FURUNO

NAVnet *TZ touch*

MULTI FUNCTION DISPLAY
TZT9/TZT14/TZTBB
User's Handbook

This guide provides the basic operating procedures for this equipment. For detailed information, see the Operator's Manual.

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Most of the screenshots in this manual are for TZT9/TZT14.

Table of Contents

Controls

Key control

Home key
- Opens the display selection window.
- Displays the menu icon bar.

Menu icon bar

Display selection window

For TZTBB:
Displayed on the screen as an icon.

Tap

TZT9/TZT14

RotoKey™

Push:
Opens the RotoKey menu or validates the selected item.

Rotate:
- Selects an item on the RotoKey menu.
- Selects the range scale on the chart plotter or the radar screen.

For TZTBB:
Tap the screen to display the RotoKey menu. If the menu you are looking for is not shown, select [More...] (then drag the menu items) then tap it to select.

Tap
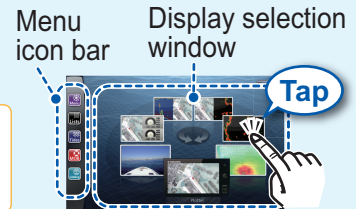
TZTBB (Switch box)

Power key
- Turns the power on.
- Adjusts the brilliance of the display.

For TZTBB:
Adjusts the brilliance of the power indicator.

- Turns the power off. (Device or Network)

NIGHT MODE
○ Day ○ Dusk ○ Night ○ Automatic
Brilliance
Close
Power Off This Device   Power Off Network

FURUNO ELECTRIC CO., LTD.

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Touch control

Tap with finger
- Select a menu item.
- Select an object to display the corresponding pop-up menu.

Drag with finger
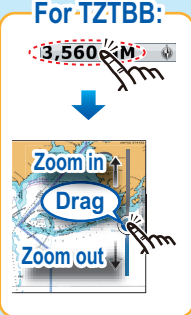- Pan the charts.
- Scroll the menu.

Pinch with two fingers

Zoom in   Zoom out

For TZTBB:
3,560 NM

Zoom in
Drag
Zoom out

- Zoom in or out the chart scale in the 2D/3D modes or weather display.
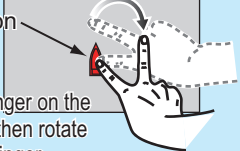- Select radar range on the radar display.

Tap with two fingers
Execute the function which is selected in [General] - [Function Gesture] of the main menu.

Rotate with two fingers
Boat icon

Put one finger on the boat icon then rotate the other finger.

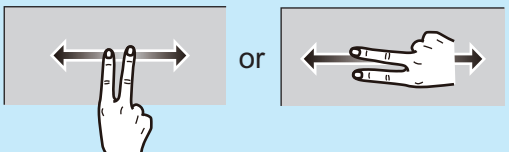Switch between head up and north up in the 2D/3D modes.

Drag with two fingers
Switch from 2D to 3D.

Drag upward or downward.

Orientate 3D view.

or

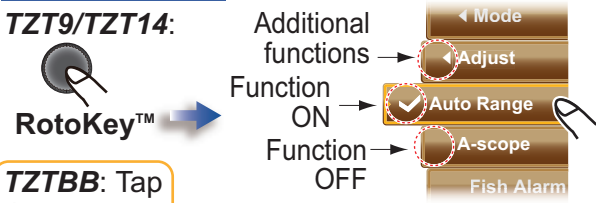# How to operate the menus

Main menu
TZT9/TZT14:

Home key

TZTBB: Tap the **Home** icon.

Select an icon.

Ship & Track
Routes
Points

Select a menu.

Default Route Color	
Route Thickness	2
Navigate with AutoPilot	ON OFF
AutoPilot NavData Increment	ON OFF

Select an item then set.

RotoKey menu
TZT9/TZT14:

RotoKey™

TZTBB: Tap the screen.

Additional functions → ◀ Mode
◀ Adjust
Function ON → ✔ Auto Range
Function OFF → ● A-scope
Fish Alarm

Select a menu.

Pop-up menu
Go To
New Point
New Route
Lat/Lon
◀ Orientation

Select an object or position to display the pop-up menu.

Select a menu.

- The "◀" mark indicates a multi-function soft control. Push the **RotoKey™** (or tap the menu) to go to the next level.

- The "✔" mark indicates ON status (selected). The "✔" mark disappears with OFF status (deselected). Push the **RotoKey™** (or tap the menu) to switch ON or OFF.

- There is no mark on a soft control that does the function labeled on the control. Push the **RotoKey™** (or tap the menu) to process the menu.

Chart Plotter

Heading line   COG   Route

Point

Your ship's track

Data area   Chart scale   North indicator
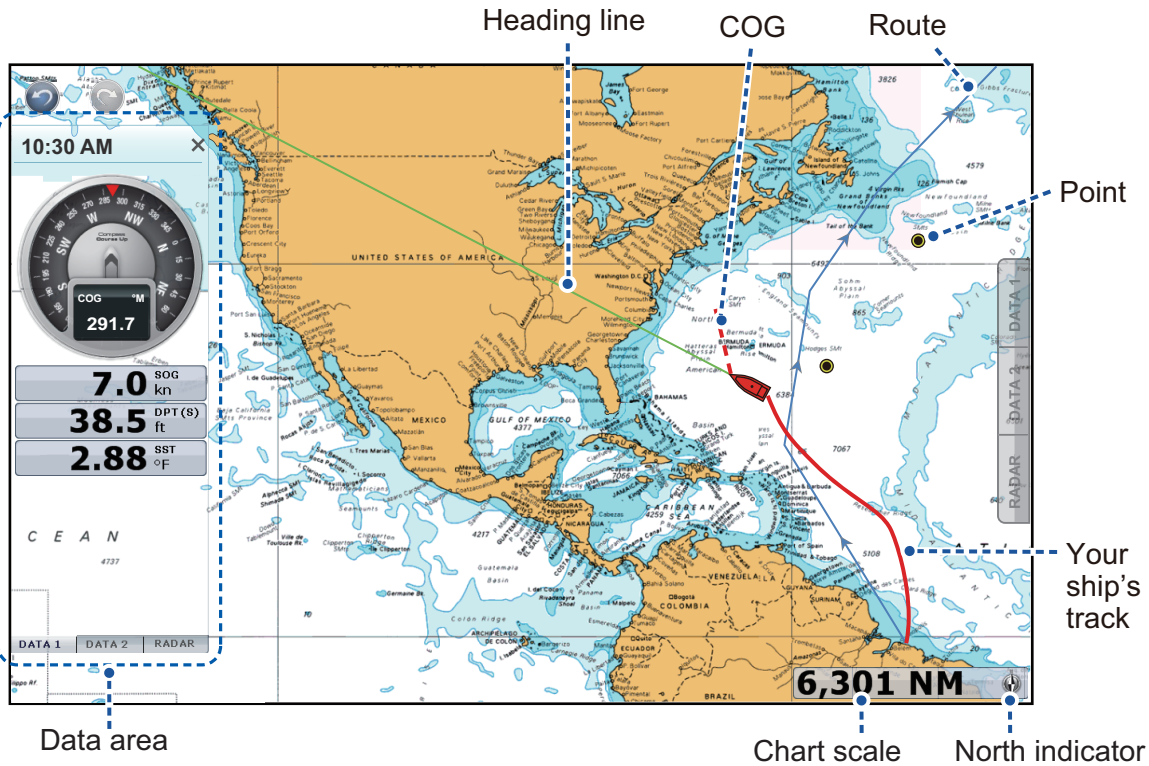
Data area (Data box)

The data area at both sides of the screen shows the navigation data, with data boxes. You can select the data to display in the area, and show or hide the data boxes as necessary.

How to set the data boxes

How to add a data box to a data area

Tap unoccupied position.

Select a menu.

[Date] is added in the above example.

How to delete a data box

Drag the data box outside the data area.
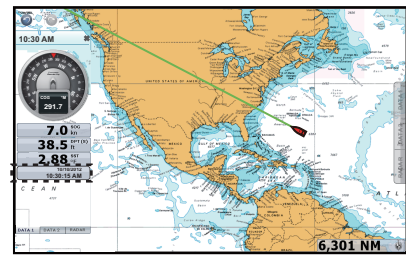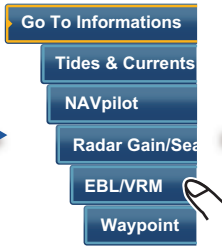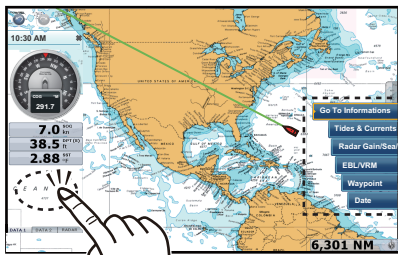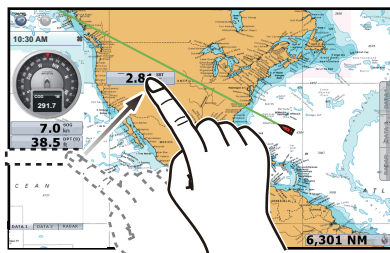
How to switch the indication between analog and digital
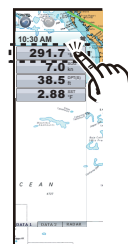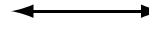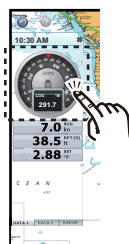
✓ Graphic : Analog   Graphic : Digital

Points

You can put points on the chart plotter display. The position of the point, symbol and color information are saved to the points list.

How to put a point
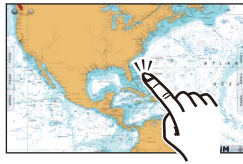
Select the position to set as a point.

New Point

The point is put on the screen.

How to go to a point

On the screen

Select the point or position to set as a point to go to.

Go To

Saved point   Selected position

Go to point

Thick red dashed line: Course between the go to point and the point where the [Go To] function starts.

Yellow line: Shortest course from the current position to the go to point.

From the points list

Lists

Main menu

Points List
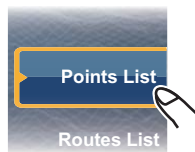
Routes List

Points List

Sort by : | Name | Color | Icon | Range

P

POINT1
N 43°04.617'; W 65°42.642'   Range 1,893 NM

POINT10
N 36°43.818'; W 56°56.134'   Range 0,705 NM

Select the point to go to.

POINT1
N 25°48.100'; W 80°11.637'   Range 1,893 NM

Edit

Add to route

Goto
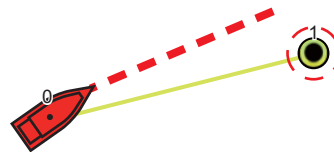
Routes

A route is a series of route points entered in the order to use for navigation. The routes are saved to the routes list.

How to create a new route
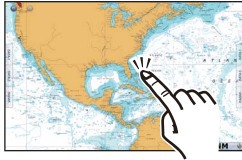
Select the 1st route point for the route.

New Route
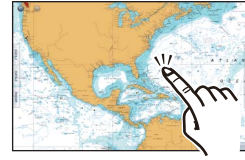
Select the next route point in the route. Repeat this step to enter all route points.

1st route point (starting point)
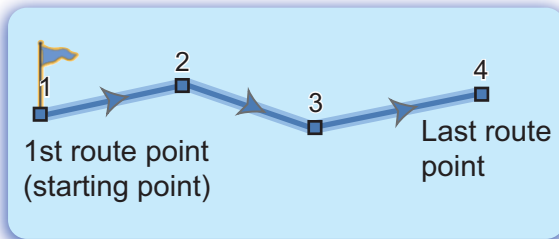
Last route point

At the last route point,

End Route

How to follow a route

On the screen
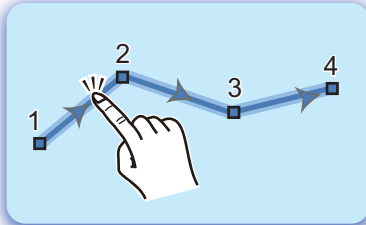
Select a route leg of the route to follow.

Activate

From the routes list

Lists

Main menu

Points List

Routes List

Route Detail
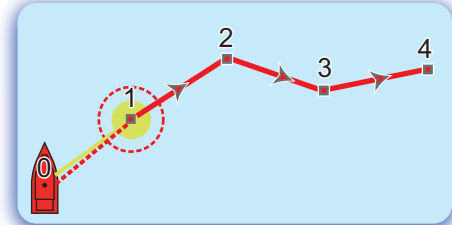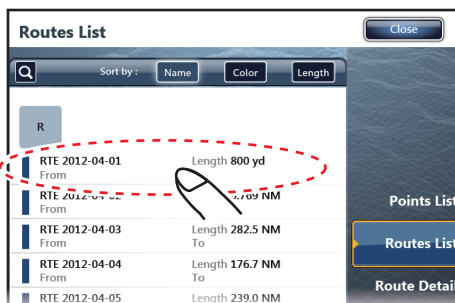
Select the route to go to.

Radar

Guard zone North mark Heading line

Data area

Range

Range ring interval   Your ship's position   Range rings
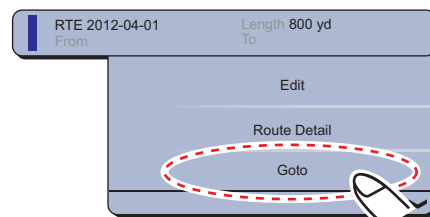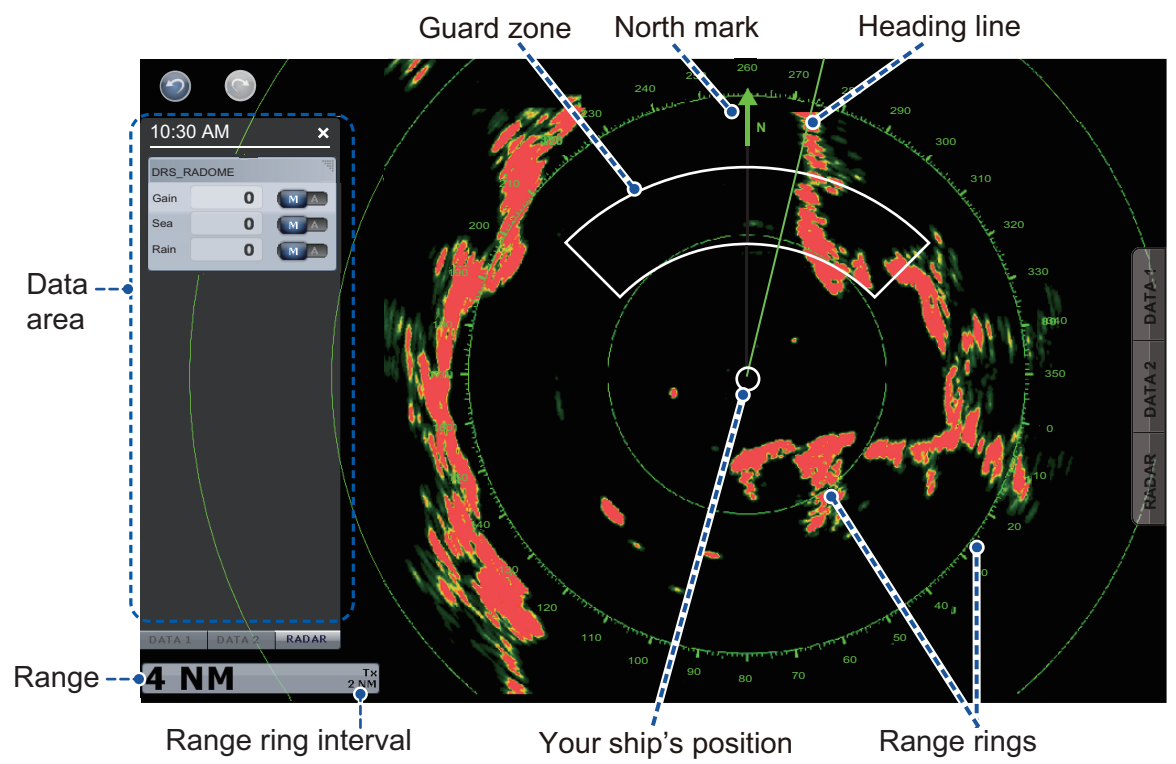
How to toggle TX and Stand-by

Tap Tx Radar TX mode

Tx Radar Stand-by mode

RotoKey menu

or

4 NM Tx 1 NM TX mode

4 NM Tx 1 NM Tap the radar scale box to switch between TX and Stand-by.

4 NM StdBy 1 NM StdBy 1 NM Stand-by mode
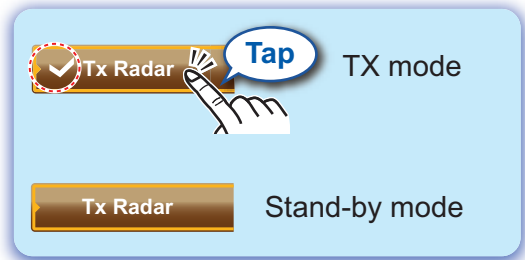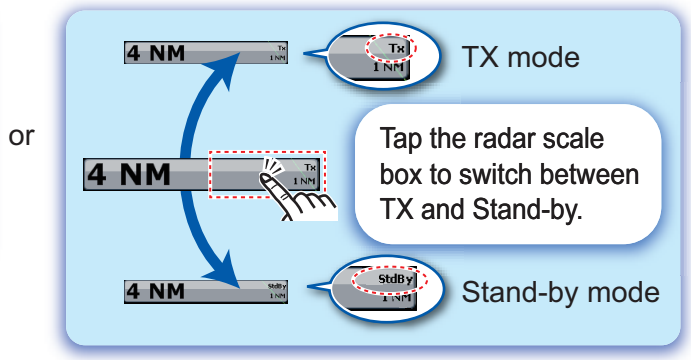
How to adjust the gain, sea and rain clutters

"A" is highlighted in auto adjustment.
"M" is highlighted in manual adjustment.

Switching

DRS_RADOME
Gain --- M A Tap
Sea 0 M A
Rain 0 M A

Each time you select here, the mode is switched between automatic and manual.

Tap

Side menu

Manual adjustment

DRS_RADOME
Gain Tap M A
Sea M A
Rain 0 M A

Drag the circle icon to set the level.
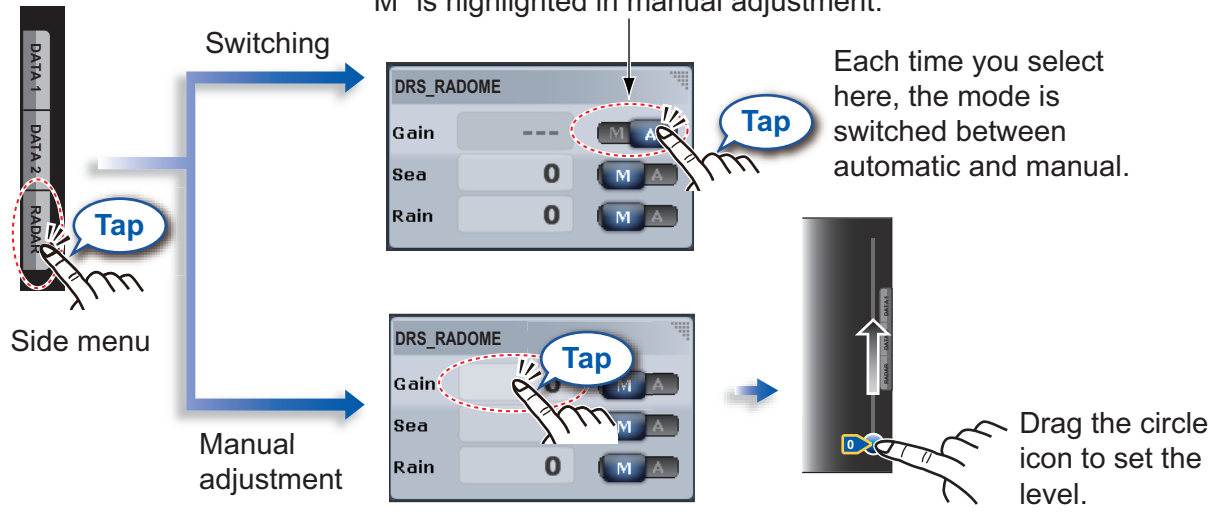
How to measure the range and bearing from your ship to a target
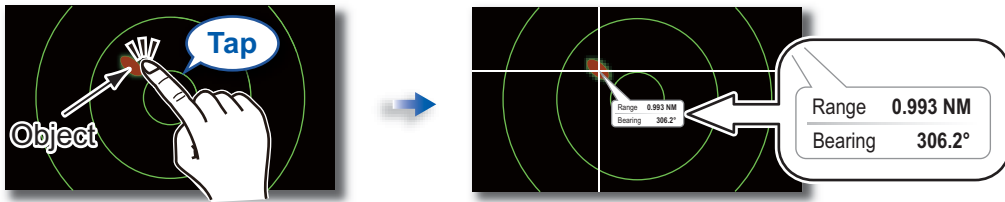
Select an object to get the range and bearing.

Range	0.993 NM
Bearing	306.2°

How to set and activate the guard zone

The guard zone alerts you with audio and visual warnings when a target enters the area you set.

◄ Guard Zone ➡ **Visible** ➡

RotoKey menu

The guard zone with dotted lines appears on the screen.

◄ Guard Zone ➡ **Resize** ➡

RotoKey menu

Four circles appear at the four corners of the guard zone.

Move the circles to set the guard zone.

End Resize ➡

◄ Guard Zone ➡ **Alarm** ➡

RotoKey menu

The dotted lines turn to solid lines.
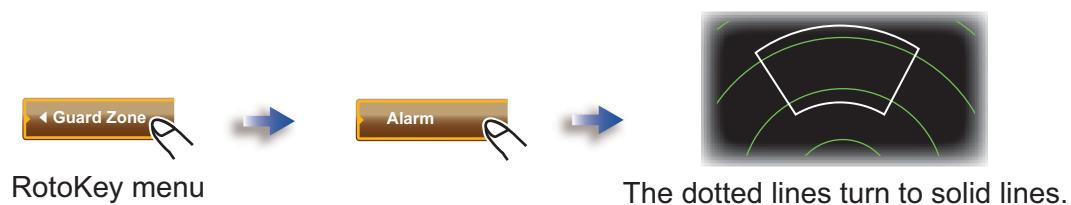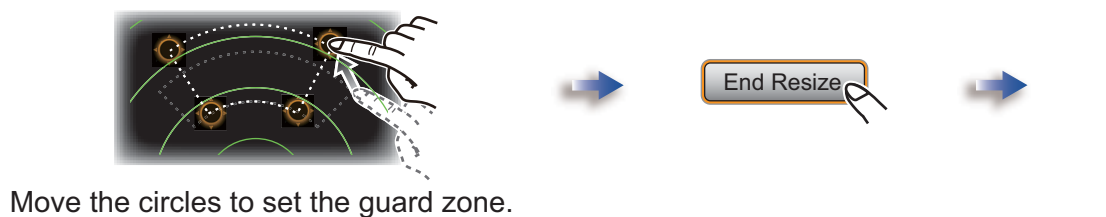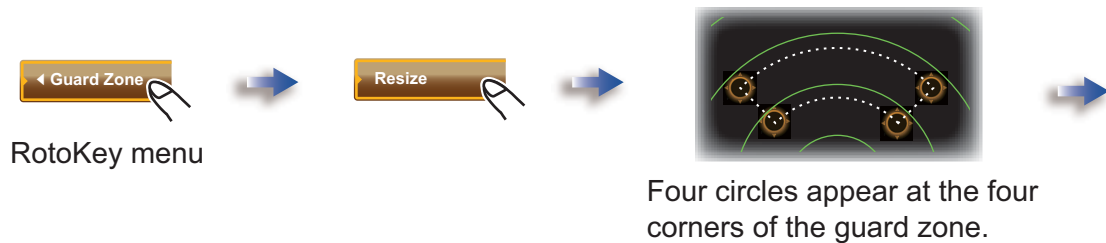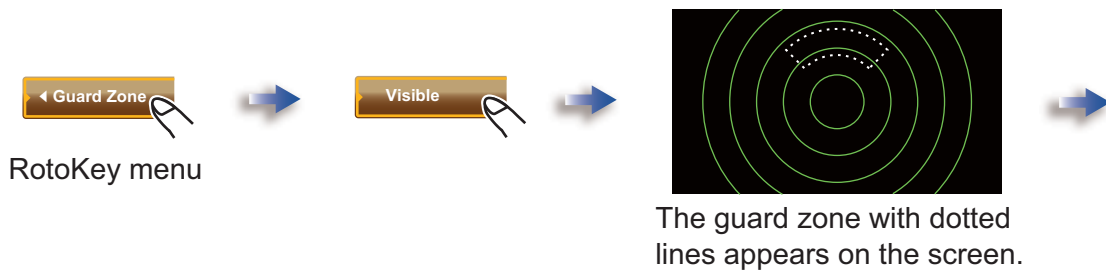
ARPA

The ARPA (Automatic Radar Plotting Aid) is a radar function for target tracking and collision avoidance. ARPA tracks targets and provides target's navigation information. You can track targets automatically, manually or a combination of both.

How to show or hide the ARPA display

◀ Targets

RotoKey menu

✓ ARPA — Show the ARPA display.

ARPA — Hide the ARPA display.

How to manually acquire a target

Tap

Object

Acquire

1

Select an object to acquire as a target.

ARPA target symbols

Target being acquired

Acquired target (30 s after acquisition)

Lost target

How to display the target data

Tap

ARPA target

1

ID	1
Bearing	79.6°
Range	647 yd
CPA	465 yd
TCPA	5'30s
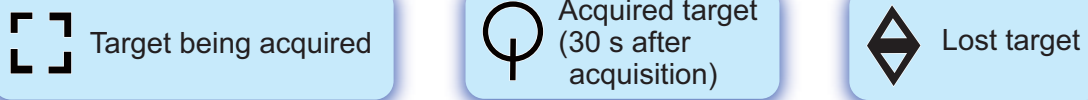
Select an ARPA target to get its data.
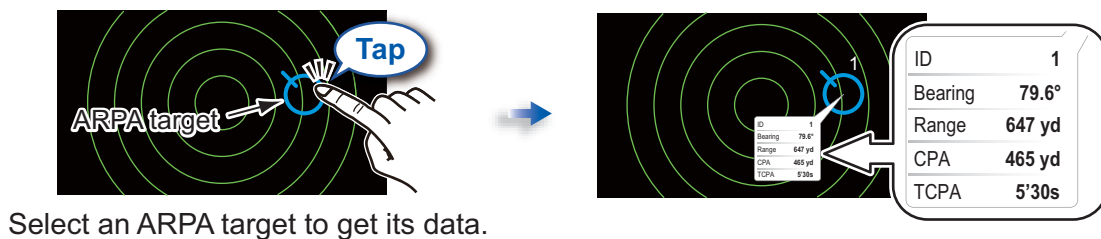
CPA/TCPA alarm

The CPA/TCPA alarm alerts you with the audio and visual alarms when a tracked target violates the limits selected.

CPA: Closest Point of Approach
TCPA: Predicted Time to CPA

How to set the CPA/TCPA alarm

Menu → Main menu

Radar
Targets
Sounder

CPA/TCPA Alarm   ON OFF

CPA Alarm Value   **0.500 NM**

or

TCPA Alarm Value   **00:10:00**

0 0 . 5 NM

Confirm   Cancel

1 2 3
4 5
7 8
0

Confirm

Close

Set the value then select [Confirm].
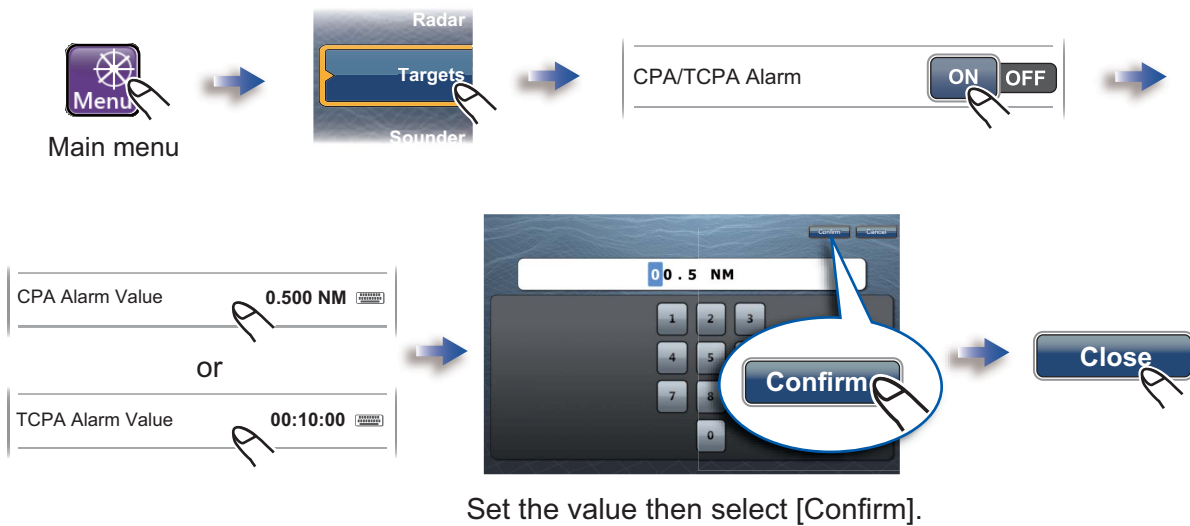
How to acknowledge the CPA/TCPA alarm

The CPA/TCPA alarm sounds and the alarm indication appears when the CPA and TCPA of an ARPA target are within the CPA/TCPA alarm range.

CPA/TCPA Alarm   **Tap**
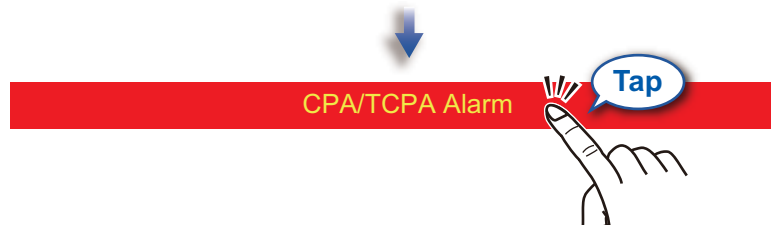
AIS (Automatic Identification System)

How to show or hide the AIS symbols

| Targets |
RotoKey menu

✓ AIS/DSC — Show the AIS symbols.

AIS/DSC — Hide the AIS symbols.

AIS target symbols

	Class A AIS	Class B AIS
Activated AIS target	SOG and COG vector Color: Magenta	SOG and COG vector Color: Green
Dangerous AIS target	Color: Red — Flashing	
Lost AIS target	Color - AIS target: Magenta - Cross: Red	Color - AIS target: Green - Cross: Red

Proximity AIS target alarm

The proximity AIS target alarm alerts you with the audio and visual alarms when an AIS target is within the distance you set here.

Menu
Main menu

Radar
Targets
Sounder

Proximity AIS Target Alarm   ON   OFF

Proximity AIS Target Alarm Value   100 yd

0.049 NM

Confirm

Close
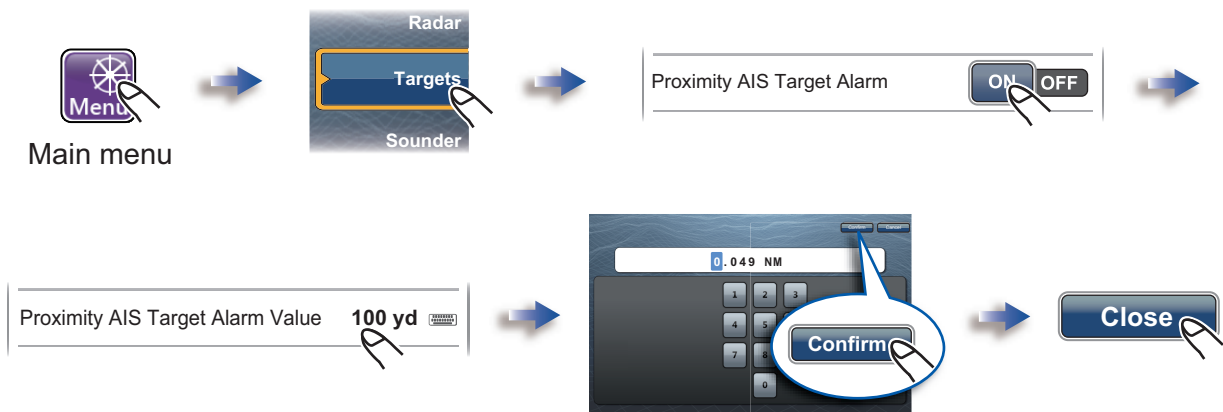
Set the value then select [Confirm].

How to display the target data

Tap

AIS target

Name	AAAAA
MMSI	987654321
SOG	1.2 kn
Bearing	79.6°
Range	647 yd
CPA	465 yd
TCPA	5'30s
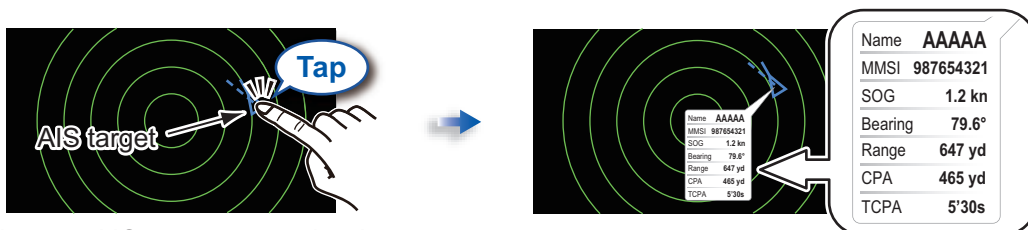
Select an AIS target to get its data.

Fish Finder

Depth scale

Fish symbol*

Bottom echo

556 ft   780 ft   LF

Depth   Frequency mode   Depth scale

A-scope display

*: The ACCU-FISH^{TM} feature estimates the length of each fish and shows a fish symbol and depth value or fish length. This feature requires appropriate transducer and either Sounder BBDS1, DFF1, DFF3, DFF1-UHD or FCV-1150.

How to select the frequency

Low frequency: Use for general search and to find bottom conditions.
High frequency: Use to inspect a school of fish.
D u a l : Both low and high frequencies. Use to compare the same picture with two different sounding frequencies.

✓ Single Freq.   Open the RotoKey menu.   ◄ Frequency   ✓ HF (High frequency)

◄ Mode

RotoKey menu   ✓ Dual Freq.   ✓ LF (Low frequency)

11

How to select the fish finder mode

Your fish finder can be operated automatically or manually. In automatic operation, range, gain and clutter are automatically adjusted.

◀ Adjust

RotoKey menu

→ Automatic mode

✓ Auto Fishing   or   ✓ Auto Cruising

→ Manual mode
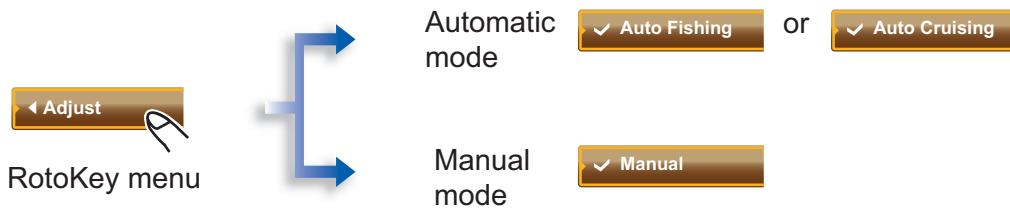
✓ Manual

Manual operation

How to set the range

Clear the ✓ mark.

Auto Range

RotoKey menu

TZT9/TZT14:

RotoKey™

Right: Decrease the range.
Left: Increase the range.

TZTBB: Pinch the screen.

How to adjust the gain

◀ Adjust

RotoKey menu

→ HF Gain

LF Gain
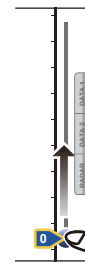
→ Drag the circle icon to set the gain.

How to reduce the clutter

Menu

Main menu

→ Targets

Sounder

Alarm

→

Clutter

→ Close

Zoom display

Btm Lock
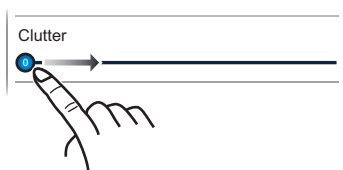
For detecting the bottom fish.

◄ **Mode**

RotoKey menu

Btm Zoom

For discriminating bottom fish from bottom echo.

Short bottom tail: Soft bottom
Long bottom tail: Hard bottom

ACCU-FISH™

The ACCU-FISH™ feature estimates the length of each fish and shows a fish symbol and depth value or fish length.

How to set ACCU-FISH™
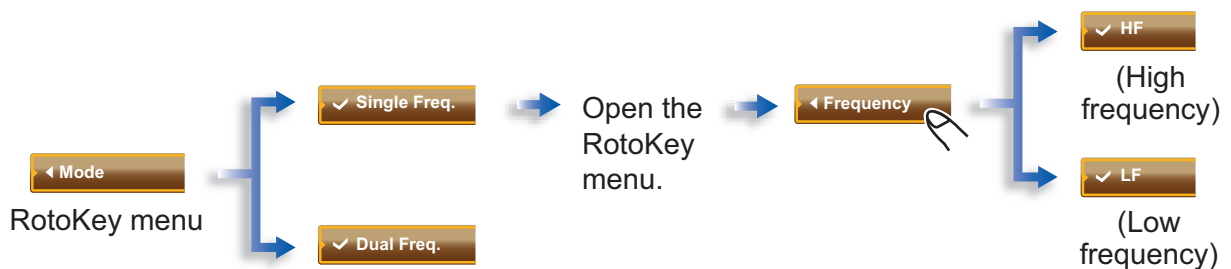
Menu

Main menu

Targets
Sounder
Alarm

ACCU-Fish Info   Depth

ACCU-Fish Info   Depth

✓ Depth

Fish Size

Select [Depth] or [Fish Size].

ACCU-Fish Symbols   Solid

ACCU-Fish Symbols   Solid

Off

✓ Solid

Striped

Select [Solid], [Striped] or [Off]
(turn off fish symbol).

Close

✓ **Accu Fish**

RotoKey menu

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 or iPad.

How to connect an existing LAN network

To download weather information, connect the existing LAN network.

Main menu

General
Ship & Track

Connect to the Internet   When Necessary ⌄

Connect to the Internet   When Necessary ⌃
Never
At Startup
✓   When Necessary

Wireless LAN Settings   Select

Wireless   ON OFF

Wireless Mode   Connect to existing LAN ⌄

Wireless Mode   Connect to existing LAN ⌃
✓   Connect to existing LAN
Create local network

Available Wireless LAN Networks
XXXX   🔒 WEP   Connect
XXXXX   🔒 WEP   Connect
XXXXXX   🔒 WPA2PSK Connect

Select [Connect] in the desired network.

Password [_____] 🖮
Ok   Close

Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
A / a / 123 Delete SPACE Back < - - > Close

Enter the password.

Ok

Forget all Wireless LAN networks saved   **Forget All**
IP Address   XXX.XXX.XXX.XXX

Close

14

How to create a local wireless network

To connect to an iPhone, iPod or iPad, create a local wireless network.

Main menu

General

Ship & Track

Wireless LAN Settings   Select

Wireless LAN Settings

Wireless   ON OFF

Wireless Mode   Create local network

Create local wireless network

SSID   NAVNETTZT

Authentification   WEP

Password   ********

Network Status   ON OFF

Connect to the Internet   When Necessary

Confirm the settings for these three menus.

Wireless Mode   Create local network

Wireless Mode   Create local network

Connect to existing LAN

✓   Create local network

SSID   NAVNETTZT

NAVNETTZT

Q W E R T Y U

A S D F G H

Z X C V B

1, 2, 3, ...   SPACE

Confirm

Enter the SSID then select [Confirm].

Authentification   Open

Authentification   Open

✓   Open

WEP

WPA2 - PSK

Select [Open], [WEP] or [WPA2 - PSK].

For [WEP] or [WPA2 - PSK]

Password   ********

1234567890

1 2 3

4 5

Confirm

0

A, B, C, ...

Enter the password then select [Confirm].

Network Status   ON OFF

Close

00017608512