

This guide provides the basic operating procedures for this equipment. For detailed information, see the Operator's Manual on the WEB site. You can get the latest version of the manual by accessing the quick response code at the bottom of this page. Connection of sensors required.

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The screenshots used in this guide were mainly taken from the TZT19F.

Operational Overview

Icon (home/displays), power switch operations

TZT16F/TZT19F



FURUNO icon
Displays the home screen.

TZT9F/ TZT12F

(Right side of the Panel)



Display icons
(max. 16 on home screen)

"eGuide" provides
an abbreviated
operator's guide.



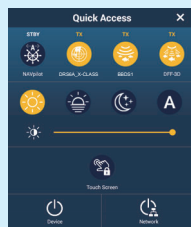
Home screen

Power off

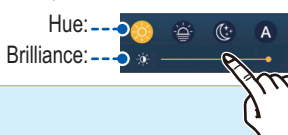
Device: Powers off this unit.
Network: Powers off all NavNet TZtouch series units in network.

Power switch

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

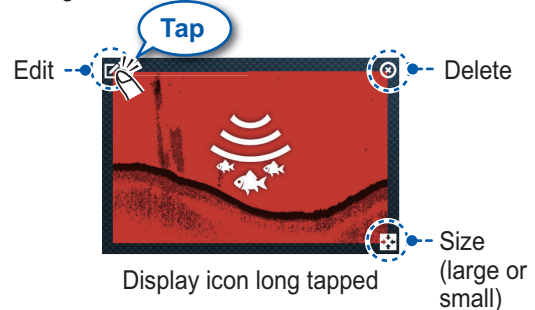


Brilliance, Hue



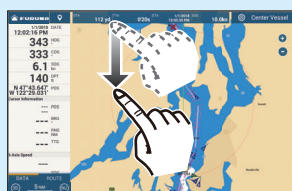
How to edit a display icon

Long tap a display icon to edit, delete, resize, or change its location.



How to select a display

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



Swipe downward from top of display.



Quick page

Operator's Manual Download Link



https://www.furuno.com/en/support/manuals/?pc=navnet_mfd



FURUNO ELECTRIC CO., LTD.

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.

Scale slider, Range slider

Zoom in
Zoom out



Tap

Two finger (long) tap



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

Two finger drag



Change the viewpoint position on the 3D display.

Menu operation

Pop-up menu



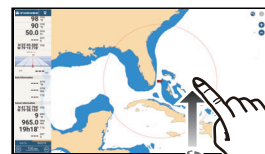
Tap screen (applicable point, object, etc.).

Pop-up menu



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

Layers menu



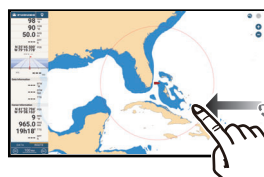
Swipe upward from the bottom edge.

Layers menu



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

Slide-out menu



Swipe leftward from the right edge.

Slide-out menu

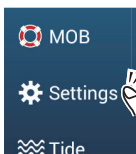


Tap the required function.
Icon color and function state
Yellow: ON, White: OFF

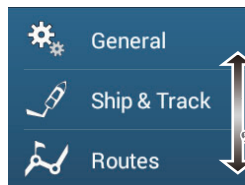
Settings menu



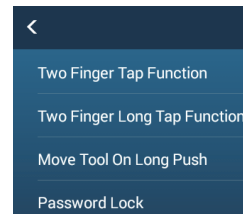
Tap the FURUNO icon.



Tap [Settings].

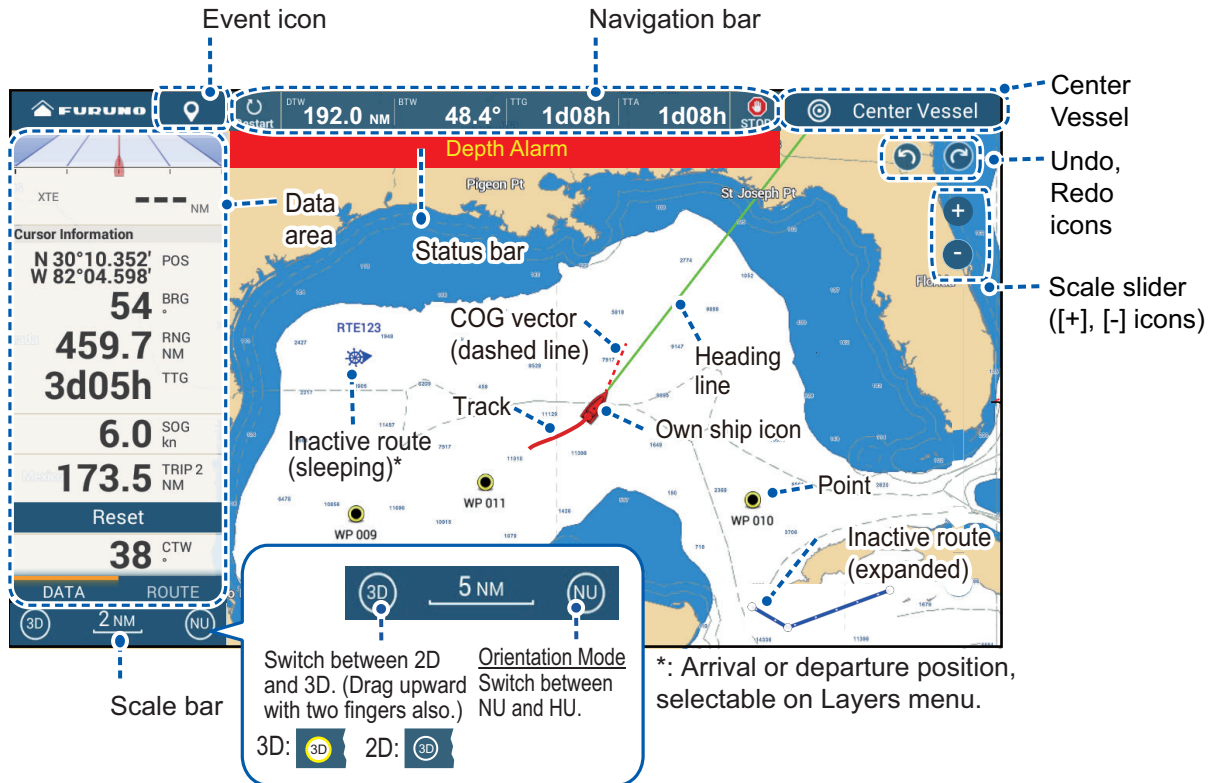


Drag to find required menu, then tap item.



Tap the required menu item.

Chart Plotter



Data Area (Data Box)

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

Data box settings



Long tap the data box to show [Edit NavData] display.

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



- 1 Tap the data box to remove or change.
- 2 Remove a data box: Tap [Remove]. Change data: Tap data to display.

To add a data box;

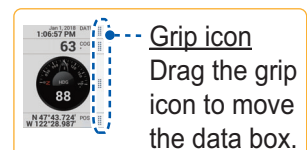


- 1 Tap empty space on the data area or [+Add NavData].
- 2 Tap a data to add.

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



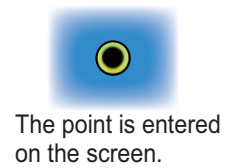
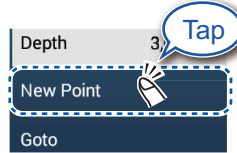
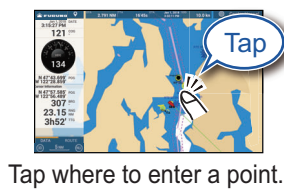
Tap [Close] to finish.



Points/boundaries

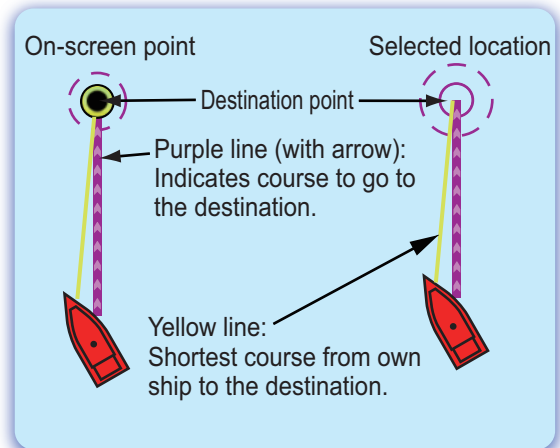
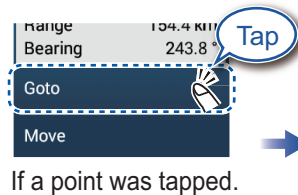
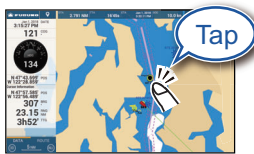
Points can be entered on the chart plotter display (radar, fish finder and weather displays also) to mark important locations such as a good fishing spot. Point attributes (position, symbol type, color, etc.) are recorded to the Points list. Also, boundaries can be set at the position desired (net position,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

How to enter a point



How to set a point as destination

On-screen point

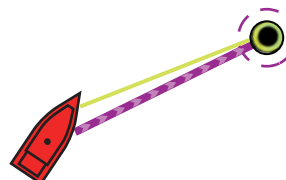
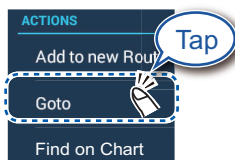


Points list

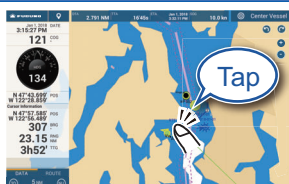
Sort the list by date, name, icon, color, range.



Tap [Lists] on the home screen.



How to set a boundary



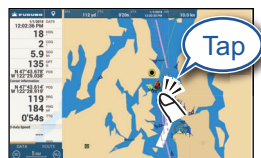
[Area]/[Line]: Tap necessary points to complete the boundary, referring to "Route" on the next page.

[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.

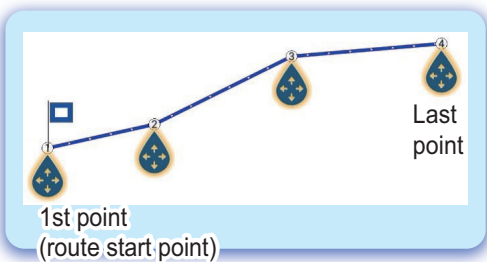
How to create a new route



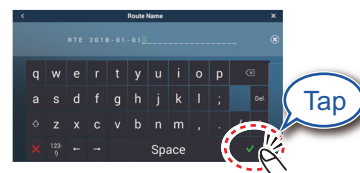
Tap the first point for the route.



Tap the next point for the route.
Repeat to enter all points for the route.



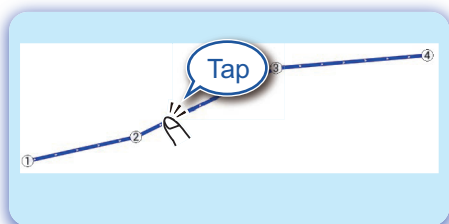
At the last point
End Route
(Top right corner)



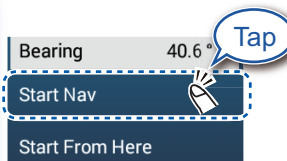
Enter a name for the route, then tap [✓].

How to follow a route

On-screen route



Tap a leg of the route.



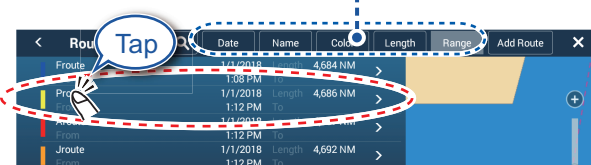
Routes list



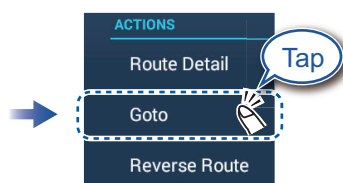
Home screen



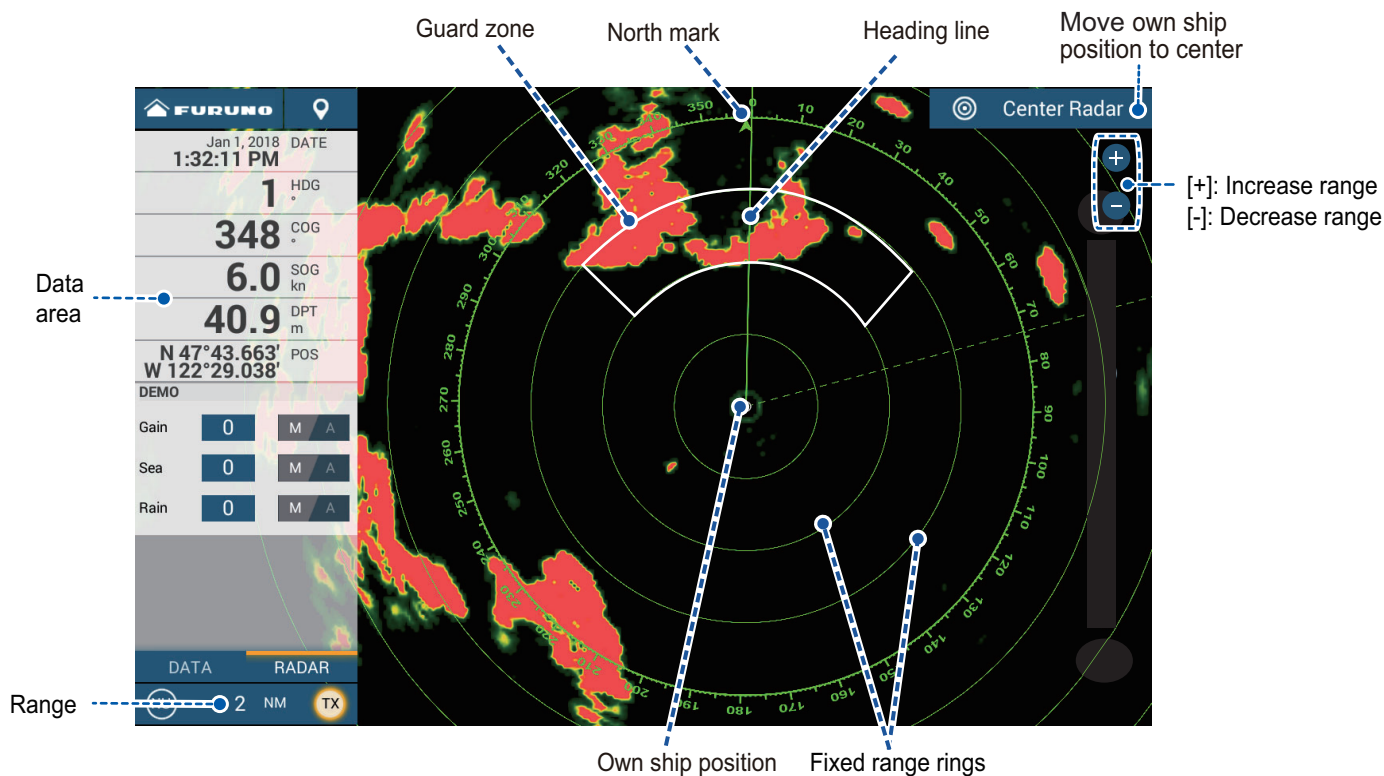
Sort list by date, name, color, length, or range.



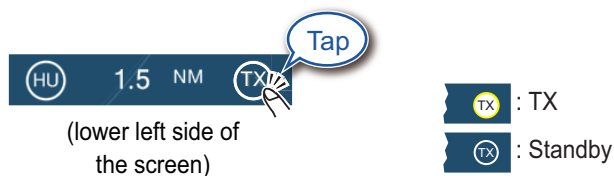
Tap the route to use.



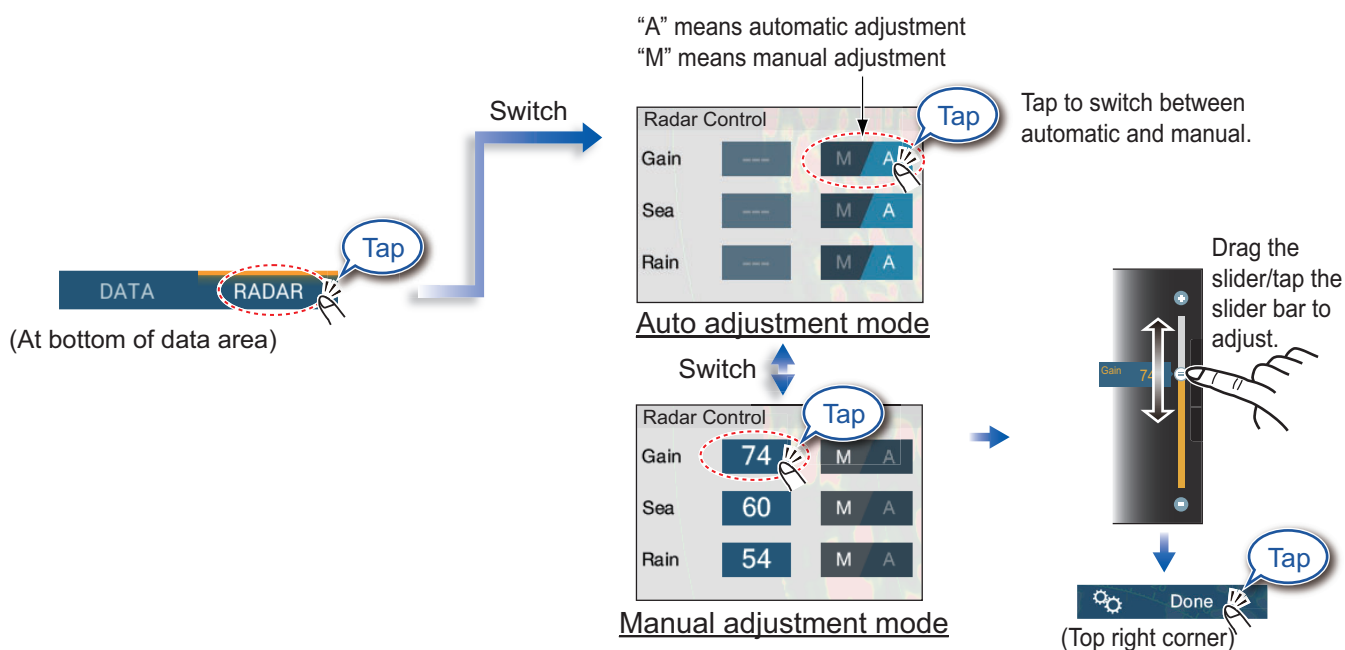
Radar



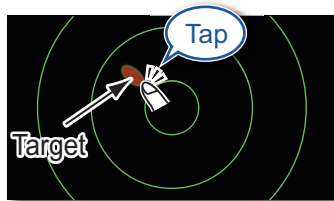
How to switch between standby and TX



How to adjust the gain / sea clutter / rain clutter



How to measure the range, bearing from own ship to a target

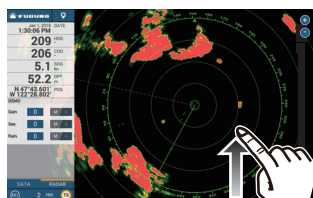


Tap a target to show its range and bearing from own ship.



How to set a guard zone

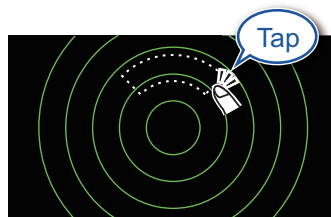
A guard zone alerts you (with aural and visual alarms) when a radar target enters the area you specify.



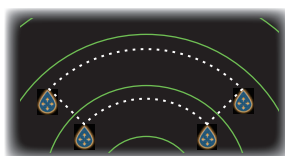
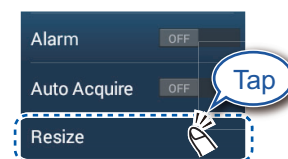
Open the Layers menu, tap the [Overlays] tab.



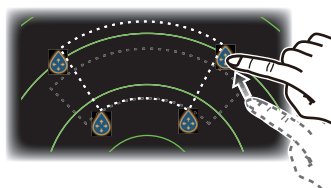
The guard zone appears in dashed lines.



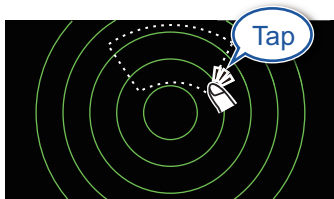
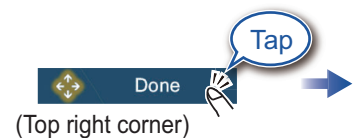
Tap dashed line on guard zone.



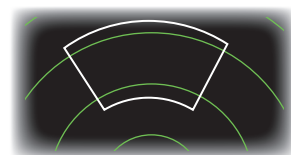
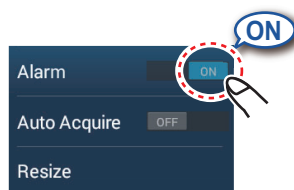
An icon appears at each corner of the guard zone.



Drag the icons to set guard zone.



Tap the guard zone again.

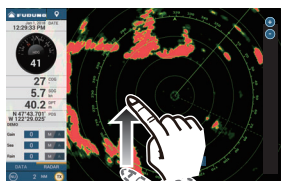


The dashed lines change to solid lines, indicating the guard zone is active.

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.

ARPA Targets

ON

ARPA symbols ON

ARPA Targets

OFF

ARPA symbols OFF

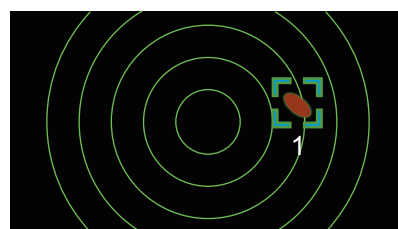
How to manually acquire a target



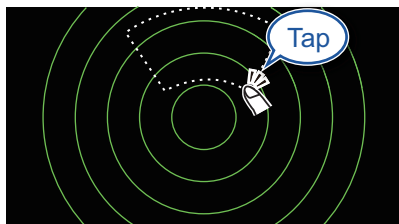
Tap the target to acquire.

Acquire

Tap



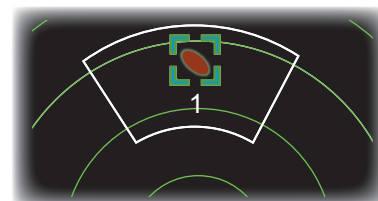
How to automatically acquire a target



Set a guard zone, then tap the
guard zone.

Auto Acquire

ON



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

ARPA symbols



At acquisition

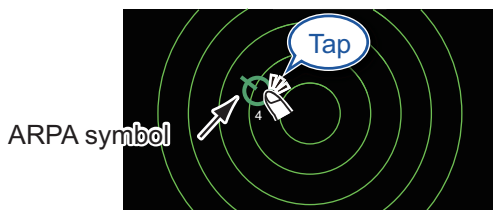


30 seconds
after acquisition



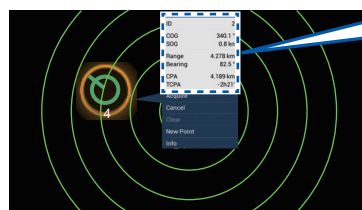
Lost target

How to display target data



ARPA symbol

Tap an ARPA target to show its data.



ID	2
COG	340.1°
SOG	0.8 kn
Range	4.278 km
Bearing	82.5°
CPA	4.189 km
TCPA	-2h21'

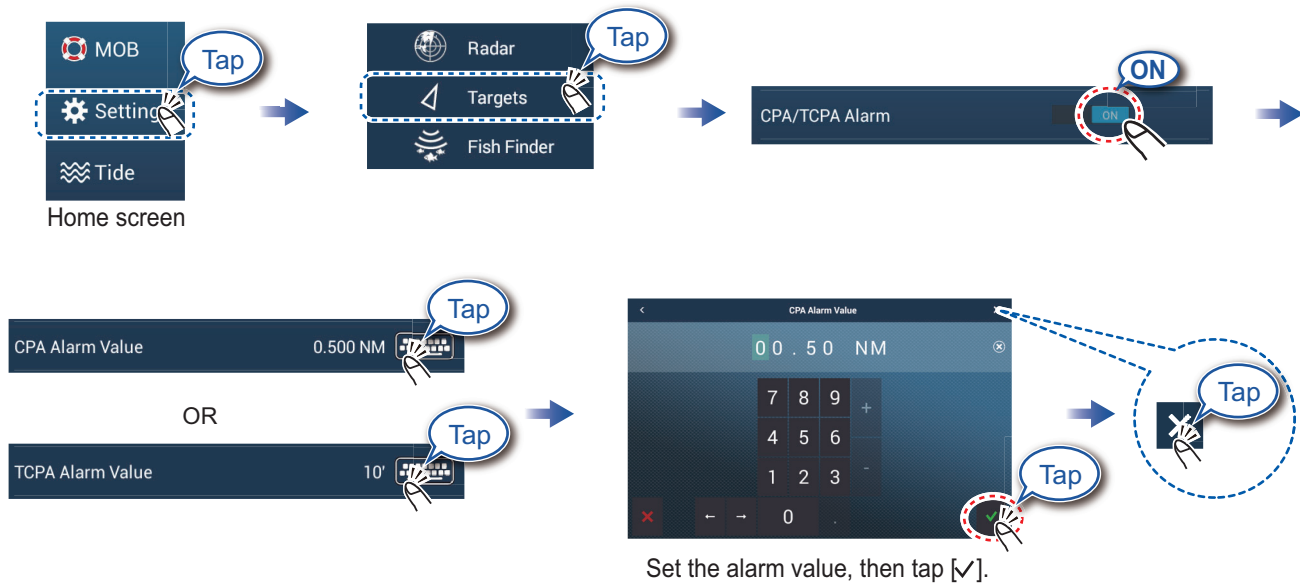
CPA/TCPA alarm

The CPA/TCPA alarm releases an aural alarm and a visual alarm (message in Status bar) when both the CPA and TCPA of a tracked target are equal to or lower than the CPA/TCPA alarm setting.

CPA: Closest point of approach

TCPA: Time to closest point of approach

How to set the CPA/TCPA alarm



How to acknowledge the CPA/TCPA alarm

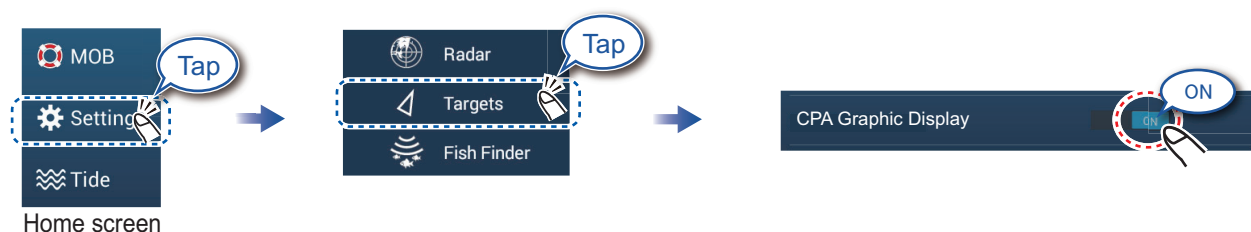
Tap the alarm message (top of screen) to acknowledge the alarm and stop the aural alarm.



CPA Line

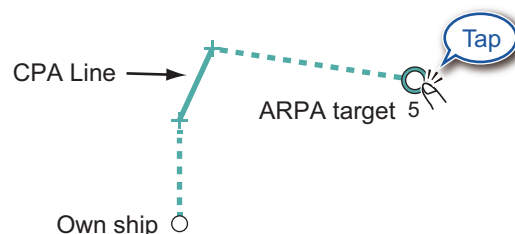
The CPA Line feature gives you a visual line that depicts the closest point of approach to a selected ARPA target. To use this feature, own ship position and heading data are required.

How to enable the CPA Line feature



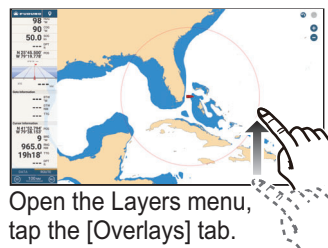
How to show the CPA Line

Tap an ARPA target (condition: target's CPA/TCPA must be a positive value) on the radar or chart plotter.



AIS (Automatic Identification System)

How to show or hide AIS target symbols



AIS Targets



AIS symbols ON



AIS symbols OFF

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

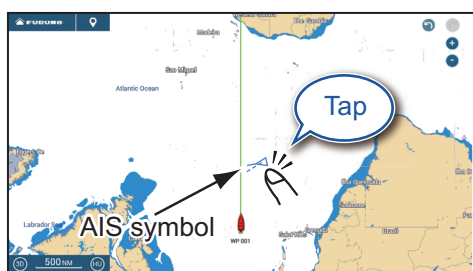
Proximity AIS target alarm

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.



Set the alarm value, then tap [✓].

How to show AIS target data



Tap AIS symbol.



Name WALLA WALLA...

MMSI 366710810

COG 263.4 °

SOG 0.1 kn

Range 650 NM

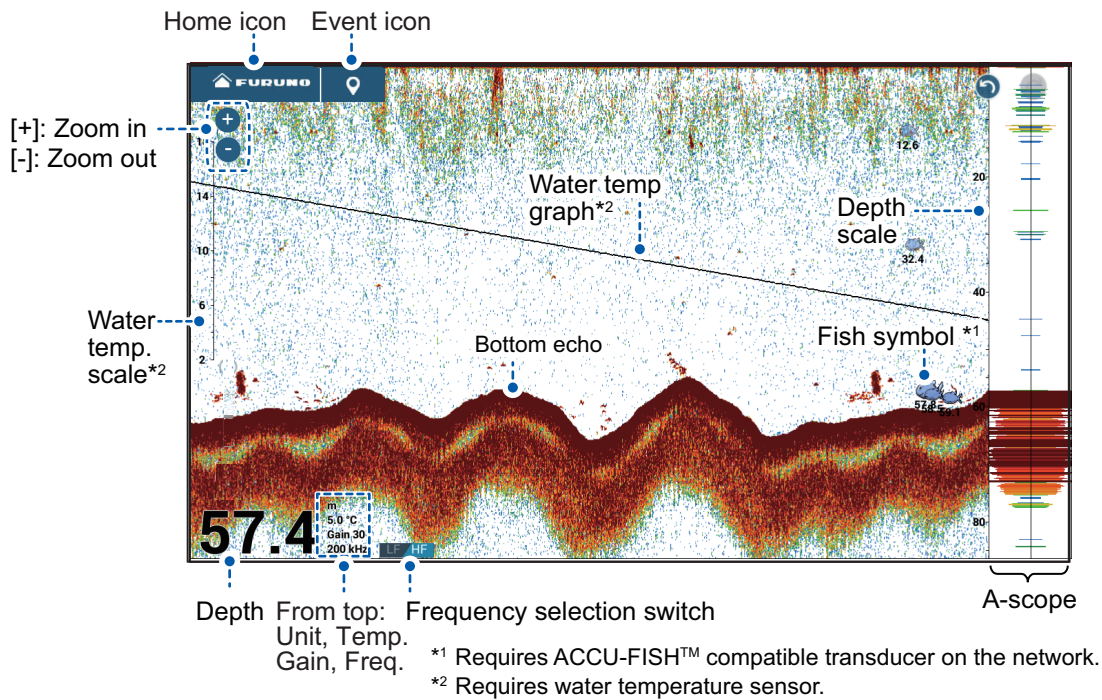
Bearing 118.0 °

CPA 648 NM

TCPA -1d10h

Last Update 0'07s

Fish Finder



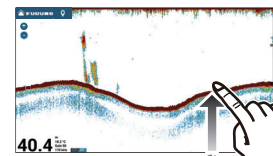
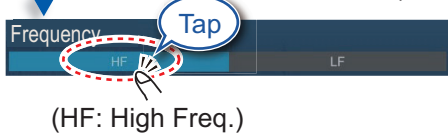
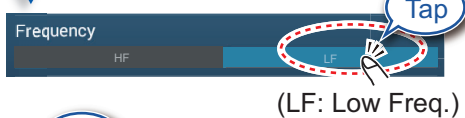
Note: Names of menu items may be different depending on the transducer connected on the network.

How to select a frequency

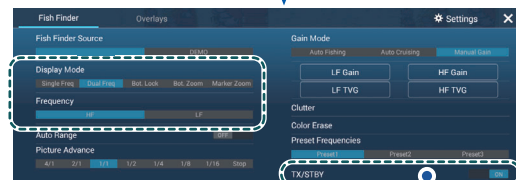
Low frequency: For “normal” use.
High (Middle) frequency: For detailed observation of schools of fish.
Dual frequency: Show both the low and high frequency pictures.

Single Freq.

Dual Freq.



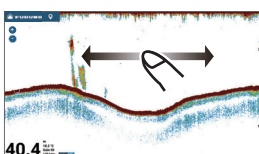
Open the Layers menu;
tap the [Fish Finder] tab.



Note

[TX/STBY] toggles between TX and standby.

How to show past echoes (echo history)



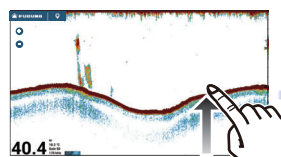
Swipe leftward or rightward
to show past echoes.



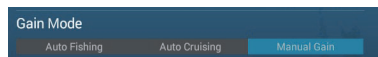
Return to normal display.

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.



Auto mode

Auto Fishing

OR

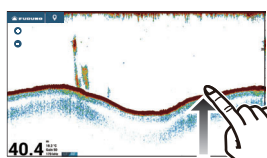
Auto Cruising

Manual mode

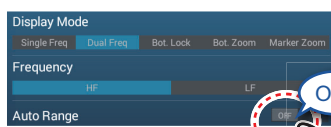
Manual Gain

Manual mode

How to change the range



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



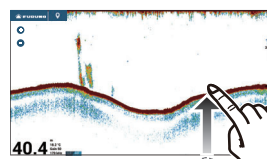
Pinch screen.

Increase range

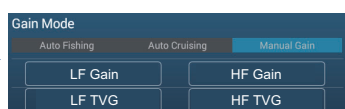
Decrease range

(Tap [+], [-] icon at left edge of screen.)

How to adjust the gain



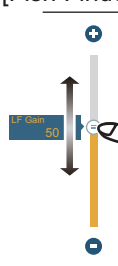
Open the Layers menu, tap the [Fish Finder] tab.



LF Gain

HF Gain

For dual frequency transducer



Drag the slider bar to set the gain.

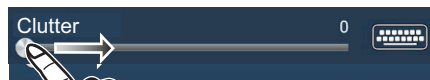
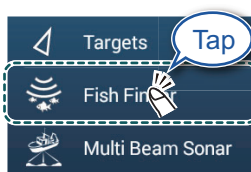
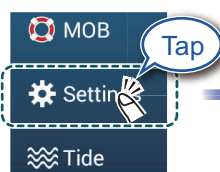
(Gain can also be adjusted by tapping the slider bar.)



Done

(Top right corner)

How to reduce clutter



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

(Clutter can also be adjusted from the Layers menu, [Fish Finder] tab.)

Zoom display

40.4

Show the Layers menu.

Fish Finder Source
TZT19F DEMO

Display Mode
Single Freq Dual Freq Bot Lock Bot Zoom Marker Zoom

Bot. Lock
Tap Bottom Lock
Search for bottom fish.

Bot. Zoom
Tap Bottom Zoom
Find bottom contour and hardness.

Marker Zoom
Tap Marker Zoom
Help determine the size of a school of fish in the middle layer.

20.5

20.5

52.6

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

*: Zoom zone is shown with a yellow square.

ACCU-FISH™/Bottom Discrimination/RezBoost™

40.4

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

Fish Finder Overlays

Interference Rejection
Off Low Medium High Auto

RezBoost
Standard Enhanced

Day Background Color

Bottom Search Mode ON

Color Range Expansion OFF

A Scope ON

Temperature Graph OFF

Bottom Discrimination ON

ACCU-FISH ON

Fish Alarm OFF

RezBoost™

Raise the echo resolution. (Requires RezBoost™ capable transducer on the network.)

RezBoost
Standard Enhanced

Standard Enhanced

(Standard mode) (High resolution mode)

Bottom Discrimination

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

Bottom Discrimination ON

Bottom discrimination display { 576

The most probable bottom material.

Rock Gravel Sand Mud

ACCU-FISH™

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

ACCU-FISH ON

Fish symbol

Fish size or depth 12

Notice

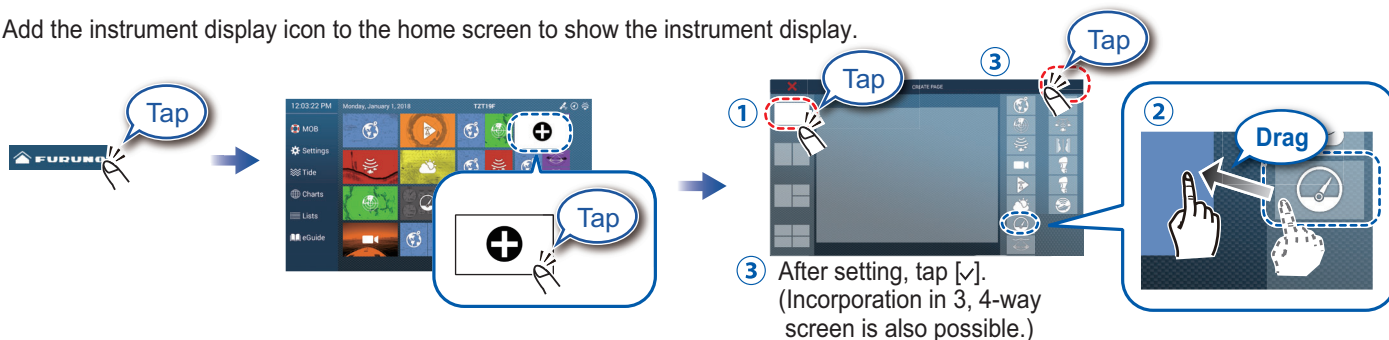
You can select fish symbol type, and fish size or depth indication from the menu - go to home screen, [Settings], [Fish Finder].

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 screen to show the instrument display.



How to switch instrument displays (ex. full display)



Swipe rightward or leftward to switch between displays.

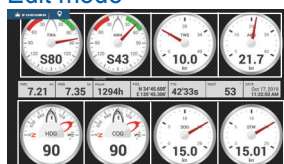


How to edit the instrument display



Tap the instrument display, then tap [Edit Page] on the pop-up menu.

Edit mode



A white line surrounds each indication.

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

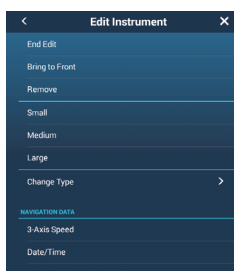
To end the edit mode

Tap the screen, then tap [End Edit] on the pop-up menu.

How to remove or change an indication



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

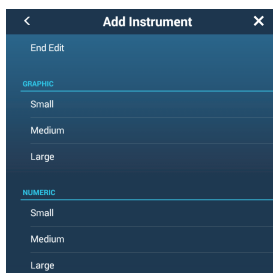


- Remove indication: Tap [Remove].
 - Change size: Tap [Small], [Medium], [Large], [Double Extra Large]*.
 - Change type: Tap [Change Type], then tap desired size.
 - Change indication: Tap indication in [NAVIGATION DATA], [ROUTE INFORMATION], [WIND AND WEATHER], and [ENGINE].
- * Numeric displays only

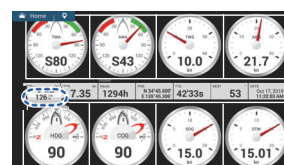
How to add an indication



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



Tap a size in desired category.



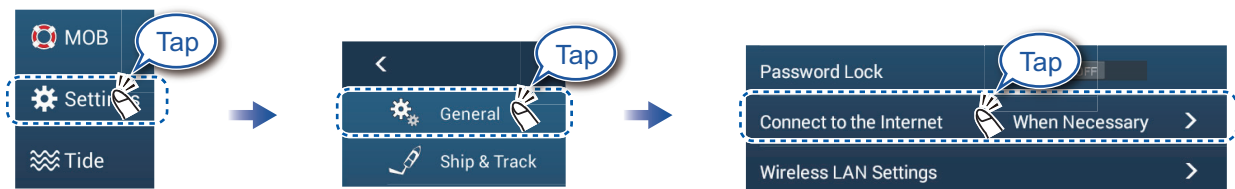
Tap added instrument display to change displayed data (see above).

Wireless LAN Settings

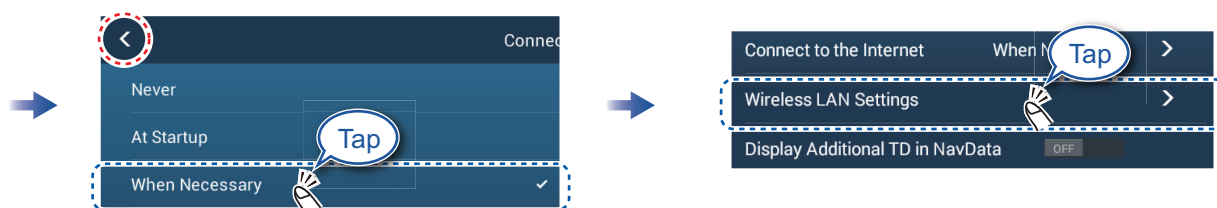
You can connect to the internet with the wireless LAN signal to download weather information, update the software, and connect to an iPhone, iPod, iPad, or Android™ device, to operate and monitor a NavNet TZtouch3 device.

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 screen



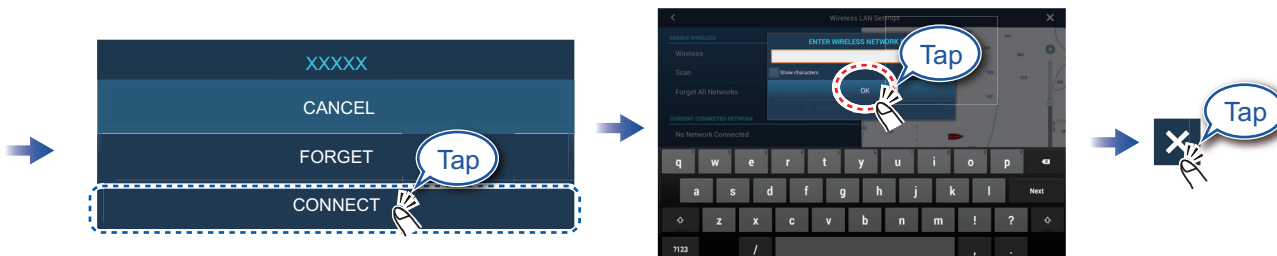
Select [When Necessary], then tap "<".



Select [Connect to existing LAN], then tap "<".



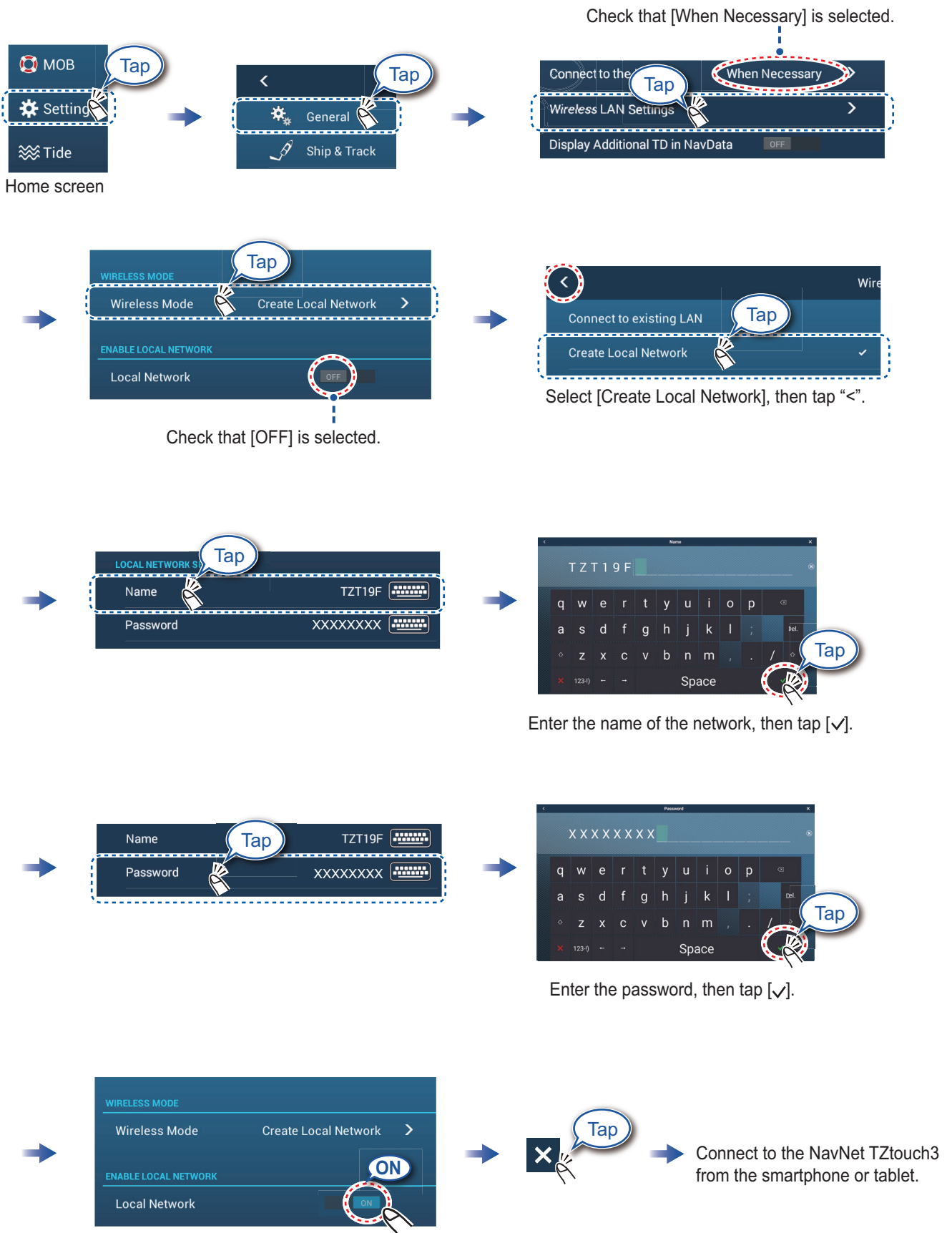
Tap network required.



Enter the password, then tap [OK].

How to create a local wireless network

Create a local wireless network to connect to an iPhone, iPod, iPad, or Android device.



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,
TZX9F/12F/16F/19F、TZX2BB

(Product type, batch)

December / 31 / 2024

(Support period for the product)

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
23 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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