JMR-5404-X
JMR-5406-X
JMR-5410-4X/4XH/6X/6XH
JMR-5425-6XH/7X/9X
JMR-5430-S
JMR-5472-S
JMR-5482-S/SH

MARINE RADAR EQUIPMENT

SIMPLIFIED INSTRUCTION MANUAL

JRC *Japan Radio Co., Ltd.*

Contents

Section 1   Introduction

1.1   Read Before Use

About the Quick Operation Guide

For more details, please read the Operation Manual.

Please keep this Quick Operation Guide in an easily accessible place.

About the Radar

Use the radar solely as a navigation aid. Also, the final decision of manoeuvring must be made by the person who manoeuvres the ship. If the final decision on manoeuvring is solely made based on the information displayed by the radar, it may cause accidents such as collision and running aground.

About sea clutter suppression

Do not adjust the sea clutter suppression function until all sea clutters are erased in the close distance range.

Otherwise, targets such as vessels and dangerous objects will be suppressed in addition to echoes from waves, causing to interfere detection.

When using the sea clutter suppression function, always perform optimum suppression adjustment.

About rain/snow clutter suppression

Do not adjust the rain/snow suppression function excessively. Otherwise, targets such as vessels and dangerous objects will be suppressed in addition to echoes from rain and snow, causing to interfere detection.

When using the rain/snow clutter suppression function, always perform optimum suppression adjustment.

About the target tracking function

Use the target tracking function solely as a navigation aid. Also, the final decision of manoeuvring must be made by the person who manoeuvres the ship. If the final decision on manoeuvring is solely made based on the information acquired from the target tracking function, it may cause accidents.

Vectors, target numeric data, alarms and other information displayed by the target tracking function may contain errors. Note that targets which cannot be detected by the radar can neither be acquired nor tracked.

If the final decision on manoeuvring is solely made based on the information displayed by the radar, it may cause accidents such as collision and running aground.

Section 2   Basic Operation

2.1   Powering On and Starting

1   **Check that the ship's mains are turned on.**

2   **Press the Power button on the operation unit.**

Power button

Start-up screen is displayed.

After the start-up screen is displayed, the Mode Selection screen is displayed after a brief interval.

3   **Click on the [RADAR] button on the Mode Selection screen.**

The RADAR screen appears.

The preheating time is displayed at the centre of the screen.

When the magnetron radar antenna is connected, "Preheat" is displayed on the Standby/Send switching button.

Standby/transmission
changeover button
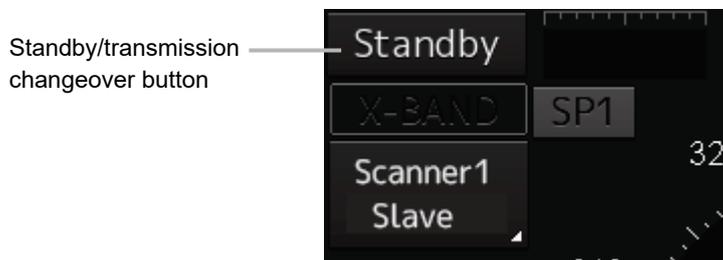
4   **Wait until preheating is complete.**

When the preheating time expires, the preheating time display disappears, and the display of the Standby/Transmit switch button changes from "Preheat" to "Standby".

5   **Click on the Standby/Transmit switch button.**

Radar transmission starts and the radar antenna rotates.

The display of the Standby/Transmit switch button changes from "Standby" to "Transmit".

Memo

Even if the Standby/Transmit switch button is clicked on while "Preheat" is being displayed, radar transmission cannot be performed.

2.2 Finishing and Stopping Operation

1 **Click on the Standby/Transmit switch button in Radar system information.**

Radar transmission stops and the rotation of the radar antenna stops.

The display of the Standby/Transmit switch button changes from "Transmit" to "Standby".

Memo

If observation using the radar is being scheduled within a comparably short period of time, keep this state. Observation can be started immediately by just clicking on the Standby/Transmit switch button.

---

2 **Press the Power button on the operation unit.**
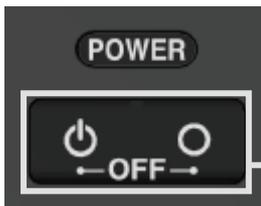
Power button
Please press the 2 keys simultaneously.

The power to this equipment is turned OFF.

2.3　Adjusting Screen Brightness

2.3.1　Adjust the screen using the right tool bar

1　**Click on the [Display and Panel Brightness] button on the right toolbar.**

The brightness adjustment buttons of the screen and the operation unit are displayed.
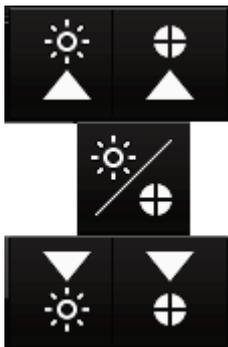
Adjust the brightness of the screen on the left side.

2　**Adjust the brightness by using the [Light] button and [Dark] button.**

Whenever the [Light] button/[Dark] button is clicked on, the brightness changes by one level.

2.3.2　Adjust the screen using the [MULTI] dial.

If the [MULTI] dial is operated while [Display Brightness] function is selected as the [MULTI] dial assignment function, the [Display Brightness] dialogue is displayed.
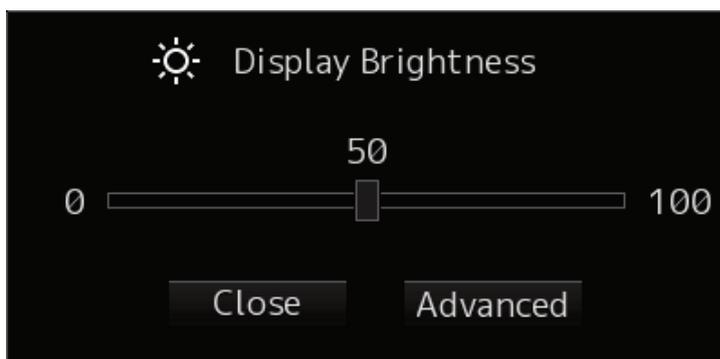
It is possible to adjust the brightness of the display section by rotating the [MULTI] dial.

Memo
When "DISP Brightness" is not being displayed in the Key Assignment Indication Area, press the [MULTI] dial for a long time.The Display Brightness function will be assigned to the [MULTI] dial.

2.4 Changing the Observation Range

1 **Click on the [Range Scale] button in Range and mode information and select a range from the context menu.**

Range Scale button
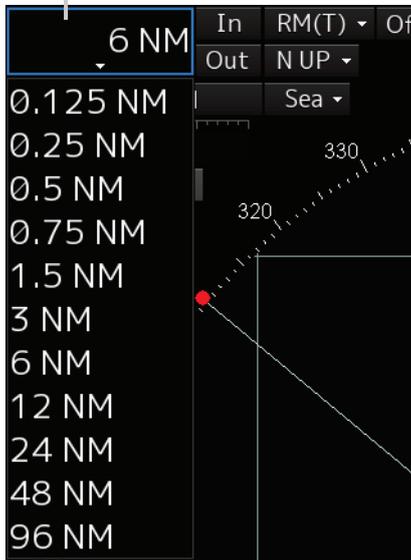
[Points on adjustments]

Increasing the observation range will enable a wider range to be observed.

However, a video image is small and the ability to detect targets near own ship decreases. Therefore, when observing the vicinity of own ship, use the smaller observation range.

Decreasing the observation range will enable the vicinity of own ship to be enlarged. However, caution must be taken because video images of the area beyond the observation range cannot be displayed.

2.5 Adjusting Gain

1 Drag the [Gain] (reception gain adjustment) slider dial in Radar signal information, turn the trackball, and set up reception gain.

[Gain] (reception gain adjustment) slider
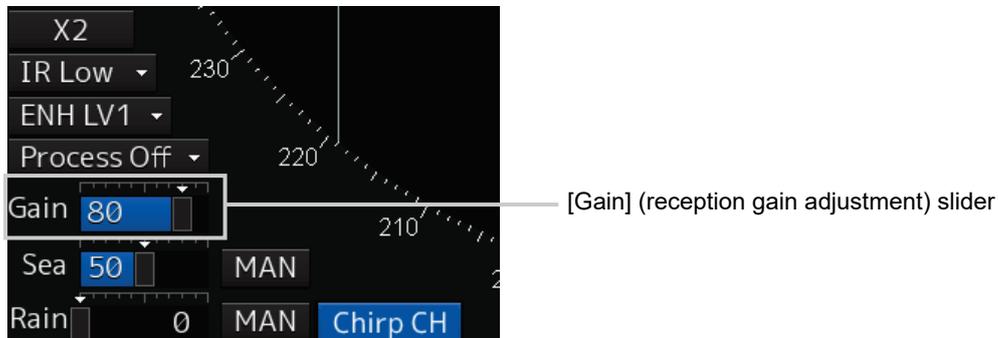
Moving the slider to the right increases gain.

Moving the slider to the left decreases gain.

The current reception gain level is indicated by the bar and a numeric value.

Current reception gain

[Points on adjustments]

As reception gain is increased, the range in which radar images can be observed widens; however, if gain is increased too high, receiver noise, false echoes and other undesired signals will increase on the screen, lowering the visibility of targets.

Also, it gets easier to see the screen display if gain is decreased to observe cluttered targets and close range, but be careful not to overlook small targets.

2.6 Removing Sea Clutters

1 **Drag the [Sea] (sea clutter adjustment) slider dial in Radar signal information, turn the trackball, and adjust the amount of images by sea clutter displayed on the screen so as to make display easy to observe.**

[Sea] (sea clutter adjustment) slider
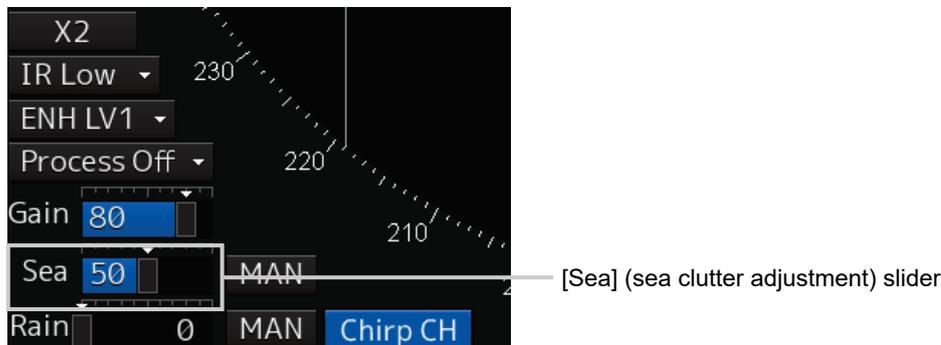
Moving the slider to the right decreases the amount of images by sea clutter.

Moving the slider to the left increases the amount of images by sea clutter.

The current level of sea clutter suppression is indicated by the bar and a numeric value.

Current level of sea clutter suppression

[Points on adjustments]

The sea clutter suppression function decreases the amount of images by sea clutter by lowering reception gain at close range. When reception gain is lowered, the effectiveness of sea clutter suppression increases; however, if excessive effect is applied, please note that targets having weak signal strength such as buoys and small ships will disappear.

Using the function of automatic sea clutter suppression mode

The sea clutter suppression in accordance with the intensity of sea clutter is possible. Use this mode when the sea clutter's intensity differs according to directional orientation.

1 **Click on the Automatic Sea Clutter Suppression button.**

[AUTO] (automatic) is displayed on the automatic sea clutter suppression button.

Each time this button is clicked on, the display switches between [AUTO] (automatic) and [MAN] (manual).

Auto Sea Clutter Suppression button

2 **Drag the sea clutter adjustment slider dial, turn the trackball, and adjust the amount of images by sea clutter displayed on the screen.**

Even while automatic sea clutter is being suppressed, the amount of images can be fine-adjusted manually.

Canceling automatic sea clutter suppression

1 **Click on the Automatic Sea Clutter Suppression button.**

[MAN] (manual) is displayed on the automatic sea clutter suppression button.

Each time this button is clicked on, the display switches between [AUTO] (automatic) and [MAN] (manual).

2.7　Removing Rain/Snow Clutters

1　**Drag the [Rain] rain/snow clutter adjustment slider dial in Radar signal information, turn the trackball, and adjust the amount of images by rain/snow clutter displayed on the screen so as to make display easy to observe.**

[Rain] (rain/snow clutter adjustment) slider

Moving the slider to the right decreases the amount of images by rain/snow clutter.

Moving the slider to the left increases the amount of images by rain/snow clutter.

The current level of rain/snow clutter suppression is indicated by the bar and a numeric value.

　Current level of rain/snow clutter suppression

[Points on adjustments]

When the amount of images by rain/snow clutter is decreased, the outlines of targets hidden by images of rain/snow will appear, but please note that small targets may be missed. Since this can also reduce sea clutter, it is effective to use it together with the sea clutter rejection function.

Normally, set the level of rain/snow clutter suppression to 0.

Using the automatic rain/snow clutter suppression mode

The rain/snow clutter suppression in accordance with the intensity of rain/snow clutter is possible. Use this mode when the rain/snow clutter's intensity differs according to directional orientation.

1 **Click on the Automatic Rain/Snow Clutter Suppression button.**

[AUTO] (automatic) is displayed on the automatic rain/snow clutter suppression button.
Each time this button is clicked on, the display switches between [AUTO] (automatic) and [MAN] (manual).

Auto Rain/Snow Clutter Suppression button

2 **Click the left mouse button of the button on the [Rain] (rain/snow clutter adjustment) slider, drag it with the trackball, and adjust the volume of the echo created by rain/snow clutter that is displayed on the screen.**
Even while auto rain/snow clutter is being suppressed, the amount of images can be fine-adjusted manually.

Canceling automatic rain/snow clutter suppression

1 **Click on the Automatic Rain/Snow Clutter Suppression button.**

[MAN] (manual) is displayed on the automatic rain/snow clutter suppression button.
Each time this button is clicked on, the display switches between [AUTO] (automatic) and [MAN] (manual).

2.8 Using the Electronic Bearing Line(EBL) and Variable Range Marker(VRM)

2.8.1 Measuring a range and a bearing with EBL and VRM

This section describes the manipulation under EBL1 and VRM1; however, the same manipulation can be performed under EBL2 and VRM2 also.

Memo
To manipulate the EBL/VRM, the RADAR transmission status must be "Transmit".

1 **Enable the manipulation of EBL1 by clicking on the [EBL1] button.**

[EBL1] button

2 **Enable the movement of EBL1 by clicking on the EBL1 line.**

3 **Align the cursor with a target and click on the mouse button.**

The bearing of the target is displayed on the [EBL1] button.

4 **Enable the manipulation of VRM1 by clicking on the [VRM1] button.**

[VRM1] button

5 **Enable the movement of VRM1 by clicking on the VRM1 circle.**

6 **Align the cursor with a target and click on the mouse button.**

The range of the target is displayed on the [VRM1] button.

2.8.2 Measuring between arbitrary two points

Here, the manipulation with EBL2/VRM2 is explained. The same operation can be performed with EBL1/VRM1.

> **Memo**
>
> To manipulate the EBL/VRM, the RADAR transmission status must be "Transmit".

1 Click on the measurement starting point button of EBL2/VRM2 and select [D].
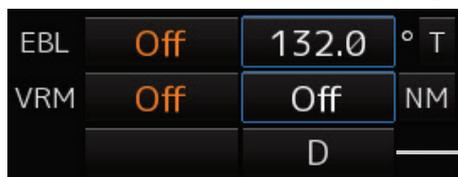
Measurement starting point button

2 Align the cursor with "point A" of the two points to be measured and then click it on.

3 Enable the movement of EBL2 by clicking on the EBL2 line.

4 Align the cursor with bearing "point B" of the two points to be measured and then click it on.

5 Enable the manipulation of VRM2 by clicking on the [VRM2] button.
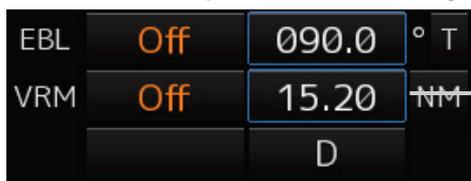
[VRM2] button

6 Move the intersecting point marker on the dotted line of EBL2 by the cursor and align it with point B.

The range and bearing between the two points are displayed.

> **Memo**
>
> The measurement reference point of this equipment's EBL/VRM can be selected from the following three types. Set up a measurement reference point according to usage.
> - Blank(CCRP) : Sets a measurement reference point at own ship's position (CCRP).
> - C(Carried)　 : Fixes a measurement point on the screen.
> - D(Dropped)　: Fixes a measurement point with longitude and latitude.

2.9 Switching the Transmission Pulse Length

1 **Click on the Transmitter Pulse Length switch button in radar signal information.**

Transmitter pulse length switch button.
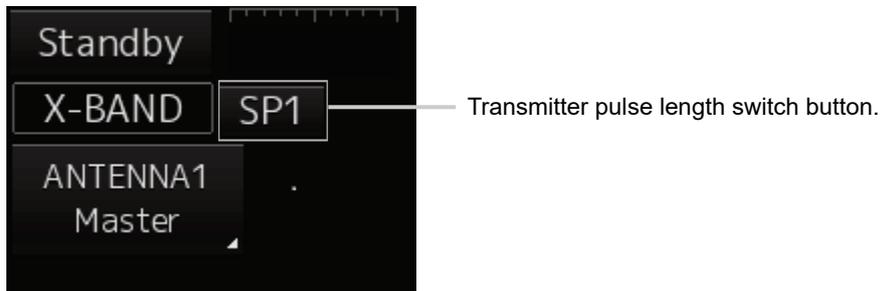
Each time this button is clicked on, the transmitter pulse length changes.

Example: [MP1] → [MP2] → [LP1] → [LP2]

Transmitter pulse length	Functions and effects	Recommended condition for selection
[SP]	• The transmitter pulse becomes shorter, and the range resolution improves. • The effect of suppressing sea clutter and rain/snow clutter improves.	In bays/harbors where targets are densely crowded Rough sea state due to torrential rain or stormy weather
[MP]	• The normal transmitter pulse length is set. • Both range resolution and gain are appropriately set.	General navigation
[LP]	• The transmitter pulse becomes longer, and gain improves. • Small targets are zoomed and are easy to observe. • When the sea state is bad, detection performance decreases.	Detection of small targets in good weather conditions

2.10 Switching the Azimuth Mode

Set the bearing for the radar video to be displayed on the radar display.

1 **Click on the azimuth mode combo box of Range and mode information.**

1.5 NM	In	RM(T) ▾	Off Centre
	Out	N UP ▾	
Rings Off		Sea ▾	340

Azimuth Mode combo box

2 **Select the Azimuth mode.**

The following azimuth modes can be set.

Setting items	Description	Display image
[N UP]	North UP (North Up) • The video is displayed so that the zenith of the PPI points to the due north. • Fixed targets do not flicker and are easily identified on the chart, and the true bearing of a target can easily be read out.	
[H UP]	Head UP (Head Up) • The video is displayed so that the ship's heading line is displayed at the top of the screen. Since targets are displayed in their directions relative to the ship's heading line, the operator can view the video in the same field of view as in operating the ship at sea. Therefore, This mode is suitable for watching over other ships • This is not available for TM (True Motion) mode.	
[C UP]	Course UP (Course Up) • At the setting of Course Up, the ship's heading (HDG) is fixed and displayed immediately above the screen. Similar to true bearing display, the positions of stationary targets will not deviate even if yawing occurs in the ship: targets are displayed stably and the bearing of the heading line moves only according to the amount of change in own ship's course. To change the course, select the Course UP display by clicking on the Azimuth mode combo box several times. A course can be set again.	

[C UP (Angle Setting)]	Course UP by angle setting (Course Up by angle setting)
	• When C UP is selected, the [C UP (Angle Setting)] dialogue box is displayed. The course angle that is set in the dialogue box is displayed by being fixed at the top of the screen.
	  – Input the angle of the ship's heading in the [Angle] input box of the [C UP (Angle Setting)] dialogue box.
	  – The angle can also be input (increase/decrease) by operating the angle input slider.
	  – After completing the setting, click on the [X] button.	

2.11 Switching the Motion Mode

By setting a motion mode, the display method of the own ship's position on the radar screen can be changed.

Switching relative motion (RM) mode to true motion (TM) mode

1 **Click on the Motion Mode combo box in Range and mode information.**

Motion Mode combo box
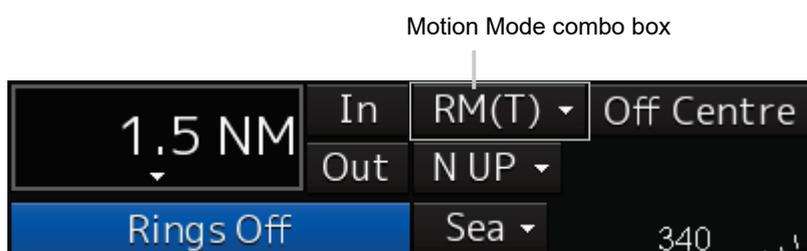
2 **Select the motion mode.**

> **Memo**
>
> Available combinations vary depending on the settings of the motion mode and the azimuth mode (refer to "2.10 Switching the Azimuth Mode").

Azimuth mode / Motion mode	N UP	H UP	C UP	C UP (Angle Setting)
TM	○	×	○	○
RM(T) or RM(R)	○	○	○	○

Setting items	Description	Display image
[TM]	True Motion Mode (True Motion display) • In Ground mode, the own ship's display position moves according to the Speed Over the Ground (SOG) and fixed targets such as land are fixed on the radar screen. • In Water mode, the own ship's display position moves according to the Speed Through Water (STW) and fixed targets such as land move according to the difference between the Speed Through Water (STW) and the Speed Over the Ground (SOG). • When the own ship reaches to the true motion status, the own ship's position is set at the position of about 69% of the screen radius in direction opposite to the own ship's course by adding the influence of the tidal current. The ship's position starts to move according to the own ship's speed, course, and influence of the tidal current. When the own ship's position reaches the position of about 69% of the screen radius, the position is reset to the position of about 75% of the screen radius in the direction opposite to the own ship's course (COG) by adding the influence of the tidal current at that time.	HL Fixed on the radar display Moving depending on own ship's speed
[RM(T)] or [RM(R)]	Relative Motion Mode (Relative Motion display) • Own ship is fixed at the centre of the radar screen and fixed targets such as land move relatively.	
[TM Reset]	TM Reset • The own ship's position is reset in [TM] (true motion display) mode. For the details, refer to "2.11.1 Resetting own ship to its initial position in [TM] (True Motion display) mode".	
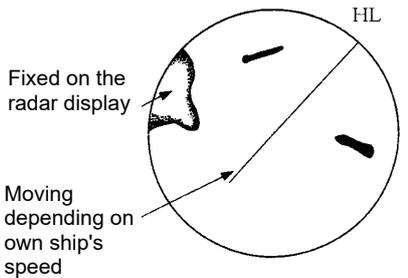
2.11.1 Resetting own ship to its initial position in [TM] (True Motion display) mode

1 Select [TM Reset] from the Motion mode.

Own ship is reset to its initial position as established when the relative motion mode is changed to the true motion mode. The ship starts moving from that position.

2.12 Displaying Radar Trail

2.12.1 Changing the trail length

1 Click on the Trail Length switch combo box in [Trails] of other ships' information.
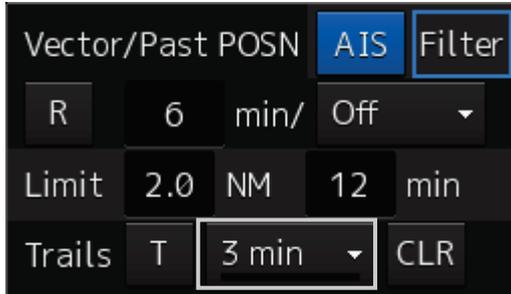
Select a radar trail length.

Short mode: Off, 15 sec, 30 sec, 1 min, 3 min, 6 min, 10 min, 15 min, 30 min, 60 min
Long mode: Off, 30 min, 1 hr, 2 to 24 hrs (at 1 hr interval from 1 to 24 hrs)

2.12.2 Erasing a radar trail

1 Click on the [CLR] (clear trails) button.

[CLR] (clear trails) button.

The confirmation dialogue box appears.

2 Click on the [OK] button.
All the saved trails data will be cleared. The system starts plotting trails in initial state.

2.12.3 Changing the display mode of radar trails

The trail display mode can be switched by using the Trail true/relative switching button of other ship information.

Memo

The available trail motion modes vary depending of the motion mode that is set.

True motion display (TM):	Only true motion trail is available.
Relative motion display (RM):	Relative motion trail and true motion trail can be selected.
	[RM(T)] is displayed when relative motion trail is used.
	[RM(R)] is displayed when true motion trail is used.

---

1 **Click on the Trails True/Relative switch button.**

Each time this button is clicked on, the display mode of Trails switches between [T] and [R].
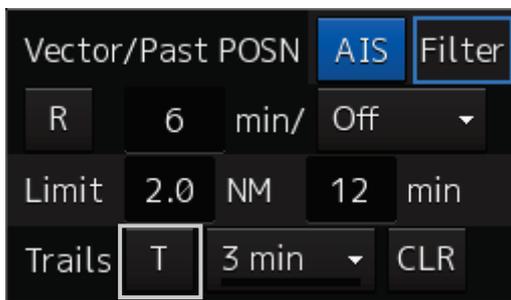
[T]: (True motion trail)

[R]: (Relative motion trail)

Section 3　Operation of Target Tracking

3.1　Acquiring a Target

The methods for acquiring targets include Auto Acquisition (automatic acquisition) mode and ACQ MANUAL (manual acquisition) mode.
Both modes can also be used concurrently.

3.1.1　Auto acquisition (automatic acquisition) mode

By setting up and enabling the automatic acquisition/activation zone (AZ), targets intruding into the AZ can automatically be acquired/tracked and at the same time, a New Target Alarm (automatically acquired target alarm) can be issued.

Memo

If manual acquisition is made in a state in which the number of targets being tracked has reached the maximum number of targets, the target with the lowest danger level among the targets that have been captured thus far automatically is erased successively.

When all the targets that are tracked are for manual acquisition and the number has reached the maximum number of targets, no further acquisition is allowed.

[Operation procedure]
Open the New Target Alarm setup screen by performing the following menu operations.
[Menu] button → Alert → New Target Alarm

1　**Enable the automatic acquisition/activation zone (AZ) by checking [Use AZ1] or [Use AZ2].**

Automatic acquisition/activation zone (AZ) includes AZ1 and AZ2.
To enable AZ1, check [Use AZ1].
To enable AZ2, check [Use AZ2].

To automatic acquisition/activation zone (AZ):

Clear the check of [Use AZ1] or [Use AZ2].

AZ can be enabled or disabled by using the [AZ] key on the operation unit also.

3.1.2 ACQ MANUAL (manual acquisition) mode

Memo

The manual acquisition mode does not function in the following states.

State	Action to Take
The number of tracked targets has reached the maximum count.	Erase unnecessary targets.
The radar antenna is in the standby state.	Start the radar transmission.
A PROC (Interrupt) warning is being generated.	Clear the warning.
A Gyro (I/F)/Gyro (Data)/Heading (Data) warning is being generated.	
The tracked target is located 32 NM away from own ship.	The manual acquisition mode cannot be used.
The tracked target is located less than 0.1 NM from own ship.	

To acquire the tracked target in the manual acquisition mode

1 **Set the cursor mode to the AUTO mode.**

2 **Place the cursor on the target to be acquired and then click on.**
The target is acquired and the initial acquisition symbol is displayed.
The vector is displayed within 1 minute.

Target manually acquired.
The initial acquisition symbol is displayed.

Target that has passed for 1 min.
The acquisition symbol and vector are displayed.
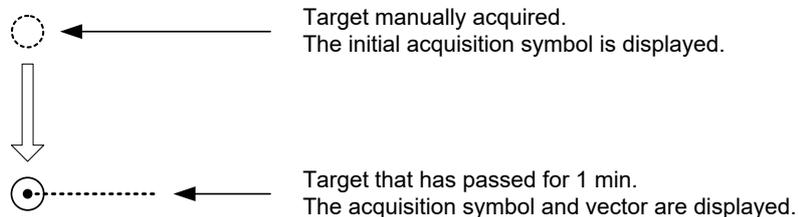
3.1.3 Using manual acquisition and auto acquisition together

By using manual acquisition with AZ enabled, auto acquisition and manual acquisition can be used together. They may be used if a target to which particular attention should be given is manually acquired and other targets are automatically acquired.

3.2 Displaying the Information of Tracking Targets

1 **Set the cursor mode to the AUTO mode.**

2 **Click on the target of tracking whose numerical value is to be displayed.**

Numeric data for the specified target is displayed in the information monitoring window.

The symbol display is changed to "◯". The target data will remain on the radar display until the target is lost and its vector disappears, or until another target is designated.

If a target with the mark "◌" is designated, only its true bearing and range appear until its vector appears.

Cancellation of numeric data display

1 **Set the cursor mode to the AUTO mode.**

2 **Place the cursor on the tracked target to cancel numeric value display and then click on.**

The numeric value disappears.

3.3 Erased Tracked Targets

If the vectors and symbols of the unwanted tracked targets remain displayed, the radar screen may become difficult to view. In such a case, unwanted tracked targets can be erased from the radar screen using the following method.

To erase one target

1 **Place the cursor on the tracked target to be cancelled and then right-click.**
The context menu is displayed.

2 **Click on the [Cancel TT] on the context menu.**
The vector symbol of the tracked target disappears and only the radar image remains.

To erase multiple targets

1 **Place the cursor on the tracked target to be cancelled and then right-click.**
The context menu is displayed.

2 **Click on the [Cancel TT mode] on the Context menu.**
The cursor changes to the selection cursor.

3 **Place the cursor on another target to be cancelled and then click on.**

4 **Repeat the operation in step 3.**
The vector symbols of the clicked tracked targets disappear and only the radar image remains. Finish the cancel TT mode by clicking the right mouse button.

To erase all targets

1 **Place the cursor on the tracked target to be cancelled and then right-click.**
The context menu is displayed.

2 **Click on the [Cancel All TT] on the context menu.**
The vector symbols of all the tracked targets disappear and only the radar image remains.

Memo

If all targets are cancelled, the tracking of all targets will stop; thus, automatic acquisition or manual acquisition must be performed newly. Unless necessary, do not cancel all targets.

Section 4   AIS Operation

4.1   Setting Up the AIS Display Function

1   **Click on the [AIS] button for other ship information on the upper right of PPI.**
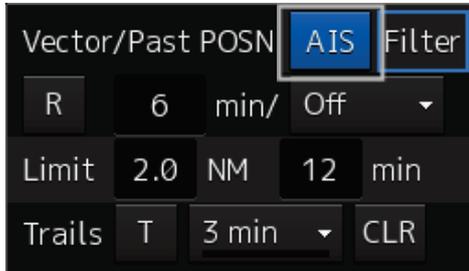
The button indication becomes ON and the AIS function becomes enabled.

ON indication:

The received AIS information is displayed on the screen.

4.2 Activating an AIS Target

Activates an AIS target, and displays the target's vector and make a collision decision.

4.2.1 Manual activation

Activates an AIS target in manual mode to display the vector and heading line.

1 **Set the cursor mode to the AUTO mode.**

2 **Place the cursor on the sleeping AIS symbol to be activated and then click on.**
   The selected AIS target is activated.

4.2.2 Automatic activation

Activate an AIS target in automatic mode to display the vector and heading line.

When the automatic activation function is used, AIS targets are automatically activated when they go into the automatic activation zone. The automatic activation zone is identical to the automatic acquisition zone (AZ) used for target tracking. For the zone setting, refer to "3.1.1 Auto acquisition (automatic acquisition) mode ".

Memo

When the AIS target's symbol is activated but the vector is not displayed, the following are probable causes of the trouble:

- COG/SOG is not input yet from the GPS.
- The selected speed sensor is malfunctioning.

4.3 Displaying the AIS Information

1 **Set the cursor mode to the AUTO mode.**

2 **Place the cursor on the AIS target to display the activated AIS target information and then click on.**

The information of the selected AIS target is displayed.

> **Memo**
> When the numeric data of a target is displayed but the mark " ⌈ ⌉ " is not on the radar display, the target is outside the display.

Canceling AIS target information display

1 **Set the cursor mode to the AUTO mode.**

2 **Move the cursor to and click on the activated AIS target whose AIS target information is to be cancelled.**

The information display of the selected AIS target is cancelled.

4.4　Deactivating an AIS Target

Deactivates an AIS target and clear the display of the vector and heading line.

[Deactivating one AIS target]

1　**Right-click on the AIS target to be deactivated.**

　　The setting items for cursor modes are displayed.

2　**Click on the [Deactivate] on the Context menu.**

　　The selected AIS target is deactivated.

[Deactivating multiple AIS targets]

1　**Right-click on the AIS target.**

　　The setting items for cursor modes are displayed.

2　**Click on [Deactivate mode] on the Context menu.**

　　The cursor changes to the selection cursor.

3　**Click on the AIS target to be deactivated.**

　　The selected AIS target is deactivated.

Memo

　This operation is available only for an activated AIS target.

Section 5   Operation Common to Target Tracking and AIS

5.1   Setting Up Vectors

5.1.1   Setting up the vector mode

1   **Click on the Vector/Past POSN true/relative selector button in the other ship information window.**

 ——— Vector/Past POSN true/relative selector button
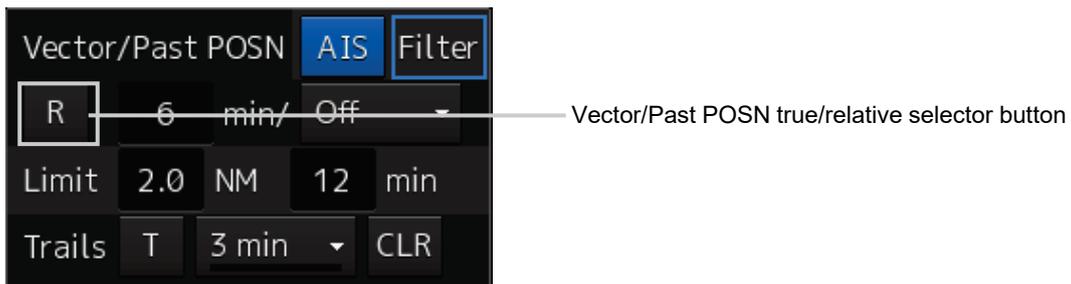
Each click switches track display mode between [T] and [R].

5.1.2   Setting up the vector length

The Vector Length is set in min in the range from 1 min to 120 min.

1   **Click on the Vector Length input box in the other ship information window.**

 ——— Vector Length input box
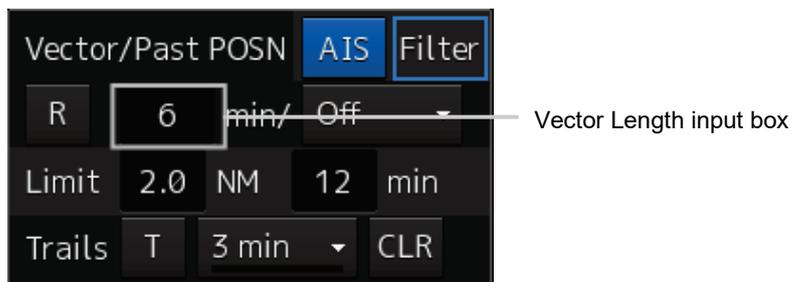
2   **Enter the Vector Length.**

5.2 Setting Up the Collision Determining Condition

Collision decision criteria are set based on CPA and TCPA.

5.2.1 Setting up the CPA limit

1 **Click on the CPA limit value input box in the other ship information window.**

Set the CPA limit in the unit of 0.1 NM within the range from 0.1 NM to 9.9 NM.

CPA limit value input box

2 **Enter the CPA limit.**

5.2.2 Setting up the TCPA limit

1 **Click on the TCPA limit value input box in the other ship information window.**

Set the TCPA limit in the unit of 1 min within the range from 1 min to 99 min.

TCPA limit value input box
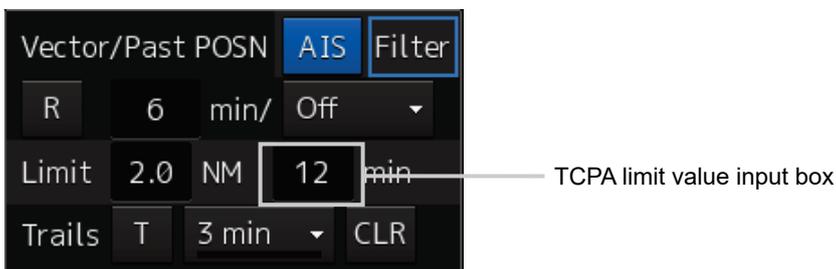
2 **Enter the TCPA limit.**

Section 6 Other Operations

6.1   Stopping an Alert

To stop a buzzer (silencing), click the silence button in the alert notification area or press the [SILENCE] key in the operation unit.

[SILENCE] key

Silence button
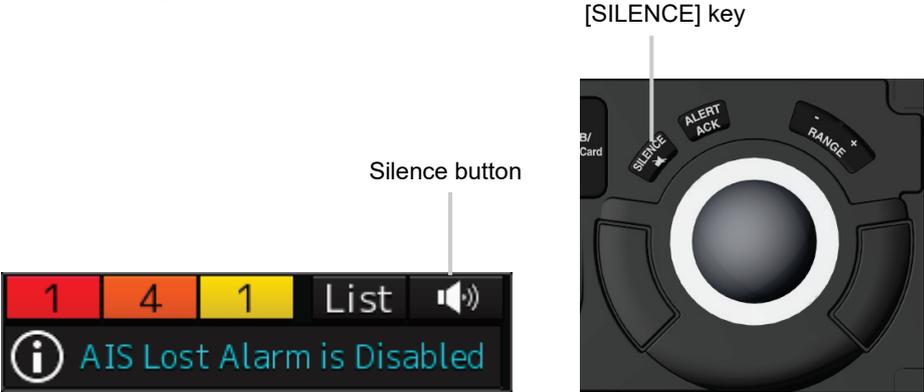
6.2 Acknowledging an Alert

After the [ACK] (acknowledgement) button of the alert detail display dialogue box is clicked on or the [ALERT ACK] (alert acknowledgement) key of the operation section is pressed after verification of the alert contents, the alert that is currently displayed is acknowledged.

When there are multiple alerts, perform the same operation by displaying the details dialogue box of another alert.

When all the alerts are acknowledged, the alert detail display dialogue is closed automatically.

[ACK] button

[ALERT ACK] key
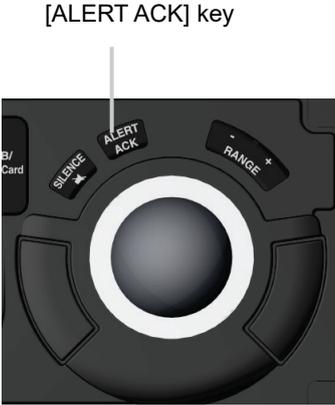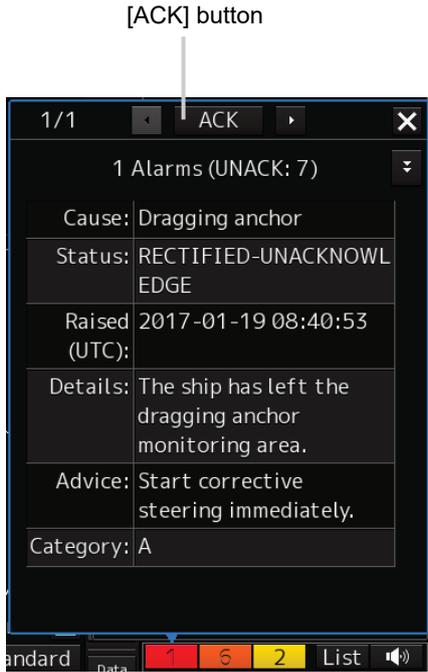
6.3 Operation with the Software Keyboard

1   **Click the numeric key you want to enter.**

2   **Verify that the value you specified is correct and then click the "Enter" key.**

The entry is accepted.

For further information,contact:

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