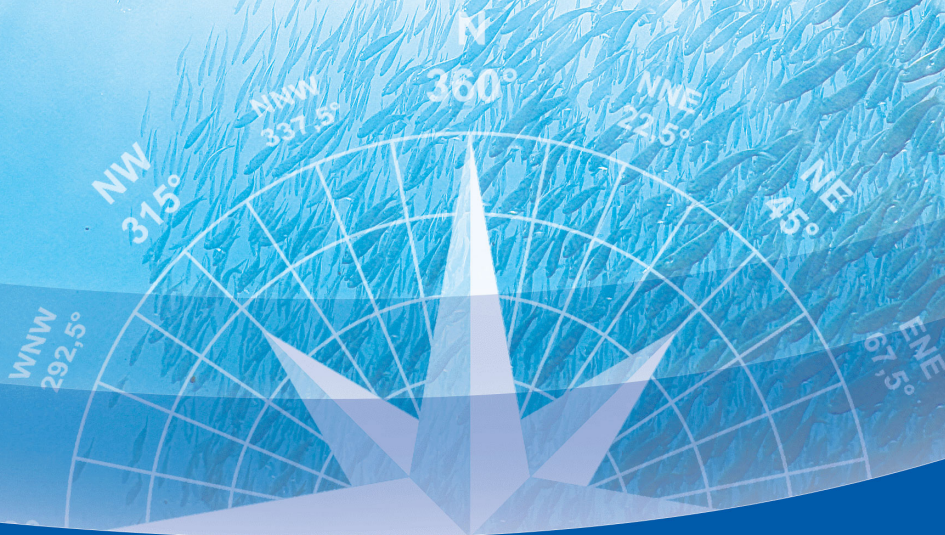
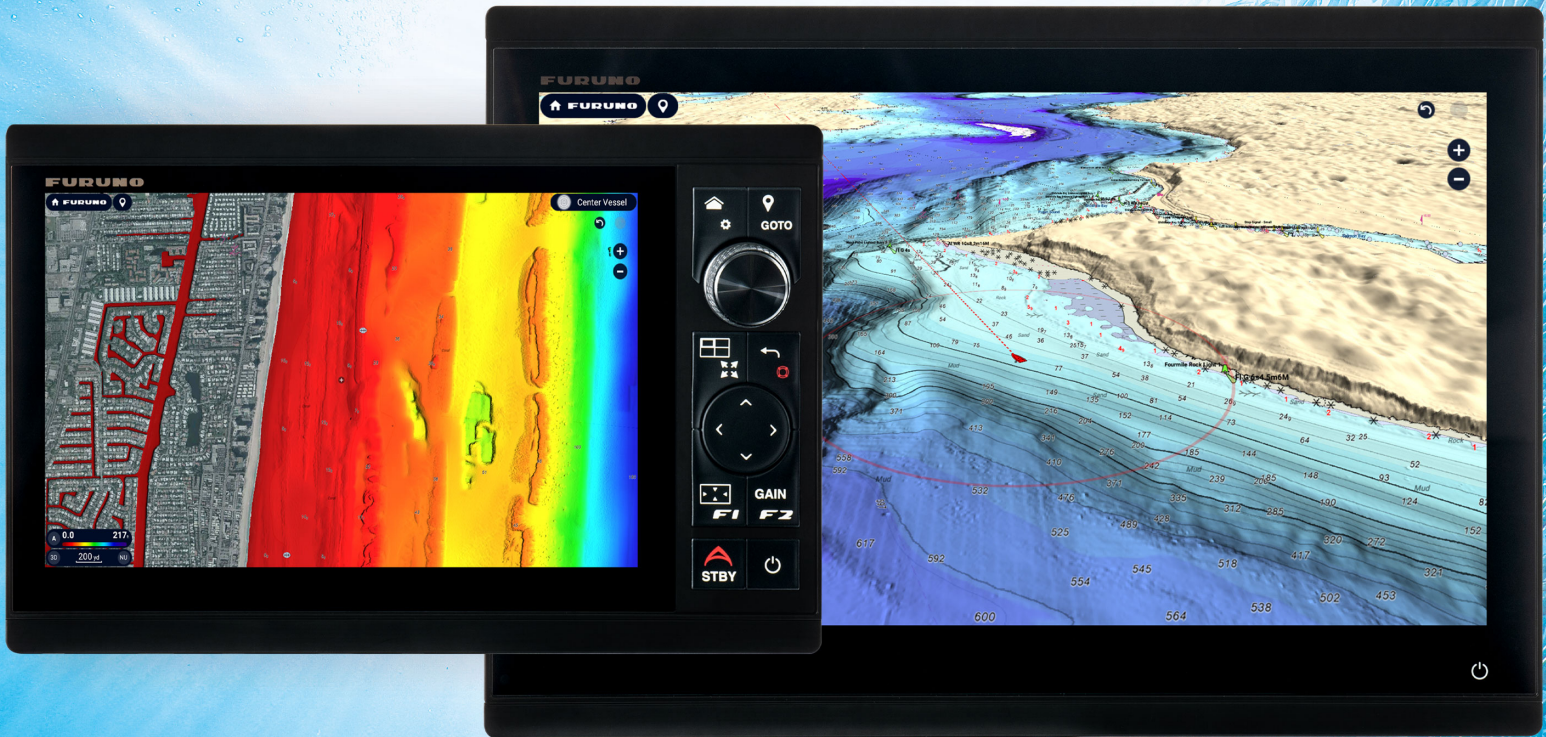


FURUNO



FAQ

FREQUENTLY
ASKED
QUESTIONS

NAVnet

TZ
touchXL

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NavNet TZtouchXL FAQ

1. System overview

Q1.SYS What models are in the TZtouchXL product range?

NavNet TZtouchXL MFDs are available in five models. A Hybrid control 10" and 13", and touch 16", 22" and 24". All models utilize a widescreen format. A black box version will be available later in the year.

Q2.SYS How many TZtouchXL and/or TZT2BB/TZtouch3* MFDs are allowed in one network?

Any combination of up to a total of six (6) TZtouchXL and/or TZtouch3 MFDs are allowed in one network. For configurations with one or more TZT2BB MFDs included, the maximum number of networked TZtouchXL MFDs varies as shown in the table below. Also, if a MaxSea/ TZ TimeZero PC is included, it is counted as one MFD in the network. When a TZT2BB is part of the system, see the table below for the maximum number of TZT2BBs and MFDs.

* TZT2BB software v9.7 and TZtouch3 v3.7 or above for TZtouchXL compatibility

TZT2BB	TZtouchXL
1 unit	3 units
2 units	2 units
3 units	1 unit
4 units	None

Q3.SYS Does one TZtouchXL or TZtouch3/TZT2BB MFD need to be set as a master?

Yes. One TZtouchXL MFD or one TZtouch3/TZT2BB MFD needs to be set as a chart master for chart sharing. Just like TZtouch and TZtouch2/3, TZtouchXL is a "Master-less" system regarding network and settings configuration, making the system fully redundant. One TZtouch MFD must be set as the "Chart Master" so the MFD can share its System ID over the network. See section (9) for more info on chart master.

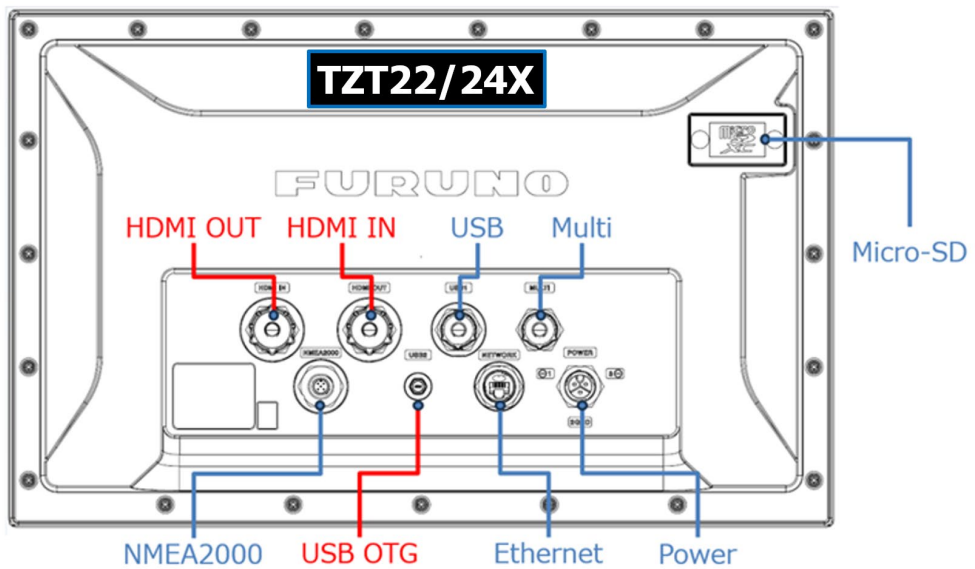
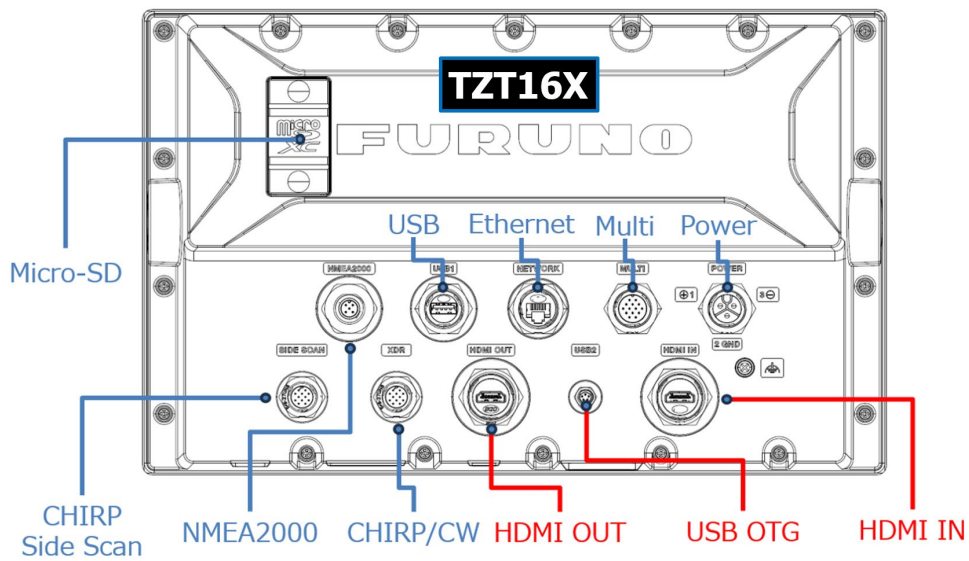
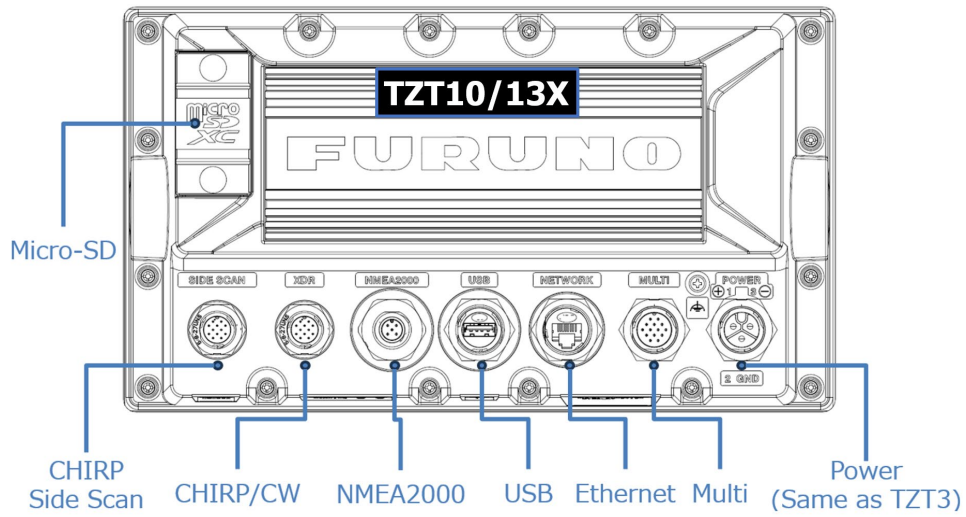
Q4.SYS Which charts are pre-loaded on the 512GB Micro SD-Card in TZtouchXL MFDs?

The 512GB Micro SD-Card included with each TZtouchXL MFD contains a TZ MAPS world chart and every available TZ MAPS chart. MM3DD NOAA Vector charts for the east and west coast of the United States. Customers wishing to access additional satellite photo areas or charts will need to download additional files to their system. Locked TZ MAPS chart areas can be purchased and unlocked directly from the MFD by connecting the TZtouchXL MFD to the Internet.

A TZ MAPS chart can also be purchased just like an MM3DD chart through Furuno National Distributors and/or their authorized dealer network.

Q5.SYS

What rear connections do the TZtouchXL MFDs have?



Q6.SYS What input/outputs are available on the multi-cable port?

The optional multi-cable has connections for an optional power switch, NMEA0183 output, external buzzer, event switch in, Key Pulse In/out, and an analog video input. There are 12 color coded wires plus a single video coax RCA connector.

The multi-cable is optional.

No.	Wire Color	Name	I/O	Spec
1	White	TD_B	O	NMEA0183
2	Blue	TD_A	O	NMEA0183
3	Grey	BUZZ	O	Open
4	Red	12V_OUT+	O	+12V
5	Orange	EVENT_SW	I	Contact
6	Black	GND	-	0V
7	Purple	PWR_SW	I	Contact
8	Brown	KPI	I	For TZT10/13/16X
9	Red/White	KPO	O	
10	Black/White	GND	-	0V
11	Brown/White	GND	-	0V
12	Black	SHIELD	-	FG
13	Coax	Signal	I	CVBS
14		GND	O	Analog Video

Q7.SYS Do all TZtouchXL MFDs come with built-in GPS?

No. TZT10X, TZT13X, and TZT16X come with a built in GPS while the TZT22X and the TZT24X do not. We recommend the SCX20 satellite compass for both position and heading information or the GP330B for position only information.

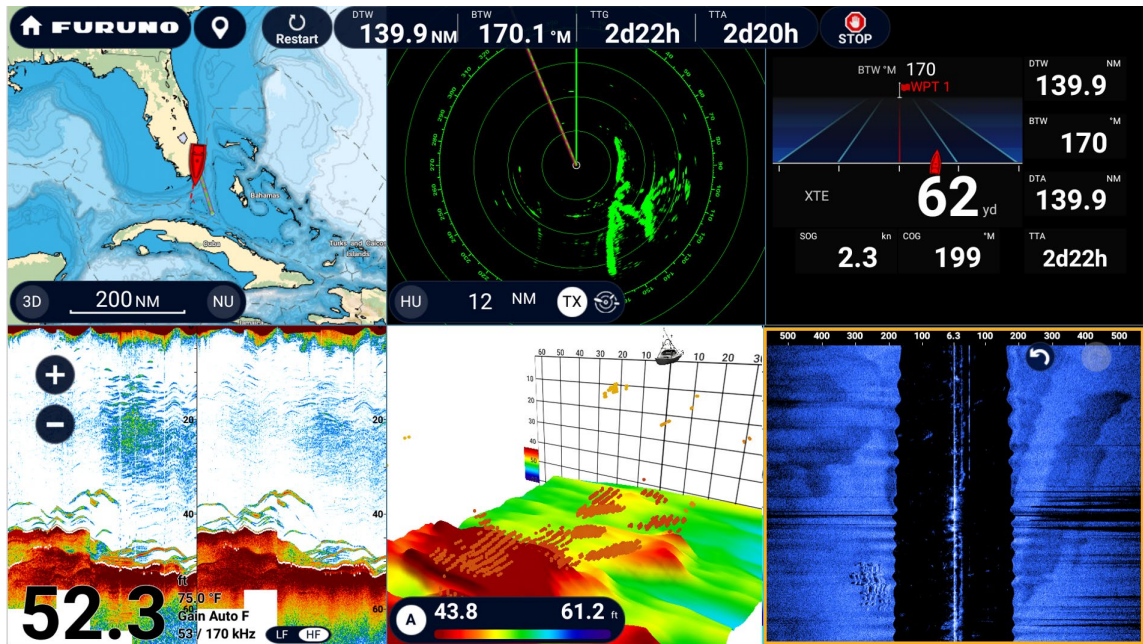
Q8.SYS Can I use polarized glasses to view TZtouchXL MFDs?

Yes, polarized glasses are compatible with all TZtouchXL MFDs.

Q.9.SYS

What are the maximum number of split screens per display page?

Six. You can have a combination of up to six (6) screens on a single display page. Ten (10) different screen combinations are available.



2. Connections

Q1.CONN Can Engine, Tank, and Fuel data be displayed on TZtouchXL MFDs?

Yes. Just like TZtouch2/3 MFDs, TZtouchXL MFDs have extensive and fully customizable Engine and Data Monitoring pages. Engine (up to 6 engines), tank and fuel data via an NMEA2000 gateway may be displayed on any TZtouchXL MFD in the Network. TZtouch3/TZT2BB MFDs will support up to 6 engines with v3.56/9.56 software.

Displayable Engine Information

Indicator	PGN	Indicator	PGN
Engine Speed	127488	Transmission Oil Pressure	127493
Engine Boost Pressure	127488	Transmission Oil Temperature	127493
Engine Trim Tilt	127488	Tank Level	127505 or Manual
Engine Oil Pressure	127489	Available Fuel	127505 or Manual
Engine Oil Temp	127489	Fuel Rate	127489
Engine Temp	127489	Fuel Economy	127489
Alternator Potential	127489	Fuel Consumption	127489
Total Engine Hour	127489	FTTE (Fuel Time to Empty)	127505 & 127489
Engine Coolant Pressure	127489	FDTE (Fuel Distance to Empty)	127505 & 127489
Fuel Pressure	127489	Battery Voltage	127508
Engine Load	127489	Battery Current	127508

*Information must be supported by the manufacturer's engine gateway

Q2.CONN Is a special Ethernet Hub required for use with TZtouchXL networks?

We recommend either the Furuno HUB101* or the new waterproof HUB102. Also, most commercially available 100Mbps or Gigabit Ethernet Hub/Switches are compatible. See section 8 for optional available waterproof TZtouchXL and HUB102 cables.

*If you are reusing an older HUB101, make sure that the PCB board is a version -55 or higher.

Q3.CONN Can standard touch PC monitors be used with TZtouchXL MFDs for remote displays?

Yes. TZT16X, 22X, and 24X MFDs can use standard widescreen touch type PC monitors that are HDMI compatible. Non-touch screen monitors are also compatible. It is recommended that monitors be tested for compatibility with the TZtouchXL MFD before the monitor is installed. TZtouchXL MFDs support dual point touch only. Any touch monitor that requires a driver to be loaded into the TZtouchXL MFD will not work. The TZtouchXL MFDs can use widescreen PC monitors that are either HDMI or DVI compatible (with an adapter plug). Non-marine monitors are not recommended for outside installations or in high bright areas. Also consider nighttime viewing for installations using non-marine grade monitors.

Furuno offers 24", 32", and 43" wide screen touch monitors.

Note: Connected touch monitors must have the same native resolution as the TZtouchXL MFD they are connected to as well as have HPD (Hot Plug Detection) functionality. TZT10X and 13X do not have an HDMI output port.

3. NavNet TZtouchXL MFD Compatibility

Q1.COMP Can I mix TZtouchXL MFDs and TZtouch2/3 MFDs on a single network?

TZtouchXL MFDs **cannot** be mixed with a TZtouch2 TZTL12F or TZTL15F MFD. TZtouchXL MFDs may be mixed with TZtouch3 MFDs and the TZT2BB in a single network. There are some limitations with a mixed system. TZtouchXL MFDs will support new HTML5 3rd party Applications that a TZtouch3 MFD or a TZT2BB will not.

Q2. COMP What software versions are required for a TZtouch3 MFD or a TZT2BB to be compatible in a TZtouchXL network?

Version 3.7 or above for TZtouch3 MFDs and v9.7 or above for TZT2BBs.

Q3.COMP Are NavNet 3D or TZtouch MFDs compatible with TZtouchXL MFDs?

No. TZtouchXL MFDs are not compatible with NavNet 3D or the original TZtouch. NavNet 3D or TZtouch and TZtouchXL MFDs cannot exist together on the same Ethernet network.

Q4.COMP Can Furuno commercial Radars be connected to NavNet TZtouchXL MFDs?

TZtouchXL MFDs can be connected to a FAR2XX7, FAR2XX8, FR15X8, and FR15X3, depending on radar software versions. Please contact Furuno Tech support for additional information.

Q5.COMP Can I control a SiriusXM Satellite Radio using a TZtouchXL MFD?

TZtouchXL MFDs are compatible with SiriusXM audio, SiriusXM Weather and SiriusXM Fish Mapping via the BBWX4 SiriusXM weather receiver. (SiriusXM radio is only available for North America).

Q6.COMP Are TZtouchXL MFDs compatible with MaxSea TZ (TIMEZERO) software?

Yes. TZtouchXL MFDs are compatible with TZ Professional and TZ Navigator.

On a TZT16X, 22X and 24X you can utilize the TZtouchXL HDMI IN port along with the USB passthrough port to display and control a PC running TIMEZERO software.

HDMI Cable part # 001-656-600-00

USB Passthrough OTG cable part # 001-646-940-00

Please contact MaxSea in Europe or [TZ \(TIMEZERO\)](#) in North America for additional information concerning compatible MaxSea/TZ (TIMEZERO) software versions.

Just like TZtouch2/3, TZtouchXL MFDs are part of the Furuno/TZ Pro/TZ iBoat ecosystem. This ecosystem allows various types of user data, such as routes, waypoints, pictures, catches, etc., to be shared among the different platforms.

Q7.COMP Can TZtouchXL MFDs be connected to a Fusion radio?

TZtouchXL MFDs can be connected to a Fusion Radio via Ethernet or NMEA2000 depending on the Fusion radio model.

Q8.COMP Are TZtouchXL MFDs compatible with CZone Digital Switching Systems?

TZtouchXL MFDs are compatible with CZone. Please see the "Technical Information" section of the TZtouchXL MFD product page for more information. Click here for the [CZone Guide](#).

Q9.COMP Which Remote Controllers are compatible with TZtouchXL MFDs?

The MCU002, MCU004, TEU-001 USB remote controllers, MCU005 Ethernet controller, and MCU006/H NMEA2000 (new for 2024) controllers are compatible with the TZtouchXL MFDs. The MCU004/5/or 6 can control each TZtouchXL or TZtouch3 MFD in a network. More than one MCU002/4/5/6 can be connected in a NavNet system. Once connected to an MFD/Ethernet network/NMEA2000 network, any MCU004/5/or 6 can control any TZtouchXL or TZtouch3 MFD in the system. MCU002 and TEU001 remote controllers only control the TZtouch3 MFD, TZT2BB (one side) or TZtouchXL MFD that they are physically connected to. The TZT2BB is not compatible with the MCU006/H remote controllers.



Touch Encoder Unit
TEU001B (Black)
TEU001S (Silver)



Keyboard
MCU-005



Enhanced Remote Controller
MCU-006H



Enhanced Remote Controller
MCU-006



Remote Control Unit
MCU-004



Remote Control Unit
MCU-002



Q10.COMP Can additional USB devices be connected using a generic USB Hub?

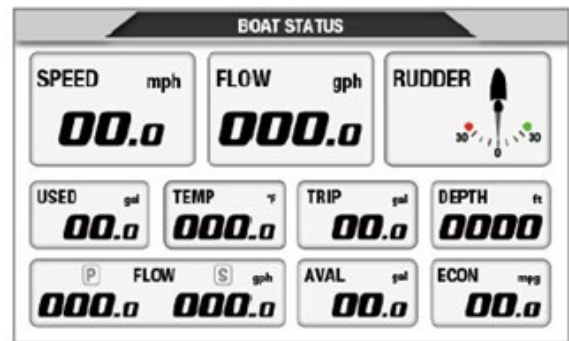
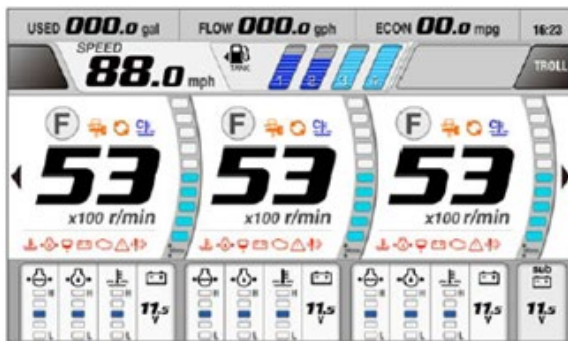
Yes. TZtouchXL MFDs have a powered 5V USB port that can supply up to 0.9 Amps to any generic USB Hub. This will allow you to connect additional USB devices, such as the MCU002, MCU004, and TEU001 USB Remotes, USB Memory Stick, Mouse, keyboard, etc. If you need to extend the USB cable, make sure to use amplification. Please contact Tech Support for additional information.

Q11.COMP Are standard Microsoft USB Mice, Pointing Devices, and Keyboards compatible with TZtouchXL MFDs?

TZtouchXL MFDs are compatible with most generic USB mice, pointing devices, or keyboards if a special driver is not required. You cannot load any drivers into a TZtouchXL MFD. You can perform almost every function using a mouse trackball and wheel. The only function that is not supported is pan and tilt while the plotter is in 3D mode which is only supported by the two-finger touch operation.

Q12.COMP Are TZtouchXL MFDs compatible with Yamaha Engine display modes?

Unlike TZtouch2/3, TZtouchXL MFDs do not have the below Yamaha displays. Yamaha engine information is displayed using standard TZtouchXL gauges and graphics.



4. NavNet DRS Radars

Q1.DRS What DRS radar sensors are compatible with TZtouchXL MFDs?

Any NavNet DRS radar Sensor is compatible with a TZtouchXL MFD except for the DRS4W Wi-Fi radar Sensor. Older NN3D DRS radar Sensors require software version 1.16 or higher and a dedicated power supply. Contact Tech Support for more information.

Q2.DRS What DRS radar sensors are required for Risk Visualizer and/or AI Avoidance Route?

These incredible new safety features require the use of DRS NXT solid state radars. DRS NXT sensors require v1.11 or higher software for these features.

5. NavNet Fish Finder and DFF3D Multi-beam Sonar

Q1.FF Can I use an external Fish Finder with a TZtouchXL MFD?

You can access and control any compatible networked black box Fish Finder or the internal Fish Finder of any TZtouch3 MFD, TZtouchXL 10X, 13X, 16X, or TZT2BB from the TZtouchXL MFD. The following Furuno black box fish finders are compatible, BBDS1, DFF1, DFF1-UHD, DFF3, and the DFF3-UHD.

Note: Older black box fish finders such as the BBFF1 (ETR610) and BBFF3 ETR30N) are not compatible.

Q2.FF Is the DFF3D compatible with a TZtouchXL MFD?

The DFF3D Multi-beam Sonar is fully compatible with a TZtouchXL MFD.

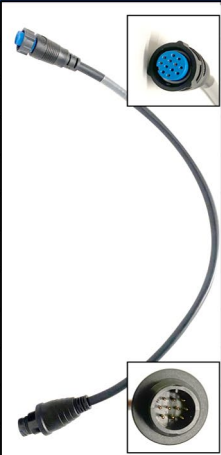
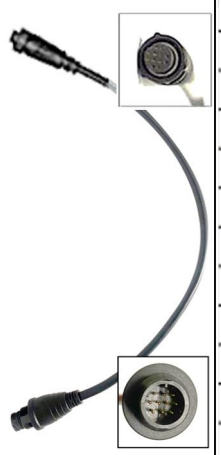
Q3.FF How many active Fish Finders can I have in a TZtouchXL network?

A maximum of two active/selected fish finder sources, one CHIRP Side-Scan, and one DFF3D Multi-beam Sonar are allowed on one TZtouchXL network. The CHIRP Side-Scan and the DFF3D multibeam Sonar are not counted as Fish Finders.

Note: You can have more than two fish finders on the network, but only two can be active at any time.

Q4.FF Are the TZtouchXL and TZtouch3 12pin to 10pin CW transducer adapter cables the same?

No. The pin outs are not the same since the internal Fish Finder modules are different. For TZTXL, use the blue connector adapter cable, black connector version for TZT3.

TZTXL 12p to 10p for TZT10X/13X/16X				TZtouch3 12p to 10p for TZT12F/16F/19F			
12	Drain		9	12	N/C		9
11	N/C			11	Drain		7
10	White		7	10	White		5
9	Green		5	9	Green		1
8	Orange		1	8	Orange		
7	Blue		10	7	N/C		
6	Black		8	6	N/C		
5	Red		4	5	Red		4
4	Drain		3	4	Drain		3
3	N/C			3	Blue		10
2	N/C			2	Black		8
1	Brown		2	1	Brown		2
Conn.1	Wire Color			Conn.2	Wire Color		

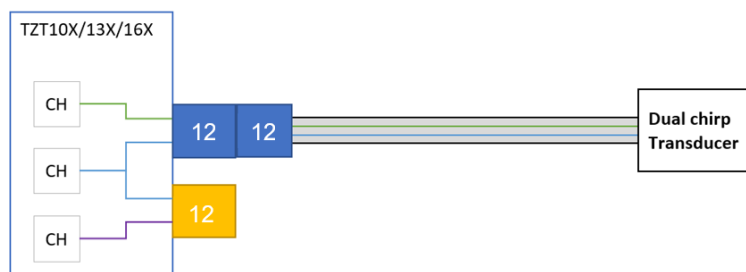
Q5.FF

Is it possible to connect a Side-Scan transducer and a conventional down view transducer at the same time to the internal Fish Finder of a TZT10, 13, or 16X?

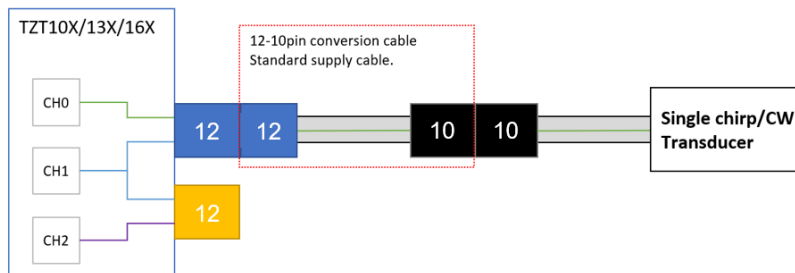
Yes. Possible combinations with the new TZtouchXL 3-channel Fish Finder are shown below.

WITHOUT SIDE-SCAN	WITH SIDE-SCAN
<ul style="list-style-type: none"> ➤ Dual CHIRP is possible ➤ One single CHIRP is possible ➤ One CW is possible ➤ one single Mid-CHIRP + one CW is possible ➤ Dual CHIRP + CW is NOT possible 	<ul style="list-style-type: none"> ➤ One single CHIRP is possible + CHIRP Side-Scan is possible ➤ One CW + CHIRP Side-Scan is possible ➤ Dual CHIRP with Side-Scan is NOT possible ➤ Two single-CHIRP and Side-Scan is NOT possible ➤ Two single-CHIRP + CW + Side-Scan is NOT possible

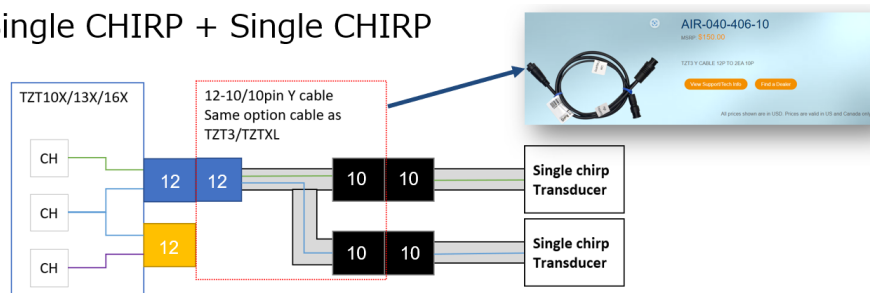
Dual CHIRP transducer



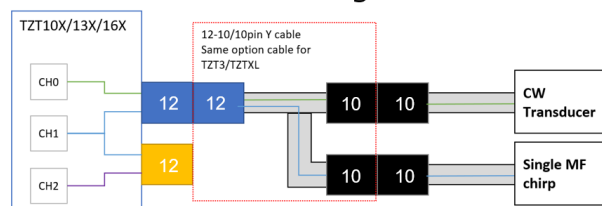
Single CHIRP or Conventional CW



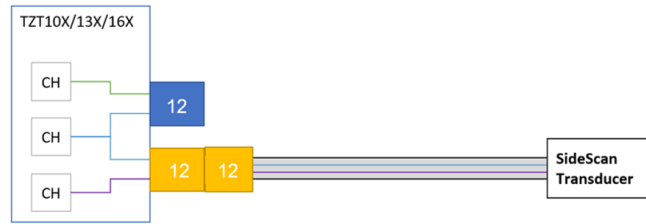
Single CHIRP + Single CHIRP



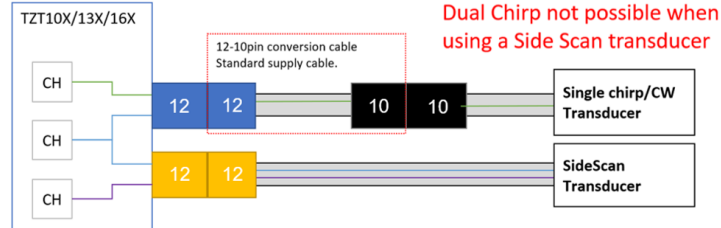
Conventional CW + Single CHIRP



CHIRP Side Scan (230kHz or 455kHz)



CHIRP Side Scan + Single CHIRP/CW



Q6.FF

What TZtouchXL Side-Scan frequencies are available?

230Khz or 455khz. Transducer dependent. Available Side-Scan transducers are Transom, Thru-hull and paired versions of both 230 or 455khz.

230Khz Chirp Side Scan Transducer part numbers

225T-PR904	Paired Thru-Hull CHIRP Side-Scan for NavNet TZtouch3 and TZtouchXL
225T-TM904	Transom Mount CHIRP Side-Scan for NavNet TZtouch3 and TZtouchXL
225T-SS904	Thru-Hull CHIRP Side-Scan for NavNet TZtouch3 and TZtouchXL

455Khz Chirp Side Scan Transducer part numbers

455T-PR903	Paired Thru-Hull CHIRP Side-Scan for NavNet TZtouchXL
455T-TM903	Transom Mount CHIRP Side-Scan for NavNet TZtouchXL
455T-SS903	Thru-Hull CHIRP Side-Scan for NavNet TZtouchXL

6. Cameras, Video Inputs/Outputs and External Monitors

Q1.CAM Can FLIR M-Series Cameras be controlled from TZtouchXL MFDs?

Yes. Configuration information and compatible FLIR camera models can be found in a dedicated document on the TZtouchXL product pages at www.FurunoUSA.com.

Q2.CAM Are TZtouchXL MFDs compatible with IP Cameras?

Yes, TZtouchXL MFDs are compatible with most Axis IP Cameras, IRIS IP Cameras, Hatteland cameras, and others. Check the product page for the TZtouchXL or contact Tech Support for specific compatibility information.

Q3.CAM What video inputs are available?

TZtouchXL MFDs have one (1) Analog input*. You can network up to eight (8) IP cameras and two (2) Axis Quad Video servers, one FLIR camera input, one H.264 streaming input. Additionally, TZT16X, 22X, and 24X MFDs have one (1) HDMI IN port. The HDMI IN port along with the USB pass-thru port can be used to display and control other devices such as a PC.

Supported HDMI inputs:

- FHD (1920x1080)
- HD (1280x720)
- SXGA (1280x1024)
- XGA (1024x768)

* Analog video input requires the optional multi-cable part # 001-647-020-00

7. NavNet Command Center, Apps, and Furuno/TZ ecosystem

Q1.MISC What Third party HTML5 Command Center Applications are available for TZtouchXL MFDs?

Lumitec Poco Omnisense Onyx OSCAR QUICK Seakeeper Shadow-Caster Tecnoseal Victron Energy Whisper Power		JL Audio MMA-1 Maretron MConnect Groco IRIS (CMAC) Boeing Boning BMACS Dometic DCM HP WATERMAKER Lumishore Lumitec Poco
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[Click here](#) for Information concerning NavNet Command Center 3rd party applications. Additional Command Center Applications are continuously being added.

Q2.MISC Which Apple and Android Apps are compatible with TZtouchXL MFDs?

The same applications that are available for TZtouch2/3 are compatible with TZtouchXL MFDs. Such as the NavNet Controller, NavNet Viewer, NavNet Remote, TZ [First Mate](#), and [TZ iBoat](#). Click here for the [iOS and Android Apps guide](#).

Q3.MISC Does TZtouchXL offer a way to save my user information to the cloud?

Yes. TZtouchXL is part of a complete [Furuno/TZ ecosystem](#) that offers a way to save and load user information such as waypoints, marks, routes, pictures, etc., to and from the cloud.

8. Installation

Q1.INST Can I mount two TZtouchXL MFDs side by side?

TZtouchXL MFDs mount easily using a front mounting system. Two MFDs can fit side by side without a gap between the MFDs.

Q2.INST What display mounting options are available for TZtouchXL MFDs?

TZtouchXL MFDs are mounted from the front and are supplied with standard flush mounting accessories for all models. TZT10X and TZT13X are also standard supplied with a tabletop bracket. An optional tabletop bracket is available for the TZT16X, part # 001-660-940-00.

Note: Optional brackets are not available for the TZT22/24X.

Q3.INST What comes in the box?

Items	10"	13"	16"	22"	24"	BB
Sun Cover	✓	✓	✓	✓	✓	NA
Bracket	✓	✓	Option	NA*	NA*	NA
Power Cable	✓	✓	✓	✓	✓	✓
LAN Cable 5m WP – Non-WP	✓	✓	✓	✓	✓	✓
12P-10P Conversion cable	✓	✓	✓	NA	NA	NA
IM/OS	✓	✓	✓	✓	✓	✓
Installation parts**	✓	✓	✓	✓	✓	✓
Micro-SD	✓	✓	✓	✓	✓	✓

* Tabletop brackets are not available for the TZT22/24X.

12p-10p conversion cable not required. No internal Fish Finder.

Q4.INST What optional cables are available?

Ethernet waterproof to waterproof (for use with HUB102)

- HUB-102-JMP .5m HUB102 to HUB102 connector cable
- 001-653-250-00 2m
- 001-653-260-00 5m
- 001-653-270-00 10m
- WRJ-ADP-05M .5m waterproof to field attachable RJ-45 connector.

Ethernet waterproof to non-waterproof

- 001-646-960-00 2m
- 001-646-980-00 5m
- 001-647-000-00 10m

USB cables

- 001-647-040-00 5m Type A to Type B waterproof to non-waterproof.
- 001-646-920-00 .3m extension. Type A to Type B waterproof to non-waterproof.
- 001-646-940-00 .3m conversion. M8 to USB micro-B USB OTG

HDMI

- 001-656-600-00 5m waterproof to non-waterproof.

Multi-cable

- 001-647-020-00 1m multi-cable (use for analog video in, NMEA0183 out, key pulse, etc.)

9. New TZ MAPS and MM3D legacy charts (TZtouch2/3 charts)

Q1.TZ MAP What chart areas are available for TZ MAPS?

Link to complete TZ MAPS coverage areas, <https://mytimezero.com/tz-maps-catalog/>
You can also view the coverage areas on the TZtouchXL MFD. Press Home, Charts, TZ MAPS store. Areas that are not covered by TZ MAPS are covered by MM3D charts.

Q2.TZ MAP Can I still use MM3D charts?

Yes. MM3D charts can still be used on TZtouchXL MFDs. Some areas such as India and most of Africa do not have TZ MAPS coverage yet. These and other selected areas will continue to use MM3D charts. You can also use MM3D charts in areas that have TZ MAPS coverage. However, without TZ MAPS unlocked for your area, you will not be able to take advantage of all the new features that TZ MAPS offers.

Q3.TZ MAP What new advantages do TZ MAPS have over MM3D charts?

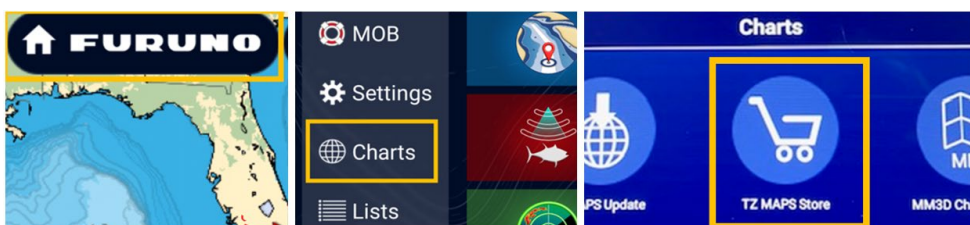
- AI auto routing
- Avoidance routing: combines TZ MAPS with live DRS NXT radar sensor target information to provide routes around dangerous targets)
- BathyVision: high resolution depth contour lines dynamically generated from bathymetric data.
- Community edits: Chart improvements made and shared by Furuno TZtouchXL, TimeZero Pro, TZ Navigator and TZ iBoat users.
- Ability to purchase and update TZ MAPS directly from the MFD.
- Other improvements such as five new chart color palettes, open street maps, shaded bottom, shaded land, etc.

Q4.TZ MAP How can I purchase TZ MAPS or MM3D charts for my TZtouchXL MFD/s.

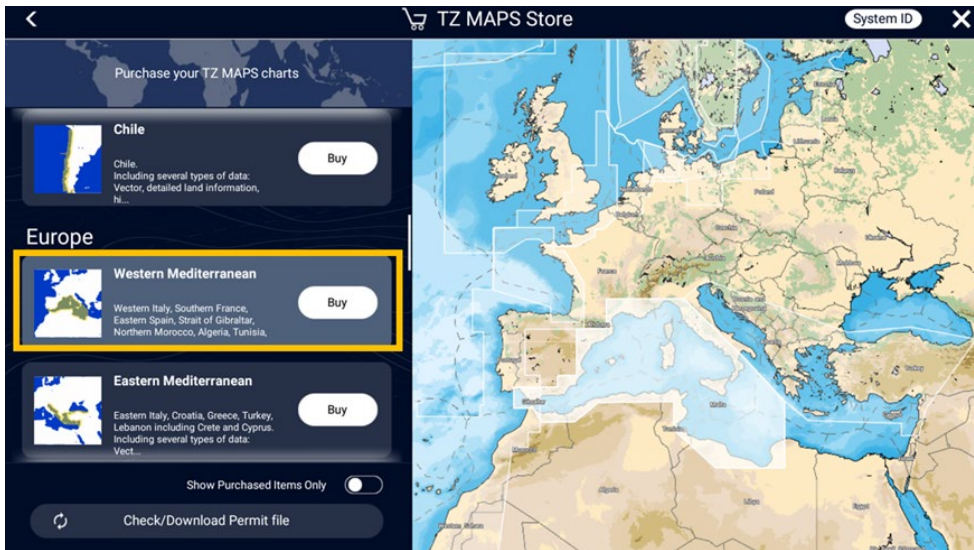
You can purchase TZ MAPS directly from the MFD using your credit card information or you can purchase TZ MAPS through your Furuno National Distributor and/or their authorized dealer network. You can only purchase MM3D charts through your Furuno National Distributor and/or their authorized dealer network. See TZ MAPS FAQ for additional information.

Q5.TZ MAP What are the steps to purchase and unlock TZ MAPS directly from the MFD?

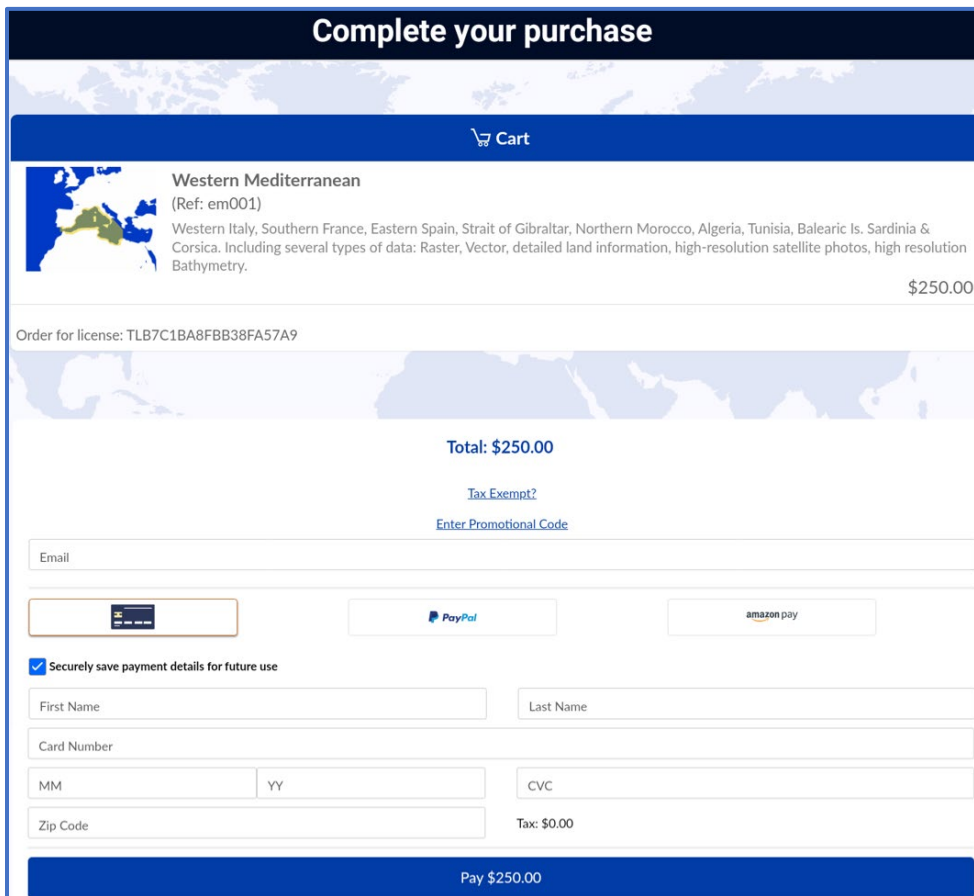
Make sure your TZtouchXL MFD is connected to a Wi-Fi network. Once connected to Wi-Fi, select Furuno home button, Charts, TZ MAPS Store.



Now select the chart for your area.



Enter your credit card information to complete your purchase.



Q6.TZ MAP Can I mix TZtouchXL and TZtouch3/TZT2BB systems and unlock codes?

While it is possible to mix TZtouchXL and TZtouch3/TZT2BB MFDs in the same network, it is not possible to mix System IDs and chart unlock codes. Please see separate **TZ MAPS FAQ** for additional information on what is and is not possible and for additional information on TZ MAPS.