devices can be incorporated into the NMEA2000 network.

The World's Most Advanced Multi Touch Navigation Interface

With NavNet TZtouch's high-sensitivity, touch screen interface, total control is at your fingertips. Navigation is simplified by using your fingers to zoom and pan around the chart. As soon as your fingers touch the display, taps, pinches and swipes are instantly transformed into action. You will learn your controls so quickly that you'll be up and running in no time. To make operation even easier while underway, adjustments such as range and gain are easily made from either the on-screen touch menu or our patented RotoKey™.



Multi Touch Control

Furuno elevates marine touch screen technology to an entirely new level with the industry's first multi touch MFD. The use of multi touch technology opens the door to a wide variety of gesture-based commands.

Touch... and Go Menu Selection

Be more hands-on with our easy-to-understand touch screen interface. You'll have full control of each component connected to the network right at your fingertips.

RotoKey™

NavNet's revolutionary RotoKey™ now merges the power and versatility of touch screen control with an easy-to-use rotary knob. One turn of the RotoKey™ gives you instant access to full control of NavNet TZtouch. For the Blackbox model, the RotoKey™ menu will appear with one tap on the display.



RotoKey™ menu on TZTBB

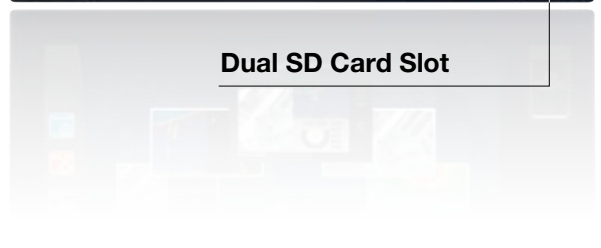


Home Key

By simply pressing the Home key, you'll gain immediate access to your carousel of customized display configurations. The Home screen is where you can find, select, and custom build the presentation modes you want to display. For TZTBB, Home icon is displayed on the screen.



Dual SD Card Slot



Get Connected With Our Wireless Interface

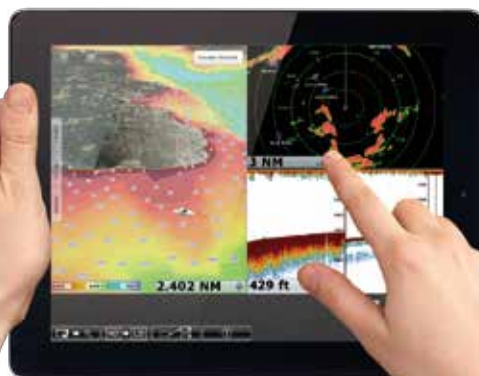
Engineered to utilize the latest technology, NavNet TZtouch opens the door to cutting edge wireless LAN features, such as tablet and smartphone apps, real time weather data, software updates and more.

Visit the Apple App Store to download these FREE apps to view and control NavNet TZtouch.

NavNet Remote App

Take full control of your NavNet in a whole new way. The TZtouch Remote app allows you to operate your system remotely with a smart device wireless LAN, when connected to the network.

NavNet Remote App is available for tablets (more than 7 inches) only.



NavNet Viewer App

Conveniently view information shared wirelessly by the NavNet TZtouch network on your mobile products. As one of the features, you can flick through instrument pages to view key navigational information, such as Depth, Temp, Wind, COG, Fish Finder display and much more.



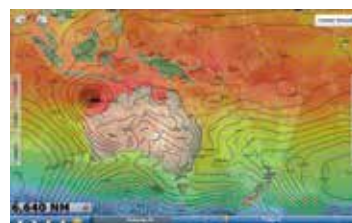
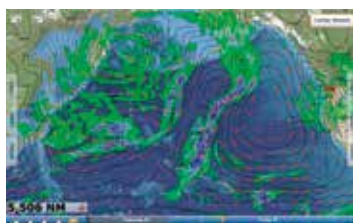
NavNet Controller App

Wirelessly control any NavNet TZtouch MFD with touch controls. With a scroll pad, cursor pad and dedicated keys within the app, controlling NavNet TZtouch is simple and straightforward.



Marine Weather Forecast

The weather tool is completely free and easy to use, giving you unlimited access to weather forecasts worldwide 24 hours a day provided by NavCenter. Select geographic coverage, data type, period of time, and then choose how to receive the file. NavNet TZtouch provides up to 16 days of weather forecasting.



Scan above code for more details about Radar.

NEW

NEW



Radar

NavNet TZtouch Radar Sensor Options

Sensor Lineup

	DRS4DL	DRS4D-NXT	DRS6A X-Class	DRS12A X-Class NEW	DRS25A X-Class NEW
Output Power	4 kW	Solid-state, 25 kW	6 kW	12 kW	25 kW
Size	19 inch	24 inch	3.5 ft/4 ft/6 ft	4 ft/6 ft	4 ft/6 ft
Antenna Type	Radome	Radome	Open	Open	Open
Beam Width	Horizontal	5.2°	3.9°	2.3°/1.9°/1.4°	1.9°/1.4°
	Vertical	25°	25°	22°/22°/22°	22°/22°
Max. Range	36 nm	36 nm	96 nm	96 nm	96 nm
48 rpm Capability	-	✓	✓	✓	✓
Functions	Head-up, North-up*	Head-up, North-up*, Echo Trail, Target Analyzer, Bird mode, Fast Target Tracking, AIS	Head-up, North-up*, Echo Trail, Bird mode, Fast Target Tracking, AIS	Head-up, North-up*, Echo Trail, Bird mode, Fast Target Tracking, AIS	Head-up, North-up*, Echo Trail, Bird mode, Fast Target Tracking, AIS
Dual Range Scanning	-	• (Range is limited to 12 nm)	•	•	•
ARPA	-	•	•	•	•
System version required	4.11	4.21	4.21	5.01	5.01

* Heading input required. ** Not available for 12 V. The radar antenna complies with IEC62252 Ed. 1:2004 (Clauses 4.33, 5.33, Annex D) relevant to radio characteristic. Not available for NavNet 3D.

NEW

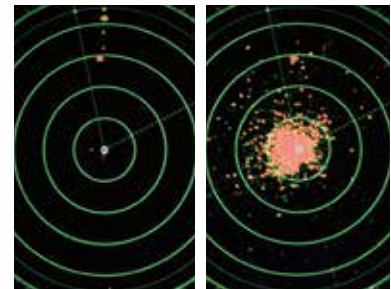
Target Tracking/AIS

Automatic radar plotting utility is one of the standard features of the NavNet TZtouch radar. Up to 30 targets can be simultaneously acquired and tracked for heading and speed. AIS target tracking is accomplished when interfaced with a FA-30/50/170 AIS unit.



Real-Time Digital Auto Gain/Sea Controls

NavNet TZtouch employs revolutionary real-time digital auto Gain/Sea controls to deliver a crystal clear radar presentation. With this new technology, NavNet TZtouch computes and applies an adaptive omni-directional anti-clutter filter with variable intensity according to bearing.

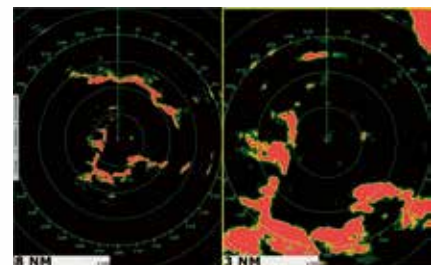


Auto Gain/Sea Controls On

Auto Gain/Sea Controls Off

Real-Time Dual Range Radar Presentation with Dual Progressive Scan

NavNet TZtouch's simultaneous scanning technology allows dual progressive scan to display and update two radar pictures, both long and short range, at the same time as opposed to alternate update methods of typical conventional dual range radar. Autonomous control over gain and anti-clutter can be performed on each radar presentation.



Radar-Chart Overlay

A Radar image can be overlaid onto the chart screen. Not only is this possible with the conventional 2D chart format, but it can also be projected onto a 3D chart presentation. Radar range scales in the radar chart overlay entirely depend on the range scales in the chart presentation, allowing you to view the radar image on the chart information at any magnification level you desire. (An appropriate heading sensor is required.)



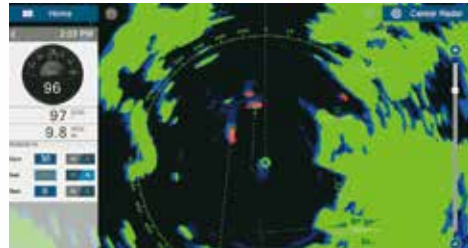
DRS4D-NXT, the NXT step in Radar technology

Solid-State Radar with pulse compression, Target Analyzer and Fast Target Tracking™ utilizing Doppler technology. Combined with FURUNO exclusive RezBoost™ technology for echo sharpening, DRS4D-NXT packs the performance of an open array radar, in a compact 24" radome.

Target Tracking™ automatically show you hazardous targets by displaying them in bright red. Stationary targets are displayed in green.

* TZtouch version 4.21 or later is required.

New Target Analyzer function*



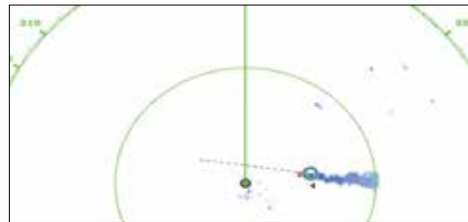
With Target Analyzer, hazardous targets are displayed in red

Fast Target Tracking™

It only takes a few seconds after a target has been selected until a speed and course vector is displayed. With accurate tracking information, estimation of other vessel's course and speed is greatly simplified.

With Fast Target Tracking™ activated, any vessel approaching yours will automatically display a target vector, as well as sound an alarm*. Up to 100 targets can be displayed simultaneously.

*CPA/TCPA alarm setting required.



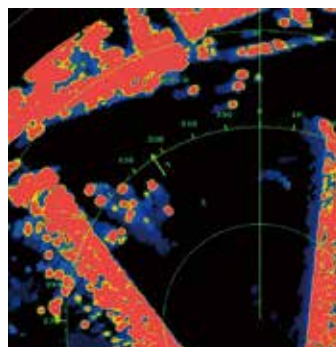
Approaching vessel with target vector

X-Class series a whole new class of Radar

Pushing the boundaries of what is possible with conventional Radar technology, X-Class series mark yet another leap forward for FURUNO. Improved in almost all aspects, X-Class Radar features improved short range detection as well as an impressive long range detection of up to 96 nautical miles. And that's not all, the new "Bird Mode" gives you incredible bird detection performance.

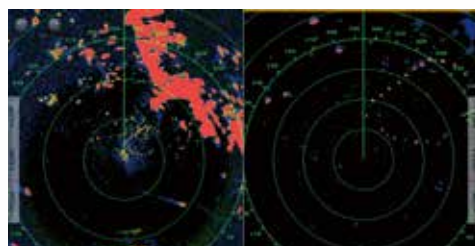
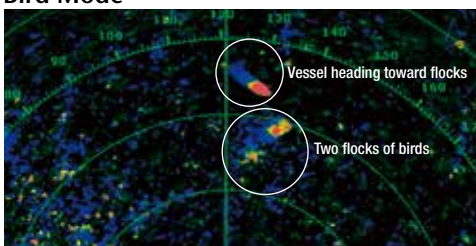
*1 TZtouch version 4.21 or later is required.

*2 Bird mode is also available with DRS4D-NXT.



The radar detects and distinguishes several small yachts with high accuracy.

Bird Mode*



Bird mode and navigation mode can both be displayed via a simultaneous dual mode scanning. Possibility to track the birds while navigating safely

* DRS X-Class Series

Scan above code for more details about Fish Finder.



Fish Finder

FURUNO Digital Filter (FDF™) Fish Finder

Sensor Lineup

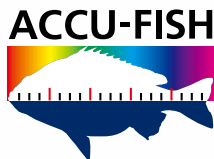
	DFF1-UHD	DFF1	BBDS1	DFF3	DFF-3D NEW
Frequency	Dual frequency 50±20 and 200±25 kHz	Dual frequency 50 kHz and 200 kHz		The synthesized transducer works with dual frequencies between 28 and 200 kHz	165 kHz
Range Scale	Customized upto 1,200 m			Customized upto 1,500 m	Up to 1,200 m
ACCU-FISH™	Available				N/A
Bottom Discrimination	Available	N/A	Available	N/A	N/A
TruEcho CHIRP	Available	N/A	N/A	N/A	N/A
Display Mode	Auto (Fishing/Cruising/Manual), Bottom Zoom, Bottom Lock, A-Scope				Triple/Single Beam Sounder, Side Scan, Cross Section, 3D history
Power Supply	12-24 VDC				
Transducers	1 kW	600 W/1 kW		1, 2 or 3 kW	800 W

Coming soon.



FURUNO Digital Filter (FDF™) Fish Finder

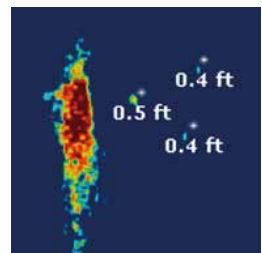
FURUNO Digital Filter (FDF™) fish finders feature advanced filtering capabilities and digital auto tuning, which eliminates noise. FURUNO FDF™ fish finders deliver the ability to spot individual fish with clarity, accuracy and detail. Whether in shallow or deep water, FURUNO FDF™ fish finders give you what you would expect from a fish finder at all times.



ACCU-FISH™ (Fish Size Analyzer)

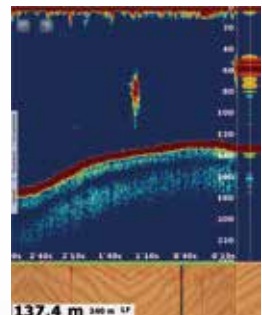
FURUNO's award winning network fish finders offer a unique fish size analyzer function, ACCU-FISH™.

The ACCU-FISH™ algorithm analyzes echo returns to compute individual fish size and display it on the screen.



Bottom Discrimination Display — BBDS1/DFF1-UHD

Utilizing input from the Network Fish Finders BBDS1 or DFF1-UHD, the bottom discrimination display will be shown in the following four categories; "Rocks", "Gravel", "Sand" and "Mud", either in dedicated graphics or colors with corresponding probability. This information is helpful in spotting rich fishing grounds where you can boost your catch of the day.

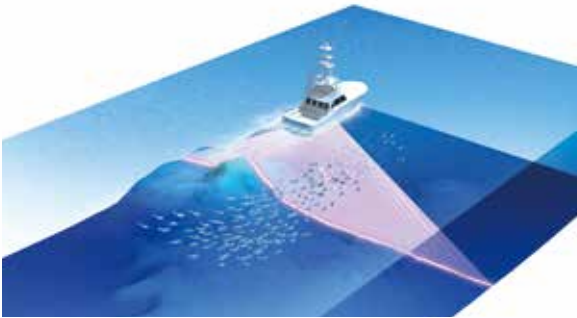


Multi-Beam Sonar

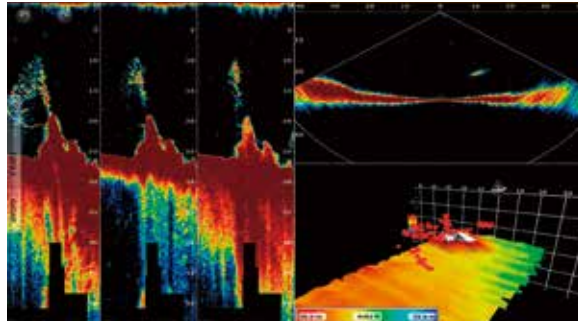
Innovative tool for exploring a wide range of water column and seabed

New Multi-Beam Sonar model DFF-3D gives you real-time 120 port-starboard view of the water column and seabed up to 200m depth*. The DFF-3D allows you to explore fishing spots and find fish in deep water by far faster than conventional single beam sounders. On the other hand, the main beam penetrate right under the boat at a depth of approximately 300 m*. Installation is made easy, thanks to a compact transducer design. The built-in motion sensor gives you clear images under your boat even in rough water.

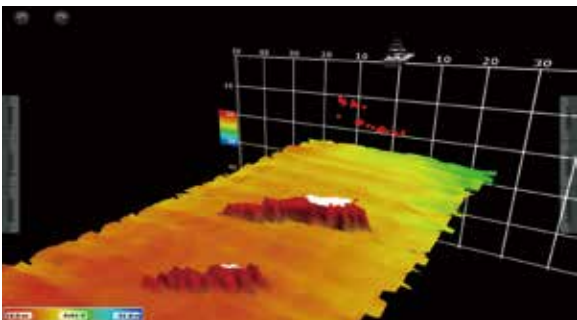
* Maximum depth dependent on installation, bottom type and water conditions.



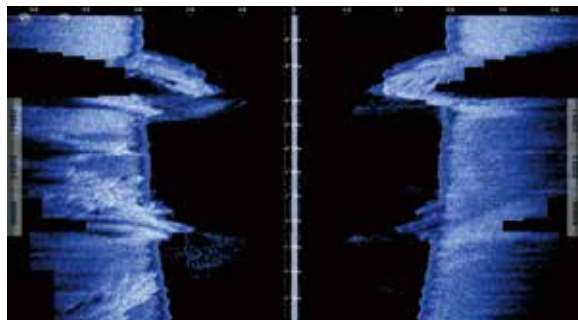
Scanning image of Multi-Beam Sonar



Triple Beam Sounder+Cross Section+3D history



3D history



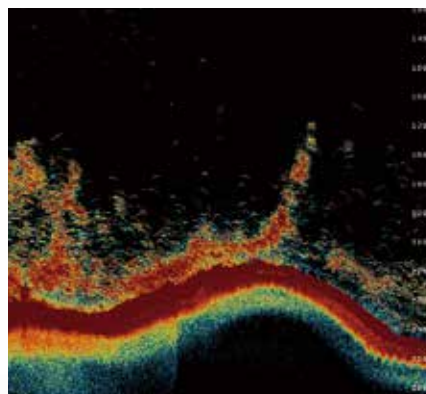
Side Scan



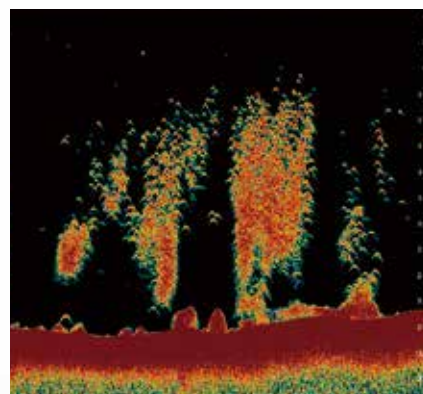
Up to 10 times
sharper image than
conventional FDF*2

Find More Fish With TruEcho CHIRP™ Fish Finder

An advanced technology for both professional and enthusiast fishermen. Designed to operate across a wide range of frequencies utilizing a broadband transducer, the TruEcho CHIRP™ network fish finder delivers significant advantages in signal clarity and target definition. Due to the constant sweep of frequencies the TruEcho CHIRP™ network fish finder is capable of gathering more and higher quality data than a traditional single frequency fish finder. The clear presentation marks individual game fish and bait fish, even when tightly schooled together.



High Frequency CHIRP



Low Frequency CHIRP

*2 TruEcho CHIRP™ performance may vary depending on depth, range and signal frequency used.

Nothing Is Faster Than TimeZero™



NavNet TZtouch TimeZero™ technology delivers chart processing like you've never seen before – seamless chart handling, zooming and panning without the screen disappearing. TimeZero™ technology redefines the meaning of stress-free operation by smoothing out your chart handling actions.

The Only Acceptable Wait Time is Zero: TimeZero™ Technology Changes Your Perspective on Chart Redraw

Equipped with powerful TimeZero™ technology, NavNet TZtouch will completely transform the way you navigate. You can scroll, pan, zoom in/out with a smooth, fast and seamless graphics engine. Navigating in a fully 3D environment offers you a true perspective and wider area of view around the ship, which allows you to better plan your routes, while TimeZero™ technology updates the information on your screen with virtually no redraw.



Chart Plotter

NavNet TZtouch is the only chart plotter on the market that provides users the ability to choose from official NOAA raster and vector charts, or optional “C-Map” and “Datacore by Navionics” vector cartography, etc. Fully integrating a cutting-edge data algorithm with a high-resolution image processing technique, MapMedia delivers digital navigation charts and satellite photography with absolute clarity. MapMedia vector and raster charts are built upon 3D architecture, which is smoothly integrated with NavNet’s TimeZero™ technology.



2D Raster



2D Vector



3D Raster with Satellite Photo

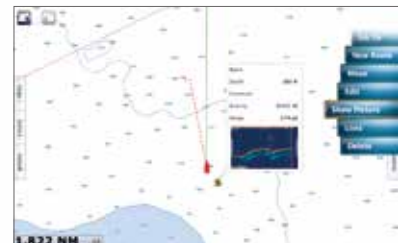
Satellite PhotoFusion™

You can load any two ultra-wide high-resolution satellite photo areas at your convenience. Land areas (zero depth) are completely opaque, so these areas are displayed as high-resolution satellite photos on the chart. As the depth increases, the satellite photography becomes more transparent. This allows you to see where the shallows end and the deeper water begins, while still allowing the raster or vector chart to be visible.



Screen Capture With Event

When an event is entered on the plotter display, a screen capture image can be saved with the point. Tapping the saved point, a screenshot appears in a pop-up window. Any screenshots (ex. Fish Finder, Radar) can be included to customize with your own plotter information.



Fuel Max Range

When a route is activated, NavNet TZtouch will display a pump icon at the spot on the route, where it is predicted that the fuel supply will be exhausted.



The tank level display also available on the instrument page.

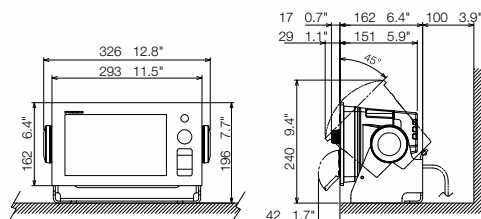
Specifications

Model **TZT9**

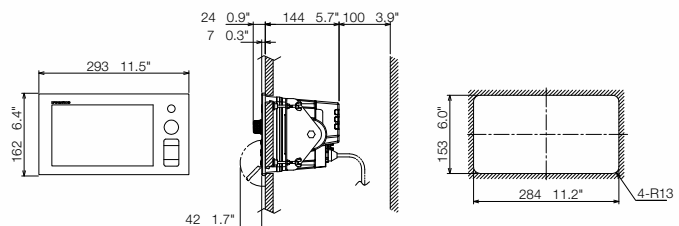


Multi Function Display	TZT9
DISPLAY UNIT	
Type	Color TFT multi touch LCD
Screen Size	9" wide
Screen Resolution	WVGA 800 x 480
Screen Brightness	900 cd/m ² (typical)
Language	English (US & UK), French, Spanish, German, Italian, Portuguese, Swedish, Danish, Norwegian, Finnish, Greek, Chinese, Japanese
CHART PLOTTER	
Cartography	MapMedia mm3d chart (C-MAP/Navionics/NOAA)
Memory Capacity	30,000 user points 30,000 points for ship's tracks 200 planned routes (500 points per route)
Alarms	Anchor Watch, XTE, Proximity, Depth, Temperature, Speed, etc.
RADAR	
Display Modes	Head-up, North-up* *Heading input required.
Echo Trail	Interval: 15 s, 30 s, 1 min, 3 mins, 6 mins, 15 mins, 30 mins and continuous
Target Tracking	30 Targets* *Heading input required.
INTERFACE	
CAN bus	1 Port
LAN	1 Port (100 BASE-TX)
USB	1 Port (USB2.0)
Video Output	1 Port (DVI-D)
Video Input	2 Ports (NTSC/PAL)
SD Card Slot	2 Slots (SDXC card - supports upto 128GB)
ENVIRONMENT	
Temperature (IEC60945)	-15°C to + 55°C
Waterproofing	IP56 (with connector cover), IP22 (with connector boot)
POWER	
Power Supply	12-24 VDC
Power Consumption	42 W (3.5 A - 1.8 A)

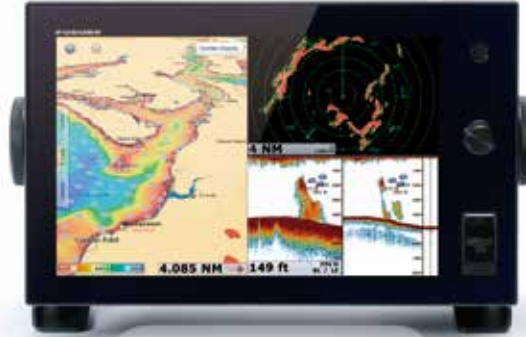
Multi Function Display (Table-top Mount) TZT9
4.7 kg 10.4 lb



Multi Function Display (Flush Mount) TZT9
4.5 kg 9.9 lb

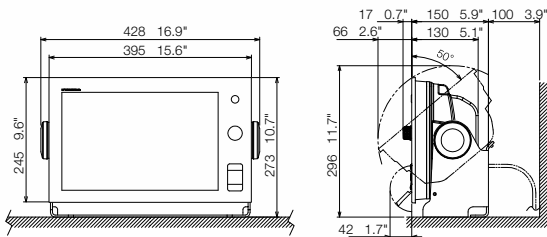


Model **TZT14**

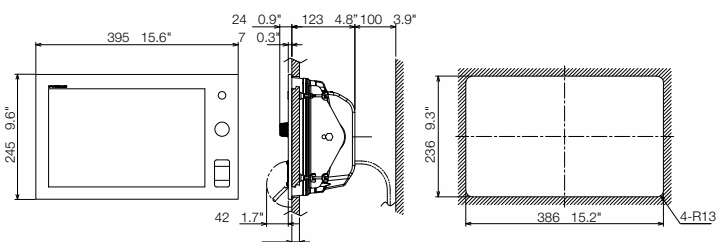


Multi Function Display	TZT14
DISPLAY UNIT	
Type	Color TFT multi touch LCD
Screen Size	14.1" wide
Screen Resolution	WXGA 1280 x 800
Screen Brightness	900 cd/m ² (typical)
Language	English (US & UK), French, Spanish, German, Italian, Portuguese, Swedish, Danish, Norwegian, Finnish, Greek, Chinese, Japanese
CHART PLOTTER	
Cartography	MapMedia mm3d chart (C-MAP/Navionics/NOAA)
Memory Capacity	30,000 user points 30,000 points for ship's tracks 200 planned routes (500 points per route)
Alarms	Anchor Watch, XTE, Proximity, Depth, Temperature, Speed, etc.
RADAR	
Display Modes	Head-up, North-up* *Heading input required.
Echo Trail	Interval: 15 s, 30 s, 1 min, 3 mins, 6 mins, 15 mins, 30 mins and continuous
Target Tracking	30 Targets* *Heading input required.
INTERFACE	
CAN bus	1 Port
LAN	3 Ports (100 BASE-TX)
USB	1 Port (USB2.0)
Video Output	1 Port (DVI-D)
Video Input	2 Ports (NTSC/PAL)
SD Card Slot	2 Slots (SDXC card - supports upto 128GB)
ENVIRONMENT	
Temperature (IEC60945)	-15°C to + 55°C
Waterproofing	IP56 (with connector cover), IP22 (with connector boot)
POWER	
Power Supply	12-24 VDC
Power Consumption	60 W (5.0 A - 2.5 A)

Multi Function Display (Table-top Mount) TZT14
8.0 kg 17.6 lb



Multi Function Display (Flush Mount) TZT14
7.1 kg 15.6 lb



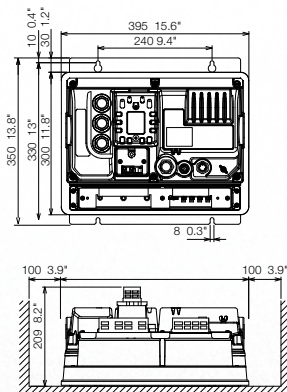
Specifications

Model T ZTBB

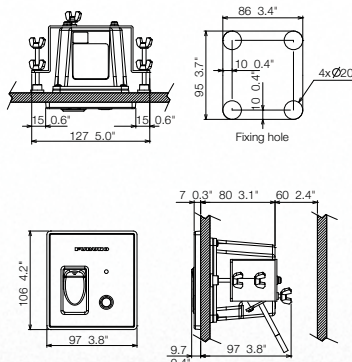


Multi Function Display Black Box	T ZTBB
DISPLAY UNIT	
Type	Custom multi touch monitor of your choice
Screen Size	—
Screen Resolution	Supports both wide and non-wide resolutions: 1280 x 720 (16:9), 1280 x 800 (16:10), 1280 x 960 (4:3), 1280 x 1024 (5:4)
Screen Brightness	—
Language	English (US & UK), French, Spanish, German, Italian, Portuguese, Swedish, Danish, Norwegian, Finnish, Greek, Chinese (simplified chinese characters), Japanese
CHART PLOTTER	
Cartography	MapMedia mm3d chart (C-MAP/Navionics/NOAA)
Memory Capacity	30,000 user points 30,000 points for ship's tracks 200 planned routes (500 points per route)
Alarms	Anchor Watch, XTE, Proximity, Depth, Temperature, Speed, etc.
RADAR	
Display Modes	Head-up, North-up* *Heading input required.
Echo Trail	Interval: 15 s, 30 s, 1 min, 3 mins, 6 mins, 15 mins, 30 mins and continuous
Target Tracking	30 Targets* *Heading input required.
INTERFACE	
CAN bus	1 Port
LAN	3 Ports (100 BASE-TX)
USB	6 Ports (USB2.0)
Video Output	2 Ports (DVI-D)
Video Input	2 Ports (NTSC/PAL)
SD Card Slot	2 Slots (SDXC card - supports upto 128GB)
ENVIRONMENT	
Temperature (IEC60945)	-15°C to + 55°C
Waterproofing	Processor unit: IP22 Switch box: IP56 (front panel)
POWER	
Power Supply	12-24 VDC
Power Consumption	43.2 W (3.6 A - 1.8 A - including switch box)

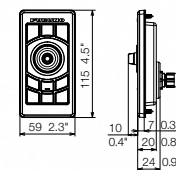
Multi Function Display Black Box
T ZTBB MPU-002
8 kg 17.6 lb



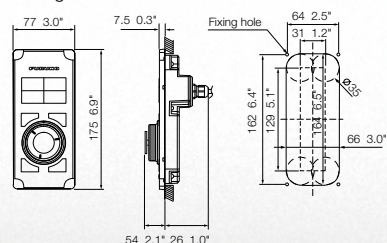
Switch Box PSD-002
0.75 kg 1.7 lb



Remote Control Unit MCU-002 (option)
0.14 kg 0.3 lb



Remote Control Unit MCU-004 (option)
0.4 kg 0.9 lb



Accept no compromises, choose only quality marine electronics and navigation.