

FURUNO TZT10X

FURUNO TZT10X 10-inch TZTXL MFD User Manual

Multi-Function Display with Hybrid Control, Fish Finder, and Advanced Navigation

1. INTRODUCTION

The FURUNO TZT10X is a 10-inch Multi-Function Display (MFD) designed for marine navigation and fishing. It integrates advanced features such as a powerful internal 1kW dual-channel TruEcho CHIRP Fish Finder, CHIRP Side-Scan capabilities, and the innovative TZ MAPS charting system. The TZT10X features a hybrid control interface, combining a multi-touch IPS LCD screen with Furuno's RotoKey control knob and dedicated buttons, ensuring intuitive operation in all sea conditions. This manual provides essential information for the setup, operation, and maintenance of your TZT10X unit.

2. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance of your TZT10X MFD. The unit is designed for panel mount installation.

2.1 Mounting the Unit

The TZT10X is typically panel-mounted. Ensure the mounting surface is flat and strong enough to support the unit's weight. Refer to the detailed installation template provided with your product packaging for precise cutout dimensions and mounting hole locations. Secure the unit using the supplied mounting hardware.

2.2 Power Connection

Connect the unit to a 12-24VDC power source. Ensure the power supply is stable and capable of providing the necessary current. Use appropriate gauge wiring and inline fuses as specified in the full installation guide to prevent damage from power fluctuations.

2.3 Transducer and Network Connections

The TZT10X supports various connections for enhanced functionality:

- **Transducer:** Connect your CHIRP/CW transducer to the dedicated 12-pin port. For Side-Scan functionality, connect the appropriate 12-pin Side-Scan transducer.

- **NMEA2000/NMEA0183:** Connect to compatible marine electronics for data exchange (e.g., GPS, autopilot, engine data).
- **LAN:** Use the 1000BASE-T LAN port for networking with other NavNet TZtouchXL MFDs or compatible devices.
- **USB:** A USB 3.0 port is available for connecting control units or external storage.
- **Wireless LAN:** The unit features IEEE802.11b/g/n wireless LAN for connectivity.

Always ensure all connections are secure and waterproofed according to marine standards.



Figure 1: The FURUNO TZT10X Multi-Function Display with a detailed chart view, illustrating its compact design and integrated controls.

3. OPERATING INSTRUCTIONS

The TZT10X offers a user-friendly interface with multiple control options.

3.1 User Interface and Controls

- **Hybrid Control:** Navigate menus and functions using the multi-touch IPS LCD screen, the RotoKey control knob, or the dedicated physical buttons.
- **Page Builder:** Customize your display layouts with up to 10 different page configurations.
- **Screen Split:** Split the screen into up to 6 customizable sections to view multiple components and sensors simultaneously.
- **Edge Swipe:** Access advanced screen layout options and functions with intuitive edge swipe gestures.

3.2 Navigation with TZ MAPS

The TZT10X utilizes TZ MAPS, offering highly detailed navigation and fishing charts.

- **Chart Content:** Access raster charts, vector charts, satellite photos, and bathymetric data.

- **BathyVision:** Experience unprecedented detail in depth data, with contour intervals as fine as 3 inches, creating ultimate fishing charts.
- **AI Routing:** Plan intelligent routes that consider your boat's draft and navigation hazards, automatically generating recommended routes.
- **Custom Objects:** Share custom user objects with other registered TZ MAPS users via TimeZero's moderation service.
- **Chart Updates:** Charts can be purchased and updated directly from the MFD via an internet connection.

3.3 Fish Finder Operation

The integrated fish finder provides comprehensive underwater views.

- **TruEcho CHIRP:** The internal 1kW dual-channel TruEcho CHIRP fish finder operates across a wide frequency range (40kHz to 240kHz), providing clear target separation.
- **CHIRP Side-Scan:** Utilize the built-in CHIRP Side-Scan (235kHz or 455kHz) to scan both port and starboard sides of your vessel, revealing high-resolution images of bottom structure and fish targets.
- **Extension Modes:** Features like ACCU-FISH, A-Scope, Auto (Fishing/Cruising), Bottom Discrimination, and TruEcho CHIRP enhance fish detection.
- **Alarms:** Set alarms for fish schools and bottom lock.

3.4 Radar Functionality

When connected to an NXT Radar, the TZT10X offers advanced radar features.

- **Display Modes:** Head-up and North-up modes are available (heading input required for North-up).
- **Target Tracking:** Track up to 100 ARPA targets automatically (heading input required).
- **Safety Features:**
 - **Risk Visualizer:** Provides a 360-degree visual representation of potential collision risks with objects around your vessel.
 - **AI Avoidance Route:** Dynamically suggests safe routes to avoid hazards, which can be sent to a Furuno NavPilot autopilot with a single tap.



Figure 2: The FURUNO TZT10X MFD showing a navigation chart with active routes and data overlays, highlighting its intuitive touch and button controls.

4. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your TZT10X MFD.

4.1 Cleaning

- **Screen:** Gently wipe the screen with a soft, lint-free cloth dampened with fresh water. Avoid abrasive cleaners or solvents.
- **Unit Exterior:** Clean the exterior casing with a soft cloth and mild detergent if necessary. Ensure no liquid enters the unit.

4.2 Software Updates

Periodically check the Furuno website or your dealer for software updates. Keeping your unit's software up-to-date ensures access to the latest features and performance enhancements.

4.3 Environmental Considerations

The TZT10X is designed for marine environments with an IP56 waterproof rating. However, avoid exposing the unit to extreme temperatures outside its operating range (-15°C to +55°C) and ensure proper ventilation if installed in an enclosed space.

5. TROUBLESHOOTING

This section addresses common issues. For more complex problems, consult the full service manual or contact Furuno

support.

5.1 No Power

- Check all power connections and ensure they are secure.
- Verify the vessel's power supply is active and within the 12-24VDC range.
- Inspect the inline fuse on the power cable; replace if blown.

5.2 GPS Signal Loss

- Ensure the GPS antenna has a clear view of the sky, free from obstructions.
- Check the GPS antenna cable connection to the MFD.

5.3 Fish Finder Not Displaying Data

- Verify the transducer is correctly connected to the MFD.
- Ensure the transducer is properly submerged and free from marine growth.
- Check the fish finder settings on the MFD, including frequency and gain.

5.4 Alarms

The TZT10X features various alarms to alert you to critical conditions:

- **Navigation Alarms:** Anchor Watch, XTE (Cross Track Error).
- **Sensor Alarms:** Depth, Speed, Sea Temperature (requires external data).
- **Fuel Alarms:** Trip Distance, Fuel Meter (requires external data).
- **Radar Alarms:** Guard Zone, CPA/TCPA, Video, Bearing, Heading Line.

Address the cause of any active alarm promptly. Alarms can typically be acknowledged or silenced through the MFD interface.

6. SPECIFICATIONS

Category	Specification
Display Unit	
Type	Color TFT Multi-Touch IPS LCD
Screen Size	10.1 inches Widescreen
Resolution	WUXGA 1920 × 1200
Screen Brightness	900 cd/m² (Standard)
Display Colors	16,770,000 colors (Chartplotter), 64 colors (Radar/Fish Finder)
GPS/WAAS	
Receiver Type	GPS: 72 Channels, SBAS: 1 Channel (C/A Mode, WAAS)
Receiving Frequency	L1 (1575.42MHz)

Category	Specification
Time to First Fix	100 seconds (Cold Start)
Accuracy	10m (GPS), 7m (MSAS), 3m (WAAS)
Position Update Interval	100ms or 10Hz
Chartplotter	
Map Creation	TZ MAPS, MM3 Vector, CMO Compatible (US only)
Memory Capacity	30,000 User Points, 100,000 Points for Ship's Track, 200 Planned Routes (5000 points per route)
Radar	
Display Modes	Head-up, North-up* (*Heading input required)
Echo Trail	Intervals: 15s, 30s, 1min, 3min, 6min, 15min, 30min, Continuous (Heading input required)
Target Tracking	100 ARPA Targets (Radar dependent), Fully Automatic Target Acquisition (Heading input required)
Fish Finder	
Transmit Frequency*	CW: 50/200kHz, CHIRP: 40kHz~240kHz (Low, Medium, High)
Transducer Power*	300/600W or 1kW
Display Range	2~1,200m (Shift 0~1,200m) (1) 200~2,400m / 4,000~8,000ft
Extension Modes	ACCU-FISH, A-Scope, Auto (Fishing/Cruising), Bottom Discrimination, TruEcho CHIRP (with compatible transducer)
Picture Advance	8 Steps: x4, x2, x1, 1/2, 1/4, 1/8, 1/16, Stop Fish
Side-Scan	
Transmit Frequency*	CHIRP: 220-240KHz / 445-465KHz
Transducers	225kHz: 225T-PR904, 225T-SS904, 225T-TM904 / 455kHz: 455T-PR903, 455T-SS903, 455T-TM903
Display Range	750ft each side
Display Colors	Green, Blue, Amber, White
Interfaces	
NMEA2000	1 Port Input/Output (Various PGNs supported)
NMEA0183	1 Serial Output Port (AAM, APB, BOD, DBT, DPT, GGA, GLL, GNS, GSA, GSV, RMB, RMC, RTE, TTM, VDM, VTG, WPL, XTE, ZDA)

Category	Specification
LAN	1 Port (1000BASE-T)
USB	1 Port (USB 3.0) for Control Unit
Video I/O	Input: 1 Port (NTSC/PAL)
AUX I/O	2 Ports (Event Switch and External Power Switch)
SD Card Slot	1 Slot (Micro SDXC, Rear)
Wireless LAN	IEEE802.11b/g/n, Transmit Frequency: 2.412~2,462GHz, Max 11dBm
Environmental	
Temperature	-15°C to +55°C
Relative Humidity	93% or less at +40°C
Waterproof	IP56
Power	12-24VDC

**Note: Some transducers may require a matching box (MB1100).*

7. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the official FURUNO website or the warranty card included with your product. For technical support, product registration, or service inquiries, please contact your authorized FURUNO dealer or visit the official FURUNO support portal.

FURUNO Official Website: www.furuno.com

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question