



This guide provides the basic operating procedures for this equipment. Connection of sensors required. For detailed information, see the Operator's Manual, available on our homepage. You can download it with the Quick Response code shown above, or from the URL which is shown below.

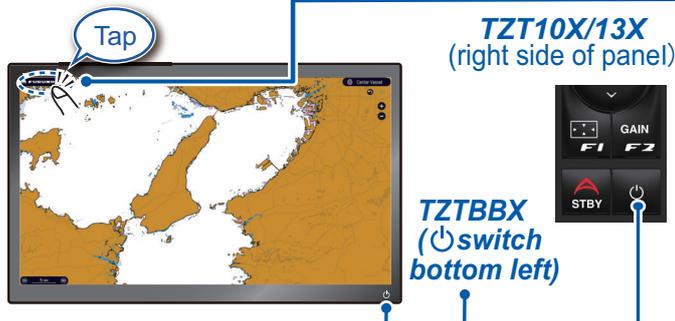
[https://www.furuno.com/en/support/manuals/?pc=navnet\\_mfd](https://www.furuno.com/en/support/manuals/?pc=navnet_mfd)

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## Operational Overview

### Icon (home/displays), power switch operations

**TZT16X/22X/24X**



[FURUNO] icon  
Displays the home page.

Display icons  
(max. 32 on Home page)

"eGuide" provides an abbreviated operator's guide.



Home page

#### Power off

**Device:** Powers off this unit.  
**Network:** Powers off all NavNet TZtouch series units in network.

#### Power switch

- Turns on power.
- Shows [Quick Access] window.

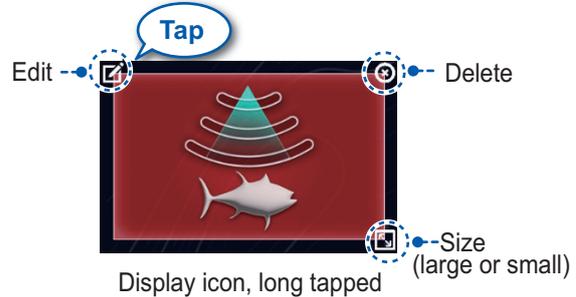


#### Brilliance, Hue

Hue: [Color selection icons]  
Brilliance: [Slider control]

#### How to edit a display icon

Long-tap a display icon to resize, delete or change its contents, then tap to confirm. You can also rearrange the icons by long-tapping and dragging.



### How to select a display

- Tap a display icon on the Home page (see illustration above).
- Tap a display icon on the Quick page.



Swipe downward from top of display



Quick page



# Touchscreen operations

## Tap



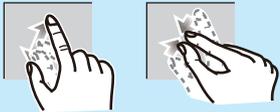
- Select an item on a menu.
- Tap the display or an object to show the corresponding Pop-up menu.

## Drag, swipe



- Move the chart.
- Scroll the menu.
- Show Slide-out menu, Layers menu.

## Pinch



Zoom in      Zoom out

- Zoom in, zoom out the chart plotter and weather displays.
- Change the range on the radar and fish finder displays.

## Range buttons



For the slider bar, drag the slider bar thumb, or tap the slider bar.

## Two finger (long) tap



Does the function assigned to [Two Finger (Long) Tap Function] in the [Settings] - [General] - [This Display] menu.

## Two finger drag



Change the viewpoint position on the 3D display.

# Menu operation

## Pop-up menu

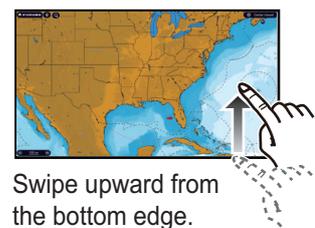


Tap screen (applicable point, object, etc.).



Tap the required function. (">" indicates additional options.)

## Layers menu



Swipe upward from the bottom edge.



Tap Layers menu  
Tap the required function. (To switch between menus, swipe or tap applicable tab.)

## Slide-out menu



Swipe leftward from the right edge.



Tap the required function.  
Icon color and function state  
Yellow: ON, White: OFF

## Settings menu

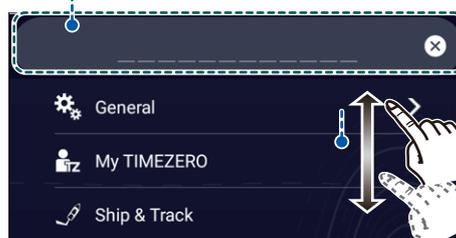


Tap the [FURUNO] icon.

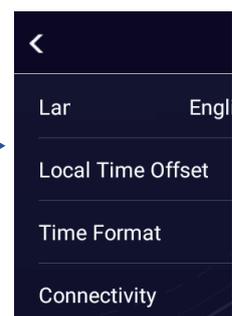


Tap [Settings].

## Menu search bar



Drag to find required menu, then tap item.



Tap the required menu item.

# Chart Plotter

[FURUNO] icon

Event icon

Navigation bar/Compass bar\*

Status bar

Data window

Heading line (green)

COG vector (dashed red line)

Vessel icon

Track

Inactive route (expanded)

Point

Inactive route (sleeping)\*

Scale bar

Center Vessel button

Range buttons

Undo, Redo buttons

\*: Arrival or departure position, selectable on the Layers menu.

2D, 3D switch (Switching also available with two-finger drag.)

Display mode (HU/NU) switch

Depth contour switch

Smoothing level switch

Example of the Compass bar

## Data Window

Swipe from the left edge of the screen rightward to show the Data window, which shows nav data at the left edge of the screen. To hide the window, swipe the box leftward or tap the [NavData] indication (yellow) in the Slide-out menu.

### Data window settings

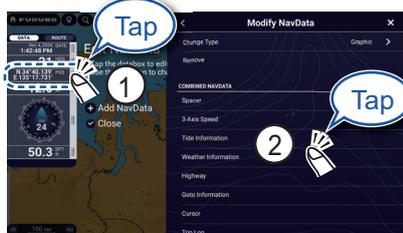


Tap [Edit] to show [Edit NavData] display.

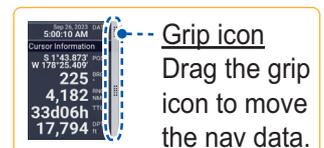
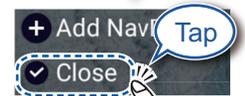
To add nav data:



To remove a data box, or change the displayed data:



Tap [Change Type] to change the data display method, among Graphic (analog), Numeric (digital), and Graph.



# Points/Boundaries

Points can be entered on the chart plotter display (radar, fish finder and weather displays also) to mark important locations such as a good fishing spot. Point attributes (position, symbol type, color, etc.) are recorded to the Points list. Also, boundaries can be set at the position desired (net position, area to avoid, etc.).

### How to enter a point

Tap where to enter a point.

Depth  
New Point  
Goto

The point is entered on the screen.

### How to set a point as destination

#### On-screen point

Tap a point or the location to set as destination.

New Point  
Goto  
Fish-It

If a point was tapped.

On-screen point Selected location

Destination point

Purple line (with arrow): Indicates course to go to the destination.

Yellow line: Shortest course from own ship to the destination.

### Points list

Sort the list by date, name, icon, color, range.

Charts  
Smart Search  
Lists

Points  
Routes

Points

	Date	Name	Icon	Color	Range	Add Point
<b>TODAY</b>						
WP 002	N 33°30.246'	12/13/2024	Shrimp		70.39 NM	
WP 005	E 113°00.000'	12/13/2024	Shrimp		7.520 NM	
WP 003	W 80°06.619'	12/13/2024	Shrimp		7.519 NM	
WP 006	N 25°38.048'	12/13/2024	Shrimp		7.522 NM	
WP 004	W 80°06.619'	12/13/2024	Shrimp		8.25 NM	
<b>LAST WEEK</b>						
WP 001	N 35°35.559'	12/6/2024	Shrimp		70.39 NM	

ACTIONS

- Add to new Route
- Goto
- Fish-It
- Find On Chart
- Delete

Tap the point to set as the destination.

### Point filter

You can show/hide points on the screen by using the filter function.

Open [User Objects] tab on the Layers menu.

Point Filters

- Filter by Icon
- Filter by Color
- Filter by Age
- Filter by Name

ON

Turn the "Point Filters" to on and set the filter by icon, color, age, or name. For icon or color, when MARK is selected no filter is applied. For age, when Off is selected, no filter is applied.

### How to set a boundary

Tap the place where to set a boundary.

Create a Mooring  
New Boundary  
Tide

Area  
Circle  
Line

Tap the shape to use for the boundary.

[Area]/[Line]: Tap necessary points to complete the boundary, referring to "Route" on the next page.

[Circle]: Drag icons to adjust the size and position, and then tap [End Boundary].

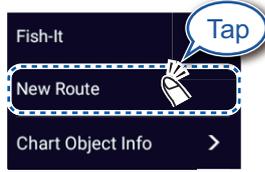
# Routes

A route is comprised of a series of waypoints leading to a destination. Routes are saved to the Routes list.

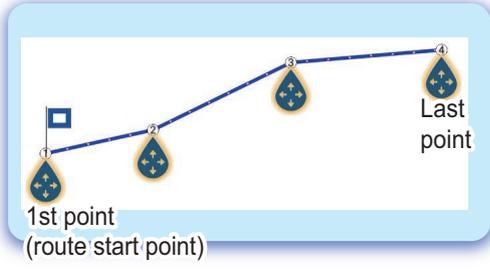
## How to create a new route



Tap the first point for the route.



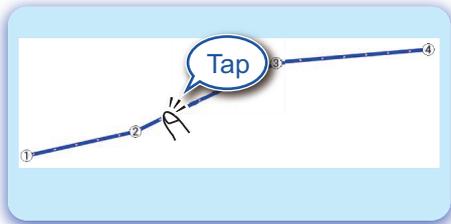
Select [Manual] or [AI Routing]\*. Then tap the next point for the route. Repeat this operation to complete the route.  
 \*: For [AI Routing], if you tap two points, the start point and the final point, the system automatically creates a route that it deems navigable.



Enter a name for the route, then tap [✓].

## How to follow a route

### On-screen route



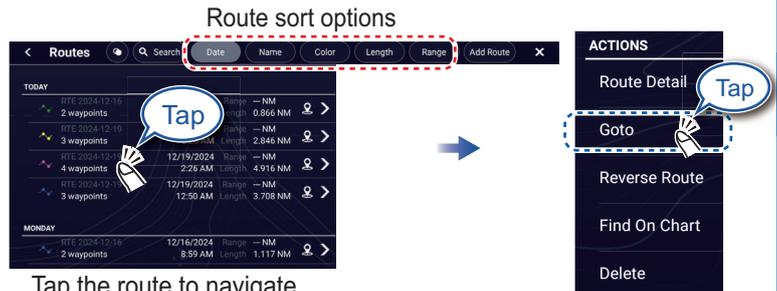
Tap a leg of the route.



### Routes list



Home page



Tap the route to navigate.

### Smart Search function

Use the Smart Search function to search for points, routes, etc.



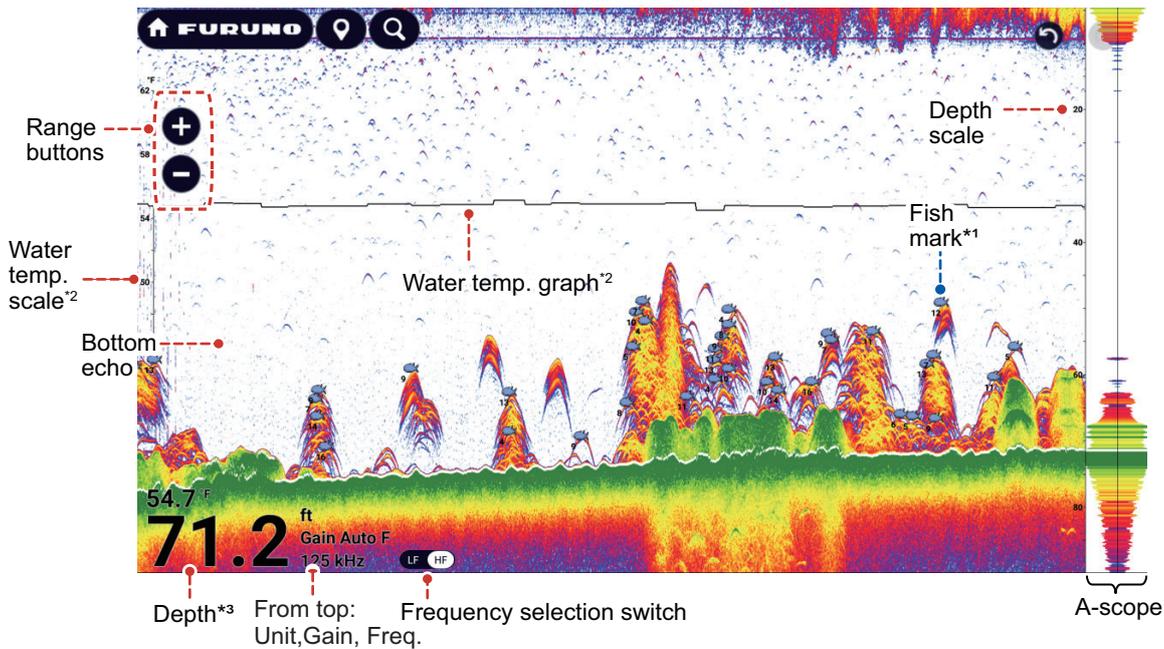
Top left corner



If you have a specific category (routes, points, etc.), tap the category first, then tap the search bar.

A software keyboard appears. Enter at least three characters or numbers to show a list of related items. Tap the desired item to show the details of the item.

# Fish Finder

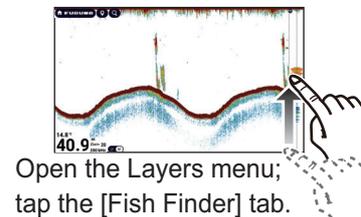


- \*1: Requires ACCU-FISH™ compatible transducer on the network.
- \*2: Requires water temperature sensor.
- \*3: For full screen, you can adjust the depth font size in Home page→[Settings]→[Fish Finder]→[User Settings]→[Digital Depth Size] menu.

**Note 1:** Names of menu items may be different depending on the transducer connected on the network.  
**Note 2:** TZT10X/13X/16X: Compatible with built-in or network fish finders.  
 TZT22X/24X/BBX: Compatible with network fish finders.

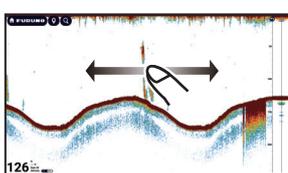
## How to select a frequency

Low frequency: For “normal” use.  
 High (Middle) frequency: For detailed observation of schools of fish.  
 Dual frequency: Show both the low and high frequency pictures.



**Note** [TX/STBY] toggles between TX and standby.

## How to show past echoes (echo history)



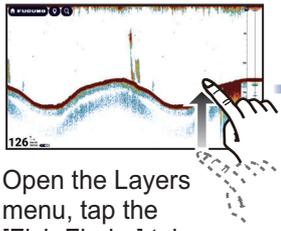
Swipe leftward or rightward to show past echoes.



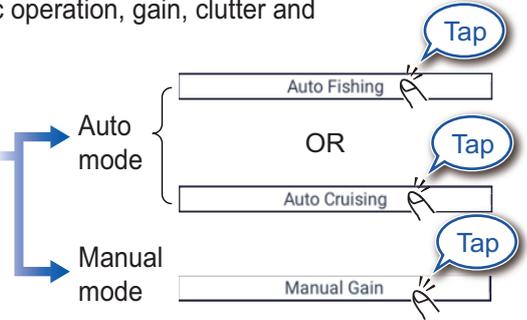
Return to normal display.

# How to select the operating mode

The fish finder is available in automatic and manual operation. For automatic operation, gain, clutter and TVG are automatically adjusted.

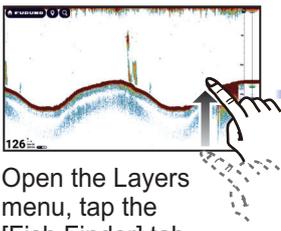


Open the Layers menu, tap the [Fish Finder] tab.

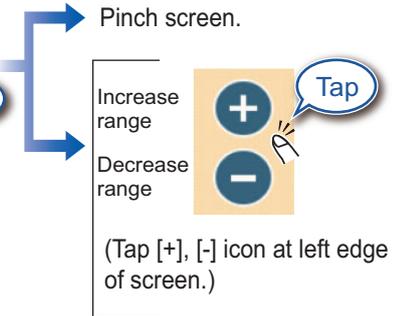


## Manual mode

### How to change the range



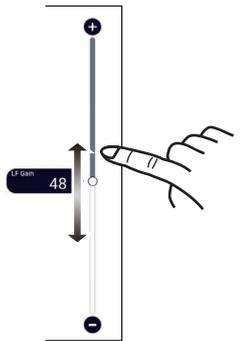
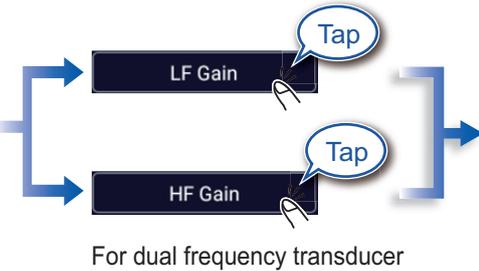
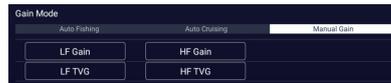
Open the Layers menu, tap the [Fish Finder] tab.



### How to adjust the gain



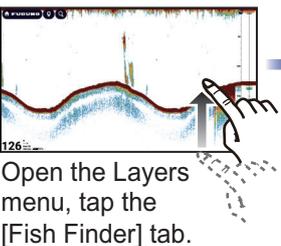
Open the Layers menu, tap the [Fish Finder] tab.



Drag the slider bar to set the gain. (Gain can also be adjusted by tapping the slider bar or +/- buttons.)



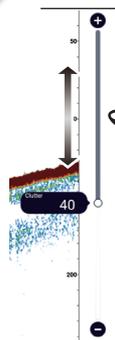
### How to reduce clutter



Open the Layers menu, tap the [Fish Finder] tab.



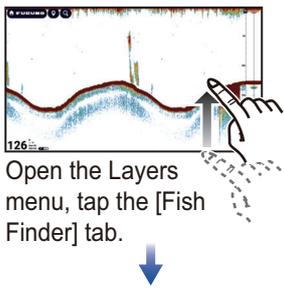
The larger the value, the more the clutter is reduced.



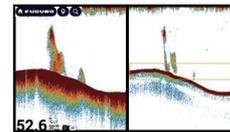
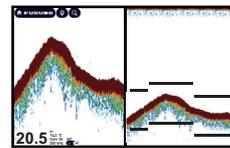
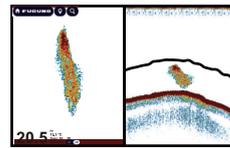
Drag the slider bar to set the range. (Range can also be adjusted by tapping the slider bar or +/- buttons.)



# Zoom display

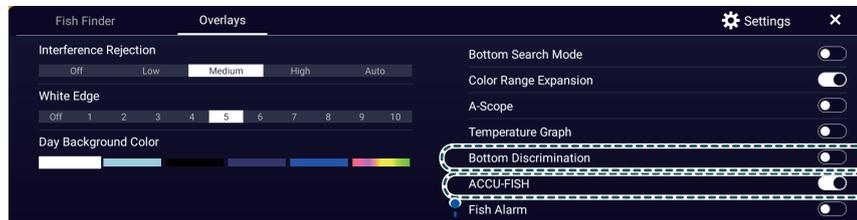
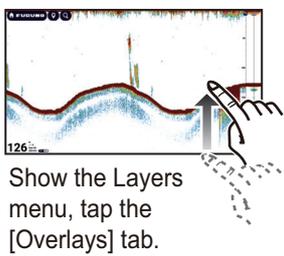


- 
**Bot. Lock**  
 Search for bottom fish.
- 
**Bot. Zoom**  
 Find bottom contour and hardness.
- 
**Mark. Zoom**  
 Help determine the size of a school of fish in the middle layer.



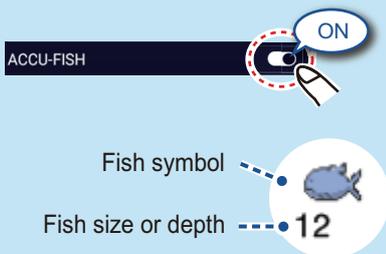
- Short tail indicates soft bottom.  
 - Long tail indicates hard bottom.

# ACCU-FISH™/Bottom Discrimination



## ACCU-FISH™

Detected fish can be marked with a fish symbol. (Requires ACCU-FISH™ capable transducer on the network.)

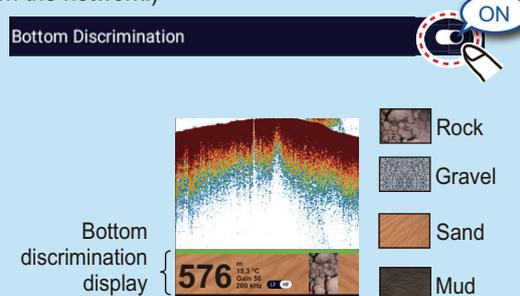


### Notice

You can select fish symbol type, and fish size or depth indication from the menu - Home page → [Settings] → [Fish Finder] → [ACCU-FISH].

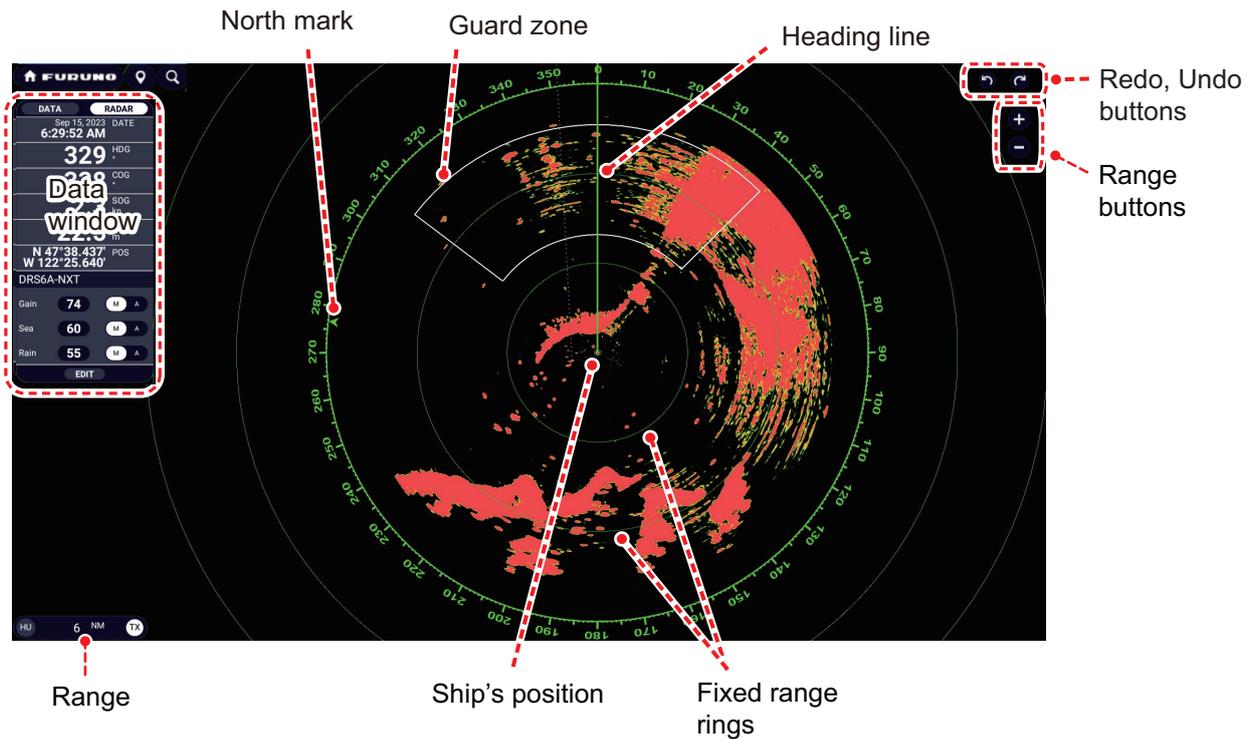
## Bottom Discrimination

Show probable bottom hardness. (Requires bottom discrimination capable transducer on the network.)

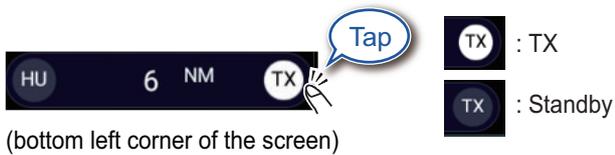


The most probable bottom material.

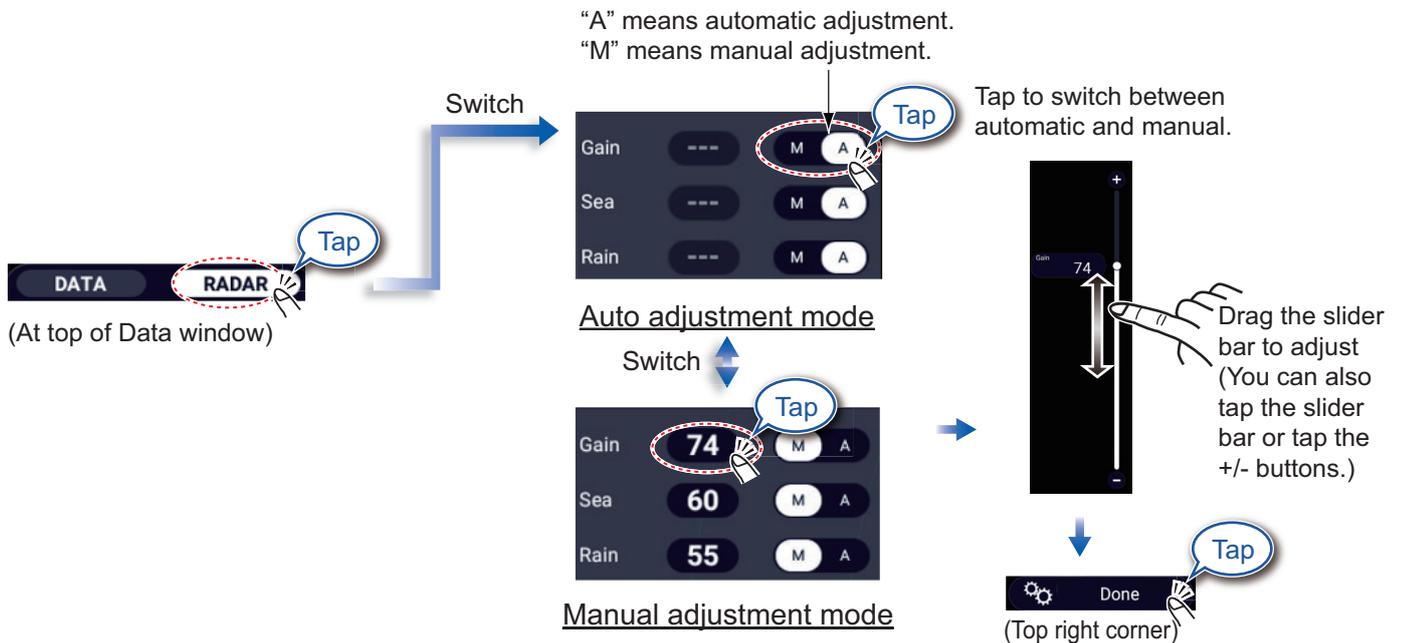
# Radar



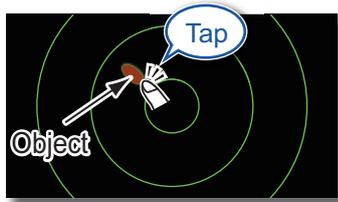
## How to switch between standby and TX



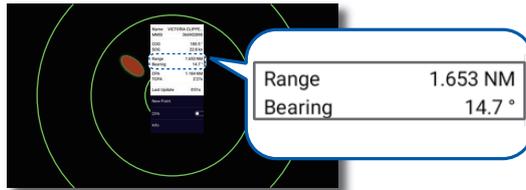
## How to adjust the gain / sea clutter / rain clutter



# How to measure the range, bearing from own ship to an object

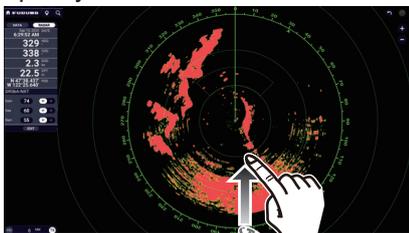


Tap an object to show its range and bearing from own ship.

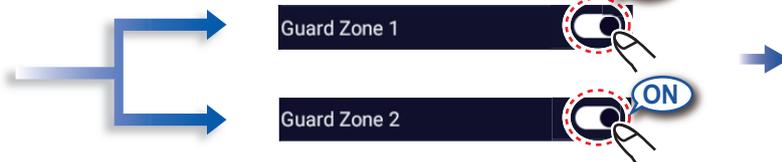


# How to set a guard zone

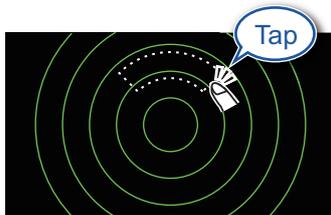
A guard zone alerts you (with aural and visual alarms) when an object (ship, island, reef, etc.) enters the area you specify.



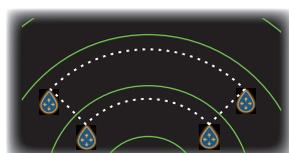
Open the Layers menu, tap the [Overlays] tab.



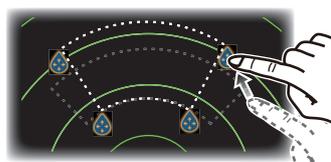
The guard zone appears in dashed lines.



Tap dashed line on guard zone.



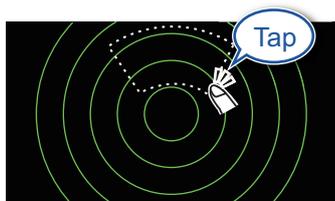
An icon appears at each corner of the guard zone.



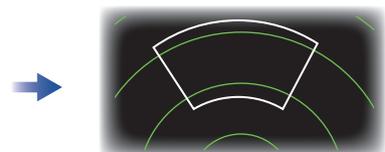
Drag the icons to set guard zone.



(Top right corner)



Tap the guard zone again.



The dashed lines change to solid lines, indicating the guard zone is active.

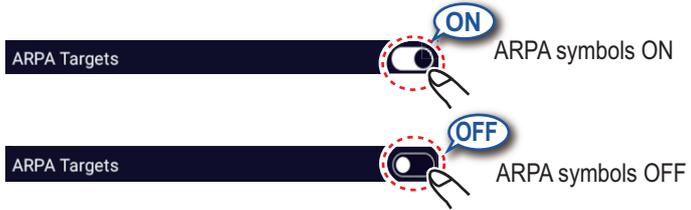
# ARPA Operation

ARPA is an anti-collision aid that tracks the movement of other ships to help prevent collision. ARPA not only tracks other ships but also provides their navigation data. Targets can be acquired manually, automatically, or both automatically and manually.

## How to show, hide ARPA symbols



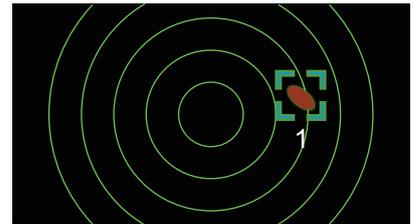
Open the Layers menu, tap the [Overlays] tab.



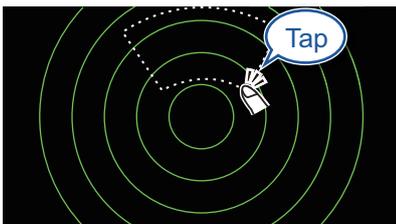
## How to manually acquire a target



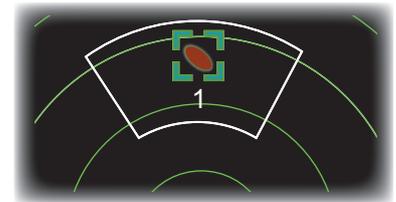
Tap the target to acquire.



## How to automatically acquire a target



Set a guard zone, then tap the guard zone.

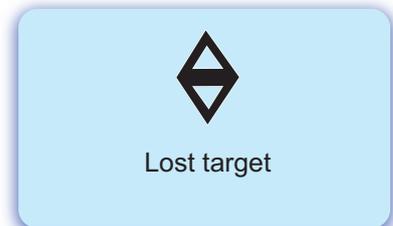
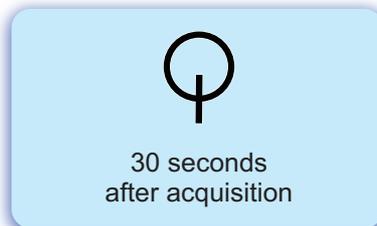


The dashed lines change to solid lines, indicating the guard zone is active.

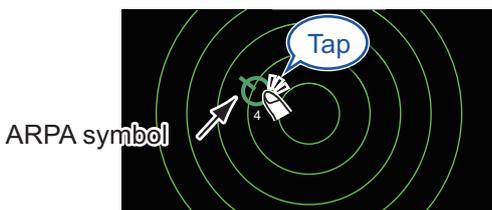
### Note

When [Full Auto Tracking Sea Condition] is activated from the [Radar] tab in the Layers menu, targets within 3 NM from your ship are automatically acquired when connected to a DRS-NXT series radar.

## ARPA symbols



## How to display target data



ARPA symbol

Tap an ARPA target to show its data.



ID	68
COG	206.9 °
SOG	5.8 km
Range	1.432 NM
Bearing	262.9 °
CPA	466 m
TCPA	-6'13s



# AIS (Automatic Identification System)

## How to show or hide AIS target symbols



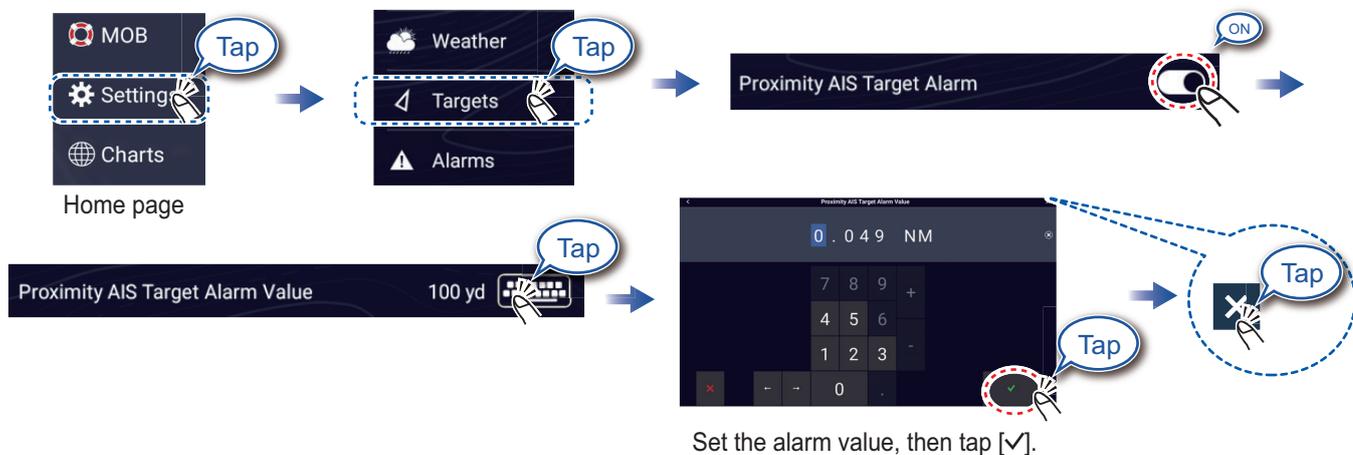
## AIS target symbols

	Class A AIS	Class B AIS	BFT* AIS
Activated target	SOG and COG vector Color: Blue	SOG and COG vector Color: Green	SOG and COG vector Color: Blue (filled)
Dangerous target	Color: Red		
Lost target	Color - AIS target: Blue - Cross: Red	Color - AIS target: Green - Cross: Red	Color - AIS target: Blue (filled) - Cross: Red

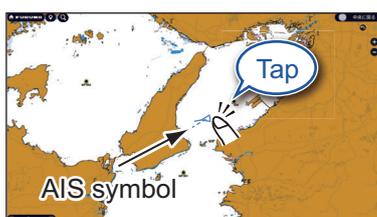
\*: Blue Force Tracking

## Proximity AIS target alarm

The proximity AIS target alarm releases aural and visual alarms when the distance between own ship and an AIS target is near the alarm value.



## How to show AIS target data



Tap AIS symbol.

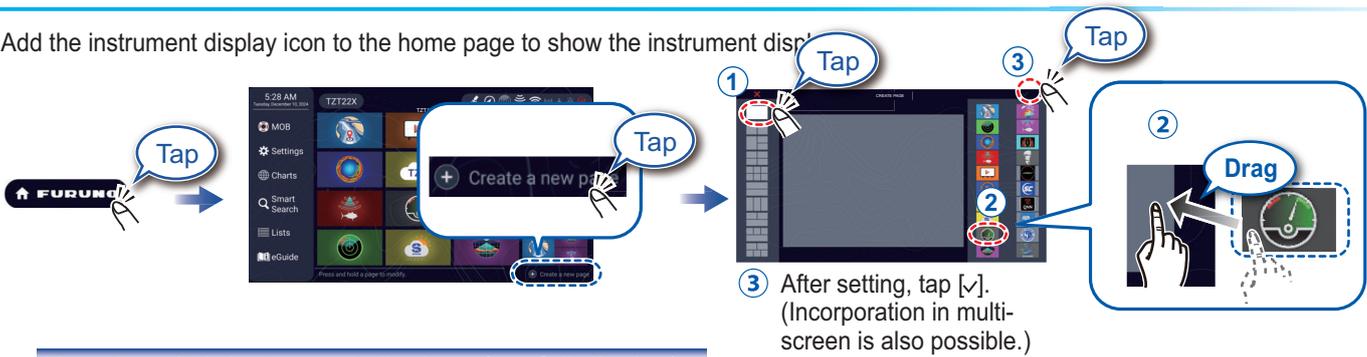
Name FÜRÜNÖ NAVNET  
MMSI 368007000  
COG 210.9 °  
SOG 5.7 kn  
Range 2,244 NM  
Bearing 214.3 °  
CPA 1,866 NM  
TCPA -3d13h  
Last Update 0'22s

# Instrument Display

With connection of appropriate sensors, the instrument display shows various navigation data.

## How to enable the instrument display

Add the instrument display icon to the home page to show the instrument display.



### How to switch instrument displays (ex. full display)



Swipe rightward or leftward to switch between displays.



### How to pin the instrument display

When the instrument screen icon is tapped on the home screen, the pinned instrument display is shown. Tap the icon at top right corner of the instrument display to set the pin.



: Pinned



: Pin released

## How to edit the instrument display



Long tap the instrument display, then select [Edit Page] on the Pop-up menu.



A white line surrounds each indication.

In the edit mode, you can remove, change, add, rearrange indications.

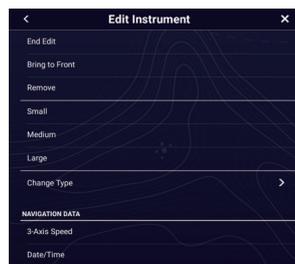
### To end the edit mode

Tap the screen, then select [End Edit] on the Pop-up menu.

### How to remove or change an indication



In the edit mode, select the indication to remove or change.



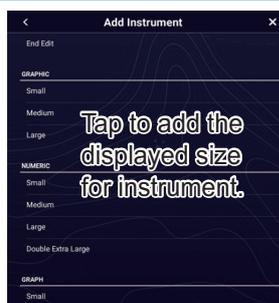
- Remove indication: Tap [Remove].
- Change size: Tap [Small], [Medium], [Large], [Double Extra Large]\*.
- Change type: Tap [Change Type], then tap desired size.
- Change indication: Tap indication in [NAVIGATION DATA], [ROUTE INFORMATION], [WIND AND WEATHER], and [ENGINE].

\*: Numeric displays only

### How to add an indication



In the edit mode, tap a location not occupied by an instrument display.



Select a size in desired category.



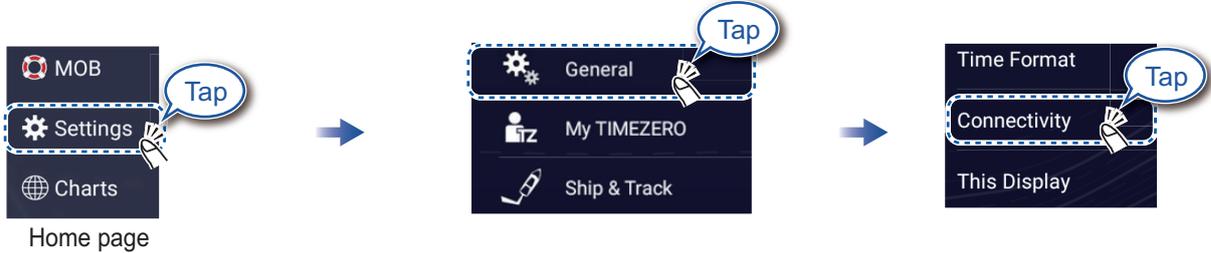
Tap added instrument display to change displayed data (see above).

# Wireless LAN Settings

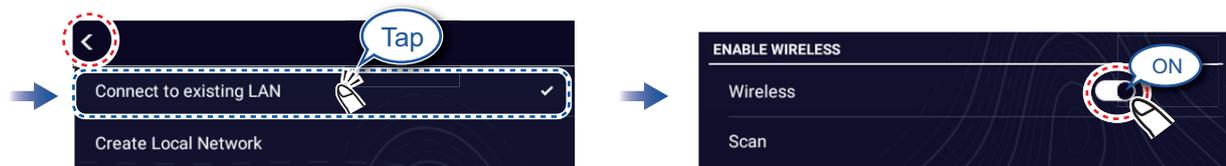
You can connect to the internet with the wireless LAN signal to download weather information, update the software, and connect to an iPhone, iPod, iPad, or Android™ device, to operate and monitor a NavNet TZtouch XL device.

## How to connect to an existing LAN

Connect to the existing LAN to download weather data or update the software. For smartphone and tablet settings, refer to appropriate manuals.



Home page



Tap [Connect to existing LAN].

**Note:** If no network appears, tap [Scan].



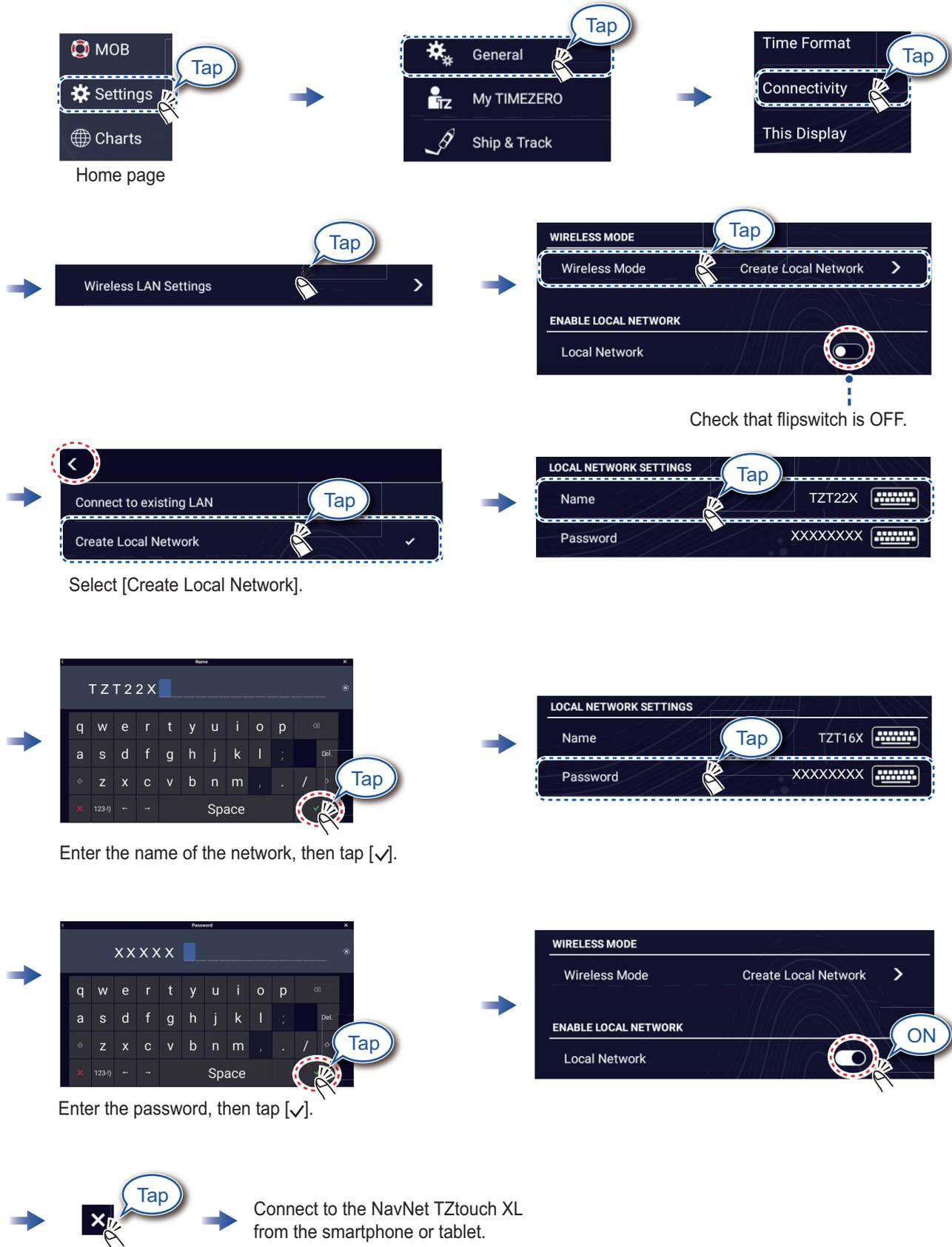
Tap network required.



Enter the password, then tap [OK].

## How to create a local wireless network

Create a local wireless network to enable operation, monitoring of the TZTtouch XL from a smartphone or tablet.



## PSTI Statement of Compliance

We **FURUNO ELECTRIC CO., LTD.**

(Name of manufacturer of the product)

**9-52 Ashihara-Cho, Nishinomiya City, 662-8580, Hyogo, Japan**

(Address of manufacturer of the product)

declare under our sole responsibility that the product

**MULTI FUNCTION DISPLAY,  
TZT10X, TZT13X, TZT16X, TZT22X, TZT24X**

(Product type, batch)

**May / 31 / 2029**

(Support period for the product)

**[https://www.furuno.co.jp/en/csr/sociality/customer/product\\_security.html](https://www.furuno.co.jp/en/csr/sociality/customer/product_security.html)**

(Weblink for latest information and contact to report to the manufacturer security issues)

to which this declaration relates conforms to the following standard(s) or other normative document(s)

Product Security and Telecommunications Infrastructure Act 2022

Product Security and Telecommunications Infrastructure (Security Requirements for  
Relevant Connectable Products) Regulations 2023 Schedule 1

On behalf of Furuno Electric Co., Ltd.

Nishinomiya City, Japan  
24 May 2024

(Place and date of issue)

Akihiko Kanechika  
Department General Manager  
Quality Assurance Department

(Signature, name and function of the signatory)



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TZTBBX

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Relevant Connectable Products) Regulations 2023 Schedule 1

On behalf of Furuno Electric Co., Ltd.

Nishinomiya City, Japan  
6 June 2024

(Place and date of issue)

Akihiko Kanechika  
Department General Manager  
Quality Assurance Department

(Signature, name and function of the signatory)





 **FURUNO ELECTRIC CO., LTD.**

