

FURUNO

MULTI FUNCTION DISPLAY



Model **TZTL12F/TZTL15F**

Operator's Guide

The purpose of this guide is to provide the basic operation for this equipment. For detailed information, see the operator's manual in the supplied CD-ROM. You can get the latest version of the manual by accessing the quick response code at the back of this guide.

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Operational Overview

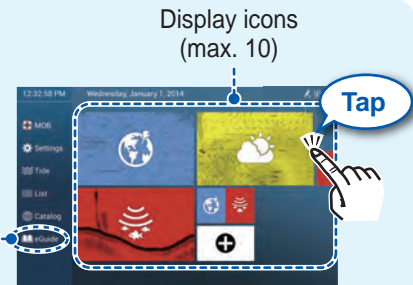
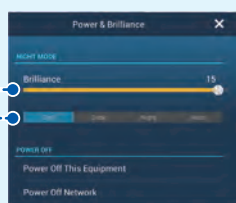
Home screen operations



Home icon
Displays the home screen.

POWER switch

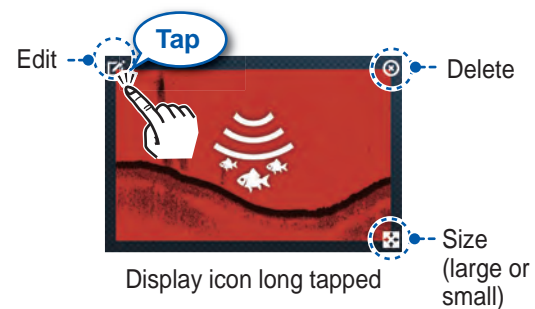
- Power on/off.
- Adjusts display brilliance.
- Changes hue.



Home screen

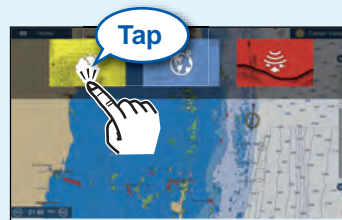
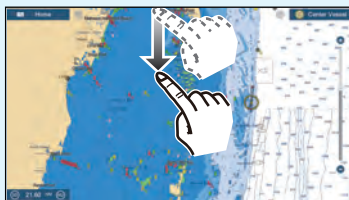
How to edit a display icon

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



How to select a display

- From the home screen (see above)
- From the quick page



The quick page has the display icons selected to large size on the home screen.


Quick page



FURUNO ELECTRIC CO., LTD.


Touchscreen operations

Tap




- Select an item on a menu.
- Select an object to show the corresponding pop-up menu.

Drag



- Move the chart.
- Scroll the menu.


Two finger pinch



Zoom in Zoom out


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

Two finger tap



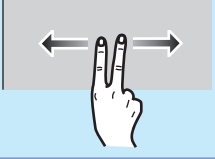
Do the function assigned to [Function Gesture] in the [Settings] - [General] menu.

Slider bar



Tap operation also available.


Two finger drag



Change the viewpoint position on the 3D display.

Menu operation

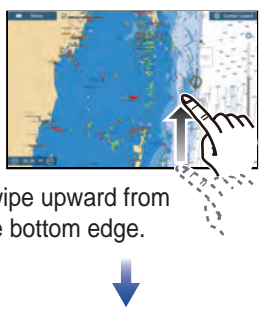
Pop-up menu




Tap any part of the screen or an object.

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

Layer menu




Swipe upward from the bottom edge.



Tap the required function.


Slide-out menu



Swipe leftward from the right edge.

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

Settings menu



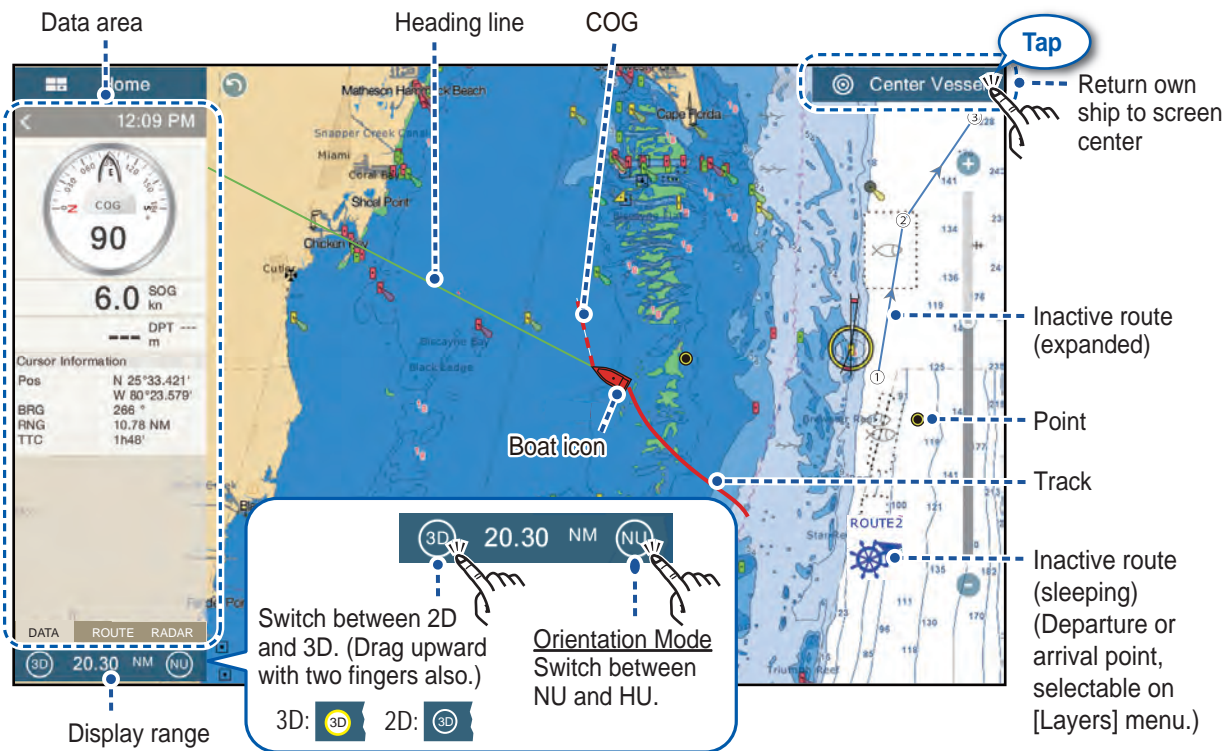
Tap the [Home] icon.

Tap [Settings].

Tap the required menu.

Tap the required option.

Plotter

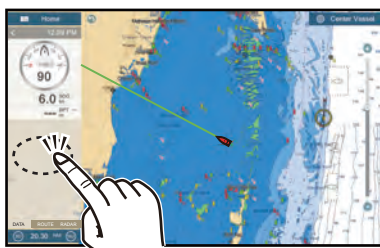


Data Area (Data Box)

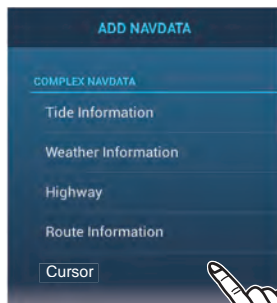
Swipe from the left edge of the screen rightward to show the data area at the left edge of the screen. Tap “<” to hide the data area.

Data box settings

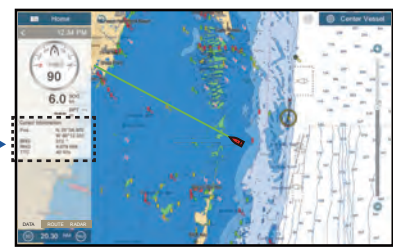
How to add a data box



Tap an unoccupied space.

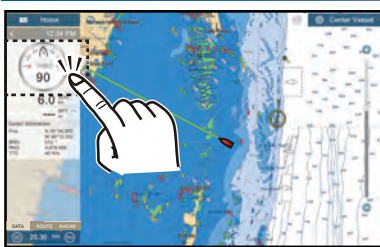


Tap the data to add.

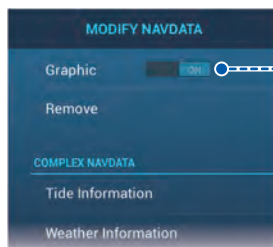


Ex. “Cursor” data added to the data box

How to remove or change the contents of a data box



Tap the data to remove or change.



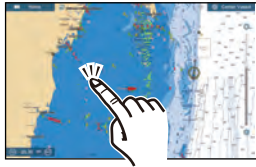
Use flipswitch to set data format. (ON: Analog, OFF: Digital)

Remove: Tap [Remove].
Change: Tap the data to use.

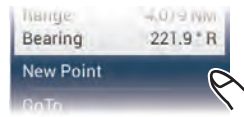
Points

Points can be entered on the plotter and radar displays to mark important locations such as a good fishing spot. Point attributes (position, symbol type, color, etc.) are recorded to the points list.

How to enter a point



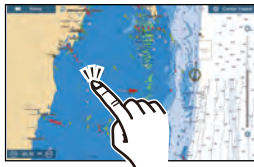
Tap where to enter a point.



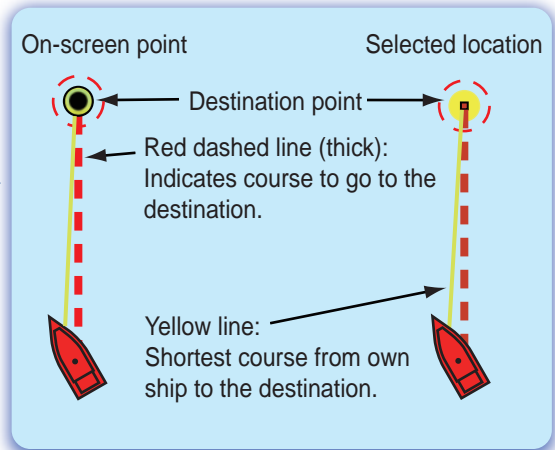
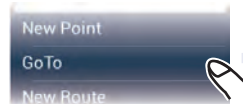
The point is entered on the screen.

How to set a point as destination

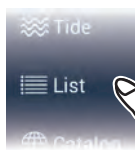
On-screen point



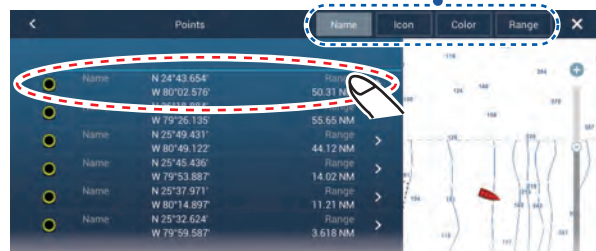
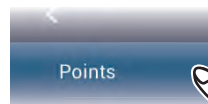
Tap a point or the location to set as destination.



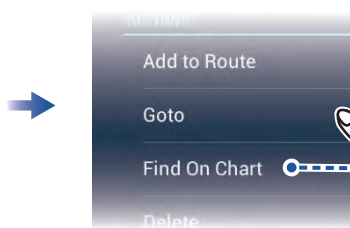
Points list



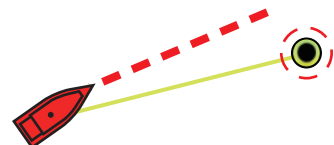
Tap [List] on the home screen.



Tap the point to set as the destination.



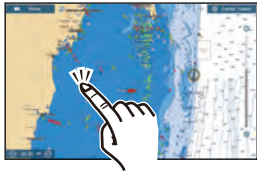
The point is put at the center of the plotter display.



Routes

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

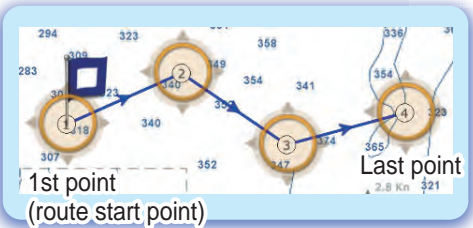
How to create a new route



Tap the first point for the route.



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



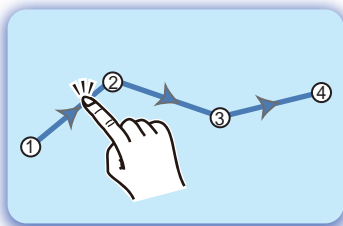
At the last point
(Top right corner)



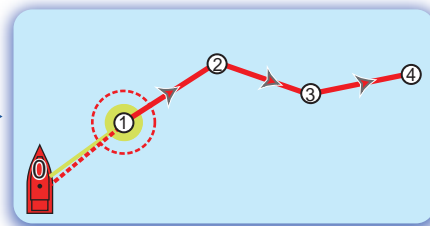
Enter a name for the route, then tap [✓].

How to follow a route

On-screen route

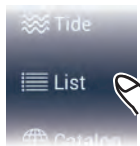


Tap a leg of the route.



Routes list

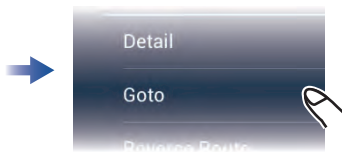
Sort list by name, color, or total length.



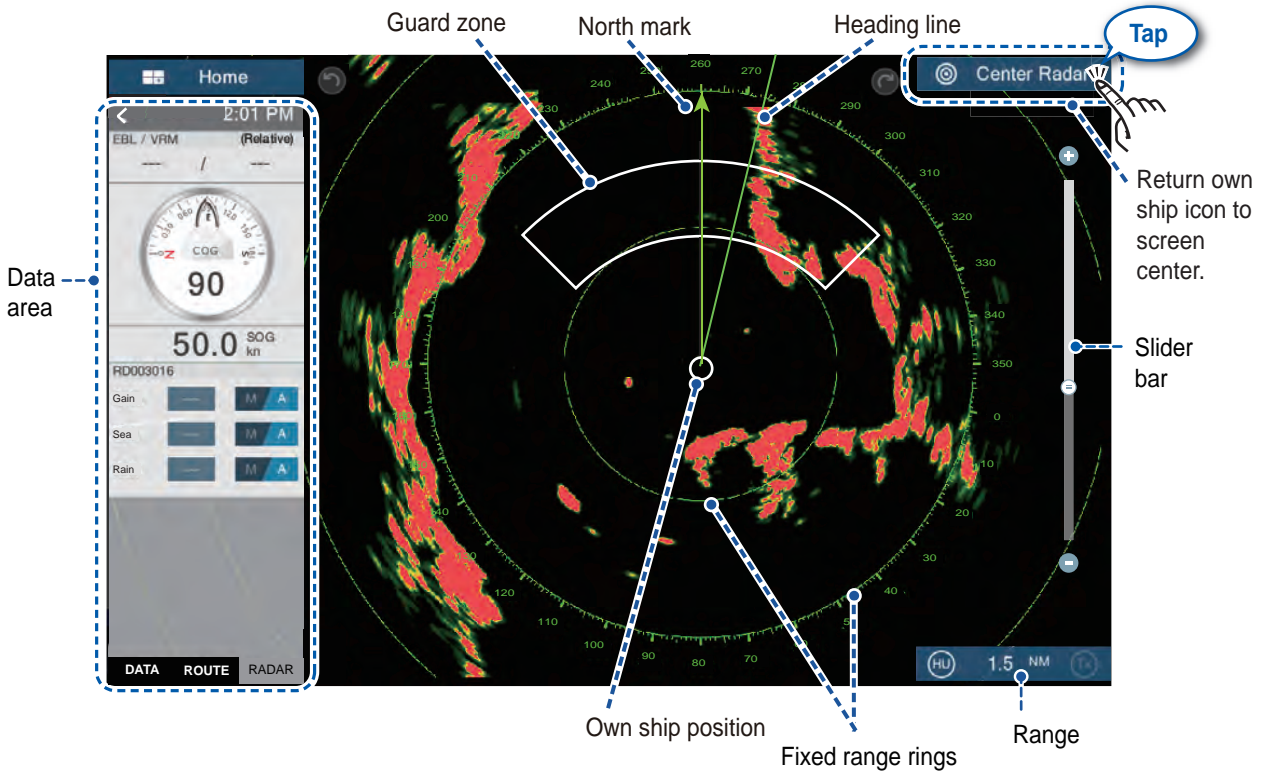
Home screen



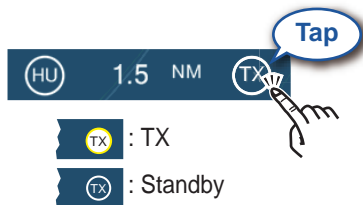
Tap the route.



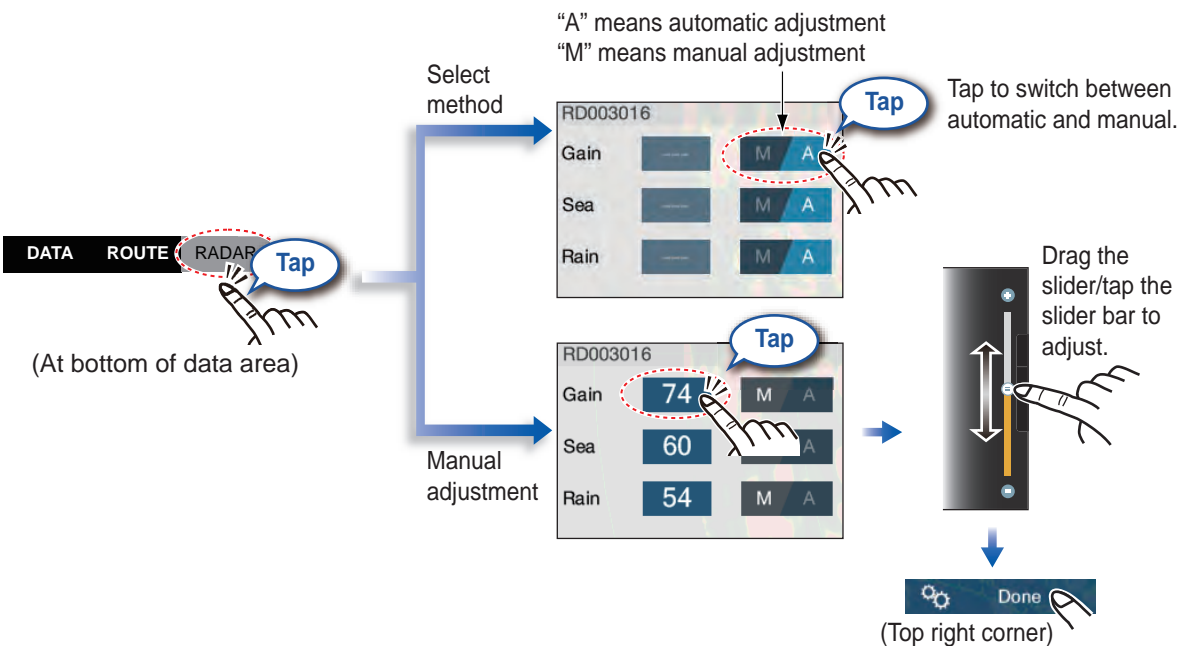
Radar



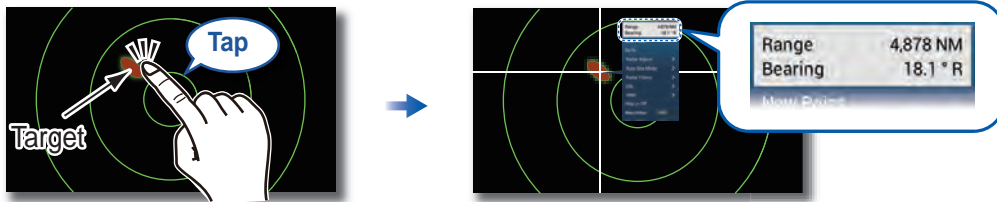
How to switch between standby and TX



How to adjust the gain / sea clutter / rain clutter



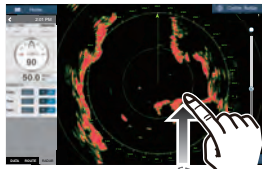
How to measure the range, bearing from own ship to a target



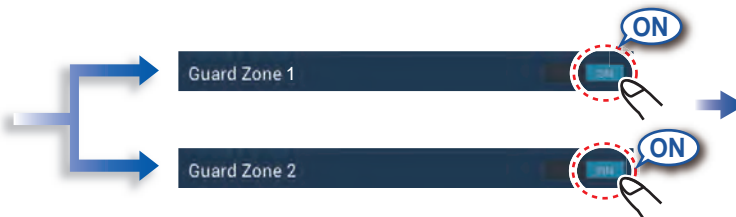
Tap a target to show its range and bearing from own ship.

How to set a guard zone

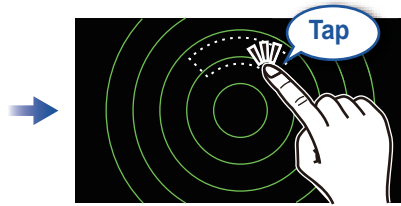
A guard zone alerts you (with aural and visual alarms) when a radar target enters the area you specify.



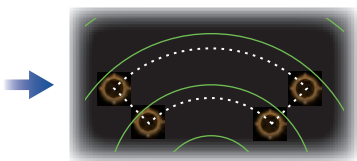
Open the [Layers] menu.



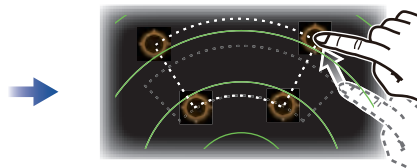
The guard zone appears in dashed lines.



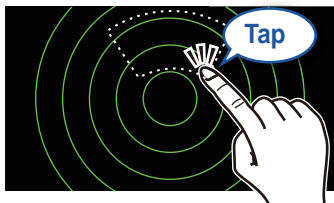
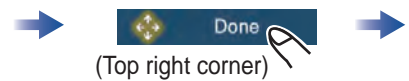
Tap dashed line on guard zone.



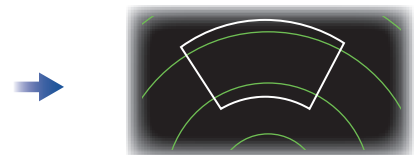
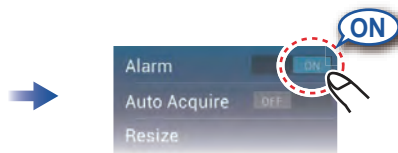
A circle appears at each corner of the guard zone.



Drag the circles to set guard zone.



Tap the guard zone again.

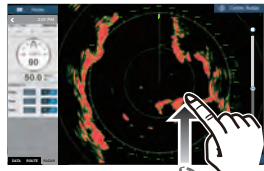


The dashed lines change to solid lines, indicating the guard zone is active.

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 activate, deactivate ARPA



Open the [Layers] menu.

ARPA Targets

ON

ARPA activated

ARPA Targets

OFF

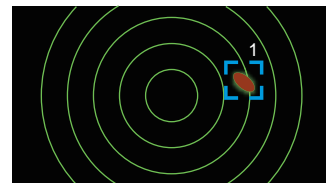
ARPA deactivated

How to manually acquire a target



Tap the target to acquire.

Acquire



ARPA symbols



At acquisition

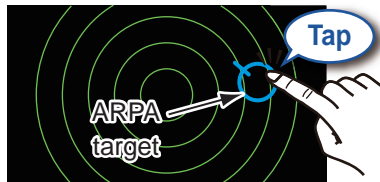


Within 30 seconds after acquisition

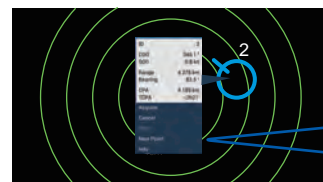


Lost target

How to display target data



Tap an ARPA target to show its data.



ID	2
COG	340.1 °
SOG	0.8 km
Range	4.278 km
Bearing	82.5 °
CPA	4.189 km
TCPA	-2h21'
Acquire	
Cancel	
Clear	
New Point	
Info	

CPA/TCPA alarm

The CPA/TCPA alarm releases aural and visual alarms 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



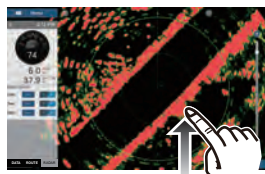
How to acknowledge the CPA/TCPA alarm

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



AIS (Automatic Identification System)

How to show or hide AIS target symbols



Open the [Layers] menu.



AIS target symbols

	Class A AIS	Class B AIS
Normal target	SOG/COG vector Color: blue	SOG/COG vector Color: green
Dangerous target	Color: red	Color: red Flashing
Lost target	Color - AIS target: blue - "x" symbol: red	Color - AIS target: green - "x" symbol: red

Proximity AIS target alarm

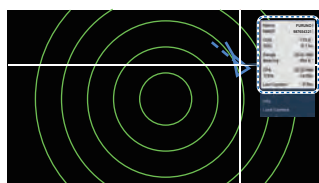
The proximity AIS target alarm releases aural and visual alarms when the distance between own ship and an AIS target is less than the alarm value.



How to show AIS target data

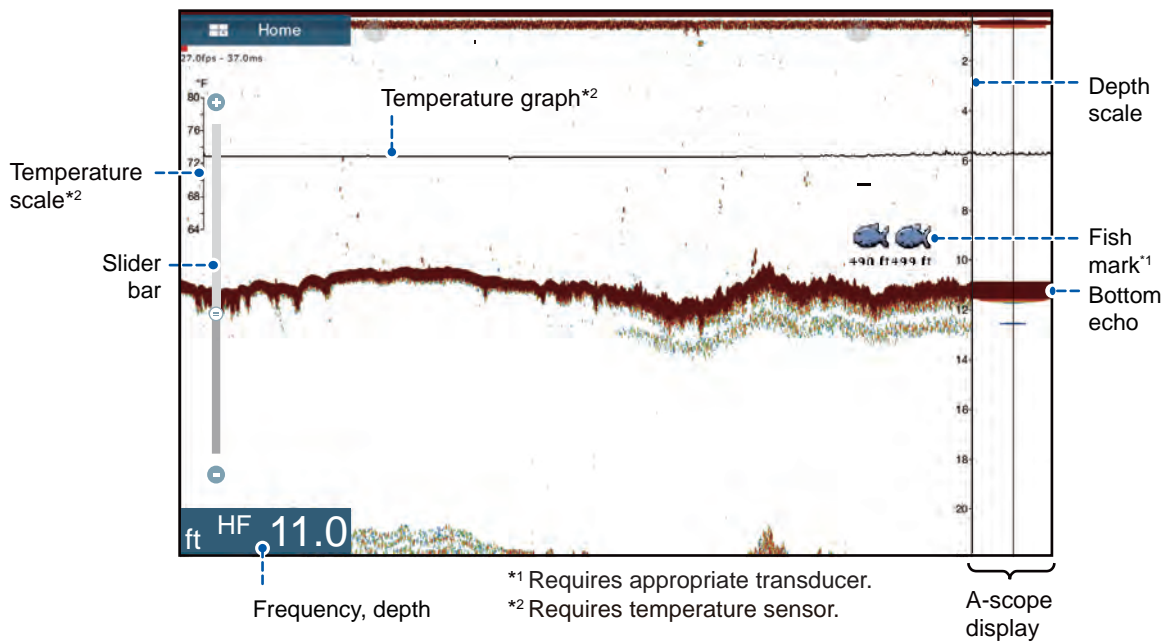


Tap an AIS target to show its data.



Name	FURUNO
MMSI	987654321
COG	173.0°
SOG	0.1 kn
Range	20.61 NM
Bearing	354.6°
CPA	20.55 NM
TCPA	-16°05s
Last Update	0'39s

Fish Finder

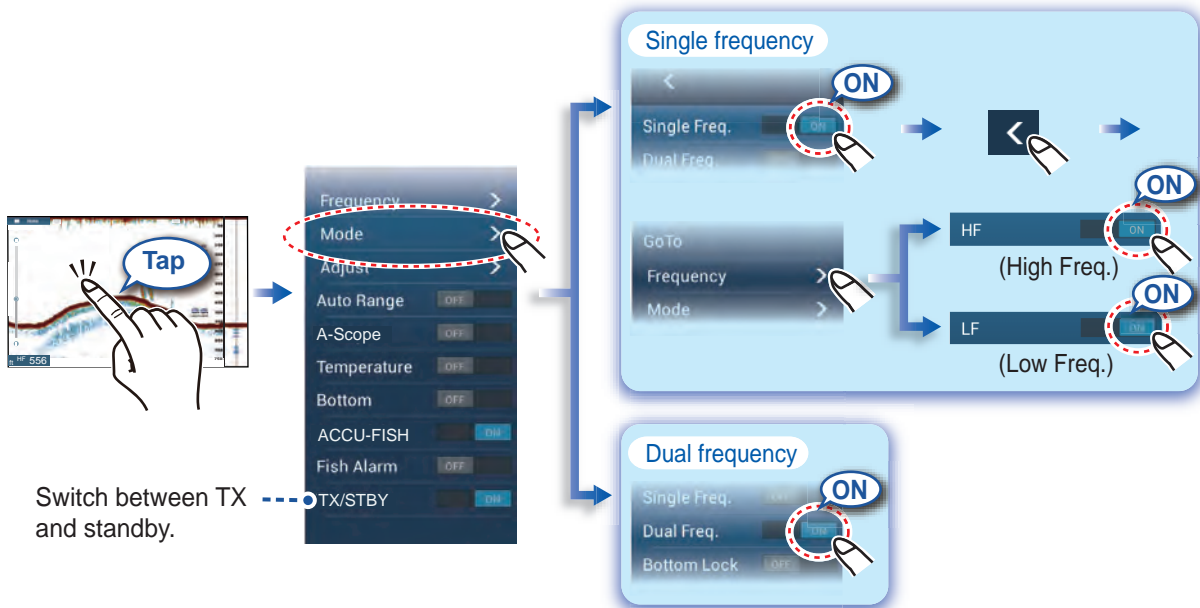


How to select a frequency

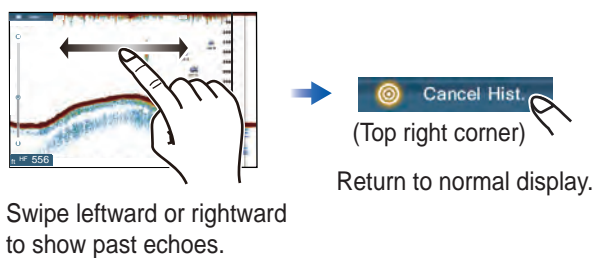
Low frequency: For "normal" use.

High frequency: For detailed observation of schools of fish.

Dual frequency: Show both the low and high frequency pictures.

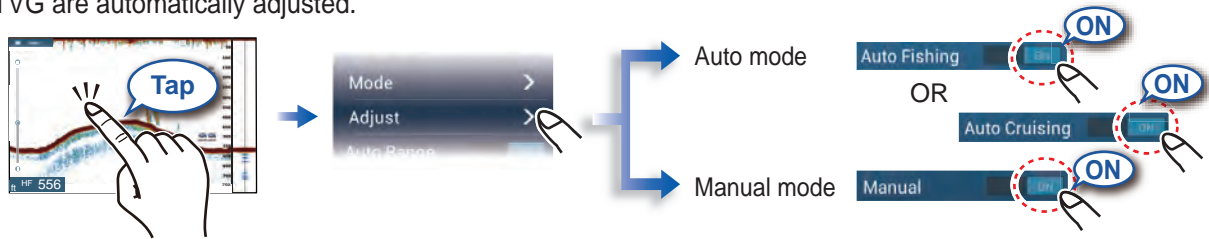


How to show past echoes (echo history)



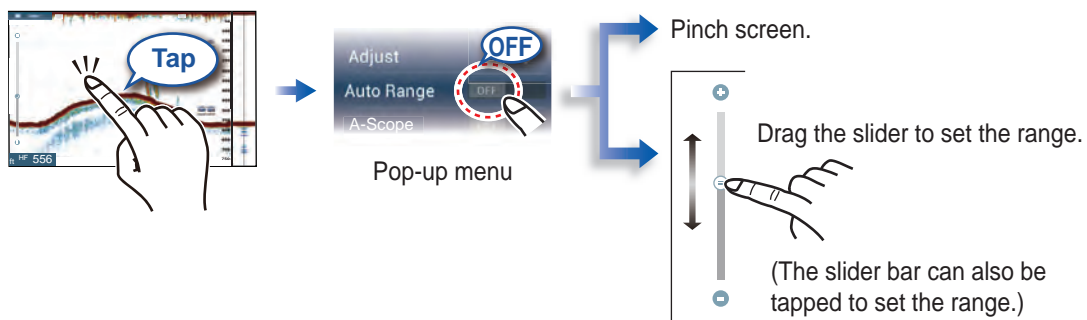
How to select the operating mode

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

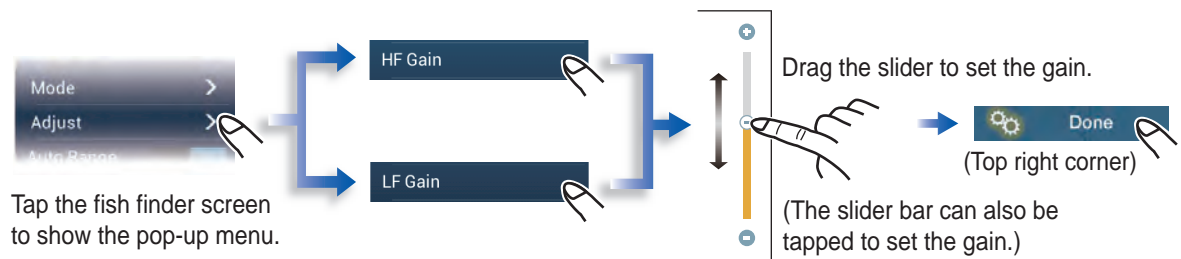


Manual mode

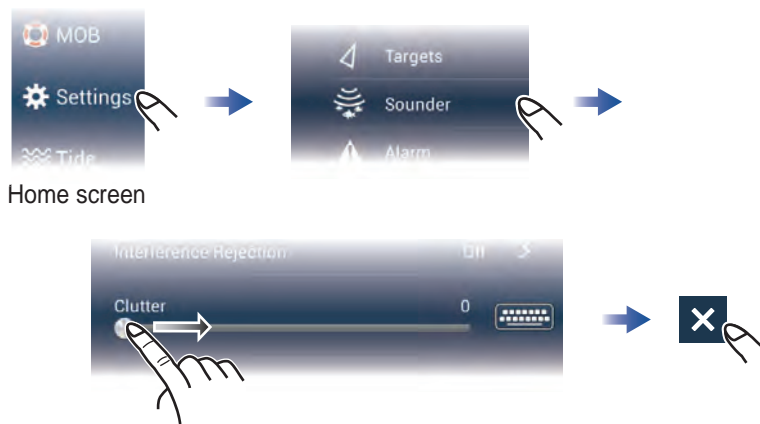
How to change the range



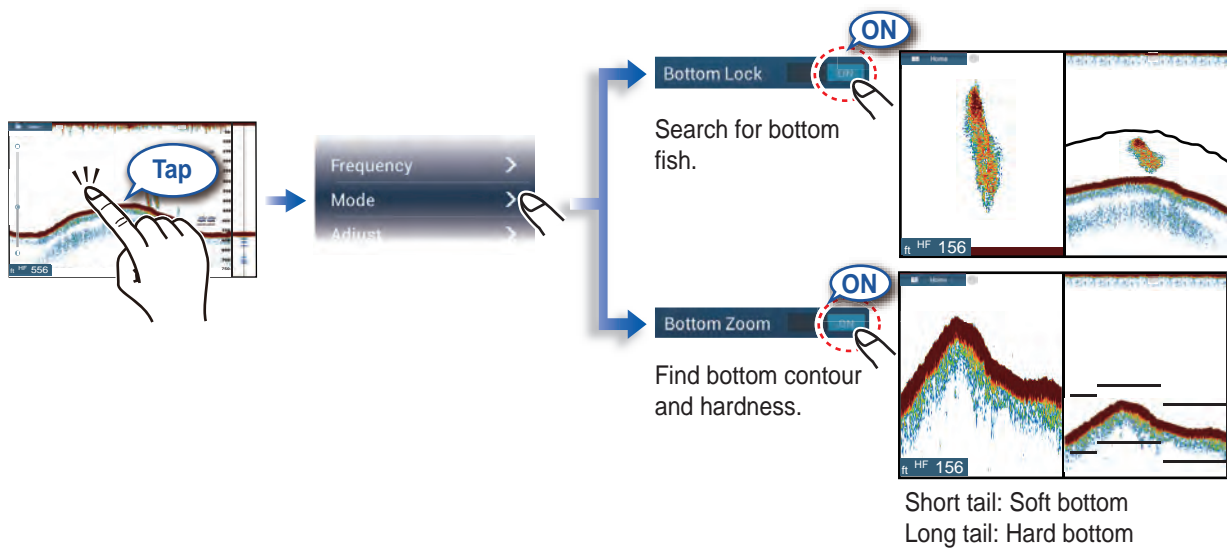
How to adjust the gain



How to reduce the clutter

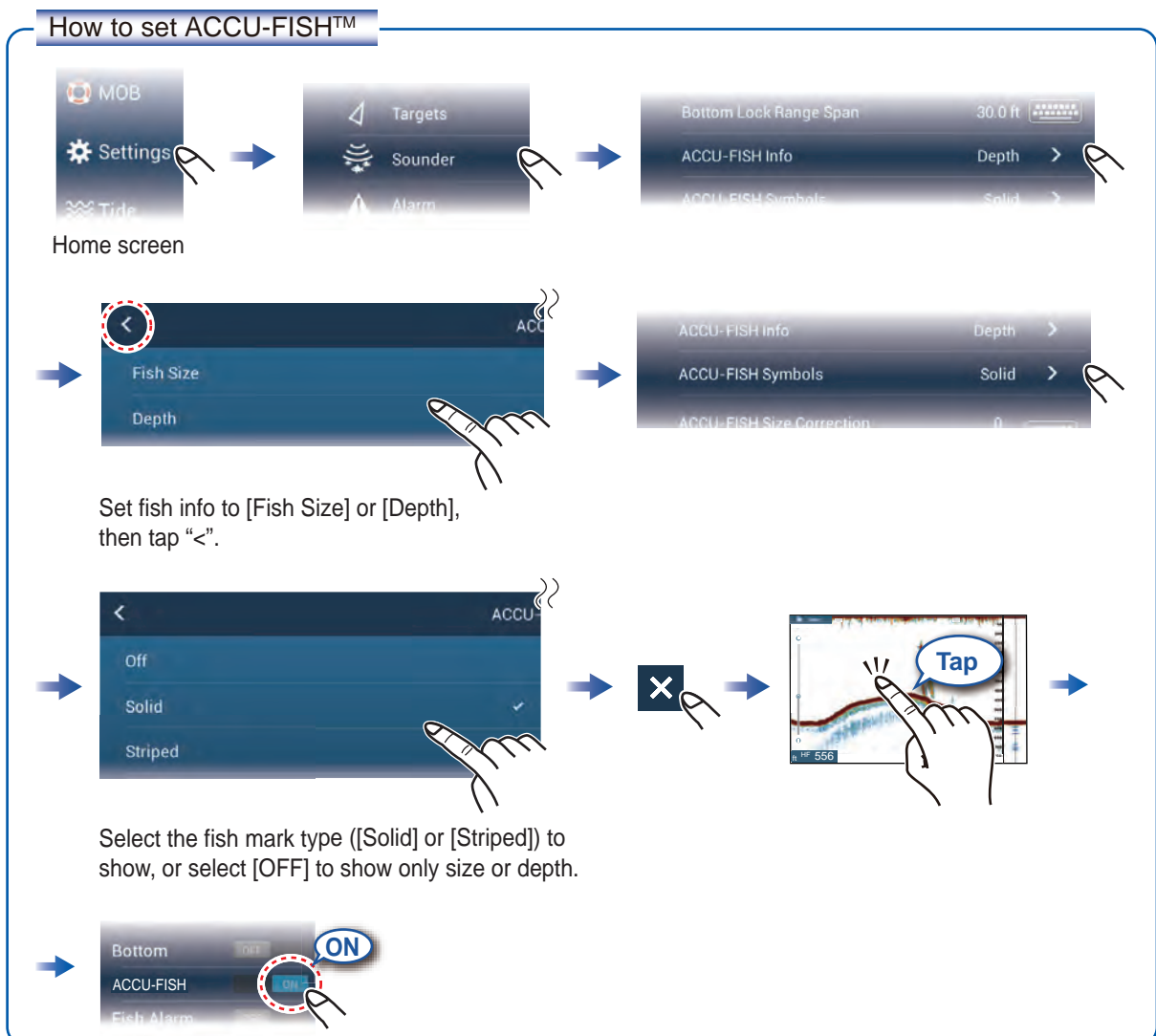


Zoom display



ACCU-FISH™

ACCU-FISH™ measures the size and depth of individual fish and shows that information on the screen.

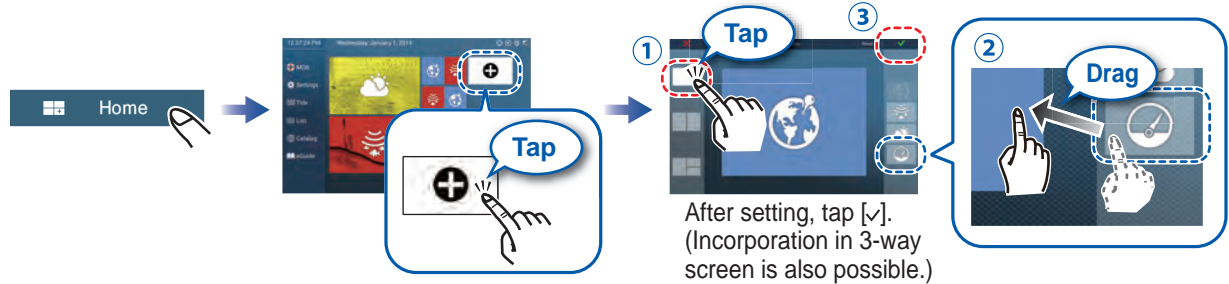


Instrument Display

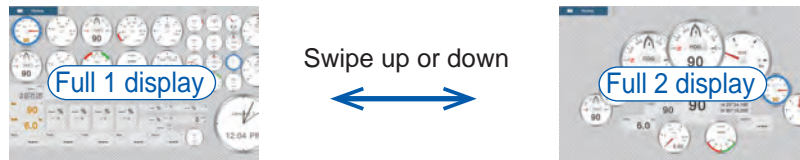
With connection of appropriate sensors, the instrument display shows various navigation data.

How to enable the instrument display

Add an instrument display icon to the home to screen to show the instrument display.



How to switch instrument displays (ex. full display)



How to edit an instrument display



Long tap the instrument display.

A blue line surrounds each indication.

Long tap location not circumscribed with blue line to save changes.

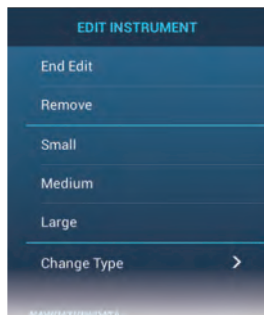
What you can do in the edit mode

Remove / change / add / rearrange indications (drag and drop)

How to remove or change an indication

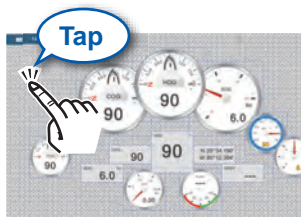


Long tap the indication to change or remove to get into the edit mode.

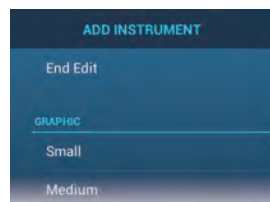


- Remove indication: Tap [Remove].
 - Change size: Tap [Small]*, [Medium], or [Large].
 - Change type: Tap [Change Type].
 - Change indication: Select in [NAVIGATION DATA].
- * Graphic, digital only

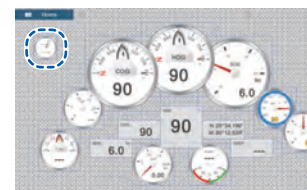
How to add an indication



Long tap an area not circumscribed with a blue line to get into the edit mode.



Tap a size in desired category ([Graphic], [Numeric], Highway).



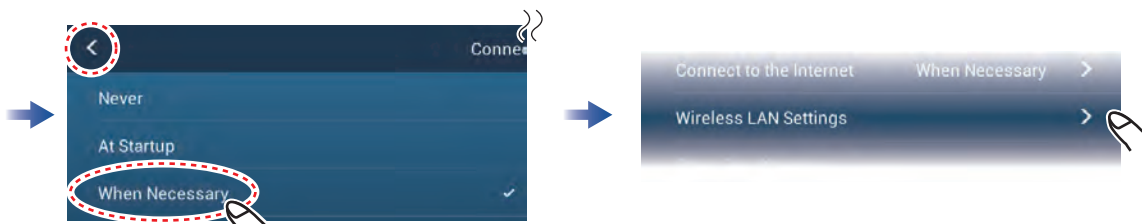
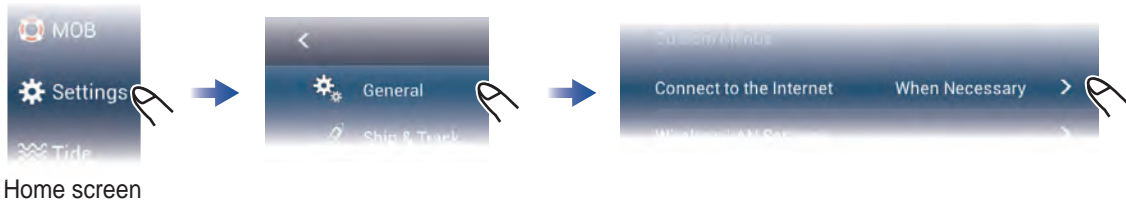
Added item appears at tapped location.

Wireless LAN Setting

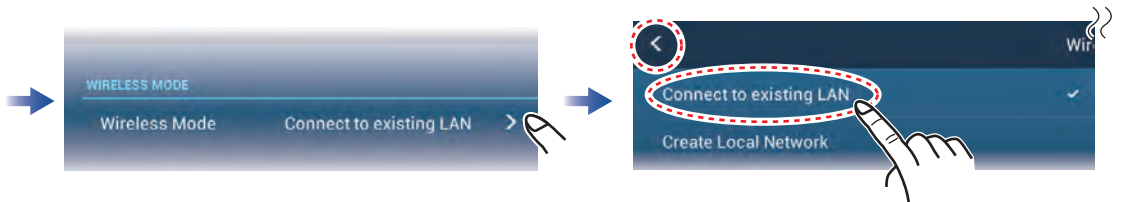
You can connect to the internet with the wireless LAN signal to download weather information and to connect to an iPhone, iPod, iPad, or Android device.

How to connect to an existing LAN

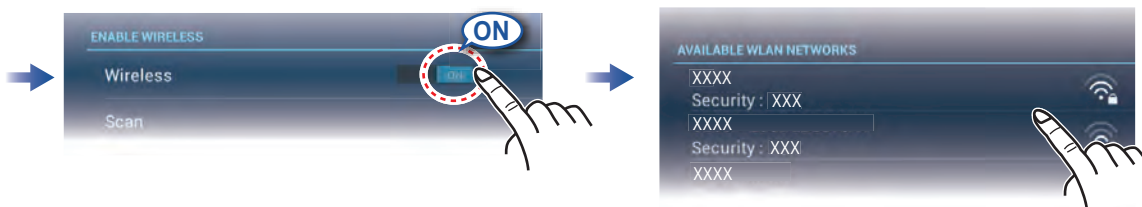
Connect to the existing LAN to download weather data or update the software.



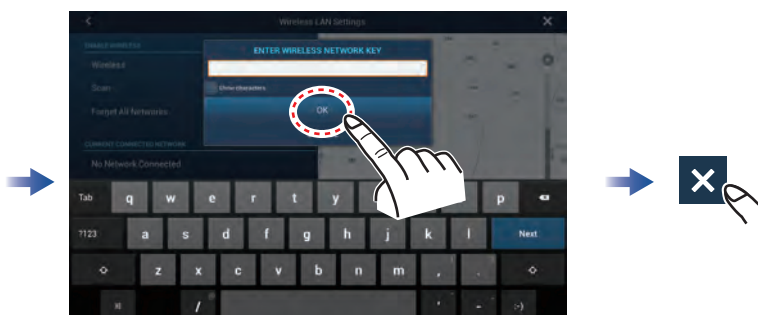
Select [When Necessary], then tap "<".



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



Tap network required.



Enter the name of the network, 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.

