

3.14 Other Labels

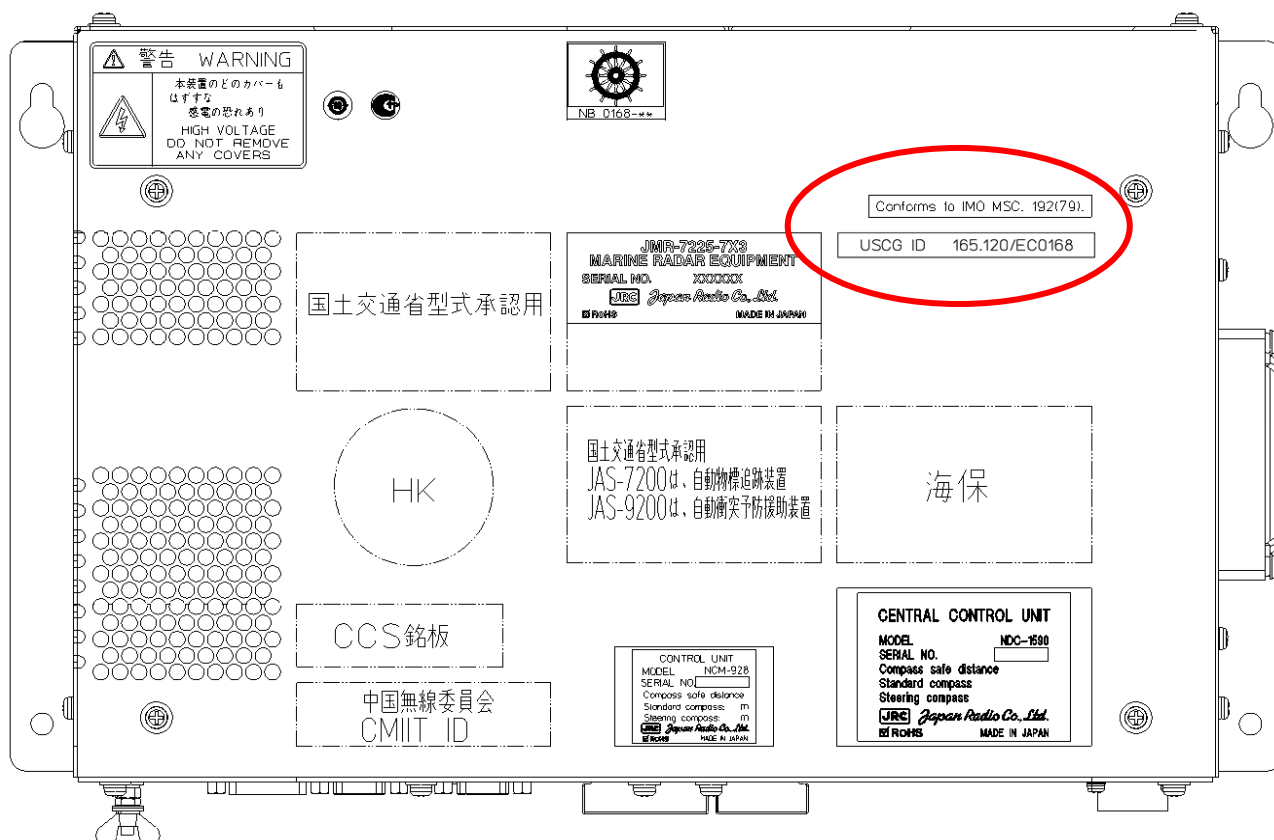
Labels listed below are attached on the CCU:NCM-928. Please stick the labels which corresponds to the model name on the top of CCU as follows instruction.

IMO label	Conforms to IMO MSC. 192(79).	It is required for any type of RADAR.																								
USCG label for JMR-9200	USCG ID 165.120/EC0168	Only JMR-9200 series RADAR use it.																								
USCG label for JAN-7201	JAN-7201 system meets the following standards:IMO Resolution A.694(17), IMO Resolution MSC.232(82), IEC 61174, IEC 61162 (Applicable Part) ECDIS, ECDIS Back-up equipment, RCDS USCG Approval No.165.123/23/0 165.124/09/0 165.125/06/0 JRC <i>Japan Radio Co., Ltd.</i> 1-1,SHIMORENJAKU 5-CHOME,MITAKA-SHI, TOKYO 181-8510 JAPAN	Only JAN-7201 ECDIS use it.																								
USCG label for JAN-9201	JAN-9201 system meets the following standards:IMO Resolution A.694(17), IMO Resolution MSC.232(82), IEC 61174, IEC 61162 (Applicable Part) ECDIS, ECDIS Back-up equipment, RCDS USCG Approval No.165.123/24/0 165.124/10/0 165.125/07/0 JRC <i>Japan Radio Co., Ltd.</i> 1-1,SHIMORENJAKU 5-CHOME,MITAKA-SHI, TOKYO 181-8510 JAPAN	Only JAN-9201 ECDIS use it.																								
INFORMATION LABEL	PERF.MONITOR INFORMATION LABEL <table><tr><th>DATE</th><th>TX VALUE</th><th>RX VALUE</th><th>DATE</th><th>TX VALUE</th><th>RX VALUE</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> MPNN46786	DATE	TX VALUE	RX VALUE	DATE	TX VALUE	RX VALUE																			It is required for any type of RADAR. In the case of standalone type, stick it on the front cover. In the case of flush mount or desktop type, stick it on that is easy to see it such as the front cover of the console or the cover of JB.
DATE	TX VALUE	RX VALUE	DATE	TX VALUE	RX VALUE																					

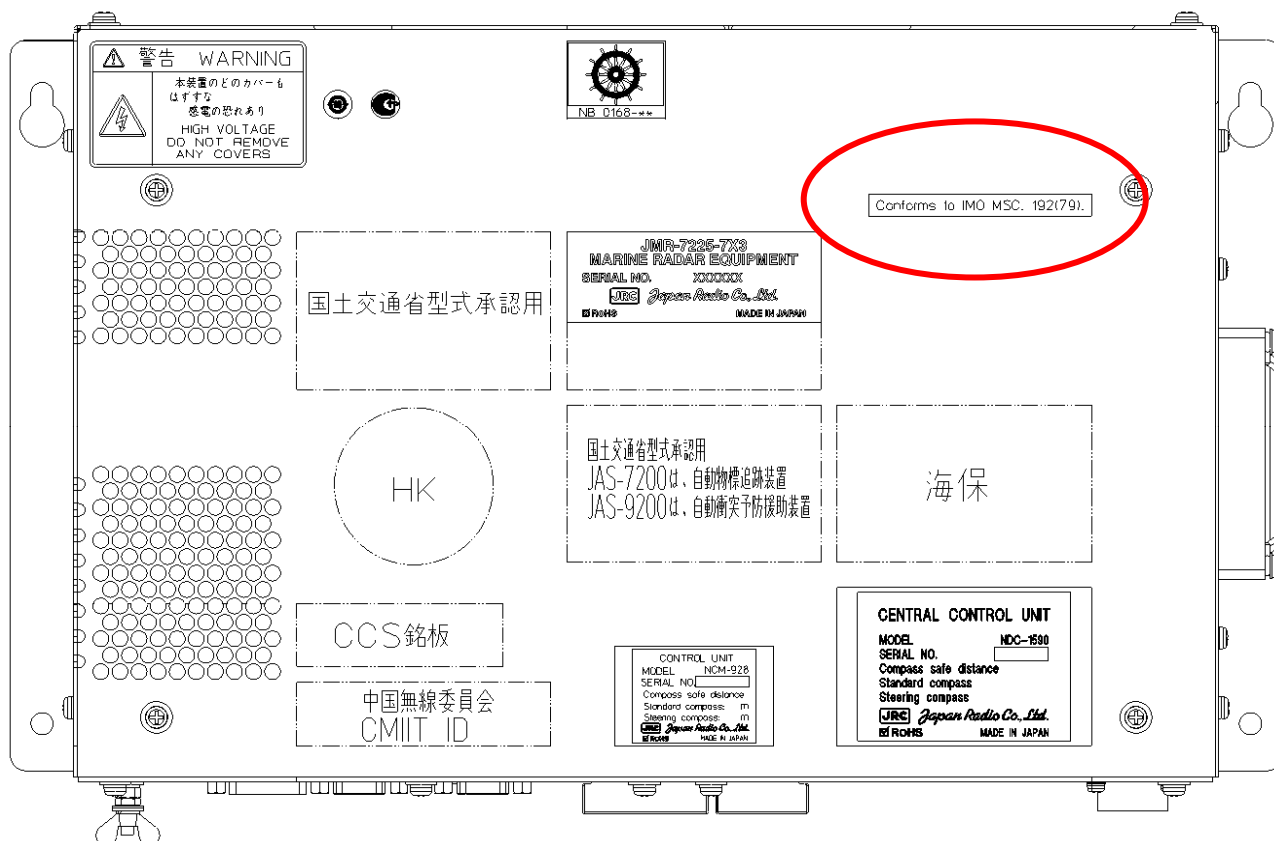
These are not necessary for JAN-9202 Conning Display and JAN-7202 Conning Display.

3.14.1 Position of labels

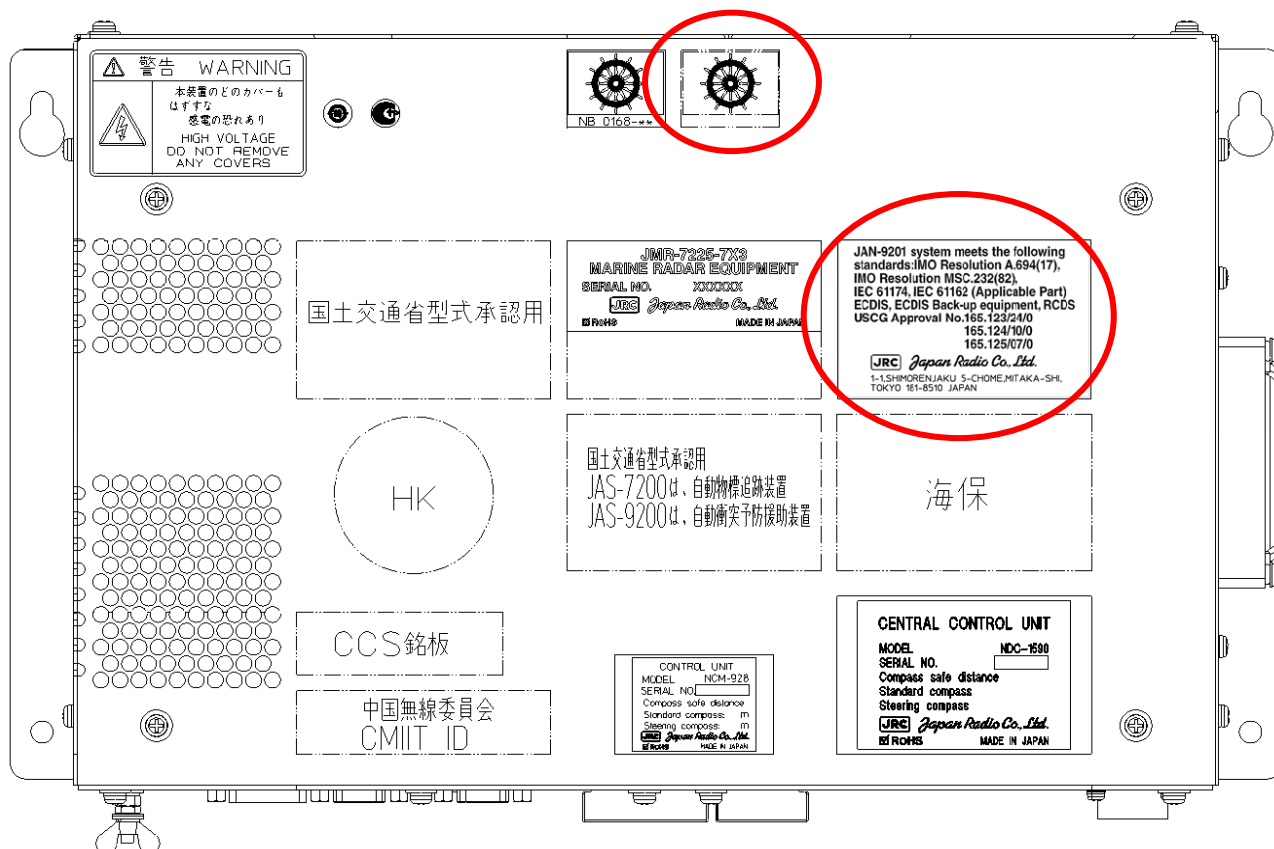
3.14.1.1 JMR-9200 series Radar



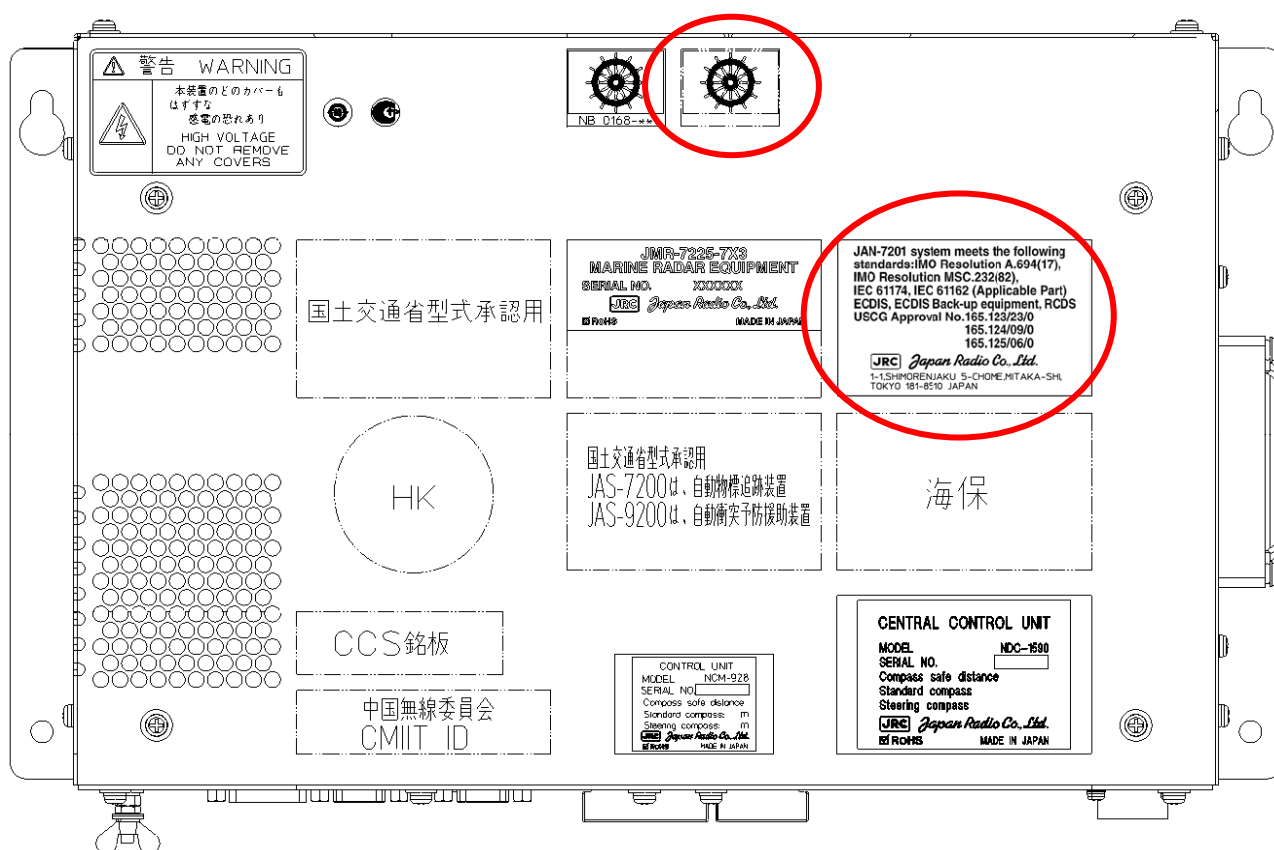
3.14.1.2 JMR-7200 series Radar



3.14.1.3 JAN-9201

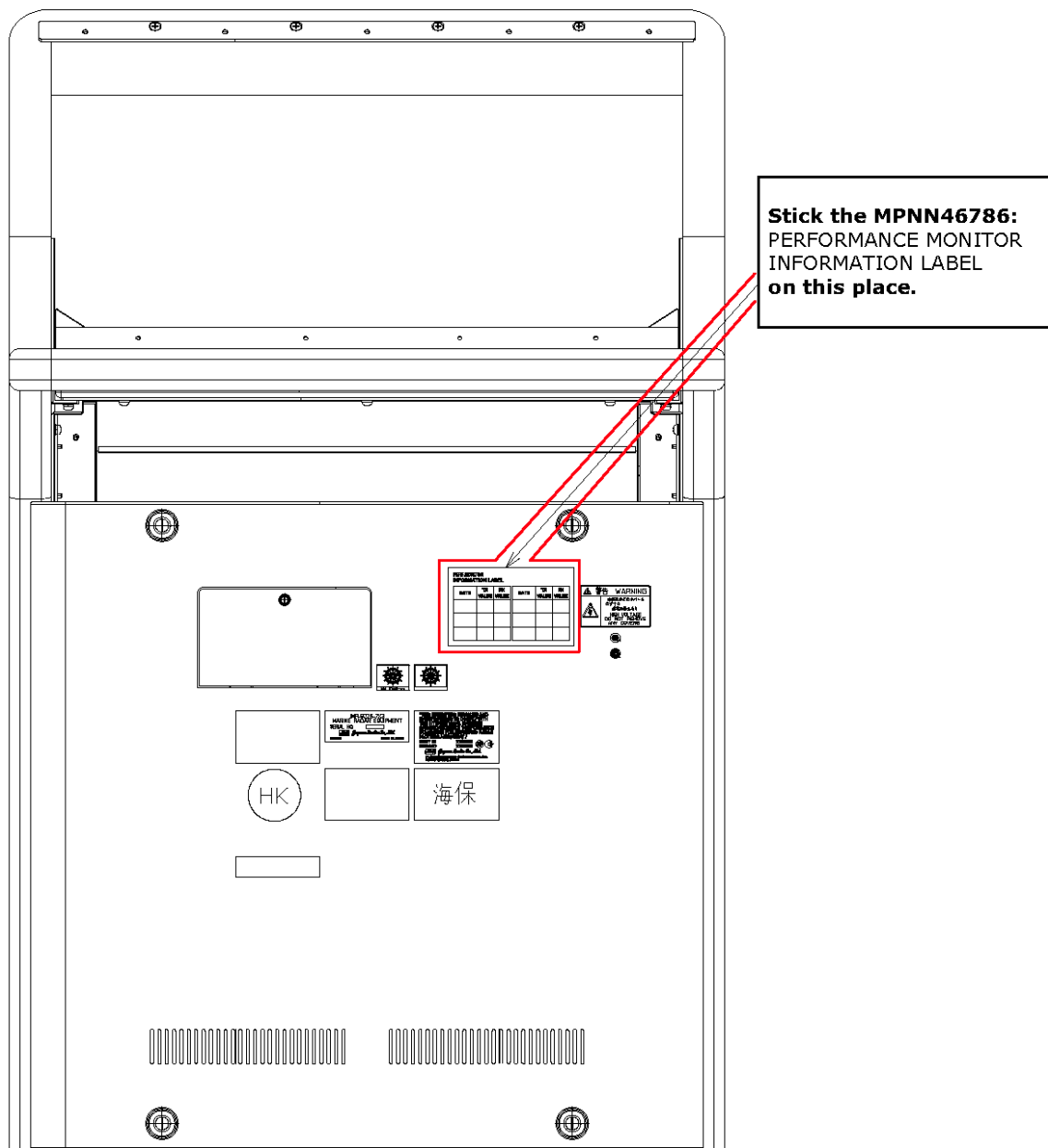


3.14.1.4 JAN-7201



3.14.1.5 Information Label

In case of the standalone type, stick the information label to the front cover.



In case of the desktop type or flush mount type, stick the information label to the easy to read position.
(etc. Cover of the NQE-1143 Junction box, front panel of the console.

4. Initial Setting

CAUTION



Never have the equipment adjusted by unauthorized service personnel. If the equipment is set up incorrectly, it may cause unstable operation.



Never make adjustments while navigating. Doing so may adversely affect the radar functions, causing accidents and/or malfunctions.



Before moving on to communication and sensor settings, confirm that the operation shown in "3.7 Connection with Sensors" is complete.

Memo

RADAR, ECDIS, or Conning as the task station that needs the setting is indicated, following each section title.

[RADAR/ECDIS/Conning] ⇒ The setting is necessary for the respective task stations.

[ALL] ⇒ The setting is necessary for all the task stations.

However, some settings are reflected in all other task stations once they are set in one station. Refer to "4.1 Service Menu".

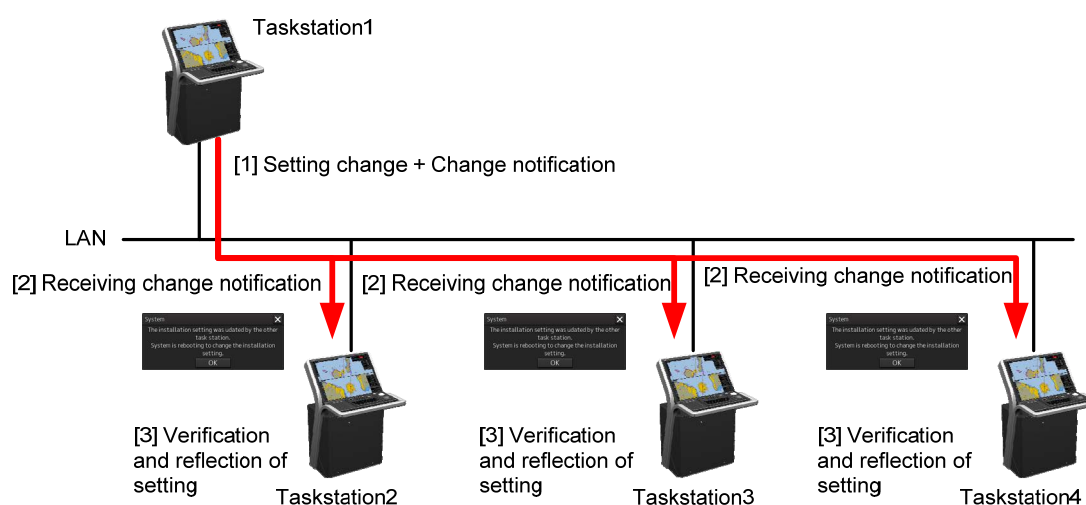
4.1 Service Menu [ALL]

Use the Service menu to make initial settings for the equipment.

The Service menu consists of three submenus of Adjustment, Installation and Maintenance. To display the Service menu, a password is required.

Flow of equipment initial settings

Equipment setting items include setting items that are common among task stations (RADAR, ECDIS, and Conning Display) and setting items that are specific to each task station. Once a common item is set in one task station, the setting is reflected in other task stations also (initial setting synchronization). Initially, the mechanism of synchronization of common setting items among the task stations is described below.



1 Set the setting items.

Set a setting item in a task station.

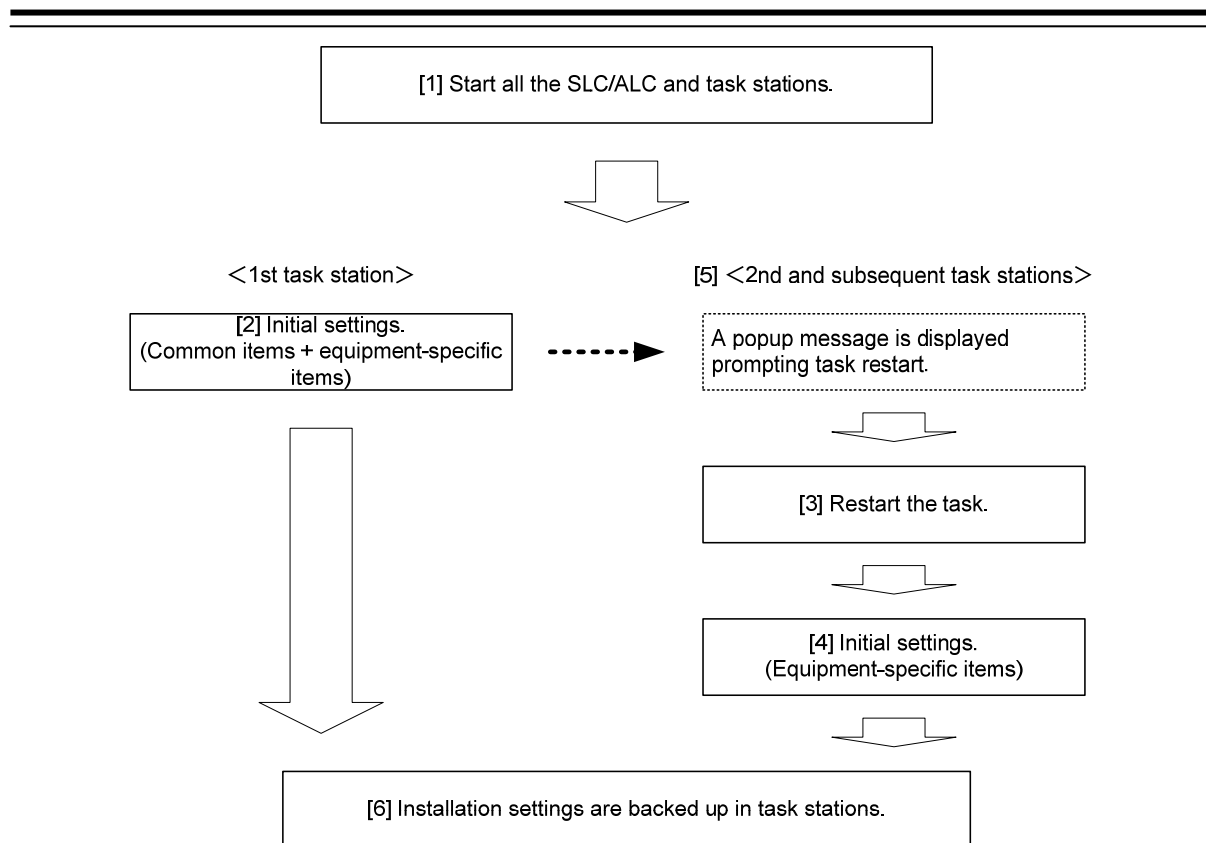
2 Notify the change of the setting item.

The change of the setting is notified to other task stations that are connected to the network.

3 Reflect the change of the setting item.

The task station that received the change notification updates the common setting items and when the task is restarted, the change is reflected in the own task station.

The flow of equipment initial settings is shown below.



1 Start all the SLC/ALC and task stations.

By setting the common setting items while all the task stations are active, the common setting items are synchronized through all the task stations.

2 Initialize the 1st task station (task station that is displayed as Master in the Control Status).

In the 1st task station, set common setting items and equipment-specific setting items.

3 Re-activate the task before initializing the 2nd task station (task station that is displayed as Slave in the Control Status).

When an initial setting item is set in the 1st task station, a message is displayed prompting the restart of the task on other task stations. When the message is closed, the tasks are restarted and the common setting items are reflected.

4 Perform initial setting of the 2nd task station.

In the 2nd task station, set an equipment-specific setting item. When a setting screen of the common setting item is displayed on other stations, the common setting item is displayed in the edit disabled state. By maintaining the display of the setting screen (Installation – System Configuration, etc.) after completing the 1st task station, unintended change of the common setting item can be prevented.

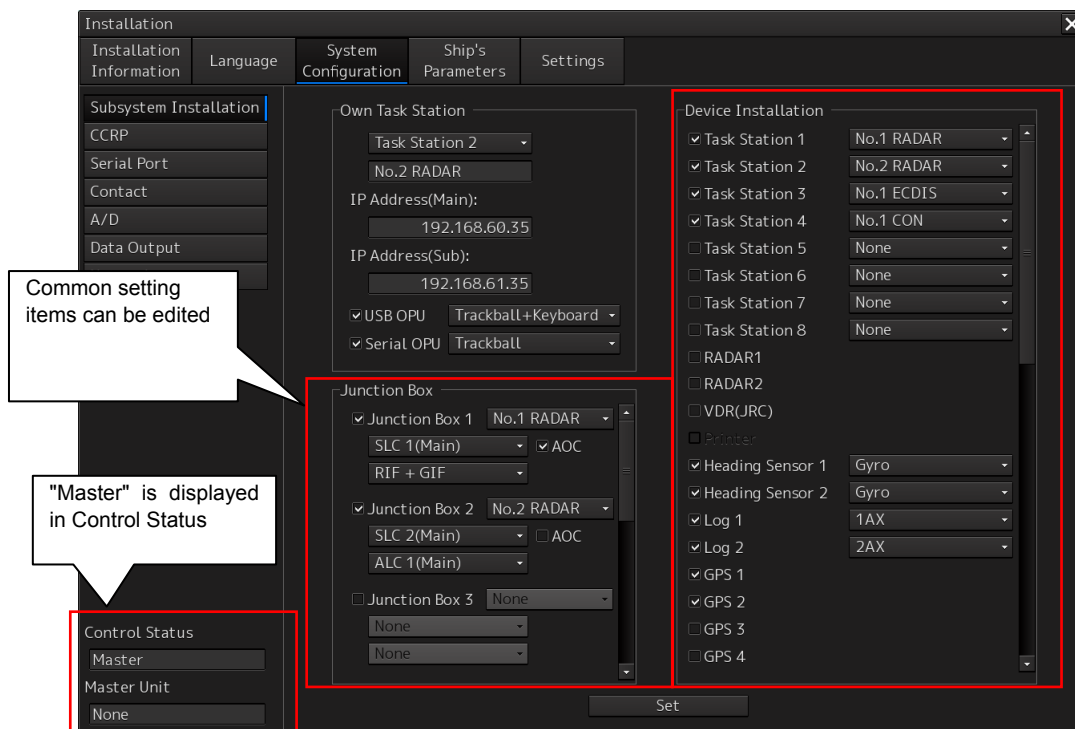
5 Perform steps 3 and 4 for the remaining task stations.

6 Back up the equipment settings in each task station.

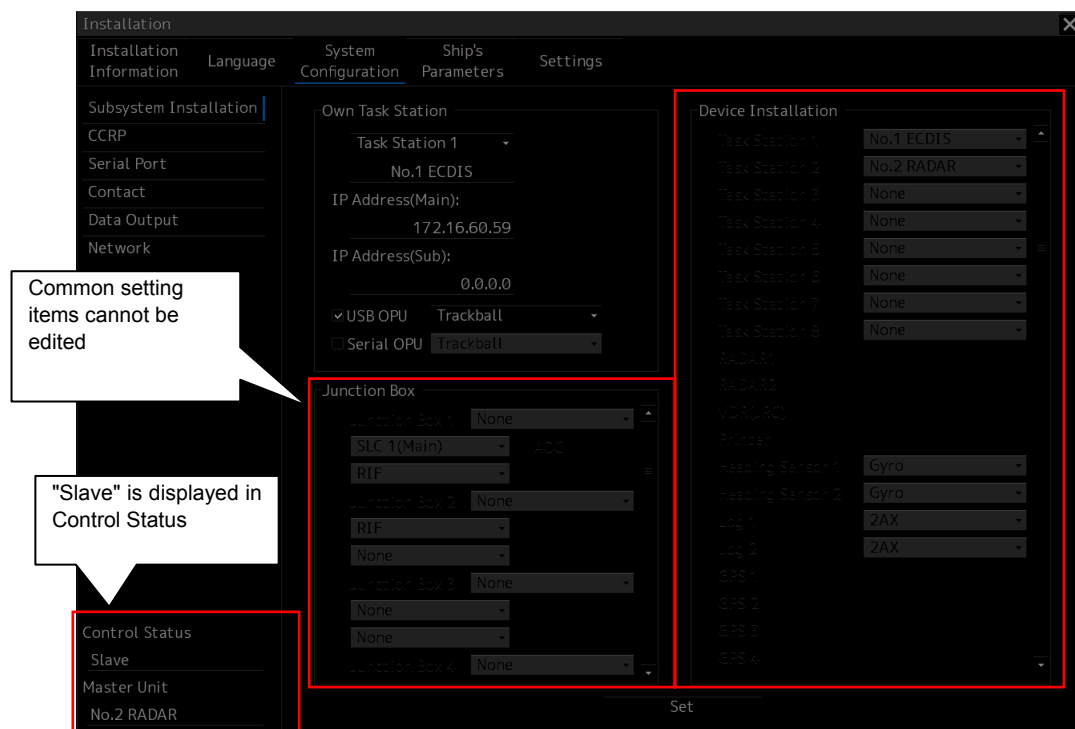
Refer to “4.42 Backup of Data”.

The setting screen with common setting items can display the status information as to whether the own station can edit common setting items. When own task station can edit common setting items, "Master"

is displayed in Control Status and when display/editing is being performed in other task stations, "Slave" is displayed and the common setting items are displayed in the edit disabled state.



Common setting items can be edited on own task station



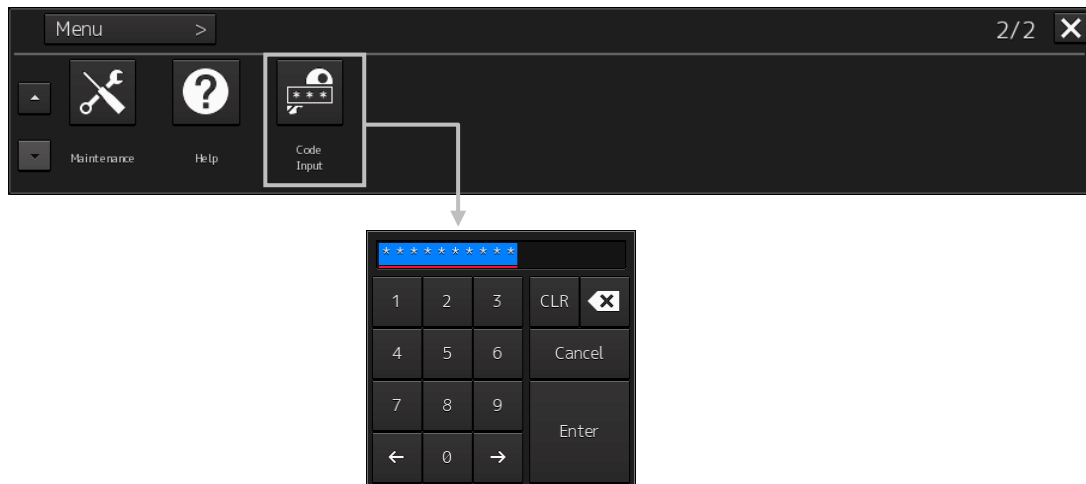
Common setting items cannot be edited on own task station

Setting screens containing common setting items are listed below. For the details of common setting items, refer to “4.43 List of Common Setting Items”.

Setting screen	Description
Installation – System Configuration	Equipment information and communication settings are common setting items.
Installation – Ship's Parameters	The settings of own ship's parameters are common setting items.
Maintenance – Initialization	Although there is no setting item, common setting items are initialized by initialization of service setting.

Displaying the Service menu

- 1 Click on the [Menu] button on the left toolbar.
The menu is displayed.
- 2 Click the [Code Input] button on the menu.
The password input dialog is displayed.



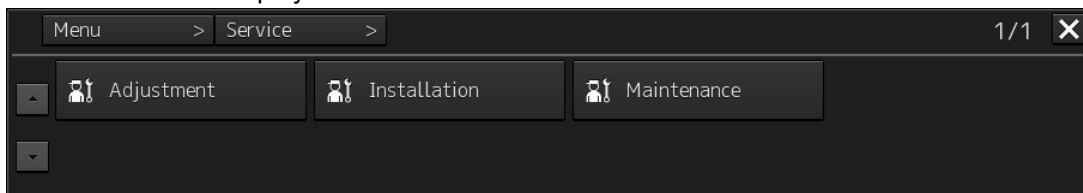
- 3 Enter 0009 in Password.
The [Service] button is added to the menu. Once the [Service] button has been added, the button is continuously displayed until the task menu is closed.



- 4 Click on the [Menu] button on the left toolbar.
The menu is displayed.

5 Click the [Service] button.

The submenu is displayed.



6 Display a submenu dialog box by clicking on one of the [Adjustment], [Installation], and [Maintenance] buttons.

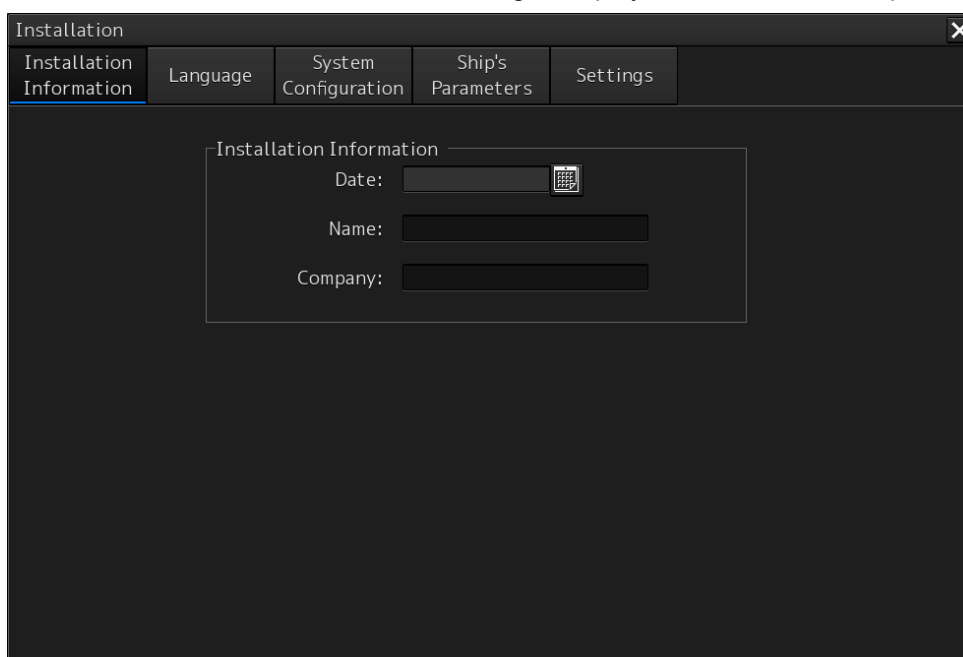
4.2 Installation Information [ALL]

Use the "Installation Information" dialog box to verify the installation of this equipment and perform the initial setting.

Displaying the "Installation Information" dialog

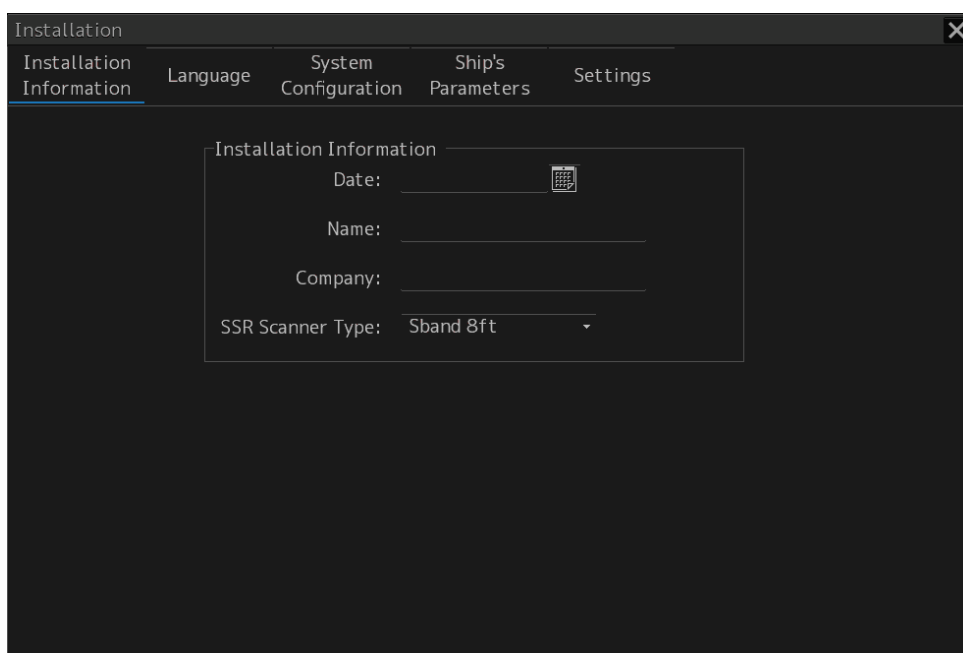
- 1 Display the dialog of the Installation submenu.
- 2 Select [Installation Information] in the Classification pane.

The "Installation Information screen" dialog is displayed in the Edit/Result pane.



The screenshot shows a software window titled "Installation" with a close button (X) in the top right corner. Below the title bar is a tabbed interface with five tabs: "Installation Information" (selected and underlined), "Language", "System Configuration", "Ship's Parameters", and "Settings". The main content area of the "Installation Information" tab is titled "Installation Information" and contains three input fields: "Date:" with a calendar icon, "Name:", and "Company:". The background of the window is dark gray.

Using a magnetron radar or the current solid-state radar and ECDIS/Conning



The screenshot shows the same "Installation" window as above, but with an additional input field. The "Installation Information" tab is still selected. The "Date:", "Name:", and "Company:" fields are present. Below them is a new field labeled "SSR Scanner Type:" with a dropdown menu showing "Sband 8ft". The background of the window is dark gray.

Using a compact solid-state radar

Entering an installation date and a time

- 1 Click on the calendar button in the [Date] input box.**
A calendar is displayed.
- 2 Set a year and a month by using the year selection spin button and the month selection spin button.**
- 3 Click on the date to be set from the date selection box.**
The setting is completed and the calendar is closed.

Entering an installer name

- 1 Click on the [Name] input box.**
A character input keyboard is displayed.
- 2 Enter an installer name (up to 32 characters).**

Entering an installing company

- 1 Click on the [Company] input box.**
A character input box is displayed.
- 2 Enter an installing company (up to 32 characters).**

Selecting a solid-state radar type (using a compact solid-state radar)

- 1 Select one of the following radar types from the [SSR Scanner Type] combo box.**
 - Sband 8ft
 - Sband 8ft-HS
 - Sband 12ft
 - Unselected (when initial setting has not been performed)

4.3 Setting Up a Language [ALL]

Use the "Language" dialog to set up the language to be used for screen display of this equipment.

Note

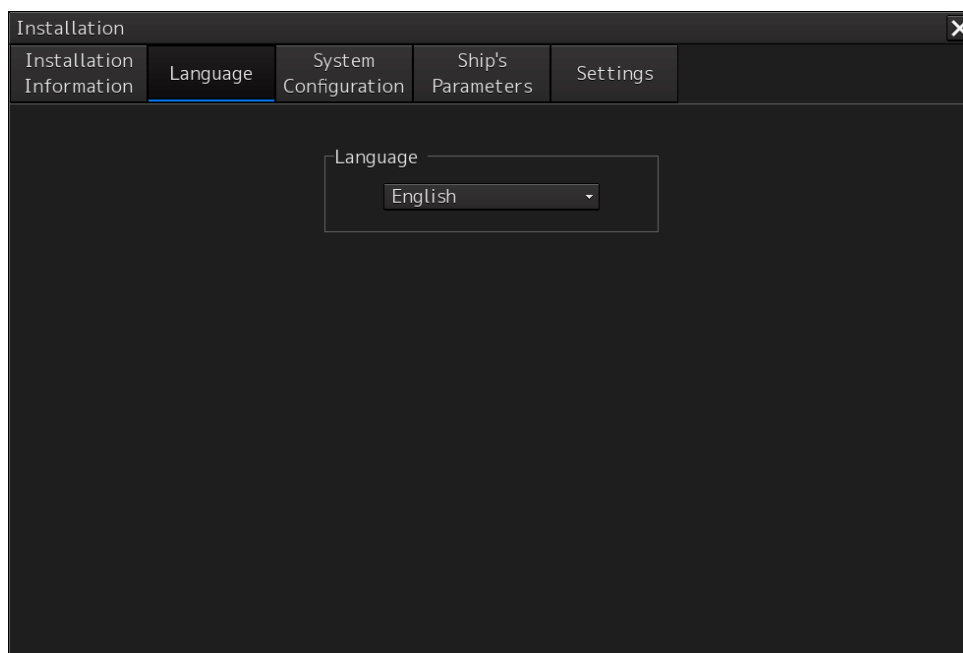
As of now, the current language cannot be changed. Other languages will be supported in the future.

Displaying the "Language" dialog

1 Display the dialog of the Installation submenu.

2 Select [Language] in the Classification pane.

The "Language" dialog is displayed in the Edit/Result pane.



Setting up a language

1 Select the language to be used from the [Language] combo box.

4.4 Subsystem Installation [ALL]

Use the "Subsystem Installation" dialog to verify and change the subsystem configuration of this equipment.

Displaying the "Subsystem Installation" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [System Configuration] in the 1st Classification pane and [Subsystem Configuration] in the 2nd Classification pane.

The "Subsystem Installation" dialog is displayed in the Edit/Result pane.

The screenshot shows the 'Installation' dialog box with the 'System Configuration' tab selected. The 'Subsystem Installation' section is active, displaying configuration options for 'Own Task Station' and 'Junction Box'. The 'Device Installation' section on the right lists various hardware components like Task Stations, RADAR, VDR, Heading Sensors, Logs, and GPS units, each with a checkbox and a dropdown menu for selection. The 'Control Status' and 'Master Unit' sections at the bottom left show 'Master' and 'None' respectively. A 'Set' button is located at the bottom right of the dialog.

Section	Item	Value	
Own Task Station	Task Station	Task Station 2	
	No.2 RADAR	No.2 RADAR	
	IP Address(Main):	192.168.60.35	
	IP Address(Sub):	192.168.61.35	
	USB OPU	Trackball+Keyboard	
	Serial OPU	Trackball	
	Junction Box	Junction Box 1	No.1 RADAR
		SLC 1(Main)	SLC 1(Main)
		AOC	checked
		RIF + GIF	RIF + GIF
Junction Box 2		No.2 RADAR	
SLC 2(Main)		SLC 2(Main)	
ALC 1(Main)	ALC 1(Main)		
AOC	unchecked		
Junction Box 3	None		
Device Installation	Task Station 1	checked	
	Task Station 2	checked	
	Task Station 3	checked	
	Task Station 4	checked	
	Task Station 5	unchecked	
	Task Station 6	unchecked	
	Task Station 7	unchecked	
	Task Station 8	unchecked	
	RADAR1	unchecked	
	RADAR2	unchecked	
	VDR(JRC)	unchecked	
	Printer	unchecked	
Heading Sensor 1	checked		
Heading Sensor 2	checked		
Log 1	checked		
Log 2	checked		
GPS 1	checked		
GPS 2	checked		
GPS 3	unchecked		
GPS 4	unchecked		

Changing the subsystem configuration

Set the following items in the "Subsystem Installation" dialog.

If the presence/absence of the equipment is set in this dialog, the menu display/hide and configuration contents relating to the equipment change according to the setting contents.

Setting item	Description of setting	Setting value
Own Task Station	Select the Task Station number of the equipment from the combo box. Select from the task stations that were set in Task Stations 1 to 8 of Device Installation.	Task Station 1 ~ Task Station 8
	Select installation/non-installation of the USB OPU (Operation Unit) by using the [USB OPU] check box. When the unit is installed, select the installation contents in the [USB OPU] combo box. Memo When OPU is installed, the OPU active/inactive monitoring is performed. When there is no response, the following alert is displayed and OPU is restarted. OPU: OPU-USB(Communication error) Keyboard: OPA-OPB(Communication error)	Installation/non-installation of the unit Absent: Clear Present: Select Installation contents No keyboard operation unit (optional): Select Trackball. Keyboard operation unit (optional): Select Trackball + Keyboard.
	Select the installation/non-installation of Serial OPU (Operation Unit) by using the [Serial OPU] check box. When OPU is installed, select the installation contents in the [Serial OPU] combo box. Memo When OPU is installed, the OPU active/inactive monitoring is performed. When there is no response, the following alert is displayed and OPU is restarted. OPU: OPU-Serial(Communication error) Keyboard: OPA-OPB(Communication error)	Installation/non-installation Non-installation: Clear Installation: Select Installation contents No keyboard operation unit (optional): Select Trackball. Keyboard operation unit (optional): Select Trackball + Keyboard.
Junction Box	Select installed/not installed of junction boxes 1 to 8 from the [Junction Box 1 ~ 8] check boxes.	Not installed: Clear. Installed: Select.
	In the combo box for selecting a Task Station, select the equipment that is directly connected to Radar I/F or Gyro I/F of the junction box.	Equipment that is assigned to any of Task Stations 1 to 8 of Device Installation
	Select the equipment to be installed in the Junction Box that was selected from [Junction Box 1 ~ 8] check boxes.	None SLC 1 to 8(Main) SLC 1 to 8(Sub) ALC 1 to 8 RIF GIF RIF + GIF
	When SLC is selected from the combo box, select installed/not installed of AOC with the [AOC] check box. Memo When "Installed" is set while AOC is not installed, the message "SLC AOC Error" is displayed.	Not installed: Clear. Installed: Select.

Setting item	Description of setting	Setting value
Device Installation	Select installed/not installed of the device by using the check box of each subsystem. For the subsystem that is installed, select the parameters from the combo box. No restrictions are placed on the order of assigning the devices to Taskstation1-Taskstation8. The following shows an example of device assignment to task stations: (Example) Device assignment in ascending order of the values of IP-address 4th octets (Refer to 4.11 "JRC Network IP Address.") 1: No.1 RADAR 2: No.2 RADAR 3: No.1 ECDIS 4: No.2 ECDIS 5: No.1 CON Note: The subsystems that are displayed as disabled will be supported in the future.	Not installed: Clear. Installed: Select. Subsystem Task Station 1~Task Station 8 RADAR 1, 2 ^{*1} VDR(JRC) Primer Heading Sensor 1, 2 Log 1, 2 GPS 1~4 Ship's Clock Echo Sounder (T/D 1~4) AIS NAVTEX Anemometer Water TEMP Meter Current Meter Climate Meter Autopilot Rudder Engine/Propeller Engine Telegraph Bow Thruster Stem Thruster Azimuth Thruster Generator Fin Stabilizer YEOMAN Digitizer Radar Simulator S-JOY 1 to 5 GPS Selector Log Selector Inmarsat-C 1, 2

(*1) For ECDIS, the communication radar is to be checked. If this check box is checked, the TT data over the LAN is received from a device that is assigned to No.1 RADAR for RADAR1 and No.2 RADAR for RADAR2. However, if it is set to receive the TT data from the serial port by the setting of "Serial Port", the TT data is received from the serial port. For the setting of "Serial Port", refer to "4.6 Setting Up a serial Port".

Table 4-1 Device numbers that can be selected

No.	Device numbers that can be selected	No.	Device numbers that can be selected
1	None	12	No.3 ECDIS
2	No.1 RADAR	13	No.4 ECDIS
3	No.2 RADAR	14	No.1 CON
4	No.3 RADAR	15	No.2 CON
5	No.4 RADAR	16	No.1 CON (Wing)
6	No.5 RADAR	17	No.2 CON (Wing)
7	No.6 RADAR	18	No.1 CON (Remote)

8	No.7 RADAR
9	No.8 RADAR
10	No.1 ECDIS
11	No.2 ECDIS

19	No.2 CON (Remote)
20	No.1 RPS
21	No.2 RPS

Note

- Do not select the same Task Station number of Own Task Station among multiple devices. If the same Task Station number is selected among multiple devices, unintended operation is performed.
- When performing radar overlay without installing interswitch, do not forget to check Device Installation systems RADAR1 and RADAR2 (when two radar systems are available). When interswitch is installed and available for use, radar overlay can be performed regardless of the setting of RADAR1 and RADAR2. For the setting of interswitch, refer to “4.16 Setting Interswitch”.

Setting example

The following diagram shows the setting example of [Own Task Station] and [Device Installation] when the subsystem is configured as follows:

No.1 RADAR (S band radar) as Task Station 1

No.2 RADAR (X band radar) as Task Station 2

No.1 ECDIS as Task Station 3

No.2 ECDIS as Task Station 4

Conning as Task Station 5

The screenshot displays a software configuration window with two main panels: 'Own Task Station' and 'Device Installation'.

Own Task Station Panel:

- Task Station 1:** No.1 RADAR
- IP Address(Main):** 0.0.0.0
- IP Address(Sub):** 0.0.0.0
- ☒ USB OPU: Trackball+Keyboard
- ☐ Serial OPU: Trackball
- Junction Box:**
 - ☒ Junction Box 1: SLC 1(Main) [AOC checked], RIF + GIF
 - ☒ Junction Box 2: SLC 2(Main) [AOC unchecked], ALC 1
 - ☐ Junction Box 3: None
 - ☐ Junction Box 4: None

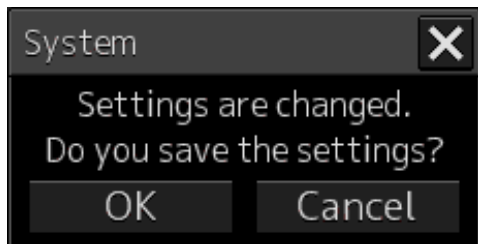
Device Installation Panel:

- ☒ Task Station 1: No.1 RADAR
- ☒ Task Station 2: No.2 RADAR
- ☒ Task Station 3: No.1 ECDIS
- ☒ Task Station 4: No.2 ECDIS
- ☒ Task Station 5: No.1 CON
- ☐ Task Station 6: None
- ☐ Task Station 7: None
- ☐ Task Station 8: None
- ☒ RADAR1
- ☒ RADAR2
- ☒ VDR(JRC)
- ☒ Printer
- ☒ Heading Sensor 1: Gyro
- ☒ Heading Sensor 2: Gyro
- ☒ Log 1: 2AX
- ☒ Log 2: 2AX
- ☒ GPS 1
- ☒ GPS 2
- ☐ GPS 3
- ☐ GPS 4

Saving subsystem configuration changes

- 1 Click on the [Set] button in the "Subsystem Installation" dialog.

A dialog is displayed prompting confirmation of saving the configuration changes.



- 2 To save the changes, click on the [OK] button. To cancel the changes, click on the [Cancel] button.

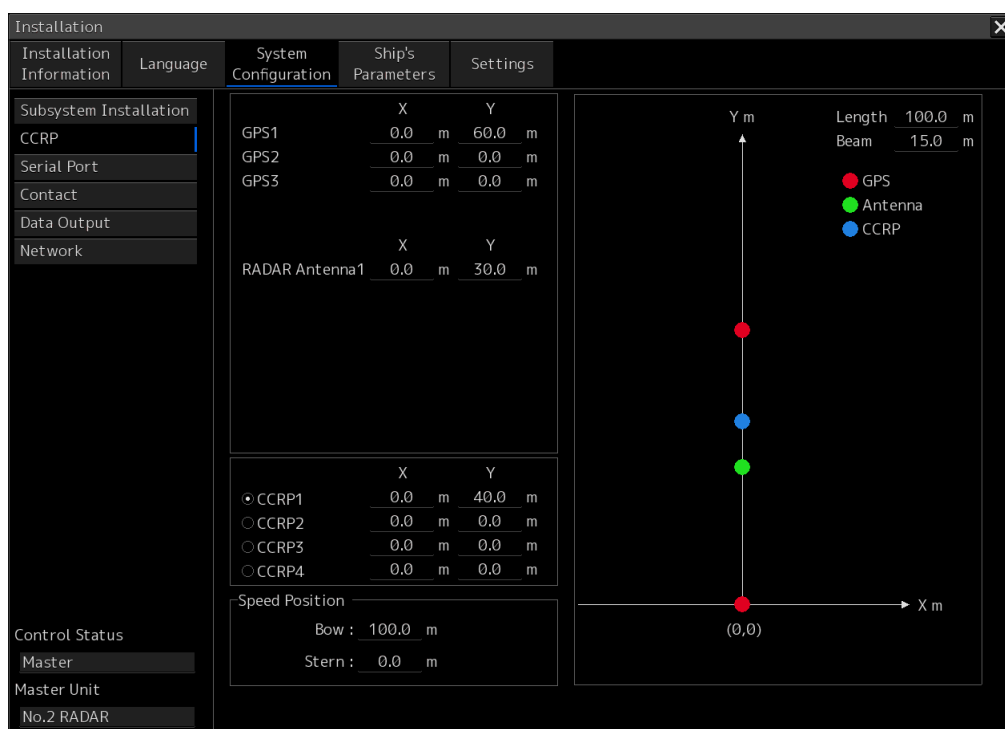
4.5 Setting Up CCRP (Consistent Common Reference Point) [ALL]

Set a measurement reference position (CCRP) on own ship by using the "CCRP" dialog.

Displaying the "CCRP" dialog

- 1 Display the dialog of the Installation submenu.
- 2 When you select [System Configuration] in the 1st Classification pane and [CCRP] in the 2nd Classification pane

The "CCRP" dialog is displayed in the Edit/Result pane.



Note

Configure the GPS setting correctly. The latitude/longitude data that is received from GPS is corrected and displayed as the latitude/longitude of own ship.

Setting CCRP

Set the following items in the "CCRP" dialog.

Setting Item	Description of Setting	Setting Value
Length (of ship)	Enter the ship's length in the box.	1.0 to 1022.0m
Beam (ship's width)	Enter the ship's width in the box.	1.0 to 126.0m
GPS1/2/3/4	Enter the equipment positions of GPS1, GPS2, GPS3 and GPS4 in the boxes. X: X axes of GPS1/2/3/4 Y: Y axes of GPS1/2/3/4 Note • If "No Equipment" is specified in the Subsystem Installation panel, this is not displayed. • When the input range is changed by modifying [Length] and [Beam], if a value exceeding the input range after modifying has already been entered, the value will be corrected to the maximum or minimum value.	Changes depending on the value of [Length] and [Beam]. If Length=a and Beam=b: X -b/2 to b/2 Y 0.0 to a For example, • if Length=1.0 and Beam=1.0: X -0.5 to 0.5 Y 0.0 to 1.0 • if Length=700.0 and Beam=70.0: X -35.0 to 35.0 Y 0.0 to 700.0
Radar Antennas1 to 8 (equipment positions of radar antennas1 to 8)	Enter the equipment positions of Radar Antennas1 to 8 in the boxes. X: X axes of radar antennas 1 to 8 Y: Y axes of radar antennas 1 to 8 Note • If "No Equipment" is specified in the [DipSW] settings of the interswitch unit, this is not displayed. • When the input range is changed by modifying [Length] and [Beam], if a value exceeding the input range after modifying has already been entered, the value will be corrected to the maximum or minimum value.	
CCRP1/2/3/4	Enter the positions of CCRP1 to CCRP4 of the ship in the boxes. X: X axes of CCRP1/2/3/4 Y: Y axes of CCRP1/2/3/4 Note When the input range is changed by modifying [Length] and [Beam], if a value exceeding the input range after modifying has already been entered, the value will be corrected to the maximum or minimum value.	
CCRP	Select the position to be used as the ship's CCRP by clicking the applicable button. Note Normally, only CCRP1 is used.	CCRP1 CCRP2 CCRP3 CCRP4
Speed Position Bow	Enter the distance from the origin (0, 0) to the display point of the right/left ship speed on the Bow side.	0.0 to Ship's length m
Speed Position Stern	Enter the distance from the origin (0, 0) to the display point of the right/left ship speed on the Stern side.	0.0 to Ship's length m

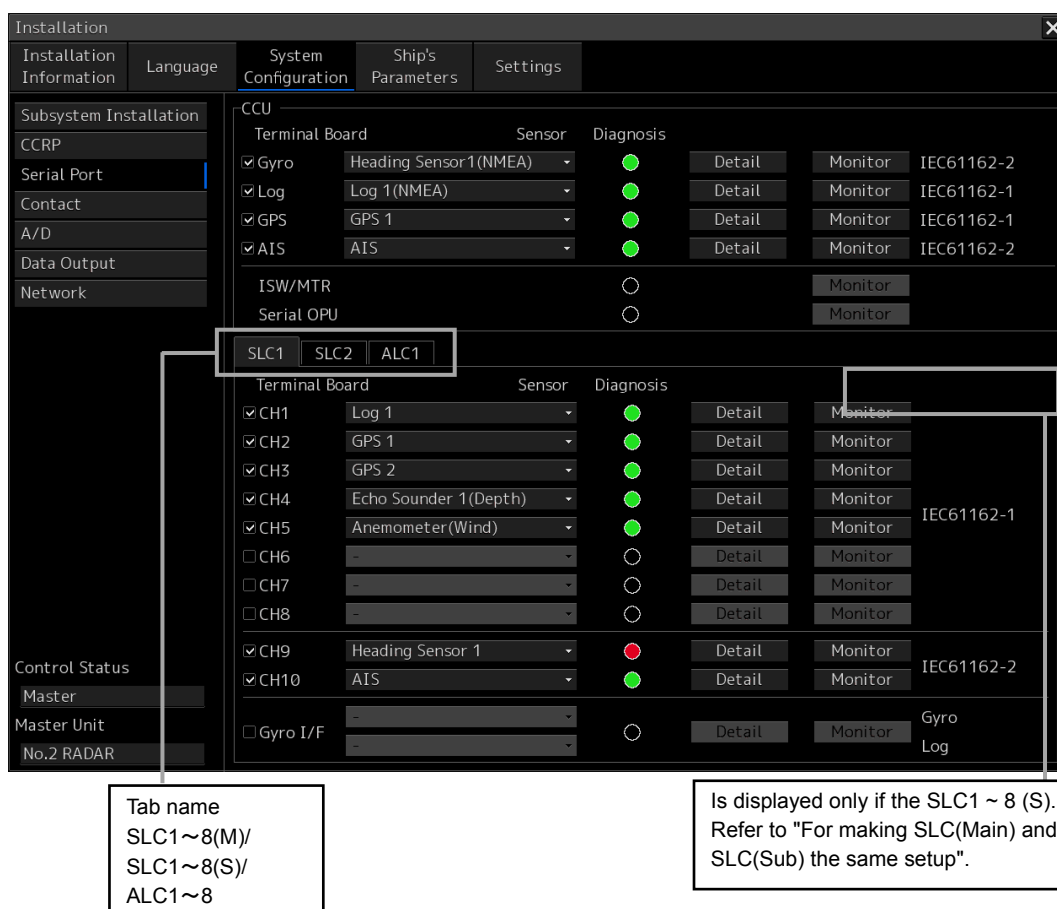
4.6 Setting Up a Serial Port [ALL]

Use the "Serial Port" dialog to verify the setting of the serial port of this equipment and perform the initial setting. The status of ISW/MTR and Serial OPU can also be monitored.

Displaying the "Serial Port" dialog.

- 1 Display the dialog of the Installation submenu.
- 2 Select [System Configuration] in the 1st Classification pane and [Serial Port] in the 2nd Classification pane.

The "Serial Port" dialog is displayed in the Edit/Result pane.



[Diagnosis] lamp light colors

The [Diagnosis] lamp displays the diagnosis result as to whether the sentence of the specified sensor is received for each serial port and also displays the status of ISW/MTR and Serial OPU.

Lit in red: Data not received.

Lit in green: Data is receiving.

Lit in orange: In diagnosis (before decision).

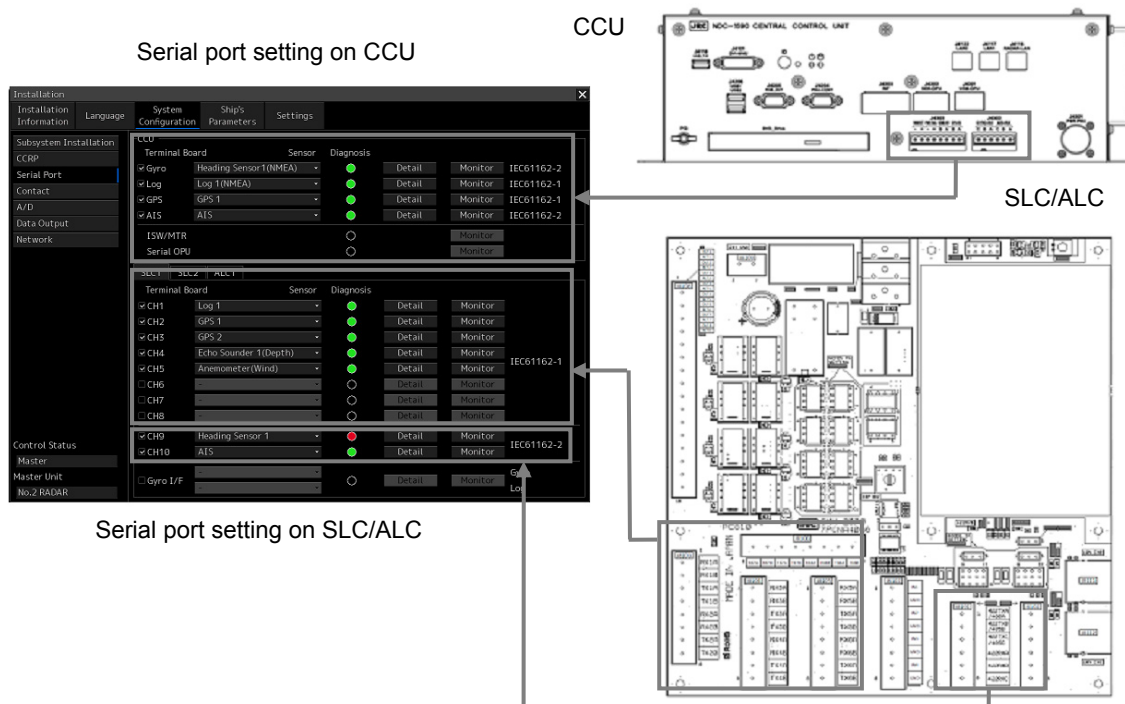
No color: Serial port is disabled.

Note

- When the RADAR slave mode is active, the [Diagnosis] lamp of ISW/MTR is disabled.
- When the [Serial OPU] check box is set to Off after selecting [Service]-[Installation]-[System Configuration]-[Subsystem Installation], the [Diagnosis] lamp of serial OPU is disabled.

Setting a serial port

In the "Serial Port" dialog, allocate the sensor to be connected for the serial port on CCU and the serial port on SLC(Main/Sub)/ALC.



[Setting a serial port on CCU]

Setting Item	Description of Setting	Setting Value
Gyro	1. Select the check box and enable the serial port for the Gyro. 2. Select the sensor to be connected to the Gyro serial port from the [Sensor] combo box. When no sensor is selected, select [-].	To enable: Select. To disable: Clear. The sensors that can be selected vary according to the subsystem installation status. Refer to "Table 4-2 Sensors that can be selected on the Task Station".
LOG	1. Select the check box and enable the serial port for the LOG. 2. Select the sensor to be connected to the LOG serial port from the [Sensor] combo box. When no sensor is selected, select [-].	
GPS	1. Select the check box and enable the serial port for the GPS. 2. Select a sensor to be connected to the serial port for the GPS from the [Sensor] combo box. When no sensor is selected, select [-].	
AIS	1. Select the check box and enable the serial port for the AIS. 2. Select a sensor to be connected to the serial port for the AIS from the [Sensor] combo box. When no sensor is selected, select [-].	

Table 4-2 Sensors that can be selected on CCU

Serial port	Sensor name	Devices required as the subsystem (set to "installed" in the "Subsystem Installation" dialog)
Gyro	Heading Sensor(NMEA)	Heading Sensor 1
	Heading Sensor(Gyro I/F)	
LOG	Log(NMEA)	Log 1
	Log(Gyro I/F) ^{*1}	
	Selector	Log Selector
GPS	GPS 1	GPS 1
	GPS 2	GPS 2
	GPS 3	GPS 3
	GPS 4	GPS 4
	Selector	GPS Selector
AIS	AIS	AIS

(*1) Can be selected only when "Heading Sensor (Gyro I/F)" is selected for the Gyro port.

When "Log(Gyro I/F)" is selected, log data is acquired together with the Heading Sensor data from the Gyro port and communication is not performed through the LOG port. Therefore, the Diagnosis lamp, the Detail button, and the Monitor button are disabled.

[Setting serial ports on the SLC/ALC that is installed]

Setting Item	Description of Setting	Setting Value
CH1 to CH8 (IEC-61162-1)	- Click on any of SLC1(M) to SLC8(M), SLC1(S) to SLC8(S) and ALC1 to ALC8 tabs. - Enable the serial port of the channel by selecting the check box. - Select the sensor to be connected to the channel from the [Sensor] combo box. When no sensor is selected, select [-].	To enable: Select. To disable: Clear. The sensors that can be selected vary according to the subsystem installation status. Refer to "Table 4-3 Sensors that can be selected on SLC/ALC".
CH9/CH10 (IEC-61162-2)	- Click on any of SLC1(M) to SLC8(M), SLC1(S) to SLC8(S) and ALC1 to ALC8 tabs. - Enable the serial port of the channel by selecting the check box. - Select the sensor to be connected to the channel from the [Sensor] combo box. When no sensor is selected, select [-].	
Gyro I/F	Items are displayed only for SLC + "GIF" "RIF+GIF" in Gyro I/F. - Click on any of SLC1(M) to SLC8(M) and SLC1(S) to SLC8(S) tabs. - Enable the serial port of the channel by selecting the check box. - Select the sensor (Gyro and Log) to be connected to the channel from the [Sensor] combo box. When no sensor is selected, select [-].	To enable: Select. To disable: Clear. Sensors that can be selected: Gyro: Heading Sensor 1/2 Log: Log 1/2 * The sensors that can be selected vary according to the subsystem installation status.

Table 4-3 Sensors that can be selected on the SLC/ALC

Sensor name	Devices required as the subsystem (set to "installed" in the "Subsystem Installation" dialog)
Heading Sensor 1	Heading Sensor 1
Heading Sensor 2	Heading Sensor 2
Log 1	Log 1
Log 2	Log 2
GPS 1	GPS 1
GPS 2	GPS 2
GPS 3	GPS 3
GPS 4	GPS 4
Ship's Clock	Ship's Clock
Echo Sounder(Depth)	Echo Sounder(Depth)
AIS	AIS
NAVTEX	NAVTEX
Anemometer(Wind)	Anemometer(Wind)
Water Temperature Meter	Water Temperature Meter
Current Meter	Current Meter
Climate Meter	Climate Meter
TRI * ¹	TRI
Autopilot	Autopilot
Rudder	Rudder
Engine/Propeller	Engine/Propeller
Engine Telegraph	Engine Telegraph
Thruster	Thruster
Azimuth Thruster	Azimuth Thruster
Generator	Generator
Fin Stabilizer	Fin Stabilizer
YEOMAN Digitizer	YEOMAN Digitizer
RADAR1(TT RX)	RADAR1
RADAR2(TT RX)	RADAR2
Other than sensors	
Alert(to CAM) * ²	
Alert(from Subsystem) * ²	
Alert(to BNWAS) * ²	
IAS(NMEA) * ²	
DSC * ²	
— * ³	

(*1) TRI (Turn Rate Indicator): Indicates a device that transmits ROT.

(*2) Used for alert handling. For details, refer to "4.8 CAM Configuration and Setting".

(*3) In the case of the port used for a data output, it is used.

Refer to "4.10 Setting Data Output".

[port settings for data output]

[CHx] check box : Select to enable.

[Sensor] combo box : "—"

To change the communication settings of the Serial Port

- 1 Click the [Detail] button of the enabled serial port and display the [Detail] dialog.

Serial Port - Detail

Source Device: SLC1 Sensor: Log 1

Terminal: CH8

Communication

Baud Rate: 9600 1.5% Stop Bits: 1 ☒ Checksum

Data Length: 8 Buffer Size: 256

Parity: None Time Out: 15 sec

Alert(from Sensor) Sentence: ALR

Set

For SLC Gyro I/F, sensor names are displayed in two lines. (*1)

Displayed only for SLC CH8-CH10

Alert handling setting (*2)

(*1) Sensor name display pattern

[For sensor other than SLC Gyro I/F]

Sensor: Alert(from Subsystem)

[For SLC Gyro I/F]

Gyro Sensor: Heading Sensor 1

Log Sensor: Log 1

(*2) Display pattern of alert handling setting

[Various sensors (*1)]

(*1) Other than "Alert(from Subsystem / to CAM / to BNWAS)", and "DSC"

Alert (from Sensor)

Sentence: ALR

[When the sensor is "Alert(from Subsystem)"]

Alert (from Subsystem)

Subsystem: No.1 RADAR Sentence: ALR

[When the sensor is "Alert(to CAM)"]

Alert (to CAM)

Subsystem: No.1 RADAR Sentence: ALR

[When the sensor is "Alert(to BNWAS)"]

Alert(to BNWAS)

Access Source: AMS Sentence: ALR

[When the sensor is "DSC", or "- (not selected)"]

No display

2 Perform the settings shown in the following table and then click on the [Set] button.

Setting Item	Description of Setting	Setting Value
Baud Rate	Select the baud rate of the corresponding serial port from the combo box. In the [Detail] dialog of CH8 to CH10, the [Baud Rate] addition ratio combo box is displayed on the right side of the [Baud Rate] combo box.	Selectable baud rates vary depending on the serial port (refer to "Table 4-4 Selectable baud rates").
[Baud Rate] addition ratio combo box	The combo box is displayed in the [Detail] dialog of AIS, GYRO ^{*1} , and CH8 to CH10. The addition ratio (%) for adjusting the baud rate can be changed in the combo box. The baud rate that is used for communication is the value obtained by adding the addition ratio set here to the value that is set in the [Baud Rate] combo box. Example) $4800 \times (1 + 1.5/100) = 4872$ Addition ratio <Adjustment method> At first, use 1.5% as the addition ratio. If data cannot be received, decrease it in decrements of 0.5%. (*1) Only when selection of a sensor is other than "Heading Sensor 1/2(Gyro I/F)".	0.0% to 3.0% (Can be set in the unit of 0.5%)
Data Length	Select the data length of the corresponding serial port from the combo box.	5/6/7/8
Parity	Select the parity of the corresponding serial port from the combo box.	None/Odd/Even
Stop Bits (Stop Bit Length)	Select the stop bit length of the corresponding serial port from the combo box.	1/2
Buffer Size	Enter the buffer size of the corresponding serial port in the box.	0 to 10240 bytes
Time Out	Enter the time-out duration of the corresponding serial port on the box.	0 to 999sec
Checksum	Select the check box and enable the checksum of the sentence of the corresponding serial port.	To enable: Select. To disable: Clear.
Subsystem	This item is displayed only when "Alert(from Subsystem)" or "Alert(to CAM)" is selected as the sensor. Select a device for alert handling. For details, refer to "4.8 CAM Configuration and Setting."	Subsystem installed (task station and sensor)/BNWAS
Primary/Secondary	Displayed only when "IAS(MODBUS)" is selected for the sensor. Set Primary/Secondary for the input from IAS.	Primary / Secondary
Sentence	Set the type of alert sentence. If "-" is selected, no alert checks are made.	-/ALR/ALF * The selection of "-" indicates that the type of alert sentence is unselected; it can be selected only for general sensors (e.g., GPS and Log).
Access Source	Displayed only when "Alert(to BNWAS)" is selected for the sensor. Select the equipment that communicates with BNWAS. When the system configuration does not contain CAM, select ECDIS. In other cases, select AMS.	AMS/ECDIS

Table 4-4 Selectable baud rates

Serial port	Baud rate
Serial port on CCU	
Gyro (when Heading Sensor (NMEA) is selected)	4800/38400
Gyro (when Heading Sensor (Gyro I/F) is selected)	Fixed to 38400
Log (when Log (NMEA) is selected)	Fixed to 4800
GPS	Fixed to 4800
AIS	Fixed to 38400
Selector	Fixed to 4800
Serial port on SLC/ALC	
CH1-8	2400/4800/9600
CH9/10	2400/4800/9600/19200/38400
Gyro I/F	Fixed to 38400

Note

- In the case of the serial port which assigned "IAS (NMEA)", carry out network transmission setting of Primary(connects to SLCx(Main)), and Secondary (connects to SLCx(Sub)) to the same setup.

For making SLC(Main) and SLC(Sub) the same setup

A setup of SLC(Sub) can be changed into the contents set up by SLC(Main).

When there is connection which is different by SLC(Main) and SLC(Sub), after performing this operation, it changes individually.

1 The tab of SLCx(S) which sets up is chosen.

2 Click the "Same as SLCx (Main)" button.

The preset value of SLCx(Sub) is changed into the same contents as SLCx(Main).

Checking the communication status

The communication status can be displayed in order to see if serial port communication is being performed normally.

[Line Monitor] and [Packet Monitor] are available to display the communication status.

Line Monitor: Displays the serial port communication data.

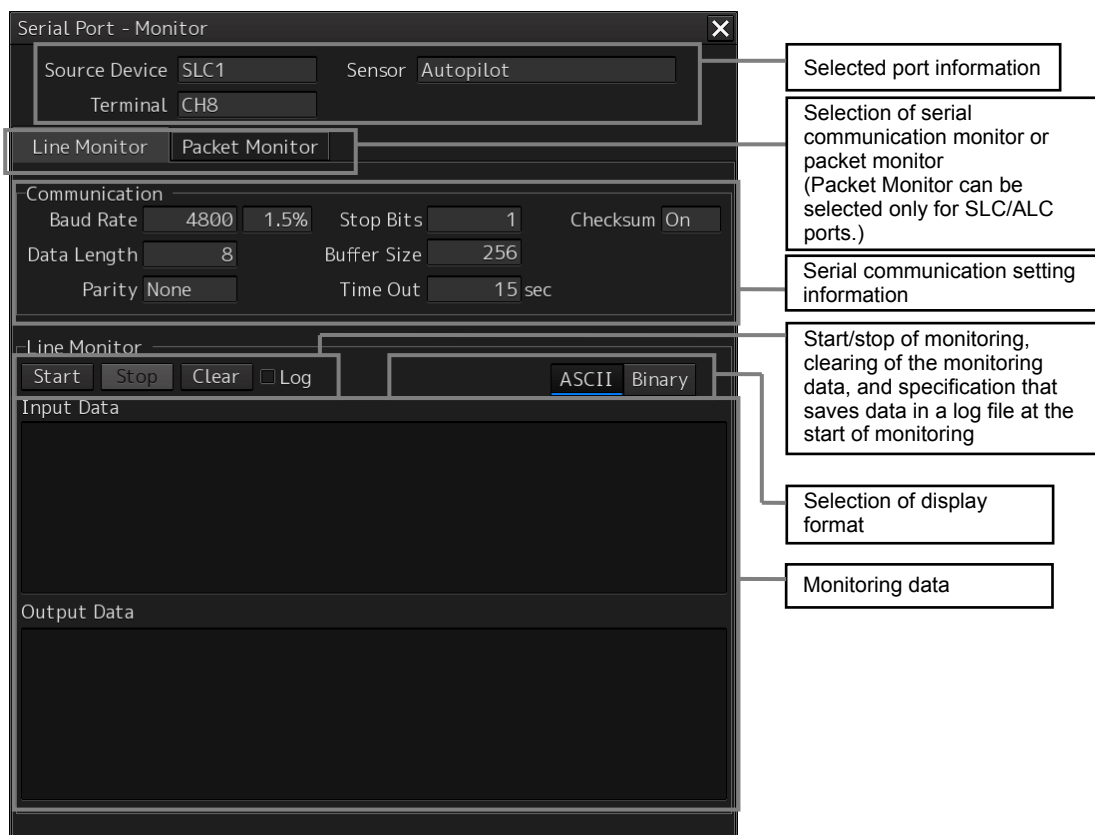
Packet Monitor: Displays the LAN communication status between the SLC/ALC and this equipment.
(Only for SLC/ALC serial ports)

Memo

- For the sentence format, refer to "Chapter 6 Sentence Format."
- When communication statuses are displayed on multiple equipment units through one port, and any of the equipment unit stopped monitoring, monitoring has stopped by all the equipment units. In this case, restart monitoring.

Line Monitor

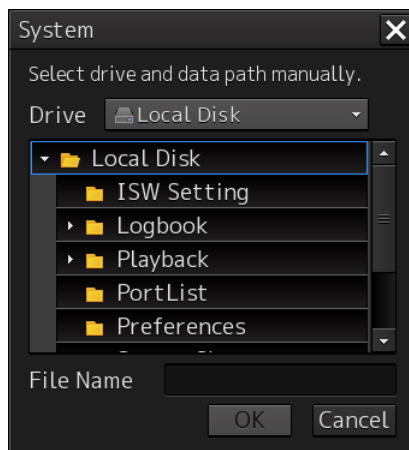
- 1 Click on the [Monitor] button of the enabled serial port to display the "Monitor" dialog box.



- 2 Click on the [Start] button to start monitoring.

Monitoring will be started. If communication is being performed, the communication data is displayed in the [Input Data] and [Output Data] areas.

To save the monitoring data in a log file, select the [Log] check box, and then click on the [Start] button. A dialog box is displayed for selecting the file to be saved.



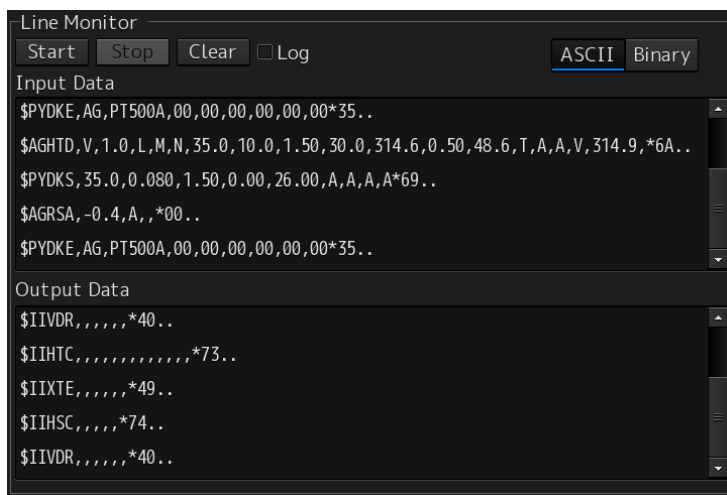
Enter the file name and click on the [OK] button. Monitoring will be started.

Memo

Data saved in a log file is limited to 5MB. When the data size has reached the limit, the save processing is stopped automatically.

To change the data display format, select [ASCII] or [Binary], and then click on the [Start] button. The data display format currently displayed can also be changed after monitoring is complete.

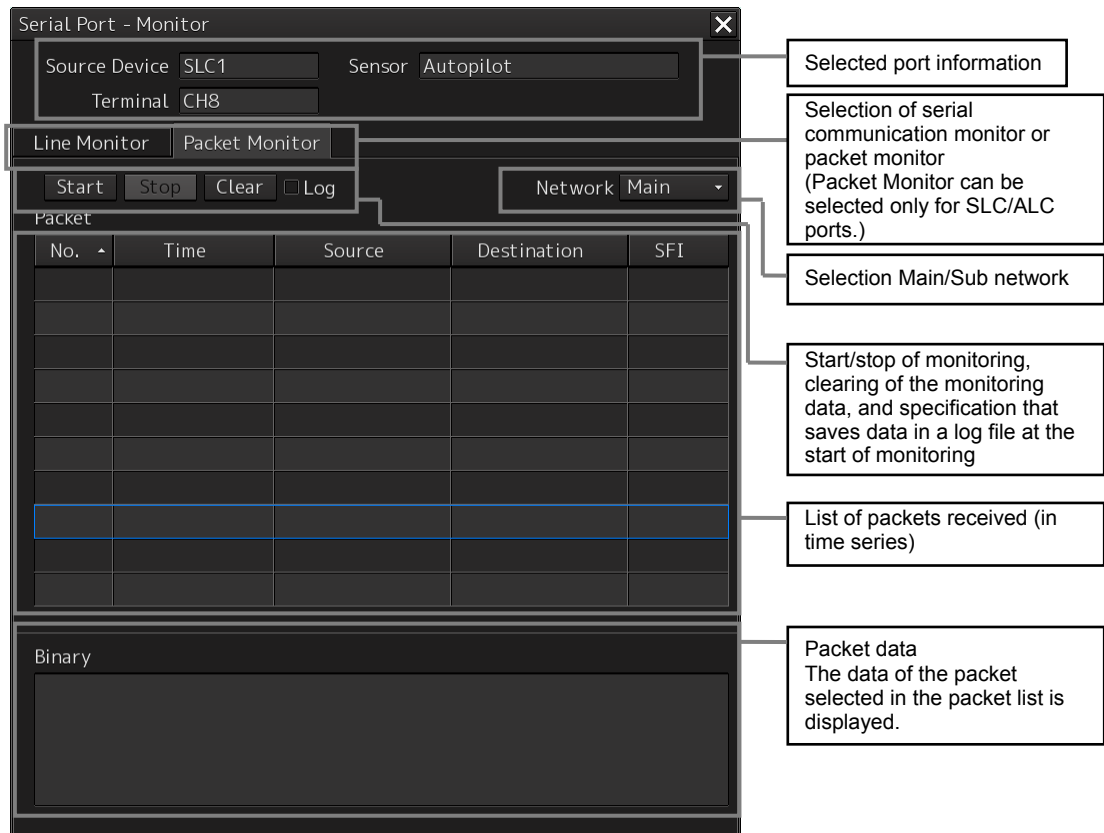
<Monitoring data display example>



- 3 Click on the [Stop] button to stop monitoring.

Packet Monitor

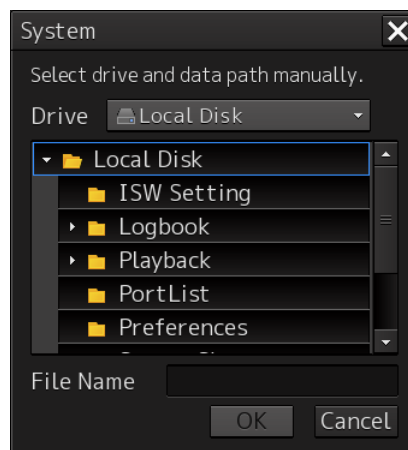
- 1 Click on the [Monitor] button of the enabled serial port to display the "Monitor" dialog box, and click on the [Packet Monitor] tab.



- 2 Click on the [Start] button to start monitoring.

Monitoring will be started. If communication is being performed, the packets received are displayed in the packet list.

To save the monitoring data in a log file, select the [Log] check box, and then click on the [Start] button. A dialog box is displayed for selecting the file to be saved.



Enter the file name and click on the [OK] button. Monitoring will be started.

Memo

Data saved in a log file is limited to 5MB. When the data size has reached the limit, the save processing is stopped automatically.

<Monitoring data display example>

Packet				
No. ▲	Time	Source	Destination	SFI ▲
8	0.797	0.0.0.0	0.0.0.0	0000
9	0.906	0.0.0.0	0.0.0.0	0000
10	1.000	0.0.0.0	0.0.0.0	0000
11	1.406	0.0.0.0	0.0.0.0	0000
12	1.406	0.0.0.0	0.0.0.0	0000
13	1.797	0.0.0.0	0.0.0.0	0000
14	1.797	0.0.0.0	0.0.0.0	0000
15	1.797	0.0.0.0	0.0.0.0	0000
16	1.797	0.0.0.0	0.0.0.0	0000
17	1.906	0.0.0.0	0.0.0.0	0000

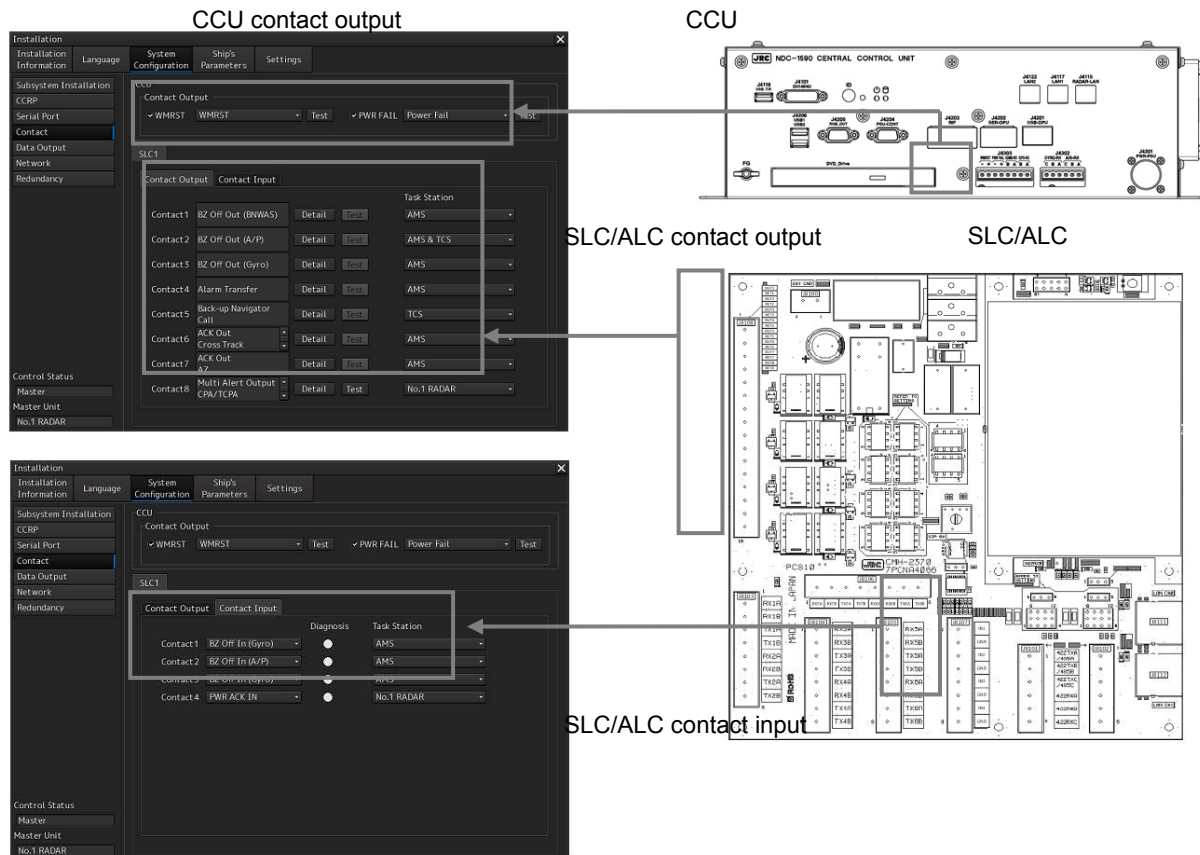
Binary	
24 49 49 58 54 45 2C 2C 2C 2C 2C 2A 34 39 0D	
0A	

- 3 Click on the [Stop] button to stop monitoring.

4.7 Setting Contacts [ALL]

(Contact Input/Output)

In the "Contact" dialog, functions can be assigned to the input/output of the contacts that belong to CCU and SLC/ALC.



Displaying the "Contact" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [System Configuration] in the 1st Classification pane and [Contact] in the 2nd Classification pane.

The "Contact" dialog is displayed in the Edit/Result pane.

Installation

Installation Information

Language

System Configuration

Ship's Parameters

Settings

Subsystem Installation

CCRP

Serial Port

Contact

Data Output

Network

Redundancy

Control Status

Master

Master Unit

No.1 RADAR

CCU

Contact Output

WMRST

WMRST

Test

PWR FAIL

Power Fail

Test

SLC1

Contact Output

Contact Input

Contact	Function	Detail	Test	Task Station
Contact 1	BZ Off Out (BNWAS)	Detail	Test	AMS
Contact 2	BZ Off Out (A/P)	Detail	Test	AMS & TCS
Contact 3	BZ Off Out (Gyro)	Detail	Test	AMS
Contact 4	Alarm Transfer	Detail	Test	AMS
Contact 5	Back-up Navigator Call	Detail	Test	TCS
Contact 6	ACK Out Cross Track	Detail	Test	AMS
Contact 7	ACK Out AZ	Detail	Test	AMS
Contact 8	Multi Alert Output CPA/TCPA	Detail	Test	No.1 RADAR

Installation

Installation Information

Language

System Configuration

Ship's Parameters

Settings

Subsystem Installation

CCRP

Serial Port

Contact

Data Output

Network

Redundancy

Control Status

Master

Master Unit

No.1 RADAR

CCU

Contact Output

WMRST

WMRST

Test

PWR FAIL

Power Fail

Test

SLC1

Contact Output

Contact Input

Contact	Function	Diagnosis	Task Station
Contact 1	BZ Off In (Gyro)	●	AMS
Contact 2	BZ Off In (A/P)	●	AMS
Contact 3	BZ Off In (Gyro)	●	AMS
Contact 4	PWR ACK IN	●	No.1 RADAR

When SLC1(Main) to SLC8(Main), SLC1(Sub) to SLC8(Sub), and ALC1 to ALC8 are selected as "installed" in the "Subsystem Installation" dialog, the functions that are currently assigned to the contact output of Contact 1 to Contact 8 are displayed on the [Contact Output] tab. The functions that are currently assigned to the contact input of Contact 1 to Contact 4 are displayed on the [Contact Input] tab.

Enabling the watch timer reset contact output of the Task station

- 1 Select the check box of [WMRST] (watch timer reset).**
- 2 Select the function to be assigned.**
 - WMRST (BNWAS timer reset)
 - Power Fail (Alarm issued if the main AC power supply fails)
 - Alarm Transfer (Contact output that is output from CAM to BNWAS to transfer the alarm via BNWAS)

Enabling the contact output for PWR FAIL of a task station

- 1 Select the [PWR FAIL] (power fail) check box.**
- 2 Select the function to be assigned.**
 - Power Fail (Alarm issued if the main AC power supply fails)
 - INS System Fail (the operation varies according to an assigned license.)
 - Operation in the system with AMS license
The message is output when the CAM in other task stations other than CAM becomes invisible. The message is output by CAM when the ALC in which Alarm Transfer that outputs an alert to BNWAS becomes invisible.
 - Operation in the system without AMS license
The alarm is output when any of the SLCs that are installed resulted in a communication error regardless of Main/Sub of SLC.
(For details of INS System Fail, refer to "4.8 CAM Configuration and Setting.")
 - Back-up Navigator Call (Alarm that is output when Back-up Navigator Call occurs due to non-acknowledgement of Cross Track/ACCA/EOT/Position Monitor/TCS Stop/ECDIS Fail that is necessary for TCS)

Selecting the function to be assigned to each contact input of the SLC/ALC

- 1 Select any of the SLC1(M) to SLC8(M), SLC1(S) to SLC8(S), and ALC1 to ALC8 tabs.**
- 2 Select the [Contact Input] tab.**
- 3 Select the function to be assigned to each contact input from the [Contact 1] to [Contact 4] combo boxes.**
 - BZ Off In (BNWAS) (Buzzer Off input from BNWAS)*1
 - BZ Off In (A/P) (Buzzer Off input from Autopilot) *1
 - BZ Off In (Gyro) (Buzzer Off input from Gyro)
 - PWR ACK IN (PWR ACK input)
 - FWD/AFT Switch (FWD/AFT console switching input)(*1) Refer to "4.8 CAM Configuration and Setting".
- 4 The task station used by the [Task Station] combo box is chosen to the point of contact which assigned the function.**

In the case of the item referred to at all the task stations, "All" is chosen, the task stations that can be assigned vary depending on the function that is allocated or presence/absence of the AMS license.

- Operation in the system with AMS license

In BZ Off In(BNWAS)/BZ Off In(A/P)/BZ Off In(Gyro), the setting is fixed to "AMS".

- Operation in the system without AMS license

In BZ Off In(BNWAS), the setting is fixed to "All".

In BZ Off In(A/P), one of the task stations, "All", or "TCS" can be selected.

When the task station that is set is applicable to the assignment target, Active/Inactive is displayed by the [Diagnosis] lamp for each function.

Lit in green: Active

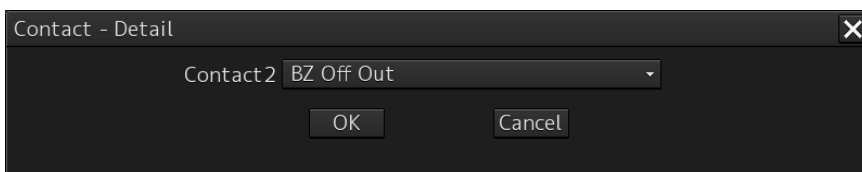
Off: Inactive

Selecting a function to be assigned to each contact output of SLC/ALC

- 1 Select any of the SLC1(M) to SLC8(M), SLC1(S) to SLC8(S), and ALC1 to ALC8 tabs.

- 2 Click on the [Detail] (detail setting) button of any of Contact 1 to Contact 8.

The "Contact-Detail" dialog is displayed.



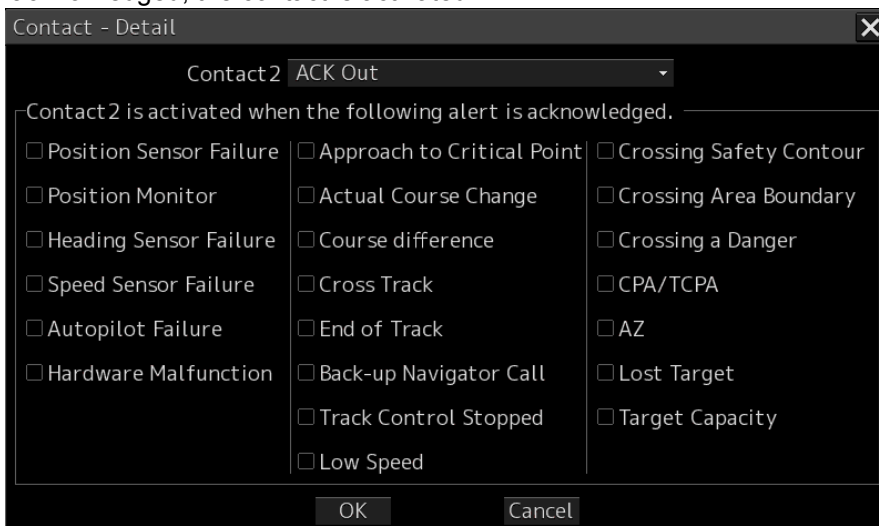
- 3 Click on the function to be assigned from the combo box.

For the functions that can be assigned, refer to "Table 4-5 Contact outputs that can be selected".

Selecting [ACK OUT]

Check boxes are displayed in the "Contact-Detail" dialog box.

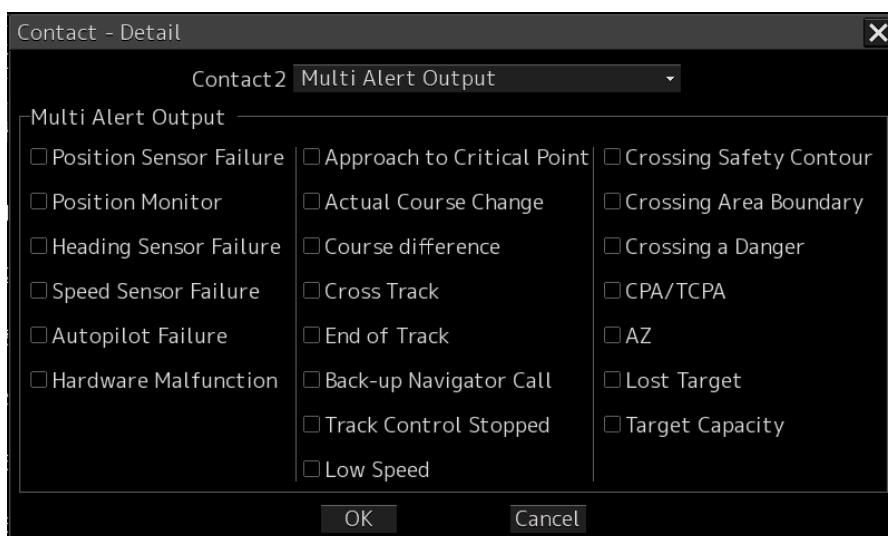
Select the alert to be enabled by clicking on the check box of it. When the selected alert is acknowledged, the contact is activated.



Selecting [Multi Alert Output]

Check boxes are displayed in the "Contact-Detail" dialog box.

Select the alerts to be enabled by clicking on the check box of them. When any of the checked alert occurs, the contact is activated.



4 Click on the [OK] button.

The selected function is assigned to each contact output. To change the function to be assigned or cancel the assignment, click on the [Cancel] button.

5 The task station used by the [Task Station] combo box is chosen to the point of contact which assigned the function.

- Operation in the system with AMS license
In ACK Out, BZ Off Out (BNWAS), BZ Off Out (Gyro), and BZ Off Out, the setting is fixed to "AMS".
- Operation in the system without AMS license
For ACK Out, select one of the task stations in the system.
For BZ Off Out(BNWAS), select from "All" and "TCS".
For BZ off Out(Gyro), select one of the task stations in the system or "All".
For BZ Off Out, only "All" can be selected.
- Common to each license
For Timer Reset, "All" can be selected.
For BZ Off Out(A/P), the setting is fixed to "AMS & TCS".
For Alarm Transfer, the setting is fixed to "AMS".
For INS System Fail, the setting is fixed to "All".
For CPA/TCPA, AZ, Lost Target, and Target Capacity, select only one task station in the system.

Table 4-5 Contact output that can be selected

Contact output that can be selected	Description
ACK Out	ACK output (contact output to be output when all of the enabled alerts are approved)
BZ Off Out (BNWAS) ^{*2}	Buzzer OFF output for BNWAS (the operation varies according to the license as indicated below.) •Operation in the system with AMS license The contact output is output when silence operation is performed in CAM or Emergency Call is resolved. The contact output is output regardless of with/without alert sound. •Operation in the system without AMS Buzzer sound is output by silence operation on the target task station.
BZ Off Out (A/P) ^{*2}	Buzzer OFF output for Autopilot
BZ Off Out (Gyro) ^{*2}	Buzzer OFF output for Gyro Compass
BZ Off Out	Buzzer OFF output (Contact output that is output when the Silence button is pressed on BAM. The contact output can be output even without alarm occurrence.)
Alarm Transfer	BNWAS ALARM output (contact output that is output from CAM to BNWAS for transfer of alarm via BNWAS)
INS System Fail	Buzzer OFF output (Contact output that is output when the Silence button is pressed on BAM. The contact output is output also without alarm occurrence.)
Timer Reset	Timer reset notification
Position Sensor Failure	Position sensor failure alarm (automatic sailing)
Position Monitor	Position monitor warning (position reliability deterioration)
Heading Sensor Failure	Heading sensor failure alarm (automatic sailing)
Heading Monitor ^{*1}	Heading alarm
Speed Sensor Failure	Speed sensor failure alarm (automatic sailing)
Autopilot Failure	Autopilot and communication failure warning (automatic sailing)
Hardware Malfunction	Hardware failure alert
Software Malfunction	System malfunction alarm
Approach to Critical Point	Approach to critical point warning
Actual Course Change	Reply notification alert
Course difference	Course difference (ship's heading departing from the course) warning
Cross of Track	Cross track alarm
End of track	Final destination arrival alarm
Back-up Navigator Call	Backup navigator call alarm
Track Control Stopped	TCS stopped
Low Speed	Low speed warning
Crossing Safety Contour	Crossing safety contour alarm
Crossing Area Boundary	Crossing special area boundary warning
Crossing a Danger	Warning for approaching to danger
CPA/TCPA	CPA/TCPA alarm
AZ	Automatic acquisition/automatic activation warning
Lost Target	Target lost warning
Target Capacity	Warning on targets reaching maximum, Warning of reaching 95% of capacity
Multi Alert Output	Select when outputting multiple alerts from one contact. When this output is selected, the Multi-Alert Output group is displayed.

(*1) Scheduled to be installed under INS support

(*2) Refer to "4.8 CAM Configuration and Setting".

Testing each contact output

- 1 Select one of the tabs from SLC1(M) to SLC8(M), SLC1(S) to SLC8(S), and ALC1 to ALC8.**
- 2 Select the [Contact Output] tab.**
- 3 Turn on the light by clicking on the [Test] button of one of Contact1 to Contact8.**

To operate the [Test] button, the task station that is output for test must have been specified in the Task Station combo box.
- 4 To stop test output, turn off the light by clicking on the [Test] button again.**

Checking the status of each contact input

- 1 Select one of the tabs from SLC1(M) to SLC8(M), SLC1(S) to SLC8(S), and ALC1 to ALC8.**
- 2 Select the [Contact Input] tab.**
- 3 Confirm the display of the Diagnosis lamp.**

To operate the Diagnosis lamp, the task station whose display is to be confirmed must have been specified in the Task Station combo box.

Green lamp display: On (Active) status

White lamp display: Off (Normal) status

4.8 CAM Configuration and Setting [ALL]

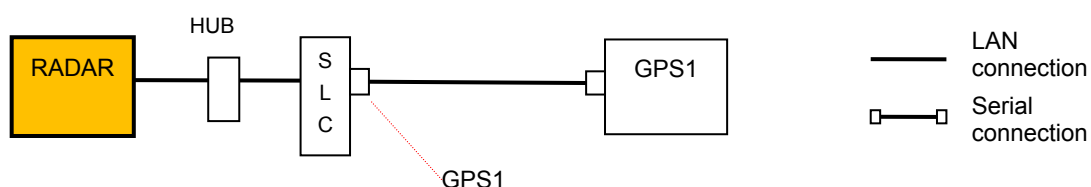
This section explains alert handling settings to configure the CAM (Central Alert Management) function. AMS license is necessary for the display to which the CAM function is to be set. For the details, refer to “4.12 Redundancy (Setting Redundancy)”.

Serial port setting

Shown below are the types of serial port setting to be used for alert handling, and the details of setting.

1 Sensor data

Define the port through which data sentences are to be received from each device (sensor).



Sensor ^{*1}	Subsystem ^{*2}	Sentence ^{*2}	Remarks
GPS1	-	-/ALR/ALF	

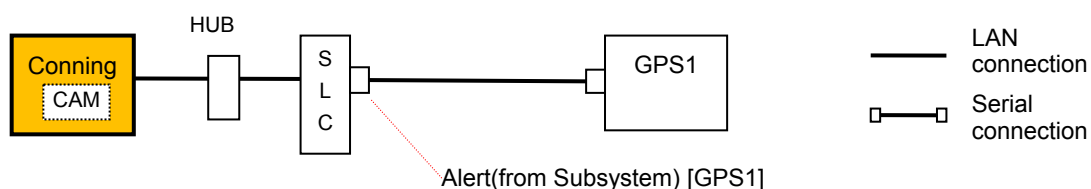
*1 Select the sensor on the Serial Port setting screen.

*2 Sets the subsystem on the Serial Port-Detail screen.

- Sensor data is received by the device that needs the data.
- Sentence(ALR/ALF) is a setting value required when alerts are also received from the data port.
To receive alerts from another port, select "-" (unselected).

2 Alert(from Subsystem)

Define the port through which Conning(CAM) is to receive alerts from each device (e.g., sensor or IAS).



Sensor ^{*1}	Subsystem ^{*2}	Sentence ^{*2}	Remarks
Alert(from Subsystem)	GPS1	ALR/ALF	

*1 Select the sensor on the Serial Port setting screen.

*2 Sets the subsystem on the Serial Port-Detail screen.

- The port defined as "Alert(from Subsystem)" is used by Conning(CAM).

- For Subsystem, set a device connected. For Sentence, set the type of alert sentence to be transmitted by the connected device.

3 Alert(to BNWAS)

Define the port through which alerts are to be transmitted to BNWAS.

Memo

For the connection with BNWAS, a serial port or contact output may be used. When using contact output, refer to "Connection with BNWAS by using contact output".



Sensor ^{*1}	Access Source ^{*2}	Sentence ^{*2}	Remarks
Alert(to BNWAS)	AMS	ALR/ALF	

*1 Select the sensor on the Serial Port setting screen.

*2 Sets the subsystem on the Serial Port-Detail screen.

- The port that is defined as "Alert(to BNWAS)" is used by the equipment that is selected as the Access Source.

When AMS is selected, the port is used by CAM (main or sub).

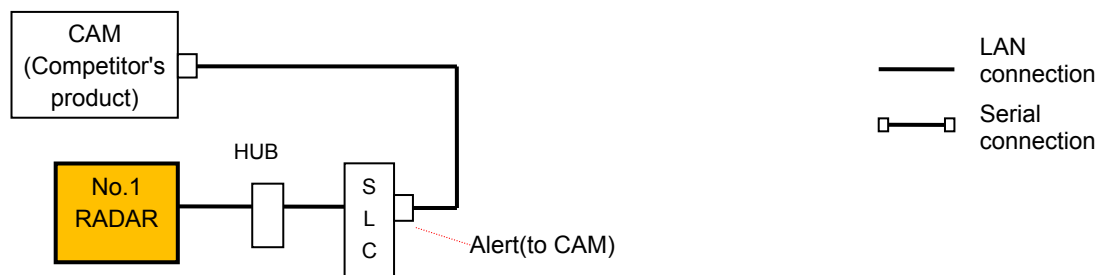
When TCS is selected, ECDIS (main or sub) of TCS authorization is used.

Memo

When there is no CAM function in the system configuration, Set TCS. The alarm transfer related to auto sailing is performed directly by ECIDS with TCS authorization.

4 Alert(to CAM)

Define the port through which the task stations are to transmit alerts to CAM. This setting is necessary if a device (e.g., competitor's product) containing the CAM function is used in place of this equipment.



Sensor ^{*1}	Subsystem ^{*2}	Sentence ^{*2}	Remarks
Alert(to CAM)	No.1 RADAR	ALR/ALF	

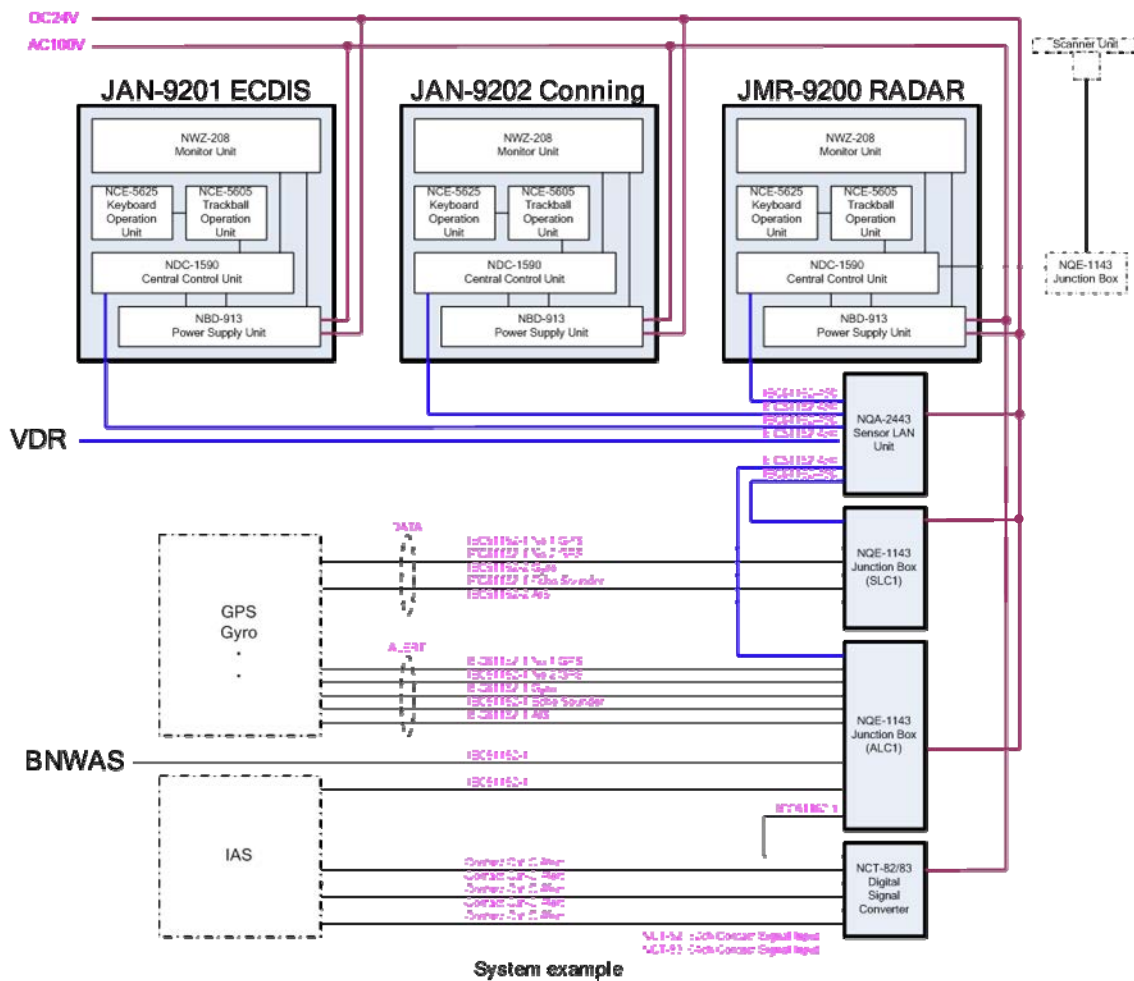
- *1 Select the sensor on the Serial Port setting screen.
- *2 Sets the subsystem on the Serial Port-Detail screen.

- The port defined as "Alert(to CAM)" is used by the device selected for Subsystem.
- For Subsystem, set a device (task station) which transmits data. For Sentence, set the type of alert sentence to be transmitted.

System configuration example and serial port setting example

The following shows a system configuration example, and the serial port settings required for the system configuration.

[System configuration example]



[Serial port setting example]

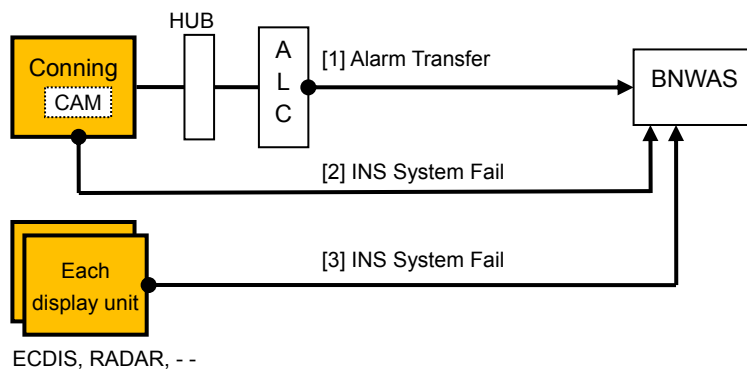
Port	Sensor	Subsystem	Sentence	Access Source	Remarks
SLC1 CH1	GPS1	-	-	-	
SLC1 CH2	GPS2	-	-	-	
SLC1 CH3	Echo Sounder	-	-	-	
SLC1 CH4	AIS	-	-	-	
SLC1 Gyro I/F	Heading Sensor 1	-	-	-	
ALC1 CH1	Alert(from Subsystem)	GPS1	ALR	-	
ALC1 CH2	Alert(from Subsystem)	GPS2	ALR	-	
ALC1 CH3	Alert(from Subsystem)	Echo Sounder	ALR	-	
ALC1 CH4	Alert(from Subsystem)	AIS	ALR	-	
ALC1 CH5	Alert(from Subsystem)	Heading Sensor 1	ALR	-	
ALC1 CH6	Alert(to BNWAS)	-	-	AMS	
ALC1 CH7	DSC	-	-	-	
ALC1 CH9	IAS(NMEA) *	-	-	-	Primary

*IAS (NMEA) is not displayed depending on the software version.

Connection with BNWAS by using contact output

See below for the connection with BNWAS when contact output is used.

[Connection example]



[1] Alarm Transfer

Set "Alarm Transfer" for the SLC/ALC contact.

In addition to the normal alarm transfer, the alarm is used for notifying that other equipment units (ECDIS, etc.) became invisible from CAM.

[2] INS System Fail (CAM)

Set "INS System Fail" for the "PWR FAIL" contact of the task station.

- Operation in the system with AMS license
The message is output by CAM when the ALC in which Alarm Transfer that outputs an alert to BNWAS becomes invisible.
- Operation in the system without AMS license
The message is output when the SLC in the system becomes invisible.

[3] INS System Fail (Each display unit other than CAM)

Set "INS System Fail" for the "PWR FAIL" contact of the task station.

- Operation in the system with AMS license
The message is output when the CAM in the system becomes invisible.
- Operation in the system without AMS license
The message is output when the SLC in the system becomes invisible.

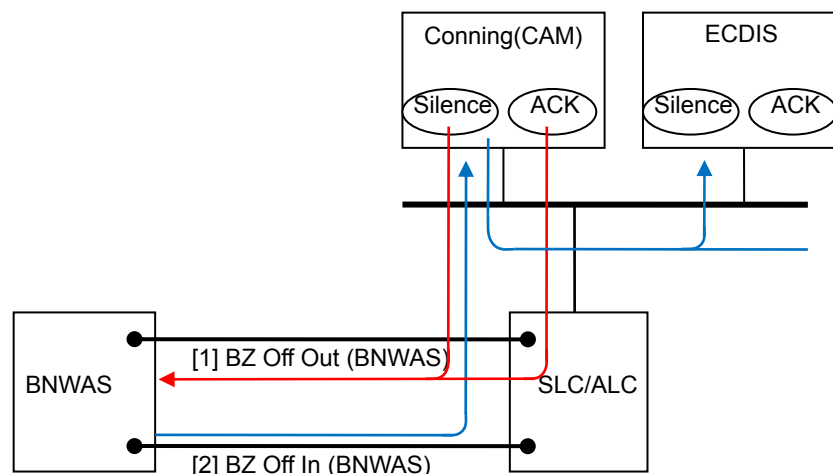
Connection of the contact of the buzzer Off signal

This section describes the configuration and setting for notifying buzzer Off by using contact input/output.

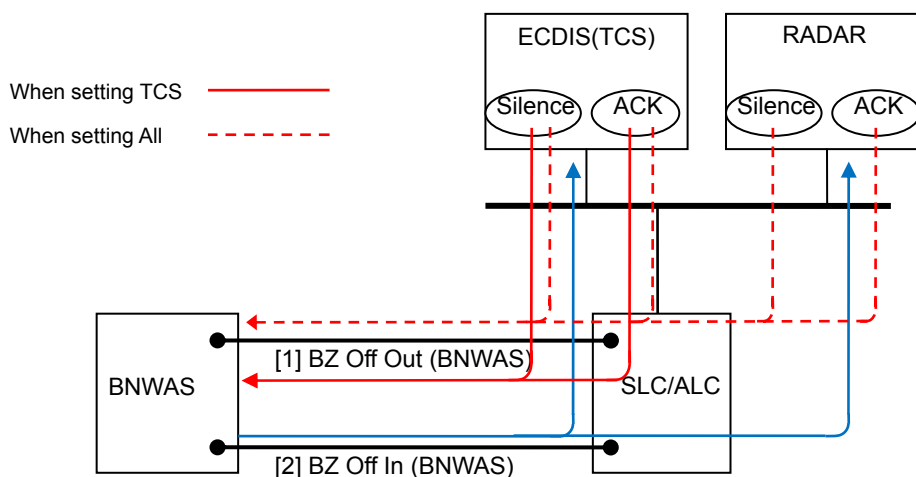
- Connection with BNWAS

See below for the connection when BNWAS and CAM are connected by contacts.

[Connection in the system with AMS license]



[Connection in the system without AMS license]



[1] Contact output "BZ Off Out (BNWAS)"

- Operation in the system with AMS license

Set AMS for the Task Station that is used.

When silence operation is performed on CAM, the message is output regardless of the emission or non-emission of the alert sound.

The message is also output when Emergency Call is cancelled.

- Operation in the system without AMS license

Set TCS or All in the Task Station that is used.

The message is output by the silence operation on the task station that is specified by Task Station.

Silence is not performed for the alert that occurred in a different task station.

[2] Contact input "BZ Off In (BNWAS)"

- Operation in the system with AMS license

Set AMS for the Task Station that is used.

The same operation as that performed when the message is received by CAM is performed and silence operation is performed.

All the unacknowledged alerts are silenced temporarily. Backup Navigator Call also stops.

The Alarm Transfer contact operation is set to OFF.

- Operation in the system without AMS license

Set All for the Task Station that is used.

The same operation as that performed when the message is received by all the task stations from MBNWAS and silence operation is performed.

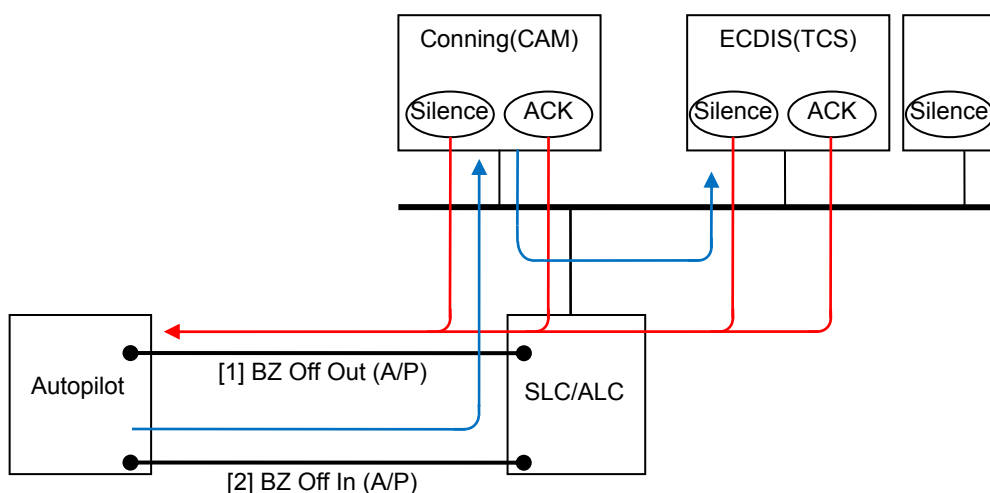
All the unacknowledged alerts are silenced temporarily. Backup Navigator Call also stops.

The Alarm Transfer contact operation is set to OFF.

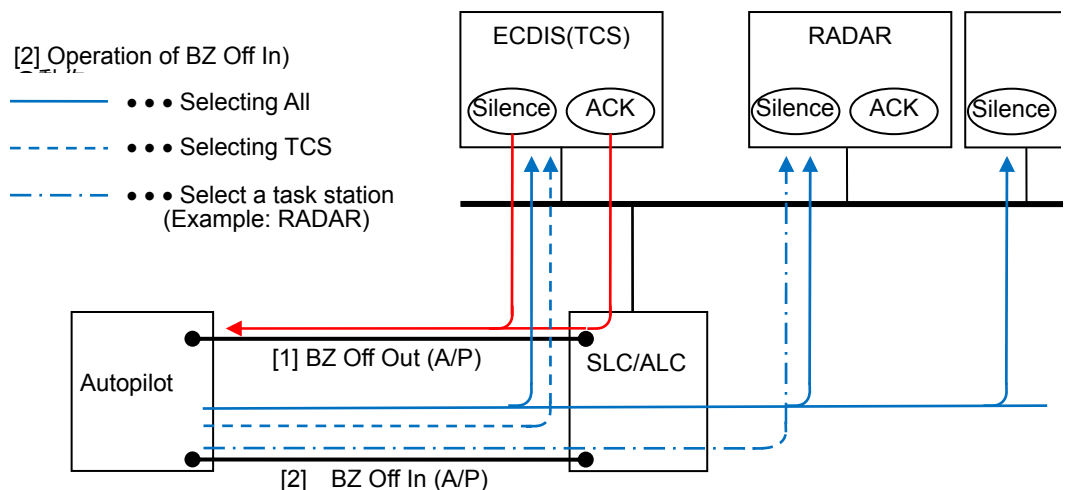
- Connection with Autopilot

See below for the connection when buzzer off notification is performed by contact between Autopilot and CAM.

[Connection in the system with AMS license]



[Connection in the system without AMS license]



[1] Contact output "BZ Off Out (A/P)"

Set the Task Station of conning (CAM) for the Task Station to be used.

Set "BZ Off Out (A/P)" for the contact output port of SLC or ALC that is connected to Autopilot.

Buzzer Off is output when silence operation is performed or all the Autopilot alarms are acknowledged.

[2] Contact input "BZ Off In (A/P)"

- Setting in the system with AMS license

Set AMS for the Task Station that is used.

- Setting in the system without AMS license

Set ALL, TCS, or task station for the Task Station that is to be used.

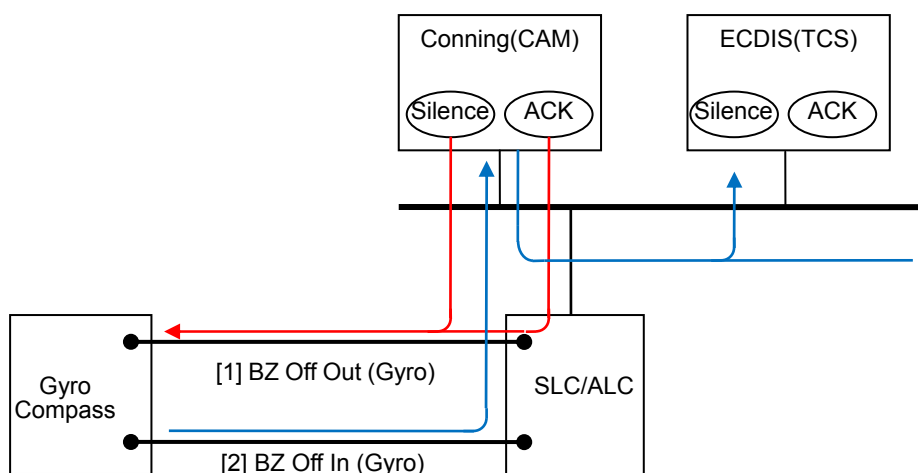
Set "BZ Off In (A/P)" in the contact input port of SLC or ALC that is connected to Autopilot.

The message is notified when silence operation is performed by Autopilot regardless of the presence or absence of the license.

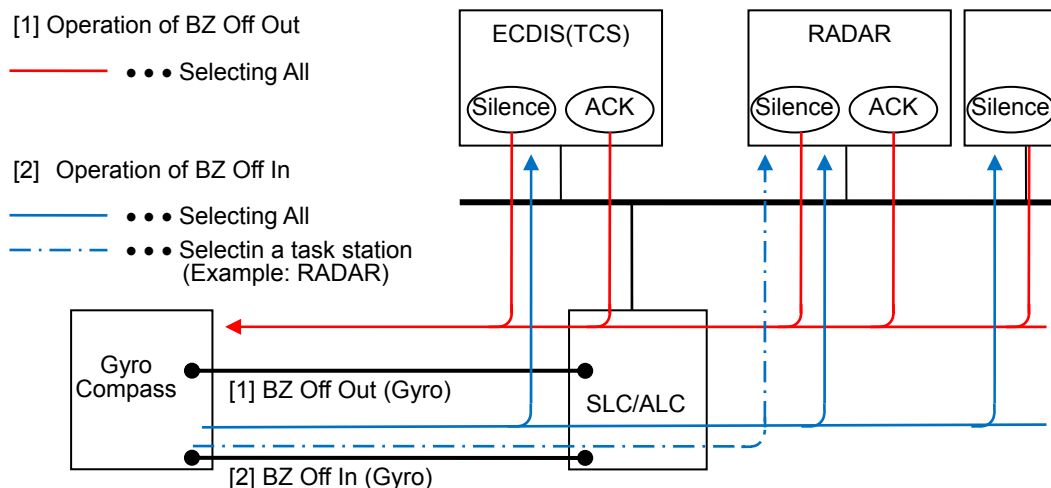
- Connection with Gyro Compass

See below for the connection under which buzzer off is notified by the contact between Gyro Compass and CAM.

[Connection in the system with AMS license]



[Connection in the system without AMS license]



[1] Contact output "BZ Off Out (Gyro)"

- Setting in the system with AMS license
Set AMS for the Task Station that is used.
- Setting in the system without AMS license
Set All for the Task Station that is used.

Set "BZ Off Out (Gyro)" in the contact output of SLC or ALC that is connected to the Gyro Compass.

The message is output from the task station when all the silence operation and Gyro Compass alarms are approved regardless of the presence or absence of the AMS license.

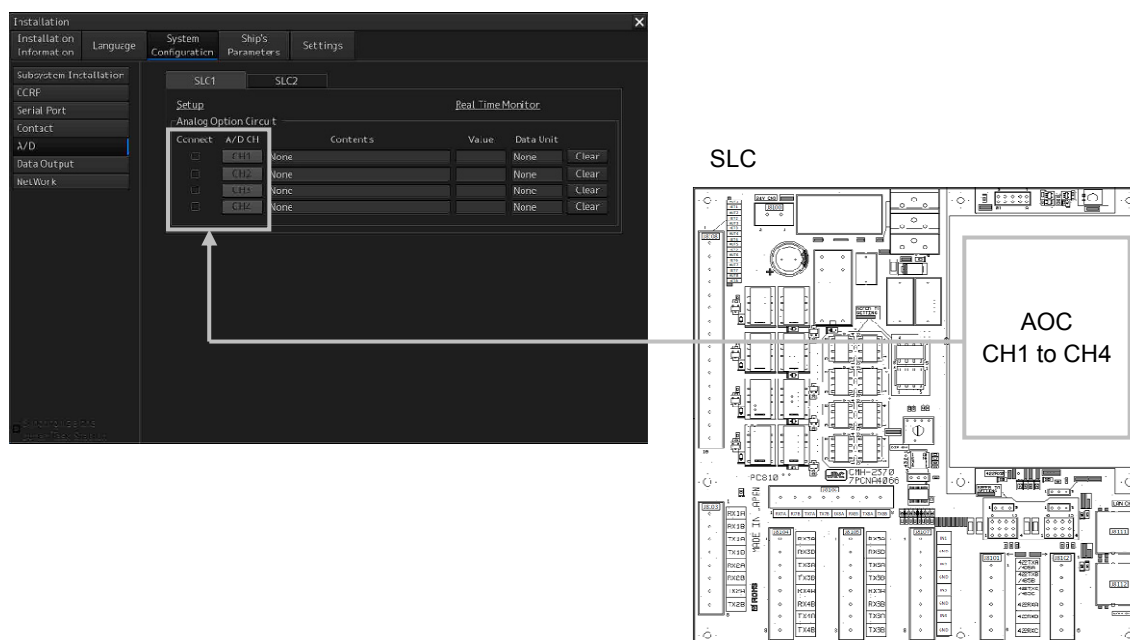
[2] Contact input “BZ Off In (Gyro)”

- Setting in the system with AMS license
Set AMS for the Task Station that is used.
- Setting in the system without AMS license
Set All or one of the task stations for the Task Station to be used.

Set “BZ Off In (Gyro)” in the contact input port of SLC or ALC that is connected to Gyro Compass. The message is notified when silence operation is performed by the Gyro Compass regardless of the presence or absence of the AMS license.

4.9 Setting A/D (Analog/Digital) [ALL]

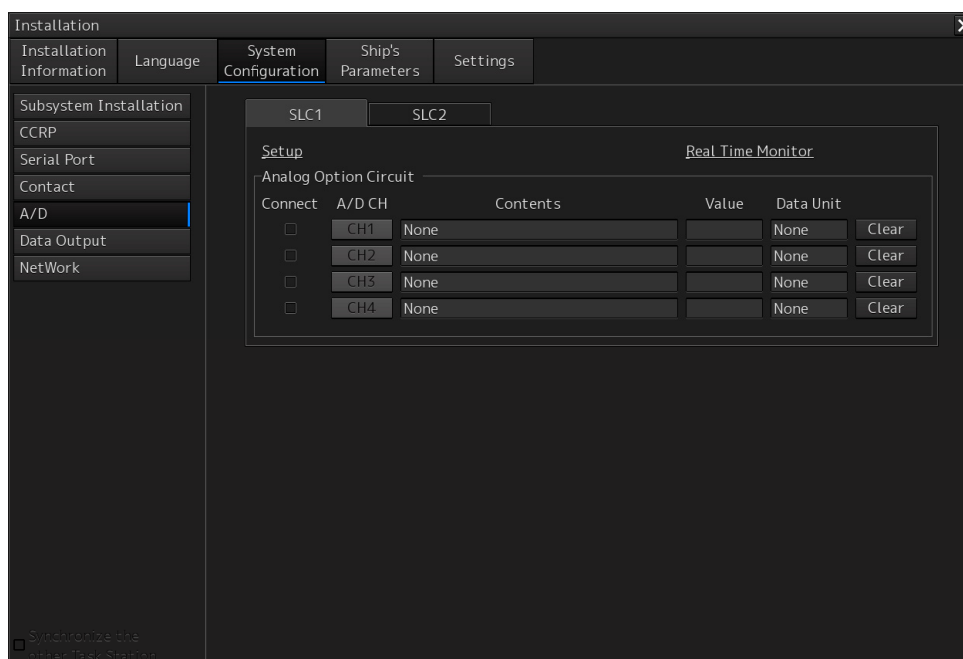
When making a connection to an analog sensor, settings for receiving sensor data from the analog input on AOC can be made in the "A/D" dialog.



Displaying the "A/D" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [System Configuration] in the 1st Classification pane and [A/D] in the 2nd Classification pane.

The "A/D" dialog is displayed in the Edit/Result pane.



Note

The tab display changes according to the installation position of the analog option circuit (AOC). The "A/D" dialog is not displayed when AOC is not installed.

Selecting a channel whose connection is to be enabled

1 Select any of the SLC1(M) to SLC8(M) and SLC1(S) to SLC8(S) tabs.

2 Select the [Connect] check box.

The detail setting of each channel is displayed in the [Contents] (sentence contents) display box, [Value] (sensor value) display box, and [Data Unit] display box.

To clear the display, click on the [Clear] button.

Setting channel details

1 Click on the [CH1] to [CH4] buttons.

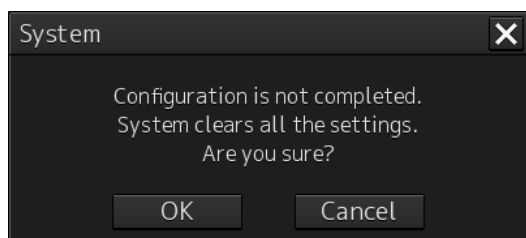
A channel setting detail window is displayed.

2 Set the details by using the following procedure.

	Setting completion condition
Step1 Selecting a sensor type and the unit	Set [Contents] and [Data Unit] Select the type of the sensor to be connected to the channel that is selected in [A/D CH] and the unit of the sensor value from the dropdown list.
Step2 Setting a range	Enter values in [Minimum] and [Maximum]. Enter the maximum value and the minimum value of the sensor by referencing the specification of the sensor to be connected to the channel that is selected in [A/D CH].
A/D setting is completed when the settings up to Step 2 are made. Set Step 3, Step 4, and Step 5 as required.	
Step3 Correcting an analog value	Check the [Setting optional sensor value] check box and enter two or more setting values. For the details of settings, refer to Step 3 "Correcting an analog value: Setting method".

	Setting completion conditions
Step4 Setting offset	Enter a value in [Offset Value]. • If there is an error between the value that is displayed in [Sensor Value(Before Offset)] and the value that is displayed in the actual sensor, enter the error value in [Offset Value]. After the input, the value produced after offsetting to [Sensor Value(Before Offset)] is displayed on [Sensor Value(After Offset)]. Note When a sensor output can be adjusted freely, check the error with the sensor output set to "0".
Step5 Setting a blind zone	Enter a value in [Blind Value(Absolute)]. • Set a blind zone within the range from +[Blind Value(Absolute)] to -[Blind Value(Absolute)] using sensor value "0" as the center. Example: When [Unit]-"rpm" is set and "3" is entered in [Blind Value(Absolute)], "0 rpm" is displayed on the display unit as the range from -3 rpm to 3 rpm. Note • There is an input limit for the blind zone setting and the input value limit is 10% of [Maximum]. • When using this function, set so that the sensor value "0" is included between [Maximum]-[Minimum].

When an attempt is made to close the window by interrupting the setting, a message dialog is displayed for termination verification.



When the [OK] button is clicked on, the values that have been changed are reset to the initial values (values set previously). When the [Cancel] button is clicked on, the dialog is closed and the channel setting detail window is displayed.

Step3 Correcting an analog value: Setting method

If there is an error between the display on the actual sensor and the display unit on the indicator, perform correction using the following procedure.

- 1) Check the [Setting optional sensor value] check box.
- 2) Determine two value points encompassing the range to be corrected and adjust the sensor value to either of the two.
- 3) Read the value of the actual sensor being connected while maintaining the output of 2) and enter the reading in [Setting Value].

The pre-correction sensor value on the display unit is displayed in [Current Value].

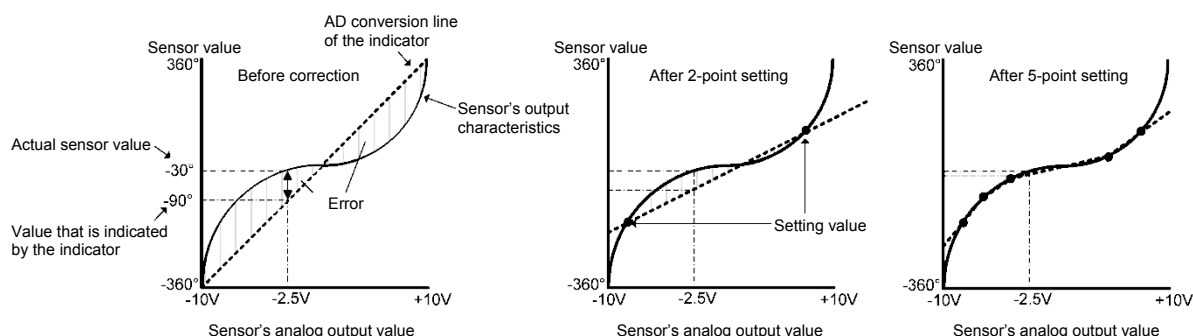
Note

In [Setting Value], enter the value that is read from the meter that is attached to the sensor itself, not the sensor value that is displayed on the display unit.

- 4) Press the [Set] button while maintaining the output of 2). One setting value is recorded.
- 5) Enter another set value in steps 2) to 4). Up to five values can be set.

As shown below, a correction is made in the form of line segment approximation of the corresponding curve of the analog output (V or mA) and the sensor value in the section that is encompassed by the setting values.

Example) Case where Unit: deg, Maximum: 360, and Minimum: -360 are set



- Determine the setting values so that the sensor value range that is normally used is encompassed.
- To disable the correction, uncheck the [Setting optional sensor value] check box.

The following table shows the setting contents.

Section	Description of setting	Setting value
[Step1] Contents	Open the list by clicking on the ▼ button and click on the contents of the data to be acquired with A/D.	None Contents (Refer to "Table 4-6 Contents list")
[Step1] Data Unit	Select a data unit from the combo box.	00:None 01:deg 02:min-1 03:rpm 04:m/s 05:km/h 06:knots 07:m 08:kg 09:m/min 10:N 11:%
[Step2] Minimum	Enter the sensor minimum value in the box.	Changes according to the data unit.
[Step2] Maximum	Enter the sensor maximum value in the box.	Changes according to the data unit.
[Step3] Setting optional sensor value	Enable the sensor adjustment value setting between the minimum value and the maximum value by selecting the check box.	Enable: Select. Disable: Clear.

Section	Description of setting	Setting value
[Step3] Setting Value	Enter a sensor value between the minimum value and the maximum value in the box.	Changes according to the sensor.
[Step3] Current Value	When the [Set] button is clicked on, the current sensor value is displayed in real time.	
[Step3] Set	Set the sensor value that is displayed in real time to fixed display by clicking on the button.	
[Step3] Add	Add operation sentences of Setting Value, Current Value, and Set by clicking on the button (up to 3 sentences).	
[Step3] Delete	Delete operation sentences of Setting Value, Current Value, and Set by clicking on the button.	
[Step4] Offset Value	Enter an offset value of the sensor in the box.	Changes according to the sensor.
[Step4] Sensor Value(Before Offset)	The sensor value prior to the reflection of the offset value is displayed in real time.	Changes according to the sensor.
[Step4] Sensor Value(After Offset)	The sensor value after the reflection of the offset value is displayed in real time.	Changes according to the sensor.
[Step5] Blind Value(Absolute)	Enter an absolute value of the sensor blind zone value in the box.	Changes according to the sensor.
All Clear	Reset all the settings to the initial values by clicking on the button	

Table 4-6 Contents list

IEC61162	Display character string
Rudder order and response	Rudder order, manual
	Port Rudder order, manual
	Starboard Rudder order, manual
	Rudder response, manual
	Port Rudder response, manual
	Starboard Rudder response, manual
Engine order and response	M/E RPM set order
	M/E RPM actual response ^{*1}
	Port M/E RPM set order
	Port M/E RPM actual response ^{*1}
	Starboard M/E RPM set order
	Starboard M/E RPM actual response ^{*1}
	CPP order
	CPP response
	Port CPP order
	Port CPP response
	Starboard CPP order
	Starboard CPP response
	Bow thruster (1 to 5) order
	Bow thruster (1 to 5) response
	Stern thruster (1 to 5) order
	Stern thruster (1 to 5) response
	Bow thruster (1 to 5) pitch order
	Bow thruster (1 to 5) pitch response
	Stern thruster (1 to 5) pitch order
	Stern thruster (1 to 5) pitch response

^{*1} For CPP (variable pitch propeller), the revolution speed meter display is not available in the conning block. Only numeric value display is available.

4.10 Setting Data Output [RADAR][ECDIS]

Use the "Data Output" dialog to set the channel to which data is output.

Note

- Set data output so that data is not output by multiple task stations through one serial port.
- Enable the serial port for the data output on the Serial Port setting screen. (Refer to "4.6 Setting Up a Serial Port".)

Displaying the "Data Output" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [System Configuration] in the 1st Classification pane and [Data Output] in the 2nd Classification pane.

The "Data Output" dialog is displayed in the Edit/Result pane.

Installation

Installation Information Language System Configuration Ship's Parameters Settings

Subsystem Installation

CCRPP

Serial Port

Contact

A/D

Data Output

Network

Control Status

Master

Master Unit

No.2 RADAR

TT

TTM SLC2 CH1

TLL Off

TTD Off

TLB Off

AIS

TTM SLC2 CH2

TLL Off

TTD Off

TLB Off

Navigation Data

1. SLC2 CH6 Detail

2. SLC1 CH7 Detail

3. Off Detail

4. Off Detail

Remote Maintenance SLC2 CH3

GPS Select SLC2 CH4

Log Select SLC2 CH5

Setting Data Output

Select a data output channel from the combo boxes that are listed below.

Setting item	Description of setting	Setting value
TTM (TT)	Select a channel to which a TTM sentence of TT is output.	Off SLC1 to 8(M) CH1 to CH8/ SLC1 to 8(S) CH1 to CH8/ ALC1to 8 CH1 to CH8/ LAN
TLL (TT)	Select a channel to which a TLL sentence of TT is output.	
TTD (TT)	Select a channel to which a TTD sentence of TT is output.	
TLB (TT)	Select a channel to which a TLB sentence of TT is output.	
OSD(TT)	Select a channel to which a OSD sentence of TT is output.	SLC1 to 8(M) CH1 to CH8/ SLC1 to 8(S) CH1 to CH8/ ALC1 to 8 CH1 to CH8
RSD(TT)	Select a channel to which a RSD sentence of TT is output.	
TTM (AIS)	Select a channel to which a TTM sentence of AIS is output.	
TLL (AIS)	Select a channel to which a TLL sentence of AIS is output.	
TTD (AIS)	Select a channel to which a TTD sentence of AIS is output.	
TLB (AIS)	Select a channel to which a TLB sentence of AIS is output.	
Remote Maintenance	Select a channel to which remote maintenance information is output.	Off/ SLC1 to 8(M) CH1 to CH8/ SLC1 to 8(S) CH1 to CH8/ ALC1to 8 CH1 to CH8/ LAN(Old)/LAN(New) LAN(Old): LAN output for current VDR (JCY-1800) LAN(New): LAN output for new VDR (JCY-1900)
GPS Select	Select the channel to which switching instruction is output for GPS Selector. *Displayed only when the Selector is "NCZ-1537A".	Off/ SLC1 to 8(M) CH1 to CH8/ SLC1 to 8(S) CH1 to CH8/ ALC1to 8 CH1 to CH8
Log Select	Select the channel to which switching instruction is output for Log Selector. *Displayed only when the Selector is NCZ-1537A".	
Navigation Data1 to 4	Select a channel to which navigation data is output. Select the output contents in the Detail dialog box, which is displayed by clicking on the [Detail] button. If "IAS" is selected , data is output from the channel that has been selected "IAS (NMEA)" in the Serial Port setting. However, it is not outputted when a display unit is except CAM(Main and Sub).	Off SLC1 to 8(M) CH1 to CH8/ SLC1 to 8(S) CH1 to CH8/ ALC1to 8 CH1 to CH8/ IAS

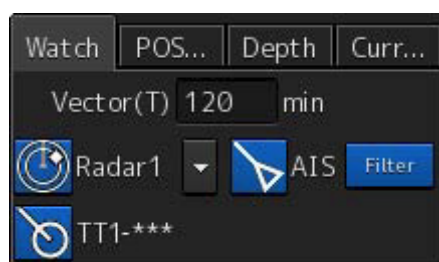
Memo

- The distribution of TT and AIS can set up the combination of the following sentences.

Sentence	Combination					Remarks
TTM	○					
TLL		○				
TTD			○		○	
TLB				○	○	

- * OSD and RSD sentence of TT group can be set up in all the combination.

- "TT1 / 2-REL/GND/SEA" is displayed on TT display button of Sub Information Area of ECDIS by the movement mode and stabilization mode of RADAR.



In order to be displayed correctly, set up the sentence which transmits according to the following tables.

Sentence	Description	Remarks
TTM	An OSD sentence is transmitted with a TTM sentence. "TT1-***" is displayed when an OSD sentence is not transmitted.	
TLL	In the case of a TLL sentence, "REL/GND/SEA" cannot be displayed. "TT1-***" is always displayed.	
TTD	"TT1-REL/GND/SEA" is displayed without transmission of other sentences.	

- "OSD" and "RSD" sentence are only transmitted by RADAR mode .

Setting the output items of [Navigation Data]

- 1 Click on the [Detail] button to display the Detail dialog box.

- 2 Select the sentence to be output.

The default settings can be selected all together by the [INS] and [198B] buttons.

- INS: Selects the default items for INS.
- 198B: Selects the default items for 198B.

Select the sentence to be output.

Setting Item	Description of Setting	Remarks
DBK	Selecting the check box, outputs the DBK sentence.	198B
DPT	Selecting the check box, outputs the DPT sentence.	INS
DTM	Selecting the check box, outputs the DTM sentence.	INS
GGA	Selecting the check box, outputs the GGA sentence.	
GLL	Selecting the check box, outputs the GLL sentence.	INS
HDG	Selecting the check box, outputs the HDG sentence.	
HDT	Selecting the check box, outputs the HDT sentence.	198B
MWV	Selecting the check box, outputs the MWV sentence.	
NSR	Selecting the check box, outputs the NSR sentence.	INS
PJRC,01	Selecting the check box, outputs the PJRC,01 sentence.	198B
PJRC,10	Selecting the check box, outputs the PJRC,10 sentence.	198B
PJRC,20	Selecting the check box, outputs the PJRC,20 sentence.	198B
POS	Selecting the check box, outputs the POS sentence.	INS
RMB	Selecting the check box, outputs the RMB sentence.	
RMC	Selecting the check box, outputs the RMC sentence.	
ROT	Selecting the check box, outputs the ROT sentence.	198B
RSA	Selecting the check box, outputs the RSA sentence.	198B
THS	Selecting the check box, outputs the THS sentence.	INS
VBW	Selecting the check box, outputs the VBW sentence.	INS

Setting Item	Description of Setting	Remarks
VDR	Selecting the check box, outputs the VDR sentence.	INS
VTG	Selecting the check box, outputs the VTG sentence.	INS,198B
VWR	Selecting the check box, outputs the VWR sentence.	198B
VWT	Selecting the check box, outputs the VWT sentence.	198B
ZDA	Selecting the check box, outputs the ZDA sentence.	INS
HBT	Selecting the check box, outputs the HBT sentence.	INS
HSC	Selecting the check box, outputs the HSC sentence.	198B
RTE	Selecting the check box, outputs the RTE sentence. The following information is output depending on the contents that are selected in the Send Mode combo box. To WPT: Information relating to the current WPT is output. All: Information relating to the entire WPT is output.	
WPL	Selecting the check box, outputs the WPL sentence. The following information is output depending on the contents that are selected in the Send Mode combo box. To WPT: Information relating to the current WPT is output. Al: Information relating to the entire WPT is output.	
OSD	Selecting the check box, outputs the OSD sentence.	
RSD	Selecting the check box, outputs the RSD sentence.	

3 Click on the [OK] button.

Note

The number of sentences that can be transmitted per second varies depending on the baud rate of the selected channel. When a large number of sentences are selected, transmit them by adjusting the transmission interval.

When the number of sentences that are selected exceeds the limit allowed for the corresponding baud rate that is indicated in the following table and the OK button is pressed, a warning message is displayed. When a warning message is displayed, increase the baud rate if possible or transmit through multiple ports.

Baud Rate	No. of sentences	Remarks
2400	3	
4800	5	
9600	10	
19200	20	
38400	40	

[ALL]

Use the "Network" dialog to set an IP address.

Displaying the "Network" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [System Configuration] in the 1st Classification pane and [Network] in the 2nd Classification pane.

The "Network" dialog is displayed in the Edit/Result pane.

[illegible]

The IP address of this equipment (Own Task Station) and the IP address of each unit on the network are listed in [Network List].

- 1 Display the [IP Address] tab by clicking on the tab name display.**

[illegible]

- 2 Click on the [IP Address] input box.**

A numeric input keyboard is displayed.

- 3 Enter an IP address (from 0.0.0.0 to 255.255.255.255)**

- 4 Click on the [Set] button.**

If the set IP address is not registered in the [Network List], the address will be newly registered as follows:

No.: Automatically assigned

File Format: New

Unit Name: Name of this unit (example: No.1 RADAR)

Changing the IP address of each unit on the network

- 1 On [Network List], check the checkbox of the row where the unit whose IP address is to be changed is displayed.

- 2 Click on the [Edit] button.**

The "Network List (Edit)" dialog is displayed.

3 Click on the [IP Address] input box.

A numeric input keyboard is displayed.

4 Enter an IP address (0.0.0.0 to 255.255.255.255).

5 Click on the [Set] button.

The "Network List (Edit)" dialog is closed and the IP address of the unit that has been selected on [Network List] is changed.

Editing [Network List]

Up to 32 unit information items on the network can be registered in [Network List].

The following information is registered.

No.: Automatically assigned. (1 to 32)

File Format: File format of the file sharing unit (New/Old)

New: Select "New" for this unit.

Old: Data format for old units. Select "Old" for any units other this unit.

Unit Name: Unit name (Example: No.1 RADAR)

● Changing the registered information

1 On [Network List], check the checkbox of the row where the unit whose information is to be changed is displayed.

2 Click on the [Edit] button.

The "Network List (Edit)" dialog is displayed.

3 To change the [File Format], click on the [New] or [Old] button.

4 To change the [Unit Name], change the unit name of the input box (up to 64 characters can be used).

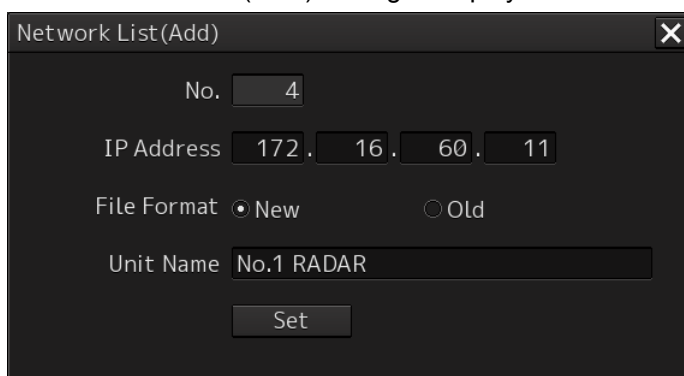
5 Click on the [Set] button.

The "Network List (Edit)" dialog is closed and the information of the unit that has been selected in [Network List] is changed.

● Registering new information

1 Click on the [Add] button.

The "Network List (New)" dialog is displayed.



Network List (Add)

No. 4

IP Address 172.16.60.11

File Format ☒ New ☐ Old

Unit Name No.1 RADAR

Set

2 Click on the [IP Address] input box.

A numeric input keyboard is displayed.

3 Enter an IP address (0.0.0.0 to 255.255.255.255).

4 Select a file format by clicking on the [New] or [Old] button of [File Format].

5 Enter a unit name in the [Unit Name] input box (up to 20 characters can be used).

6 Click on the [Set] button.

The "Network List (New)" dialog is closed and the information that has been set in [Network List] is displayed.

Note

Registration invalidity is displayed if at least one of [IP Address], [File Format], and [Unit Name] is not input.

● Deleting information

1 On [Network List], check the checkbox of the row where the information to be deleted is displayed.

2 Click on the [Delete] button.

The information that has been selected in Step 1 is deleted from [Network List].

JRC Network IP Address

Network	Main-LAN	Sub-LAN
Old unit (used by JMA-9100 and JAN-901B)	192.168.060.xxx	192.168.061.xxx
This unit (complies with IEC61162-450)	172.016.060.xxx	172.017.060.xxx

Note

When the course is shared with GPS, set the IP address of the GPS equipment to the network IP address 172.16.60.xxx of this equipment (complies with IEC61162-450). (For the setting method, refer to 6.8.1.)

JRC unit	IP address 4th Octet
VDR	3
	4
	5
	6
	7
	8
	9
	10
No.1 RADAR	11
No.2 RADAR	17
No.3 RADAR	23
No.4 RADAR	29
No.5 RADAR	35
No.6 RADAR	41
No.7 RADAR	47
No.8 RADAR	53
No.1 ECDIS	59
No.2 ECDIS	65
No.3 ECDIS	71
No.4 ECDIS	77
SLC SW0	107
SLC SW1	108
SLC SW2	109
SLC SW3	110
SLC SW4	111
SLC SW5	112
SLC SW6	113
SLC SW7	114
SLC SW8	115
SLC SW9	116
SLC SW10	117
SLC SW11	118
ALC SW12	119
ALC SW13	120
ALC SW14	121
ALC SW15	122
No.1 CON	131
No.2 CON	135
No.1 CON(Wing)	139
No.2 CON(Wing)	140
No.1 CON(Remote)	141
No.2 CON(Remote)	142
No.1 RPS	156
No.2 RPS	157

JRC unit	IP address 4th Octet
Chart CO	159
No.1 GPS Receiver	163
No.2 GPS Receiver	164
No.3 GPS Receiver	165
No.1 GPS RemoteDisp	166
No.2 GPS RemoteDisp	167
No.3 GPS RemoteDisp	168
No.1 Printer	181
No.2 Printer	182
No.1 AIS	192
No.2 AIS	193

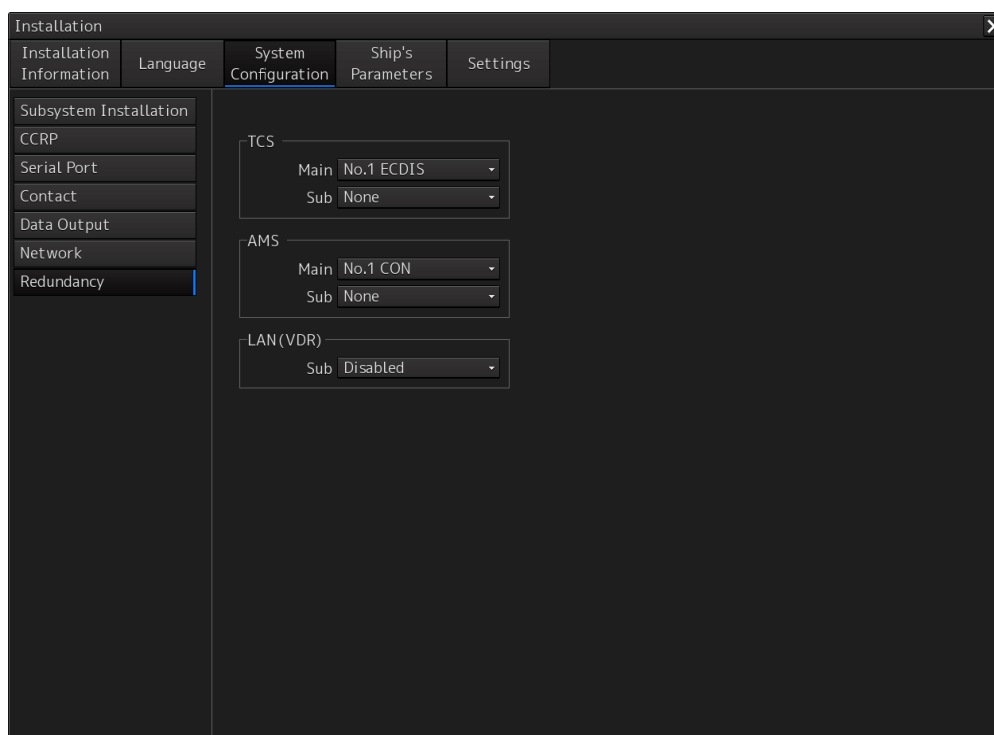
4.12 Redundancy Setting [ALL]

Set system redundancy in the "Redundancy" dialog.

Displaying the "Redundancy" dialog

- 1 Display the dialog box of the Installation submenu.
- 2 Select [System Configuration] in the 1st classification pane and [Redundancy] in the 2nd classification pane.

The "Redundancy" dialog is displayed in the edit/result pane.



Setting ECDIS for auto sailing

Set the following items in the "TCS" group.

Setting item	Description of setting	Setting value
Main	Select a display unit (ECDIS) for executing the auto sailing function. A display unit (ECDIS) with TCS license must be selected.	Display unit that is installed in the system *Normally, No.1ECDIS is set.
Sub	Select a backup display unit of the auto sailing function. A display unit (ECDIS) with TCS license must be selected.	Display unit that is installed in the system

Setting a display unit for performing the CAM (AMS task) function

Set the following in the "AMS" group.

The display that is to be set requires the AMS license.

Setting item	Description of setting	Setting value
Main	Select a display unit for executing the CAM function.	Display unit that is installed in the system *Normally, No.1CON is set.
Sub	Select a backup display unit of the CAM function.	Display unit that is installed in the system

Setting LAN single configuration/duplex configuration of VDR

Set the following in the "LAN(VDR)" group.

Setting item	Description of setting	Setting value
Sub	Select Enable/Disable sub LAN. However, when sub LAN is enabled, only VDR is targeted.	Enabled/Disabled

Note

"LAN" is displayed depending on the software version. Duplex configuration may not be supported.

4.13 Setting Ship's Parameters [ALL]

Use the [Ship General] dialog to set ship's parameters.

Displaying the "Ship General" dialog.

- 1 Display the dialog of the Installation submenu.
- 2 Select [Ship Parameter] in the 1st Classification pane and [Ship General] in the 2nd Classification pane.

The "Ship General" dialog is displayed in the Edit/Result pane.

Installation

Installation Information | Language | System Configuration | **Ship's Parameters** | Settings

Ship General

Ship's Name

Length 100.0 m

Beam 15.0 m

Height from keel to MAX point 30.0 m

Keel-Trans 5.0 m

MAX Course Change 150.0 °

MAX Speed Limit 30.0 kn

MIN Speed Limit 5.0 kn

MAX ROT 0300.0 °/min

MIN ROT 000.1 °/min

MIN Turn Radius 0.50 NM

Control Status

Master

Master Unit

No.2 RADAR

Setting ship's parameters

Set the following items in the "Ship General" dialog.

Setting item	Description of setting	Setting value
Ship's Name	Enter own ship's name in the box.	Max. 20 characters
Length (of ship)	Enter own ship's length in the box.	1.0 to 1022.0 m
Beam (ship's width)	Enter own ship's beam in the box.	1.0 to 126.0 m
Height from keel to MAX point (Height from the keel to the maximum point of the ship)	Enter the height from the keel to the maximum point of the ship in the box.	1.0 to 126.0 m
Keel-Trans (distance between the transducer and the keel)	Enter the distance between the transducer of the depth sounder and the keel. (Required when displaying the water depth with the keel fixed)	0.0 to 20.0 m
MAX Course Change (limit value of course change angle)	Enter the limit value of the course change angle of the planned route in the box.	20.0 to 359.9°
MAX Speed Limit	Enter the ship's maximum speed in the box.	10.0 to 99.9 kn
MIN Speed Limit	Enter the ship's minimum speed in the box.	0.0 to 89.9 kn
MAX ROT	Enter the maximum rate of turn in the box.	30.0 to 600.0°/min
MIN ROT	Enter the minimum rate of turn in the box.	0.0 to 570.0°/min
MIN Turn Radius	Enter the minimum turn radius in the box.	0.00 to 9.99 NM

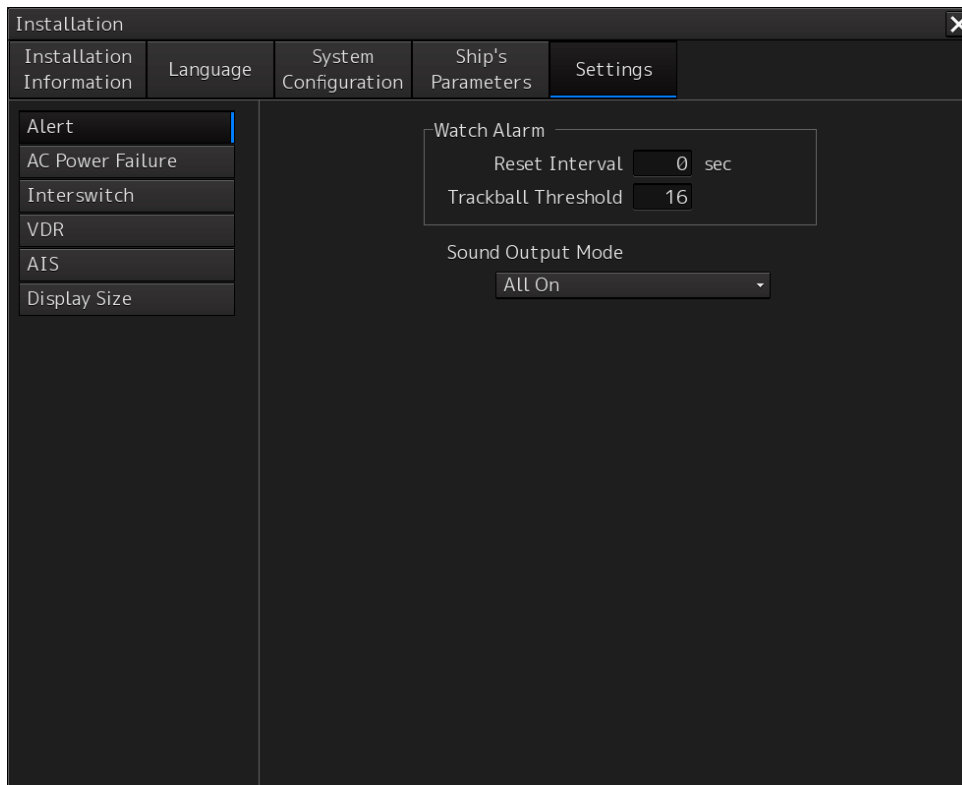
4.14 Setting Alert [ALL]

Use the "Alert" dialog to set alert details.

Displaying the "Alert" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [Setting] in the 1st Classification pane and [Alert] in the 2nd Classification pane.

The "Alert" dialog is displayed in the Edit/Result pane.



Setting alert

Set the following items in the "Alert" dialog.

Setting item	Description of setting	Setting value
Reset Interval	Enter the interval for resetting watch alarm. When 0 is entered, a reset signal (watch timer reset signal) is not issued to the central monitoring unit.	0 to 999sec
Trackball Threshold	Enter a trackball shift amount as the watch alarm reset condition.	0 to 128
Sound Output Mode	Set an alert sound output mode. All On: Emits all the alert sounds. (According to the [Volume] setting of [General-Sounds] of the Settings menu) All Off: Restricts emission of all the alert sounds forcibly. Off for Contact Output: Forcibly restricts emission of the alert sounds that are set for contact output in [Contact Output] of System Configuration-Contact of the Installation submenu. Note The alert sounds do not include the key operation sound (Key ACK), operation error sound (OPE Miss), and Inter Switch setting completion sound.	All On All Off Off for Contact Output
Enable Power(DC Low Voltage) Enable Power(DC Low Voltage) alert	Since the Power (DC Low Voltage) alert occurs in the indicator without the DC power supply, the alert can be suppressed. Off: Power(DC Low Voltage) alert does not occur. On: Power(DC Low Voltage) alert occurs.	Off/On

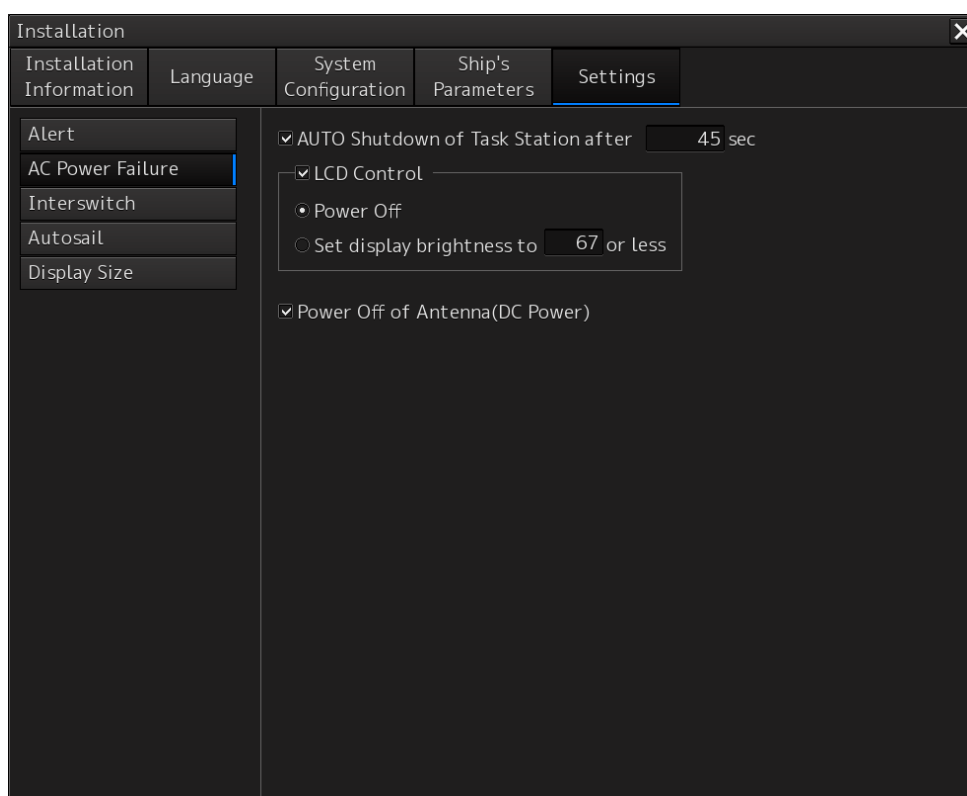
4.15 Operation Setting at AC Power Failure [ALL] (Insufficient AC power supply)

Use the "AC Power Failure" dialog to set the operation to be performed when a "Power (AC) Voltage, Low)" alert occurs due to insufficient AC power supply (mainly power failure).

Displaying the "AC Power Failure" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [Settings] in the 1st Classification pane and [AC Power Failure] in the 2nd Classification pane.

The "AC Power Failure" dialog is displayed in the Edit/Result pane.



Setting the operation to be performed at the occurrence of the "Power (AC Voltage, Low)" alert

Set the following in the "AC Power Failure" dialog.

Setting item	Description of Setting	Setting value
AUTO Shutdown of Task Station	1. Use the checkbox to select whether to shut down Task Station automatically. 2. When this item is checked, enter in the input box the time until automatic shutdown is executed. Note: When "AC Low Voltage" alert is cleared prior to automatic shutdown, automatic shutdown is not executed.	Shut down automatically: Check the checkbox Do not shut down automatically: Uncheck Time until automatic shutdown: 0~9999 [sec]

Setting item	Description of Setting	Setting value
LCD Control	1. Use the checkbox to select whether to control LCD. 2. When this item is checked, select the LCD control method by clicking on the radio button. 3. When [Set display brightness] is selected as the LCD control method, enter the LCD brightness value in the [Set display brightness] input box. Note ● When "AC Low Voltage" alert is cleared prior to automatic shutdown, the LCD is reset to the pre-alert state. ● The brightness is changed only when the current display brightness value is greater than the set value.	Control LCD: Check the checkbox. Do not control LCD: Uncheck LCD control method Power Off: LCD power supply is turned off. Set display brightness: Set the brightness below the specified display brightness. LCD bright ness value: 0 to 100
Power Off of Antenna (DC Power) (Radar antenna power supply off (DC power supply))	Use the checkbox to select whether to turn off the power supply of the radar antenna that is operating with the DC power supply. Note If "AC Low Voltage" alert is cleared prior to automatic shutdown, the radar antenna power supply is not turned off.	Turn off the power supply: Check the checkbox. Do not turn off the power supply: Uncheck

4.16 Setting Interswitch [RADAR]

Use the "Interswitch" dialog to set the details of interswitch.

Displaying the "Interswitch" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [Setting] in the 1st Classification pane and [Interswitch] in the 2nd Classification pane.

The "Interswitch" dialog is displayed in the Edit/Result pane.

The screenshot shows the 'Installation' dialog box with the 'Settings' tab selected. The left sidebar lists 'Alert', 'Interswitch', 'Wave Analysis', 'VDR', and 'TCS'. The 'Interswitch' section is active, showing the following settings:

- ISW Install: AUTO (dropdown)
- Connection Permission: No.1 (dropdown)
- Display Unit: Master Slave (dropdown)
- Antenna No.1 to No.8: Each has checkboxes for Master and Slave, all of which are checked.
- Set button: Located below the antenna settings.

Below the 'Connection Permission' section, there are three rows of settings:

Simple-ISW TXRX Power Supply	Only Master	Always On
Operation Restriction	On	Off
Controllable MON	Straight	All

Setting Interswitch

Set the following items in the "Interswitch" dialog.

Setting item	Description of setting	Setting value
ISW Install (Interswitch installation mode)	Select an interswitch installation mode from the combo box. AUTO : Checks interswitch installation automatically. On : Interswitch installed Off : Interswitch not installed Simple ISW : Simple interswitch mode	AUTO On Off Simple ISW
Display Unit (Workstation)	Select a workstation number under which interswitch connection permission is to be set from the combo box. When the [Set] button is clicked on, the interswitch setting is changed.	No.1 to No.8
Master/Slave (Master/slave)	Select Master/Slave of the antenna that can be connected via the interswitch from the workstation that is selected [Display Unit] by selecting the antenna number check box. When the [Set] button is clicked on, the interswitch setting is changed.	Master Slave
Simple-ISW TXRX Power Supply (Power supply to the antenna by simple interswitch)	Set highlight display by clicking on the button and select whether the power supply for own antenna is constantly set to ON or the power supply is set to ON only for the master antenna when a simple interswitch is used.	Only Master (ON for master only) Always ON
Operation Restriction (Operation restriction)	Set highlight display by clicking on the button and select operation restriction On/Off. When On is selected, the following interswitch functions are restricted. • Change the connection statuses of other workstations at switching of the connection status between the antenna and the workstation. • Load the connection patterns. • Set the name in the antenna/workstation.	On Off
Controlable MON (Controllable performance monitor)	Set highlight display by clicking on the button and set controllable performance monitor. Straight : Can adjust only the performance monitors of the antennas of straight connection. All : Can adjust performance monitors of the antennas other than those of straight connection also.	Straight All

4.17 Setting VDR [RADAR][ECDIS]

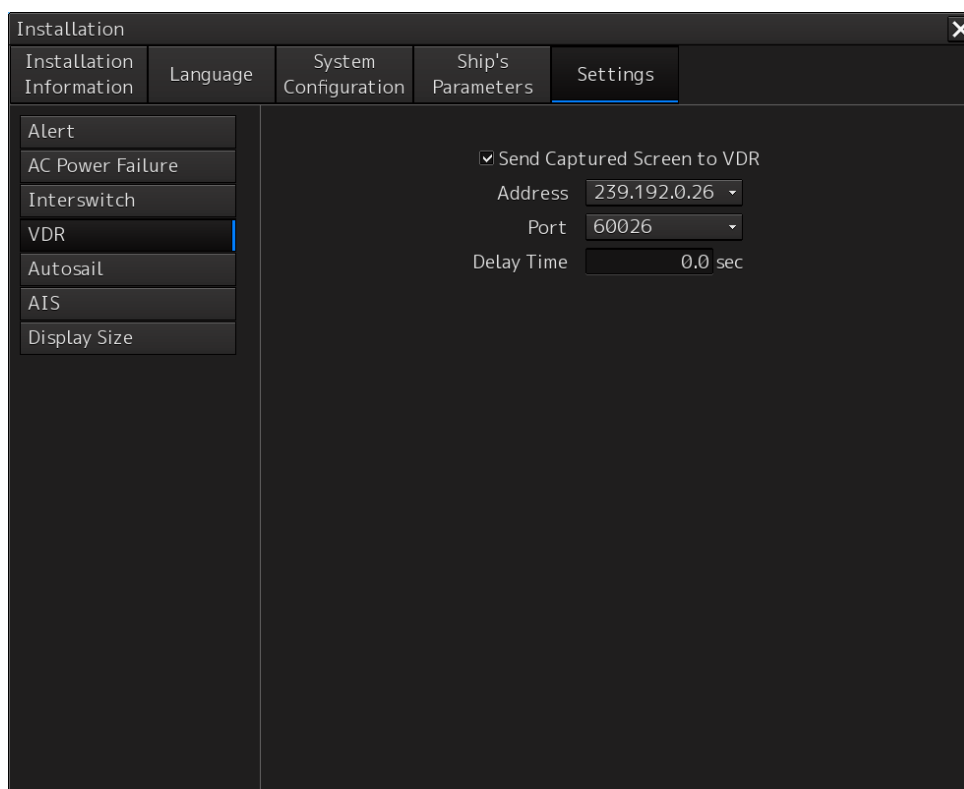
User the "VDR" dialog to set the details of VDR (JRC).

Note

When VDR (JRC) "installed" is not specified in the Subsystem Installation dialog, the "VDR" dialog is not displayed.

Displaying the "VDR" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [Setting] in the 1st Classification pane and [VDR] in the 2nd Classification pane.
The "VDR" dialog is displayed in the Edit/Result pane.



Setting VDR

Set the following items in the "VDR" dialog.

Setting item	Description of setting	Setting value
Send Captured Screen to VDR	Select whether images are captured at every 15 seconds and transmitted via the network for VDR.	Transmit: Select. Not transmit: Clear.
Address	When [Send Captured Screen to VDR] is selected, select a transmission destination multicast address of the captured image.	239.192.0.26/ 239.192.0.27/ 239.192.0.28/ 239.192.0.29/ 239.192.0.30
Port	When [Send Captured Screen to VDR] is selected, select a transmission destination port number of the captured image.	60026/ 60027/ 60028/ 60029/ 60030
Delay Time	Enter in the input box a delay time when transmitting an image from RADAR or ECDIS. Set an interval so that the output timings are not concentrated when data is sent from each device.	0.0 to 14.5 sec

4.18 Setting Autosail (Automatic Sailing System) [ECDIS]

By using the "TCS" dialog, verify and initialize the automatic sailing system that is installed in this equipment.

Note

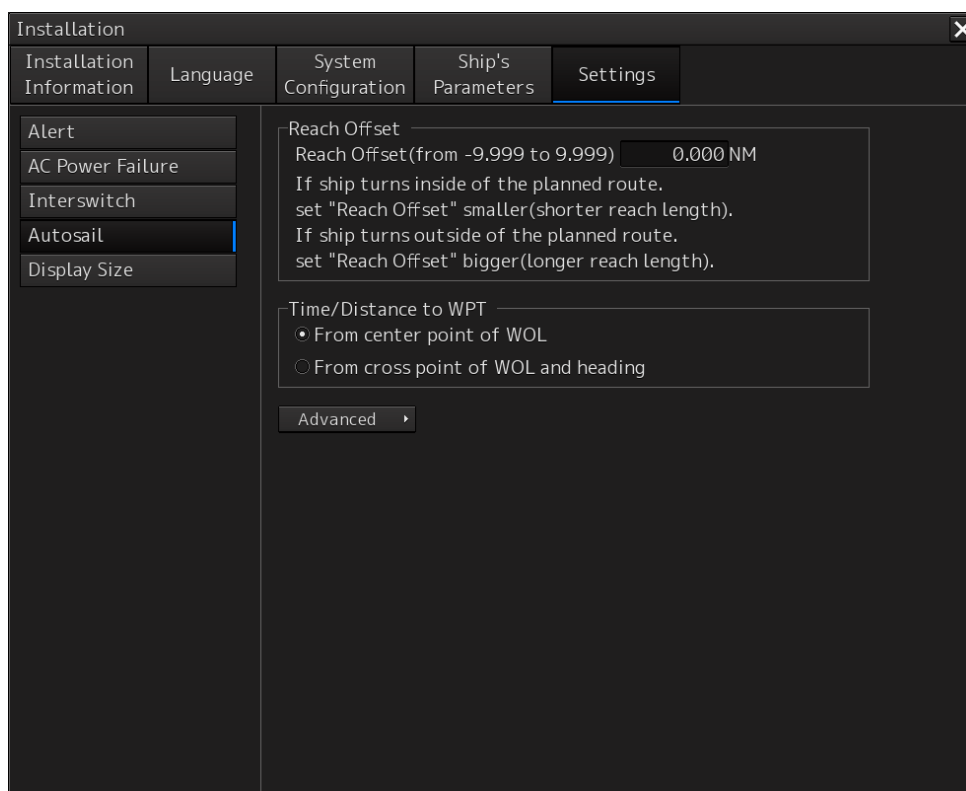
Unless the following two conditions are satisfied, the "TCS" dialog is not displayed.

- "TCS function" is provided as an optional license.
- "Installed" is set for "Autopilot" in the Subsystem Installation dialog.

Displaying the "Autosail" dialog

- 1 Display the dialog of the Installation submenu
- 2 When you select [Settings] in the 1st Classification pane and [Autosail] in the 2nd Classification pane.

The "Autosail" dialog is displayed in the Edit/Result pane.



Clicking on the [Advanced] (extended display) button shows the [Actual Radius] and [Tracking] display sections.

The screenshot shows a software window titled "Installation" with a close button (X) in the top right corner. The window has a tabbed interface with the following tabs: "Installation Information", "Language", "System Configuration", "Ship's Parameters", and "Settings". The "Settings" tab is currently selected and highlighted with a blue underline. On the left side of the "Settings" tab, there is a vertical list of sub-sections: "Alert", "AC Power Failure", "Interswitch", "Autosail", and "Display Size". The "Autosail" sub-section is currently selected, indicated by a blue highlight. The main content area of the "Settings" tab is divided into several sections. At the top, there is a "Reach Offset" section with a label "Reach Offset" and a text input field showing "0.000 NM". Below this, there is explanatory text: "Reach Offset(from -9.999 to 9.999)", "If ship turns inside of the planned route. set 'Reach Offset' smaller(shorter reach length).", and "If ship turns outside of the planned route. set 'Reach Offset' bigger(longer reach length).". Below the "Reach Offset" section is a "Time/Distance to WPT" section with two radio button options: "From center point of WOL" (which is selected) and "From cross point of WOL and heading". Below this is a dropdown menu labeled "Advanced". Below the dropdown menu, there are two main sections: "Actual Radius" and "Tracking". The "Actual Radius" section contains four input fields: "P Gain" (0.0), "D Gain" (0.0), "Count N" (4), and "Count M" (3). The "Tracking" section contains three input fields: "Multiple" (1.00), "Count A" (6), and "D Gain" (0.0). Below these input fields, there is a "Class" dropdown menu set to "Fix-Turn" and a "Default" button.

Section	Parameter	Value
Actual Radius	P Gain	0.0
	D Gain	0.0
	Count N	4
	Count M	3
Tracking	Multiple	1.00
	Count A	6
	D Gain	0.0

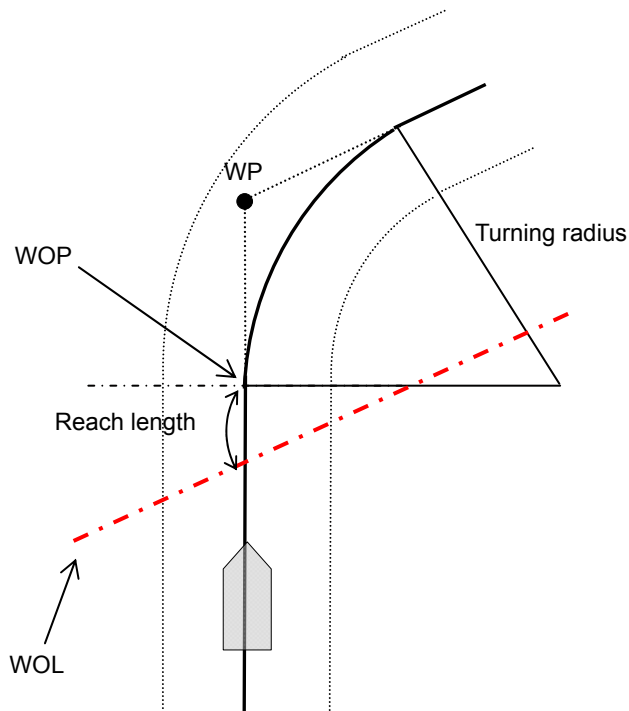
Setting the automatic sailing system

Set the following items in the "Autosail" dialog.

Setting Item	Description of Setting	Setting Value
Reach Offset	Enter the reach offset in the box. For the details, refer to "Reach Offset".	-9.999 to 9.999 NM
Time/Distance to WPT	Select this to select the method of calculating the time and distance from own ship to WPT. From cross point of WOL and leg: Calculate between "own ship" and "intersection between WOL and leg". (Recommended) From cross point of WOL and heading: Calculate between "own ship" and "intersection between WOL and ship's heading". For the details, refer to "Time/Distance to WPT".	• From cross point of WOL and leg • From cross point of WOL and heading
Actual Radius (Order turn course radius)	To calculate an order turn course radius, enter a proportional gain (P Gain), a differential gain (D Gain), an averaging count for proportion (Count N), and a difference averaging count (Count M) in the box. Note Not used when Autosail Category B/C of TOKYO KEIKI is used.	P Gain: 0.0 to 999.9 D Gain: 0.0 to 9999.9 Count N: 0 to 999 Count M: 0 to 999
Tracking	To calculate a course to steer, enter a gain (Low, MID, High), an exponential term (Multiple), a gain averaging count (Count A), and a derivative term gain (D gain) in the box. For the details, refer to "Tracking". Note Not used when Autosail Category B/C of TOKYO KEIKI is used.	Low/Mid/High: 0 to 9999 [min.(1/60°)/NM] Multiple: 0.00 to 1.00 Count A: 0 to 999 D Gain: 0.0 to 999.9
Class	Select a ship model in the combo box. The Advanced setting parameters are changed collectively according to the selected ship model. Note When Autosail Category B/C of TOKYO KEIKI is used, no input is required.	Fix-Turn Fast-Ferry Container Tanker
Default	Collectively reset the Advanced setting parameters to the setting values at factory delivery by pressing the button.	

Reach Offset

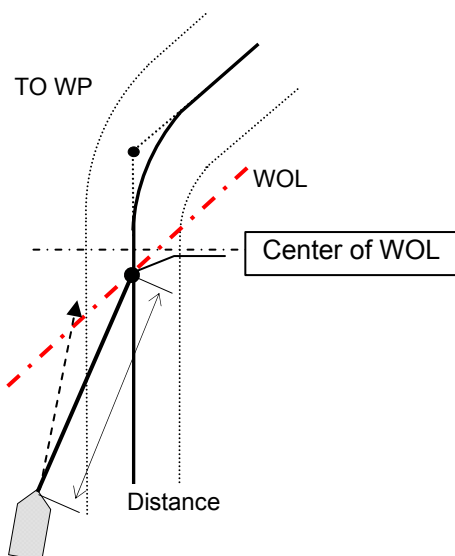
When the turning angle is ± 3 degrees or more, WOL is displayed at the position (Reach Offset position) by the reach length before WOP, which is the intersection of the turning radius and leg. The reach derivation calculation method varies depending on the auto pilot that is connected.



Time/Distance to WPT

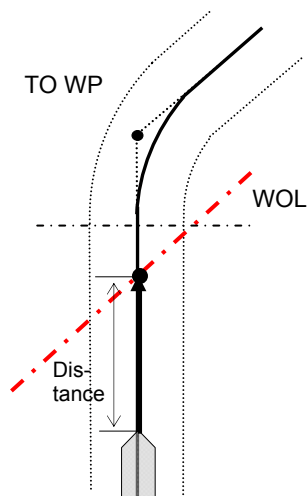
From cross point of WOL and leg (based on the center point between own ship and WOL)

As shown below, the distance/TTG calculation reference point is used as the center point of WOL. As a result, the distance to TO WP can be calculated almost accurately regardless of XTD of own ship and ship's heading. However, note that the timing does not always match the ECC/ACC display timing.

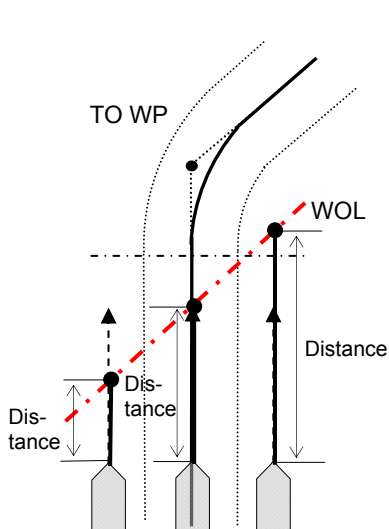


From cross point of WOL and heading (based on the intersection between ship's heading and WOL)

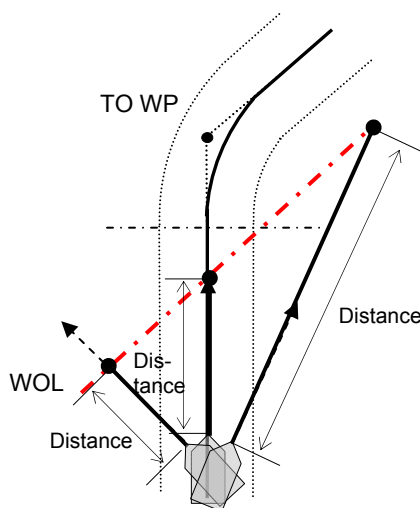
With the same calculation method as the ECC/ACC derivation timing, the TTG display timing and ECC/ACC occurrence timing match.



However, when own ship is off-course from the center of the route or the heading of own ship does not match the leg bearing as shown below, the value changes significantly.



Own ship is off-course



Heading of own ship does not match the leg bearing

Switching between From cross point of WOL and leg and From cross point of WOL and heading

Dest WP calculation switches as follows.

From cross point of WOL and leg	DestWP=TO WP	Calculate the distance between own ship and the center of WOL of TO WP (Figure A)
	DestWP>TO WP	For the subsequent leg length, add the distance between WPs to the distance between own ship and WOL center of TO WP. (Figure B)
From cross point of WOL and heading	DestWP=TO WP	Calculate the distance between own ship and the intersection of the heading of own ship and WOL of TO WP (Figure C).
	DestWP>TO WP	For the subsequent leg length, add the distance between WPs to the distance between own ship and the intersection of own ship heading and WOL of TO WP (Figure D).

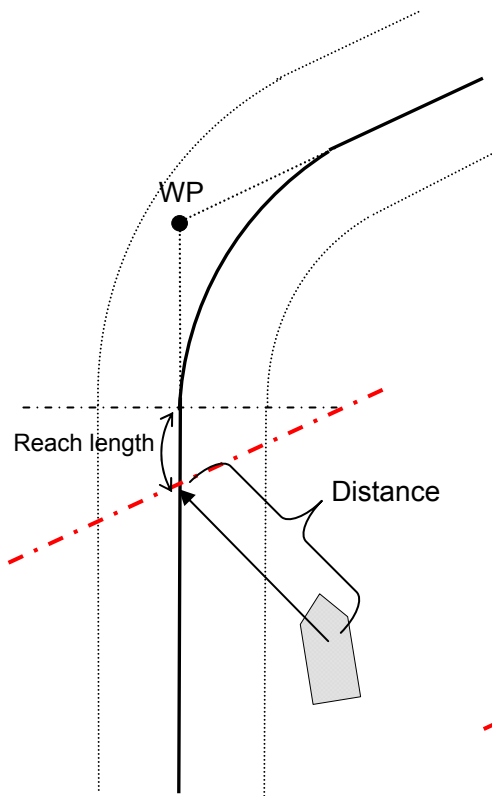


Figure A

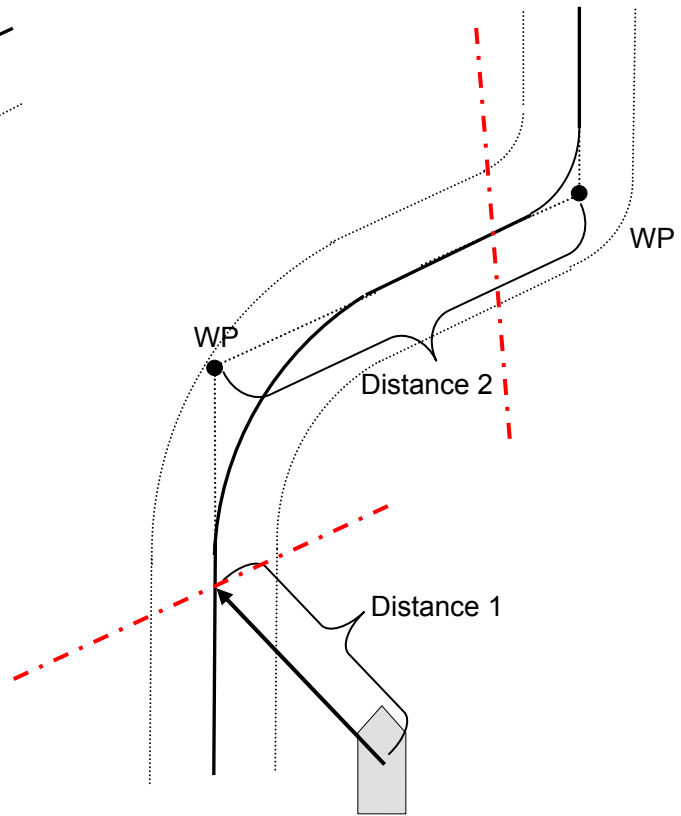


Figure B

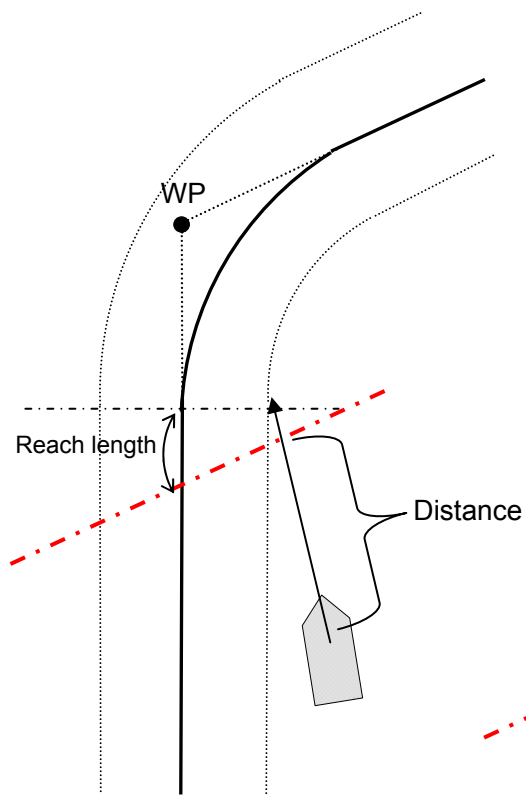


Figure C

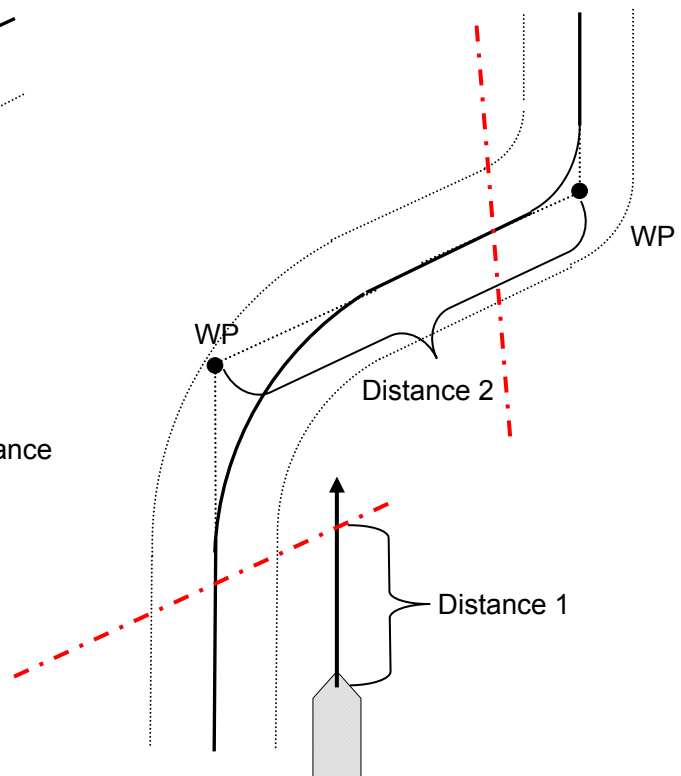
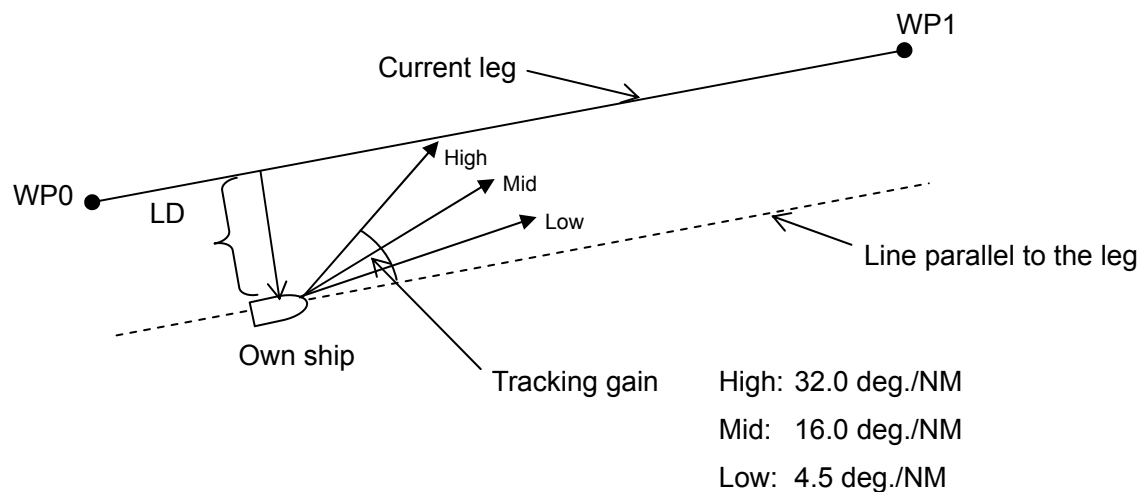


Figure D

Tracking

A tracking gain is a value that indicates the degree of swiftness for returning to the course when the ship becomes off-course. Three types of gain values are available, Low, Mid, and High.

For instance, assume that own ship's position is set to 1NM on the right side of the leg, and the gain is set to 16deg./NM (Mid). In this case the ship approaches the leg at the angle of 16°. As the distance (L_D) between the ship and the leg decreases, the angle also decreases. While the ship is sailing on the leg, the angle is the same angle of WP1 viewed from WP0. If the L_D increases, the angle also increases. The rudder control may become impossible depending on the setting of the gain.



4.19 Setting AIS [RADAR][ECDIS]

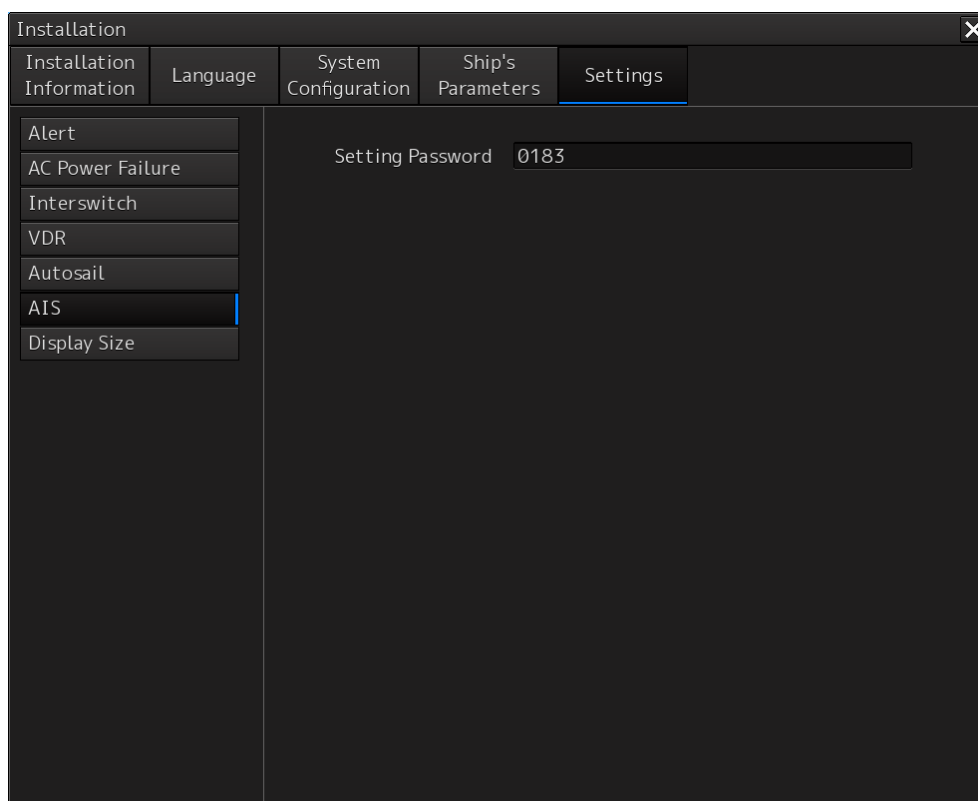
Set AIS in the "AIS" dialog.

Note

When AIS "installed" is not set in the subsystem Installation dialog, the "AIS" dialog is not displayed.

Displaying the "AIS" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [Setting] in the 1st Classification pane and [AIS] in the 2nd Classification pane.
The "AIS" dialog is displayed in the Edit/Result pane.



Setting AIS

Set the following in the "AIS" dialog.

Setting item	Description of setting	Setting value
Setting Password	JHS-183 requires a password when changing the Voyage data from an external device. If you have changed password on the AIS, change this setting to the same password. JHS-182 does not requires a password , this setting is ignored.	Up to 32 characters (numeric value only)

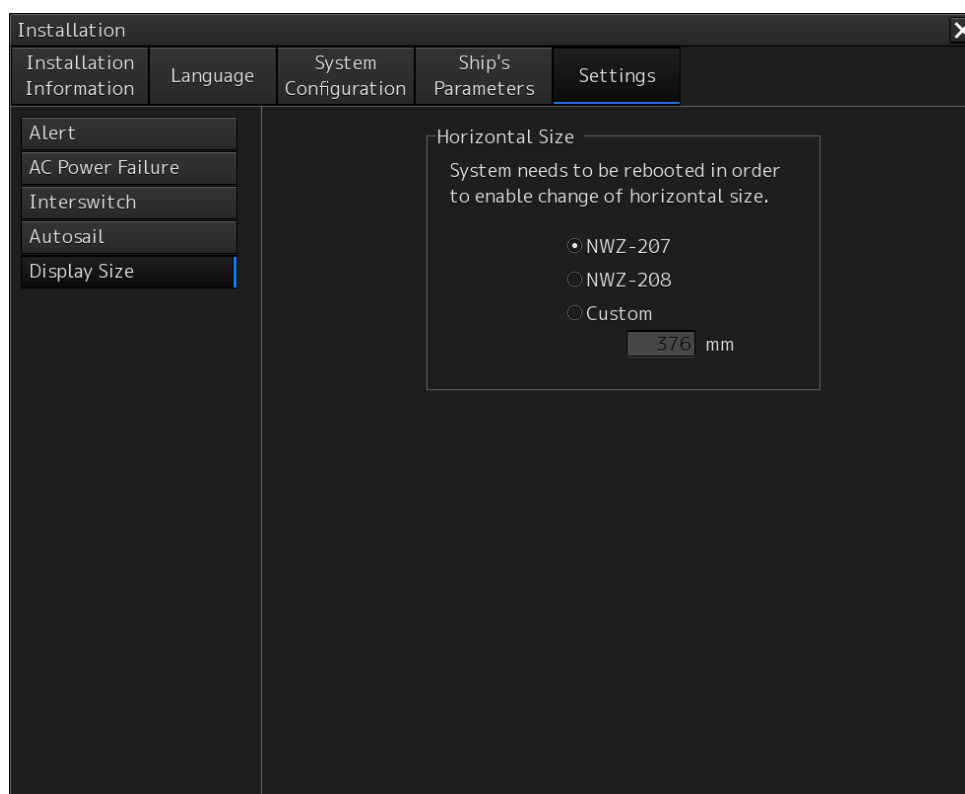
4.20 Setting Display Size [ALL]

Use the "Display Size" dialog to set the horizontal width (excluding the display frame and blank spaces) of the display section of the display to be used.

Displaying the "Display Size" dialog

- 1 Display the dialog of the Installation submenu.
- 2 Select [Settings] in the 1st Classification pane and [Display Size] in the 2nd Classification pane.

The "Display Size" dialog is displayed in the Edit/Result pane.

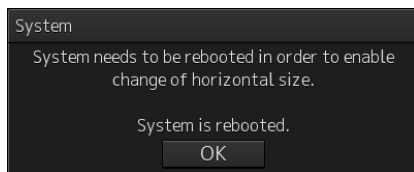


Setting a display size

- 1 Select a desired display size (horizontal width) by clicking on the button in [Horizontal Size].
NWZ-207: 19-inch display (376.32mm)
NWZ-208: 26-inch display (550.08mm)
Custom: Custom size

When [NWZ-207] is selected, the value in the [Custom] input box is set to "376 mm". When [NWZ-208] is selected, the value in the [Custom] input box is set to "550 mm".

- 2 When [Custom] is selected, input a desired display size in the input box (160 to 1200 mm).
- 3 Close the dialog of the Installation submenu.
A dialog prompting system reboot is displayed.



- 4 To change the display size, click on the [OK] button. To cancel the change, close the dialog by clicking on the [x] button.
- 5 When the [OK] button is clicked on, the system is rebooted

4.21 Tune Adjustment [RADAR]

At installation or replacement of the magnetron, tuning adjustments of the transmitter and receiver of the radar antenna are necessary.

Note

- After replacement of the magnetron, perform rough tuning while the image is stable after setting the radar to the Standby state for 20 to 30 minutes as the preheating time, operating the radar from the short pulse range, and shifting the operation to the long pulse range sequentially.
- Disabled in radar Slave mode.
- Not displayed when the solid-state radar antenna is connected.

1 Display the dialog of the Adjustment submenu.

2 Select [Basic Adjustment] in the Classification pane.

The "Basic Adjustment" dialog is displayed in the Edit pane.



[Tune Adjustment] input dialog box.

3 Click on the [Tune Adjustment] input box.

A numeric keyboard is displayed.

4 Enter an adjustment value (0 to 127) in the input box so that the tuning bar indicates the maximum level (the tuning bar touches the right-most position).

5 Click on the [x] button.

When the dialog is closed, the adjustment value is saved in the radar antenna.

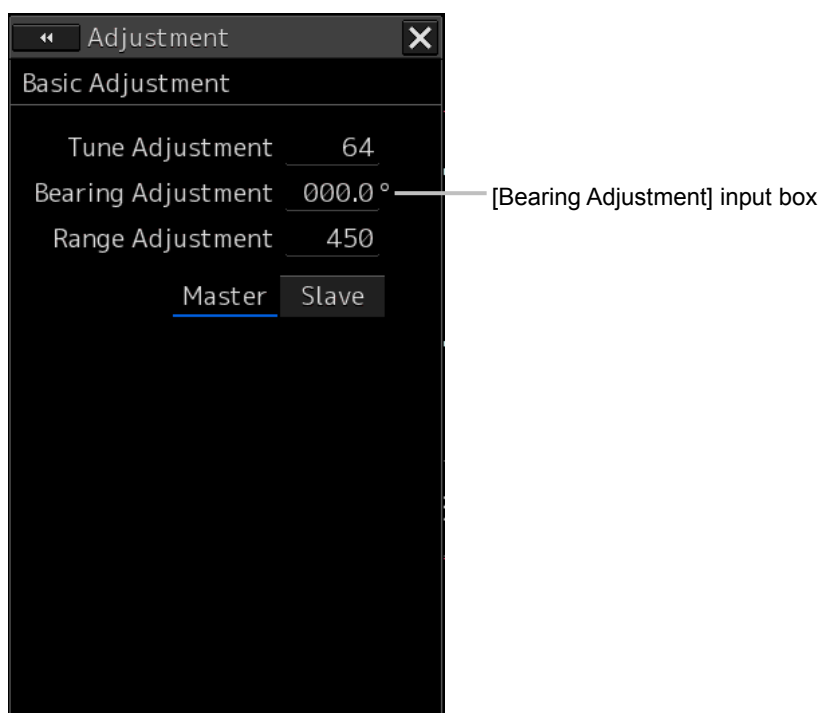
4.22 Bearing Adjustment [RADAR][ECDIS]

Adjust the bearing so that the target measured by the compass of the ship on [Bearing Adjustment] of the [Basic Adjustment] dialog and the bearing of the image displayed on the radar screen match.

Note

This function is disabled when the radar interswitch is set to the Slave mode.

- 1 Set the bearing mode to [H UP] and set the image processing mode to [Process Off].
- 2 Measure a bearing in the ship's heading direction of a suitable target (for instance, halted ship, breakwater, and buoy) by using the compass on the ship.
- 3 Display the dialog of the Adjustment submenu.
- 4 Select [Basic Adjustment] in the Classification pane.
The "Basic Adjustment" dialog is displayed in the Edit pane.



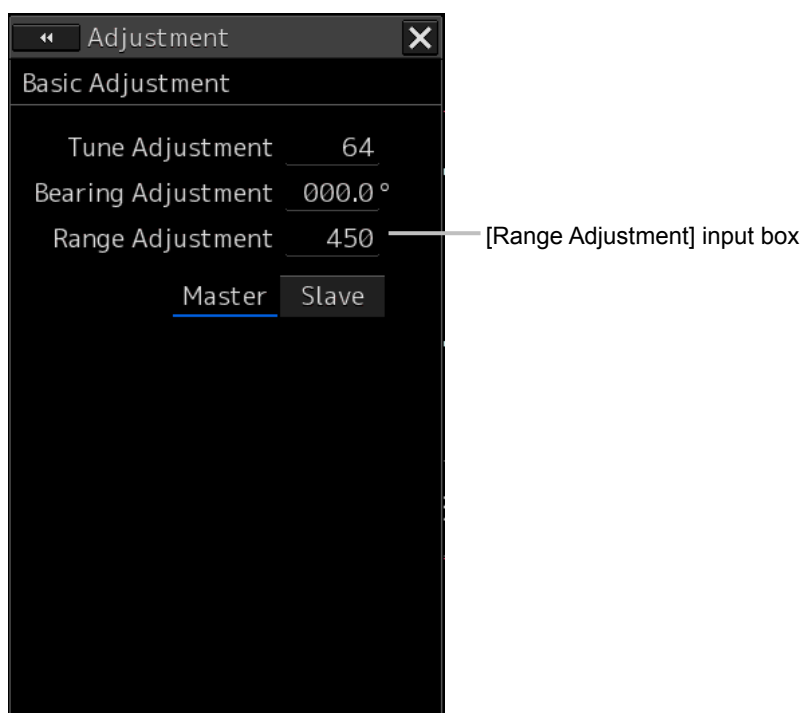
- 5 Click on the [Bearing Adjustment] input box.
A numeric value input keyboard is displayed.
- 6 Input an adjustment value in the input box so that the bearing of the target that was measured in Step 2 indicates a correct bearing. (0 to 359.9°)
- 7 Click on the [X] button.
When the dialog is closed, the adjustment value is saved in the radar antenna.

4.23 Range Adjustment [RADAR][ECDIS]

Adjust the distance of the target on the screen so that the correct distance is displayed.

- 1 On the radar screen, specify a target whose distance is available in advance.
- 2 Display the dialog of the Adjustment submenu.
- 3 Select [Basic Adjustment] in the Classification pane.

The "Basic Adjustment" dialog is displayed in the Edit pane.



- 4 Click on the [Range Adjustment] input box.
A numeric input keyboard is displayed.
- 5 Enter an adjustment value in the input box so that the distance of the target specified in Step 1 indicates the correct distance. (128 to 1024)
- 6 Click on the [X] button.

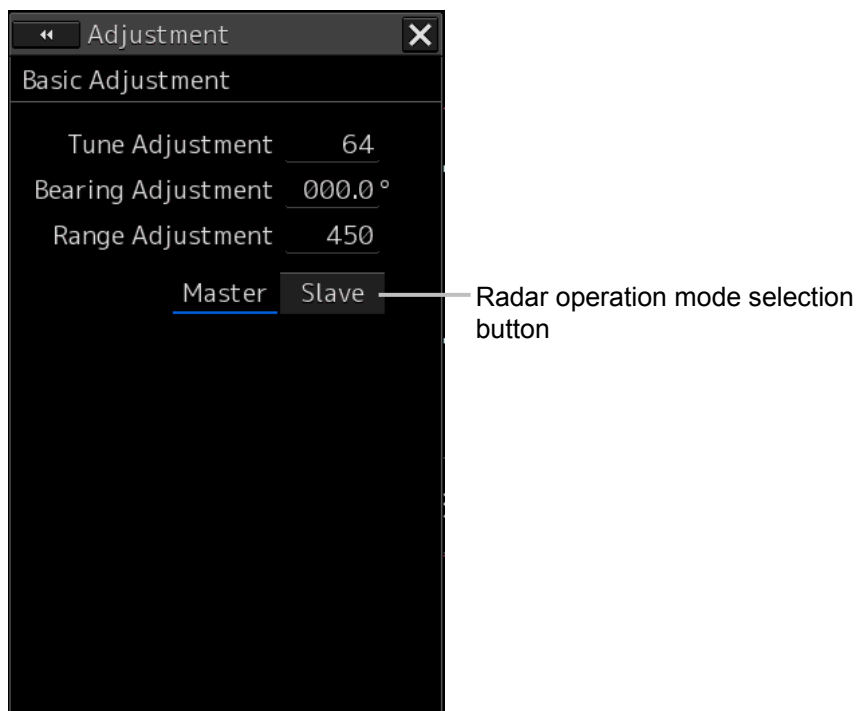
4.24 Master/Slave Radar Operation Mode [RADAR][ECDIS]

Either the Master or Slave radar operation mode can be selected.

- 1 Display the dialog of the Adjustment submenu.

- 2 Select [Basic Adjustment] in the Classification pane.

The "Basic Adjustment" dialog is displayed in the Edit pane.



- 3 Click one of the radar operation mode buttons to select either the Master mode or the Slave mode.

Master:

Can control the radar antenna.

Slave:

Cannot control the radar antenna. The display unit uses the radar signals controlled by the master radar antenna.

Note

- While in the Slave mode, the operation to control the radar antenna is disabled.
- When ECDIS receives radar signals directly from the radar, set the radar operation mode to Slave.
- When ECDIS receives radar signals via interswitch, set the radar operation mode to Master.

- 4 Click on the [X] button

4.25 Setting an Antenna Height ^{[RADAR][ECDIS]}

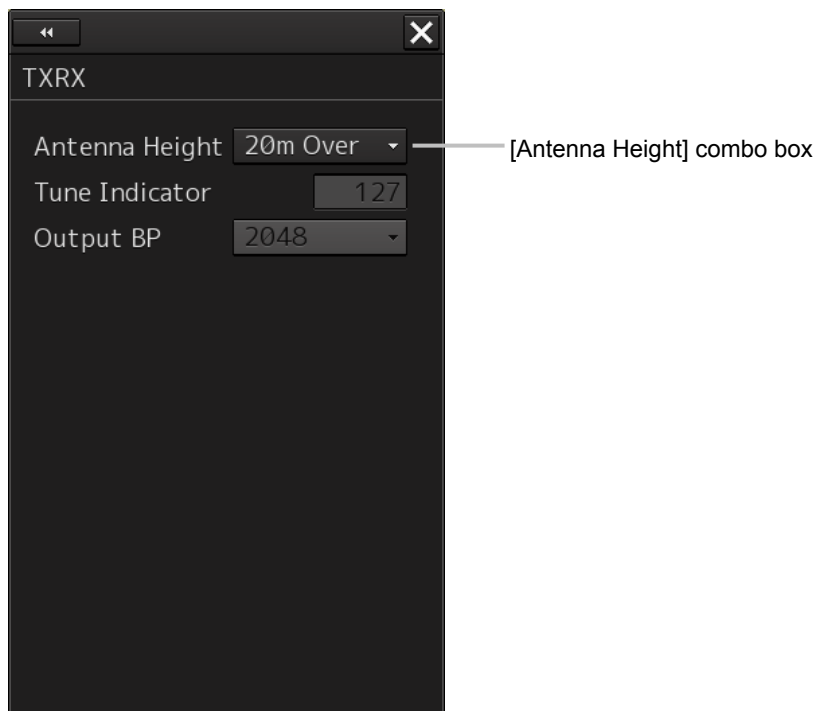
Set a height of the antenna of a radar unit.

Note

Having once set the antenna height, do not change it unnecessarily.

- 1 Measure the height from the sea surface to the antenna.**
- 2 Display the dialog of the Adjustment submenu.**
- 3 Select [TXRX] in the Classification pane.**

The "TXRX" dialog is displayed in the Edit pane.



- 4 Select the setting value corresponding to the antenna height that was measured in Step 1 from the [Antenna Height] combo box.**
 - Under 5m (5m or less)
 - 5-10m
 - 10-20m
 - 20m Over (20mm or more)
- 5 Click on the [X] button.**

4.26 Tune Peak Adjustment [RADAR]

Tune the transmitter and the receiver (using an antenna of 10kw).

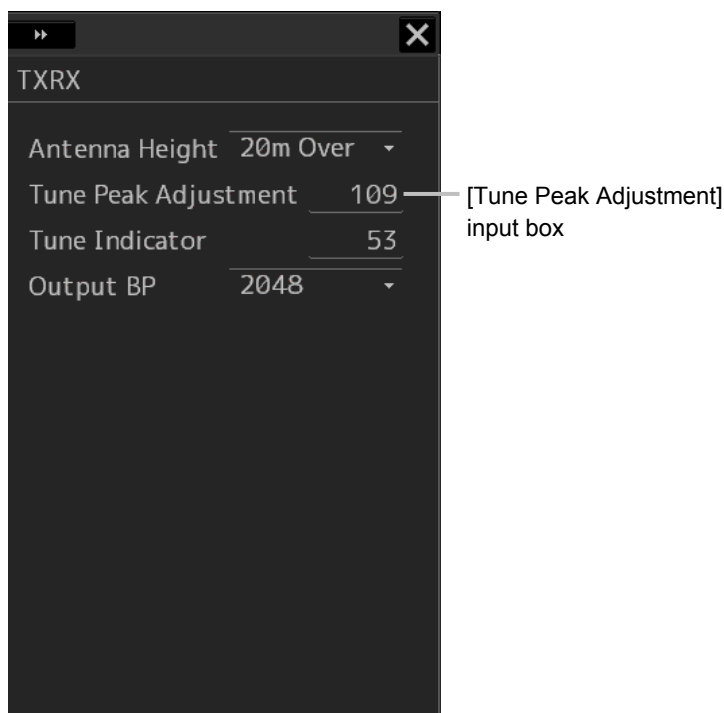
Note

- This function is disabled in radar Slave mode.
- Not displayed at connection of a solid state radar unit.

1 Display the dialog of the Adjustment submenu.

2 Select [TXRX] in the Classification pane.

The "TXRX" dialog is displayed in the Edit pane.



3 Click on the [Tune Indicator] (tune indicator bar display) input box.

A numeric input keyboard is displayed.

4 Enter a setting value in the input box so that the tuning bar indicates the maximum range (0 to 127).

5 Click on the [x] button.

When the dialog is closed, the adjustment value is saved in the radar antenna.

4.27 Setting a Tune Indicator (tuning indicator level) [RADAR]

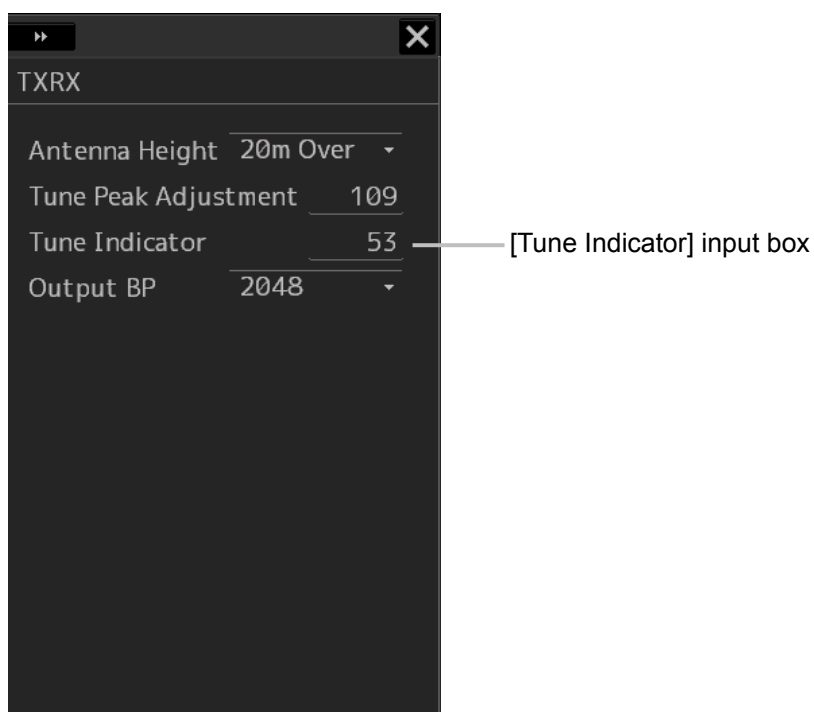
Set the scale when the tuning bar touches the peak value.

Note

- This function is disabled under radar slave mode.
- Not displayed when a solid-state radar antenna is connected.

- 1 Set the range to 48 nm or more.
- 2 Display the dialog of the Adjustment submenu.
- 3 Select [TXRX] in the Classification pane.

The "TXRX" dialog is displayed in the Edit pane.



- 4 Click on the [Tune Indicator] input box.
A numeric value input keyboard is displayed.
- 5 Input a setting value in the input box so that the tuning bar oscillates within the range from 80% to 90% of the maximum amplitude position (0 to 127).
- 6 Click on the [x] button.
When the dialog is closed, the adjustment value is saved in the radar antenna.

4.28 Setting Output BP (Radar Antenna Bearing Pulse Output) [RADAR]

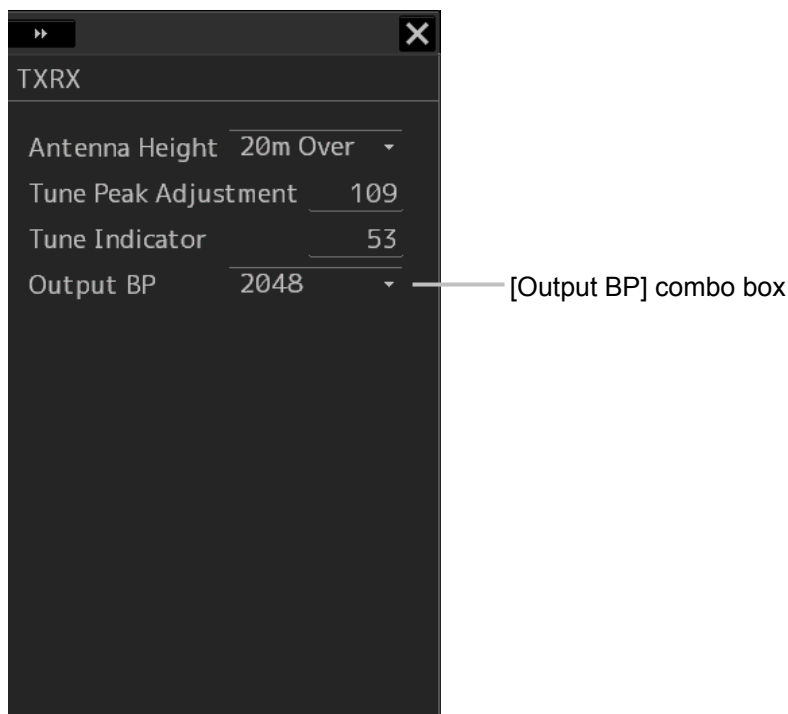
Note

- Not selected when NKE-2103 type of radar antenna is connected.

1 Display the dialog of the Adjustment submenu.

2 Select [TXRX] in the Classification pane.

The "TXRX" dialog is displayed in the Edit pane.



3 Select a bearing pulse count that is output from the radar antenna from the [Output BP] combo box (2048 or 4096).

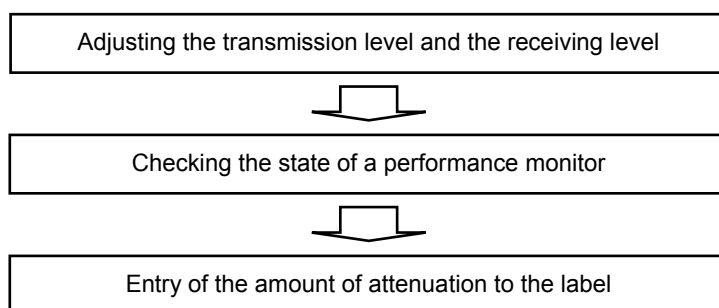
4 Click on the [x] button.

4.29 Performance Monitor Adjustment [RADAR]

Adjust the radar transmission/reception state by using the "Performance Monitor" dialog (using magnetron radar) or "Performance Monitor (SSR)" dialog (using solid-state radar). The items that are displayed in the dialog vary according to the type of the radar antenna.

Flow of Performance Monitor Adjustment

Perform adjustment of a performance monitor according to the following procedures.



[Adjusting the transmission level and the receiving level.]

Adjust the performance monitor by the next explanation.

- Adjusting the monitor reception level of a magnetron radar unit
- Adjusting the monitor transmission level of the magnetron radar unit
- Adjusting the monitor reception level of the solid-state radar unit
- Adjusting the monitor transmission level of the solid-state radar unit

[Checking the state of a performance monitor]

Check the amount of attenuation by the next explanation after adjusting a performance monitor.

- Checking the state of the performance monitor of the magnetron radar unit
- Checking the state of the performance monitor of the solid-state radar unit

[Entry of the amount of attenuation to the label]

Enter the amount of attenuation to the label by the next explanation.

- Entry of the amount of attenuation to the label

Note

- When the radar is in the Slave mode, the "Performance Monitor" dialog (or "Performance Monitor (SSR)" dialog) is disabled.
- If a master unit other than straight connection is being set in interswitch setting, the "Performance Monitor" screen (or "Performance Monitor (SSR)" screen) is disabled (except when [Controllable MON] is being set to [All] with [settings] - [interswitch] in the "Installation" dialog box.
- When the "Performance Monitor" dialog is displayed, the sector blank in the PPI screen is hidden. When the solid state radar antenna is connected, the PM sector is displayed; in the case of the magnetron radar, the sector is not displayed.
- While adjusting the performance monitor, TGT acquisition is not canceled by the target tracking function.
If a TGT symbol is displayed inside a pattern of the performance monitor and adjusting is difficult, cancel TGT acquisition once.

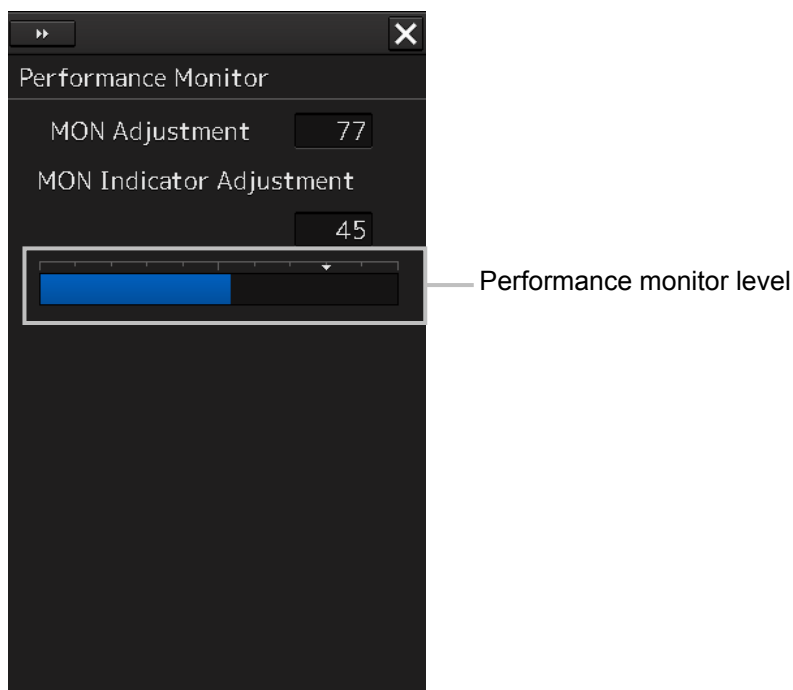
Adjusting the monitor reception level of a magnetron radar unit

Adjust the circuit that monitors the reception performance of the magnetron radar unit.

1 Display the dialog of the Adjustment submenu.

2 Select [MON] in the Classification pane.

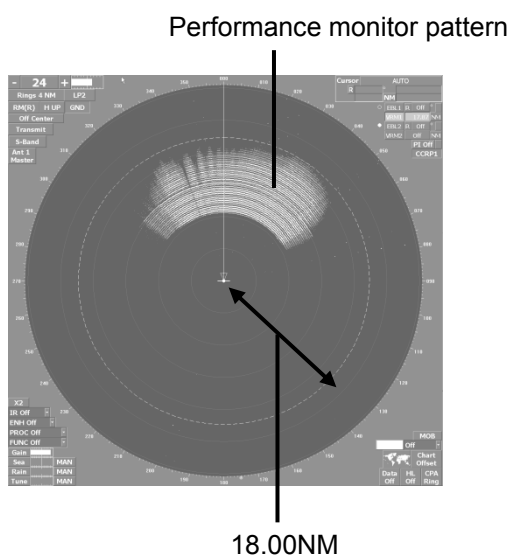
The "Performance Monitor" dialog is displayed in the Edit pane.



3 Click on the [MON Adjustment] (MON reception level adjustment) input box.

A numeric value input keyboard is displayed.

- 4 Enter a setting value in the input box so that the farthest position of the performance monitor pattern becomes 18.00 NM. (0 to 127)



- 5 Click on the [x] button.

When the dialog is closed, the adjustment value is saved in the radar antenna.

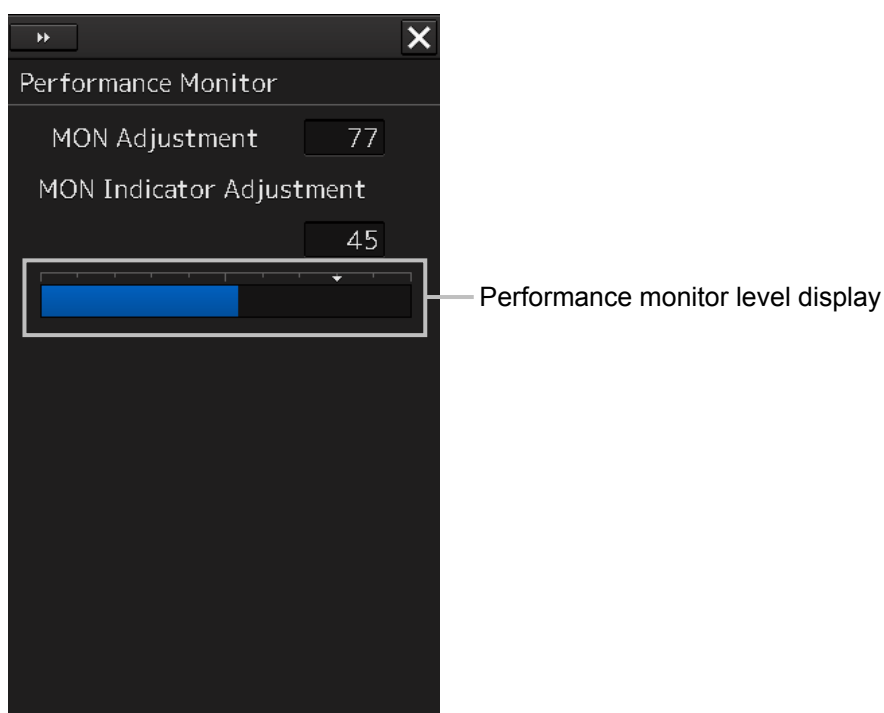
Adjusting the monitor transmission level of the magnetron radar unit

Adjust the circuit that monitors the transmission performance of the magnetron radar unit.

- 1 Display the dialog of the Adjustment submenu.

- 2 Select [MON] in the Classification pane.

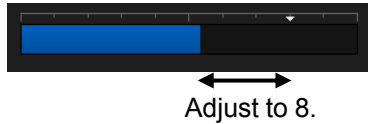
The "Performance Monitor" dialog is displayed in the Edit pane.



- 3 Click on the [MON Indicator Adjustment] input box.

A numeric value input keyboard is displayed.

- 4 Enter a setting value in the input box so that "8" is displayed as the performance monitor level (0 to 127).



- 5 Click on the [x] button.

When the dialog is closed, the adjustment value is saved in the radar antenna.

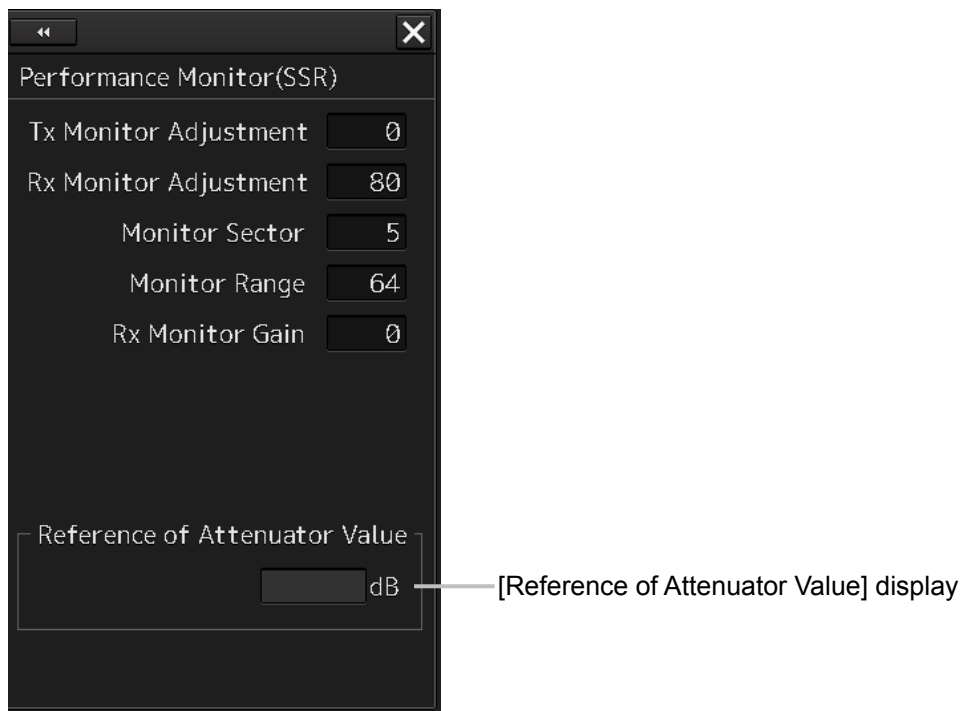
Adjusting the monitor transmission level of the solid-state radar unit

Adjust the circuit that monitors the transmission performance of the solid-state radar unit.

- 1 Display the dialog of the Adjustment submenu.

- 2 Select [MON] in the Classification pane.

The "Performance Monitor (SSR)" dialog is displayed in the Edit pane.



- 3 Click on the [TX Monitor Adjustment] input box.

A numeric input keyboard is displayed.

The value displayed in [Reference of Attenuator Value] is used as the transmission attenuator value.

- 4 Enter a setting value in the input box so that the display of [Reference of Attenuator Value] indicates "0.0±1.0dB" (0 to 127).

5 Click on the [x] button.

When the dialog is closed, the adjustment value is saved in the radar antenna.

Note

Do not change the values set in the [Monitor Range] input box and the [RX Monitor Gain] (reception monitor gain) input box.

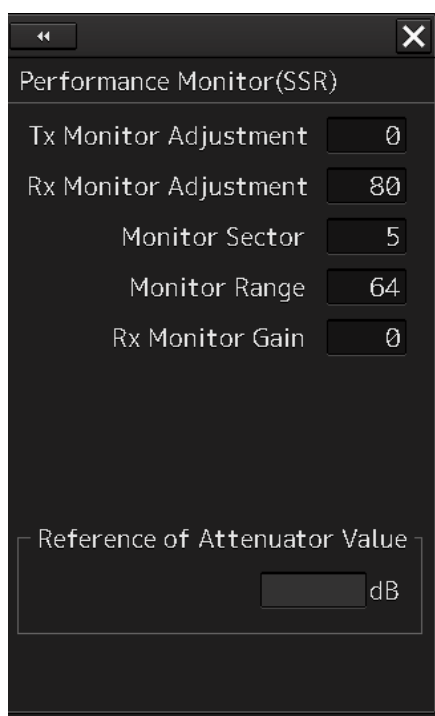
Adjusting the monitor reception level of the solid-state radar unit

Adjust the circuit that monitors the reception performance of the solid-state radar unit.

1 Display the dialog of the Adjustment submenu.

2 Select [MON] in the Classification pane.

The "Performance Monitor (SSR)" dialog is displayed in the Edit pane.



« X

Performance Monitor(SSR)

Tx Monitor Adjustment 0

Rx Monitor Adjustment 80

Monitor Sector 5

Monitor Range 64

Rx Monitor Gain 0

Reference of Attenuator Value

dB

3 Click on the [Monitor Sector] input box.

A numeric input keyboard is displayed.

The value displayed in [Reference of Attenuator Value] is used as the reception attenuator value.

4 Enter a setting value in the input box so that the display of [Reference of Attenuator Value] indicates the maximum value.

5 Click on the [RX Monitor Adjustment] input box.

6 Enter a setting value in the input box so that the display of [Reference of Attenuator Value] indicates "0.0±1.0dB" (0 to 127).

A numeric input keyboard is displayed.

7 Click on the [x] button.

When the dialog is closed, the adjustment value is saved in the radar antenna.

Note

The values set in the [Monitor Range] input box and the [RX Monitor Gain] input box must not be changed.

Checking the state of the performance monitor of the magnetron radar unit

The state of the performance monitor of a magnetron radar unit is checked.

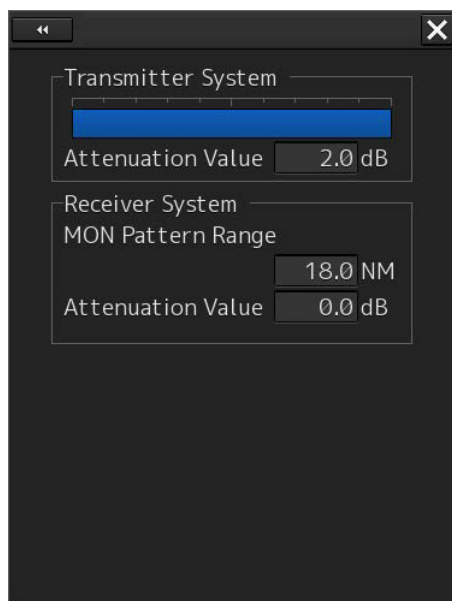
Note

Close the "Performance Monitor" dialog, when the dialog is being displayed, and end adjustment of a performance monitor.

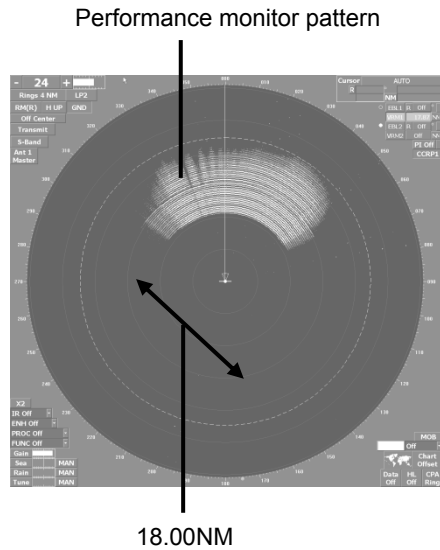
1 Display the dialog of the Maintenance - Diagnosis submenu.

2 Select [MON Check] in the Classification pane.

The "MON Check" dialog is displayed in the Edit pane.



- 3 Turn the [VRM] dial so that the farthest position of the performance monitor pattern becomes 18.00 NM.



- 4 Check the amount of attenuation in the dialog box.

Benchmarks for the amount of attenuation are as follows:

Attention Value of Transmitter:

At normal: -6.9 dB to +2.0 dB

At degrading performances: -15.0 dB to -7.0 dB

Attention Value of Receiver:

At normal: -2.9 dB to +3.5 dB

At degrading performances: -15.0 dB to -3.0 dB

Note

When confirming the attenuation value of the transmitter, after opening the dialog box, wait for one minute, and then read its value.

Checking the state of the performance monitor of the solid-state radar unit

The state of the performance monitor of a solid-state radar unit is checked.

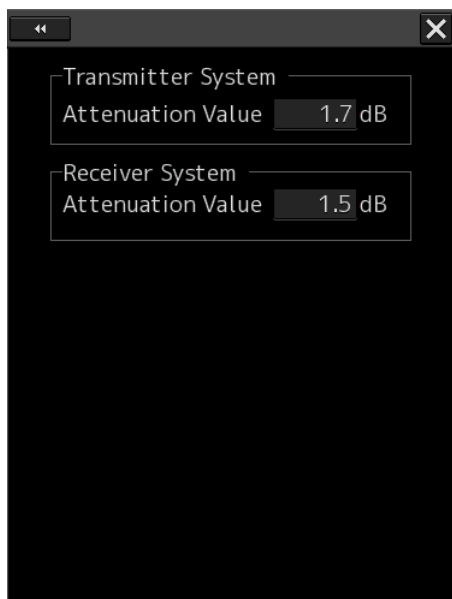
Note

Close the "Performance Monitor(SSR)" dialog, when the dialog is being displayed, and end adjustment of a performance monitor.

- 1 Display the dialog of the Maintenance - Diagnosis submenu.

2 Select [MON Check(SSR)] in the Classification pane.

The "MON Check(SSR)" dialog is displayed in the Edit pane.



3 Verify the attenuation of the transmission unit and reception unit of the system.

The guideline of the attenuation is as follows.

Attenuation of the transmission unit:

Normal: -6.9dB ~ +7.0dB

Performance deterioration: -20.0dB ~ -7.0dB

Attenuation of the reception unit:

Normal:-6.9dB ~ +7.0dB

Performance deterioration: -20.0dB ~ -7.0dB

Note

- To verify the attenuation of the transmission unit, read the value displayed one minute after the dialog is opened.

Entry of the amount of attenuation to the label

Entry of the amount of attenuation to the "PERF.MONITOR INFORMATION LABEL" label after adjusting a performance monitor.

1 Enter the following contents to the "PERF.MONITOR INFORMATION LABEL" label.

DATE: The date which adjusted.

TX VALUE: The amount of attenuation of transmitter system.

RX VALUE: The amount of attenuation of receiver system.

4.30 Setting Sector Blank (RADAR Screen Only) [RADAR]

The sector blank is an area that has been set up by specifying a fan-shaped range (sector), stopping the transmission in that bearing, and hiding radar echoes. The sector blank runs in the relative bearing using the ship's heading as reference.

Three types of sectors can be set up (sector blanks 1/2/3).

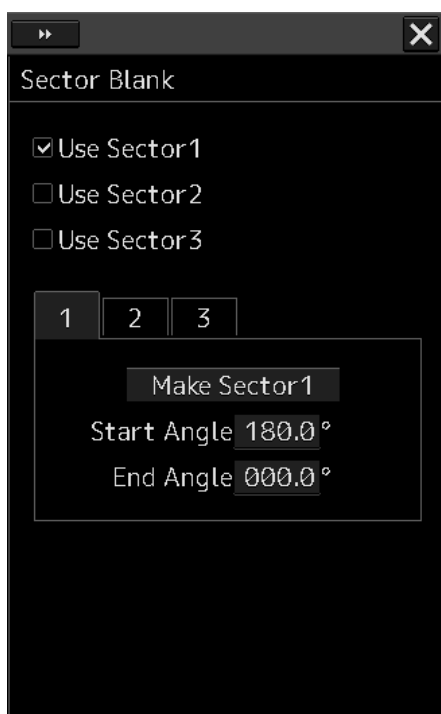
Note

Disabled in radar Slave mode.

1 Display the dialog of the Adjustment submenu.

2 Select [Sector Blank] in the Classification pane.

The "Sector Blank" dialog is displayed in the Edit pane.



3 Select sector blank to be set by checking [Use Sector1/2/3] (using sector blank 1/2/3).

4 Click on the [Make Sector1/2/3] (creating sector blank 1/2/3) button that corresponds to the sector blank number that was selected in Step 1.

The cursor is set to the sector blank 1/2/3 creation mode.

5 Draw sector blank with the cursor.

The following information items are displayed regarding the sector blank that is being created.

Start Angle: Sector blank starting angle

End Angle: Sector blank ending angle

6 Click on the [x] button.

When the dialog is closed, the adjustment value is saved in the radar antenna.

4.31 Setting TNI Blank [RADAR]

It is possible to create TNI Blank and use it as a sector.

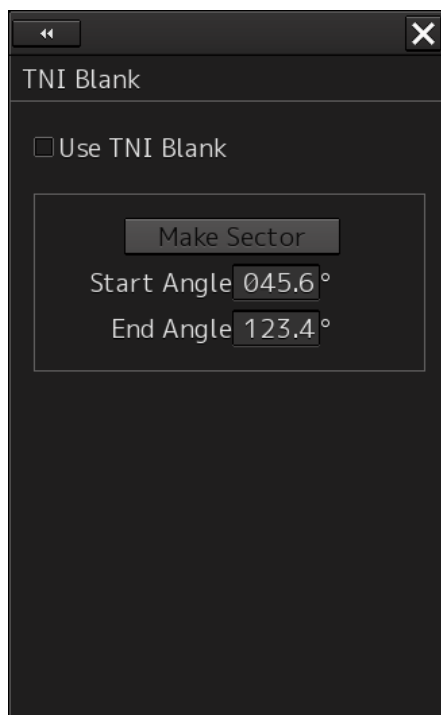
Note

- Disabled in radar Slave mode.
- Not displayed at connection of a sold-state radar unit.

1 Display the dialog of the Adjustment submenu.

2 Select [TNI Blank] in the Classification pane.

The "TNI Blank" dialog is displayed in the Edit pane.



3 Select the [Use TNI Blank] check box.

4 Click on the [Make Sector] button.

The cursor mode is set to the TNI blank creation mode.

5 Draw TNI blank using the cursor.

The following information is displayed for the TNI blank that is being created.

Start Angle: TNI blank starting angle

End Angle: TNI blank ending angle.

6 Click on the [x] button.

When the dialog is closed, the adjustment value is saved in the radar antenna.

4.32 Setting Input BP Count

[RADAR][ECDIS]

Set a bearing pulse count to be input from radar 1 or radar 2.

1 Display the dialog of the Adjustment submenu.

2 Select [Input BP Count] in the Classification pane.

The "Input BP Count" dialog is displayed in the Edit pane.



3 Select an input bearing pulse count in the [RADAR1/2] box (360/415/830/1024/2048/4096). Alternatively, display a numeric input dialog by clicking on the box and enter an input bearing pulse count (360 to 4096).

Note

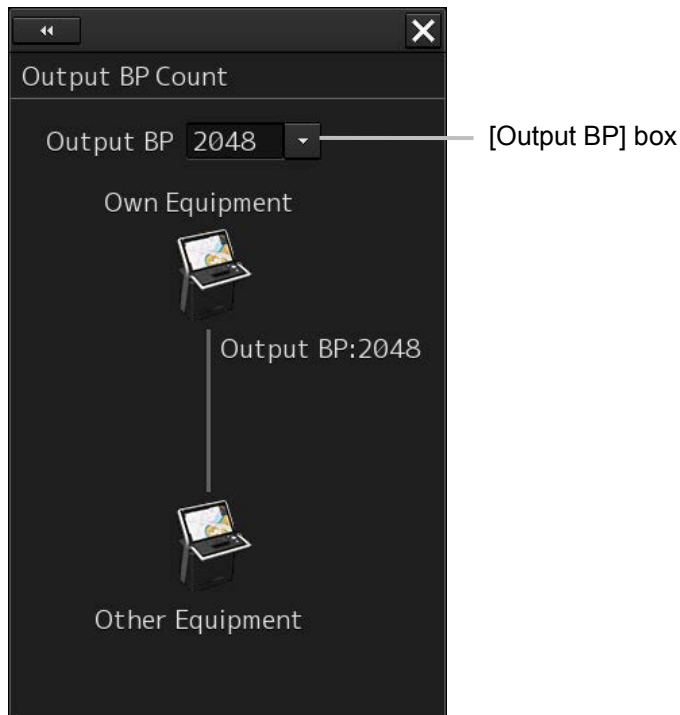
- The [RADAR1] combo box is disabled under the Master unit.
- When the output BP count is set to a value other than 2048 or 4096 in the Slave unit, only 2048 or 4096 can be selected from the [RADAR1] combo box.
- Either or (both) of the input BP count and the output BP count of the Slave unit must be set to 2048 or 4096.

4 Click on the [x] button.

4.33 Setting Output BP Count [RADAR]

Set a bearing pulse count to be output to the Slave unit.

- 1 **Display the dialog of the Adjustment submenu.**
- 2 **Select [Output BP Count] in the Classification pane.**
The "Output BP Count" dialog is displayed in the Edit pane.



- 3 **Select an output bearing pulse count in the [Output BP] box (360/415/830/1024/2048/4096). Alternatively, display a numeric input dialog by clicking on the box and enter an output bearing pulse count (360 to 4096).**

Note

- When the input BP count is set to a value other than 2048 or 4096 in the Slave unit, only 2048 or 4096 can be selected from the [Output BP] combo box.
- Either or (both) of the input BP count and the output BP count of the Slave unit must be set to 2048 or 4096.

- 4 **Click on the [x] button.**

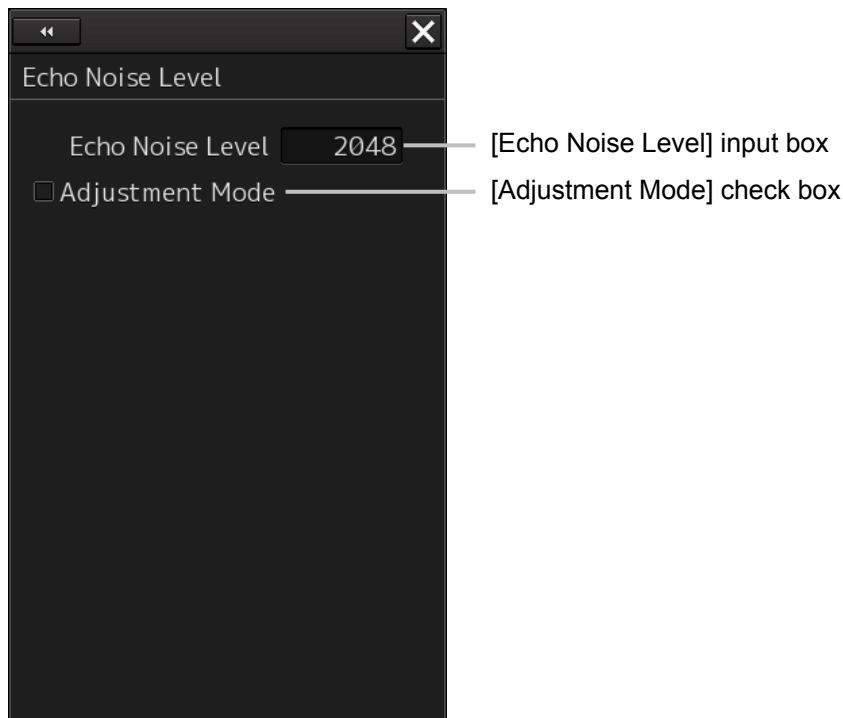
4.34 Echo Noise Level Adjustment [RADAR][ECDIS]

Adjust the level of the noise contained in radar echo.

1 Display the dialog of the Adjustment submenu.

2 Select [Echo Noise Level] in the Classification pane.

The "Echo Noise Level" dialog is displayed in the Edit pane.



3 Select the [Adjust Mode] check box.

4 Click on the [Echo Noise Level] input box.

A numeric input keyboard is displayed.

5 Enter a numeric value of around 2200 (1960 at factory delivery).

Note

- This setting has been adjusted at factory delivery. Do not change the setting unnecessarily.

6 Reduce the value in the [Echo Noise Level] input box while checking the monitor and record the value at which the radar image is filled with yellow for the first time.

7 Enter the value that is calculated by subtracting 80 from the recorded value (permissible range:0 ~ 4095).

8 Click on the [x] button.

4.35 TT (Target Tracking) Function Adjustment (RADAR Screen Only) ^[RADAR]

Adjust the following TT function parameters by using the "TT" dialog.

- Vector constant
- Quantization level
- Gate size used for tracking
- TT limit ring

What is quantization level?

A quantization level is a signal level that is recognized by the TT function as a target.

By setting a lower value, input of signals of weak targets in the ARPA target detection circuit is enabled. However, many unnecessary signals are also input, destabilizing acquisition and tracking of targets due to unnecessary signals. It is important to set a value greater than the value for detecting unnecessary signals by 4 or 5.

CAUTION



Do not change the quantization level settings indiscreetly. If inappropriate values are set, the acquisition of the target tracking function and the tracking function will deteriorate, possibly causing accidents.

Setting vector constants

Adjust the vector tracking performance of the target tracking function.

- 1 **Display the dialog of the Adjustment submenu.**

- 2 **Select [TT] in the Classification pane.**

The "TT" dialog is displayed in the Edit pane.



- 3 **Click on the [Vector Constant] input box.**

A numeric input keyboard is displayed.

- 4 **Enter a setting value in the input box.**

Note

Do not change this setting unnecessarily. Normally, set 4 for [Vector Constant]. By increasing the value of [Vector Constant], tracking of the target vector can be improved when the target and own ship changes the course or speed. However, note that the vector precision deteriorates.

- 5 **Click on the [x] button.**

Setting quantization levels at manual acquisition

1 Display the dialog of the Adjustment submenu.

2 Select [TT] in the Classification pane.

The "TT" dialog is displayed in the Edit pane.



3 Select a quantization threshold value at manual acquisition from the [VD Level Mode (Manual)] (quantization mode at manual acquisition) combo box.

- Auto Threshold1
- Auto Threshold2
- Manual Threshold

4 Click on the [VD level (Manual)] (quantization level at manual acquisition) input box.

A numeric input keyboard is displayed.

5 Enter a setting value in the input box (0 to 255).

Note

Do not change this setting unnecessarily.

6 Click on the [x] button.

Setting quantization levels at automatic acquisition

- 1 Display the dialog of the Adjustment submenu.

- 2 Select [TT] in the Classification pane.

The "TT" dialog is displayed in the Edit pane.



- 3 Click on the [VD Level (Auto)] (quantization level at automatic acquisition) input box.

A numeric input keyboard is displayed.

- 4 Enter a setting value in the input box (0 to 255).

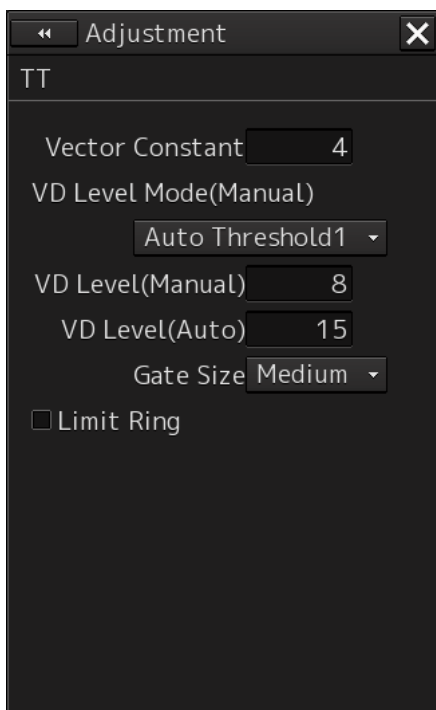
- 5 Click on the [x] button.

Setting a gate size to be used for tracking

1 Display the dialog of the Adjustment submenu.

2 Select [TT] in the Classification pane.

The "TT" dialog is displayed in the Edit pane.



3 Select a gate size from the [Gate Size] combo box.

- Small
- Medium
- Large

4 Click on the [x] button.

Displaying a TT limit ring

- 1 Display the dialog of the Adjustment submenu.

- 2 Select [TT] in the Classification pane.

The "TT" dialog is displayed in the Edit pane.



- 3 To display a TT limit ring, select the [Limit Ring] check box.

- 4 Click on the [x] button.

4.36 Adjusting MBS [RADAR][ECDIS]

MBS (Main Bang Suppression) adjustment is to adjust a display unit processing circuit in order to suppress main bang, which is the reflection signal from a microwave transmission circuit of a waveguide that normally appears as an image of a circle at the center of the radar screen.

Perform MBS adjustment by using the "MBS" dialog.

WARNING



Do not change this setting indiscreetly.

If wrong adjustment is performed, the nearest target will be erased, causing collision to lead to death or serious injury.

1 Display the dialog of the Adjustment submenu.

2 Select [MBS] in the Classification pane.

The "MBS" dialog is displayed in the Edit pane.



3 Click on the [Initial Level] (MBS initial level) input box.

A numeric value input keyboard is displayed.

4 Enter an initial level of MBS so that the image of main bang becomes optimum (faint image remains on the screen). (0 to 1023)

5 Click on the [Area Offset] (MBS area offset) input box.

A numeric value input keyboard is displayed

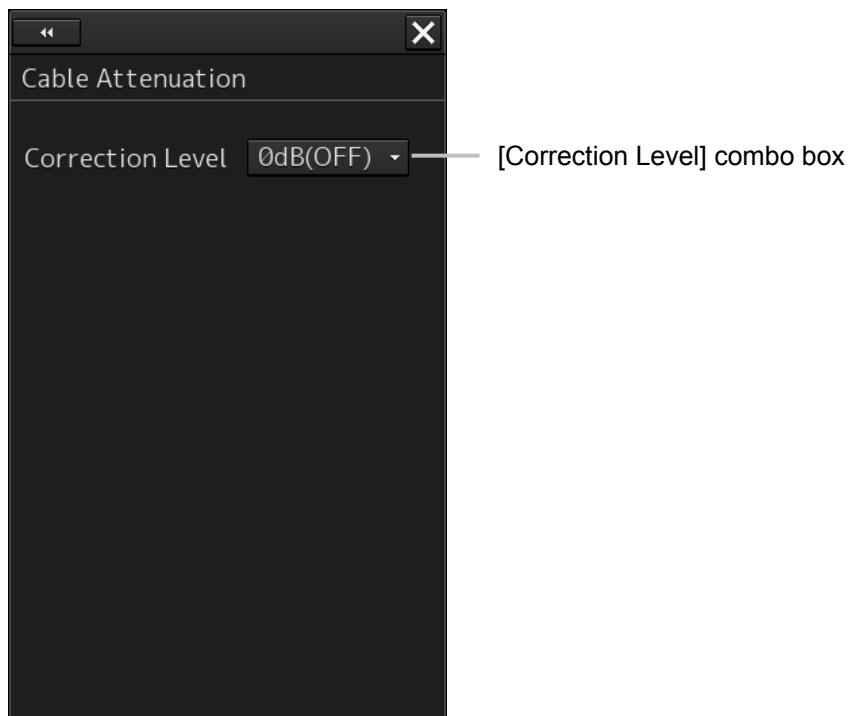
6 Enter a MBS area offset value (-0.200 ~ 0.200[NM]) so that the image of the main bang becomes the optimum (remains lightly on the screen).

7 Click on the [x] button.

4.37 Setting Cable Attenuation [ALL]

Set an attenuation correction level of the radar video signal level by the cable.

- 1 **Display the dialog of the Adjustment submenu.**
- 2 **Select [Cable Attenuation] in the Classification pane.**
The "Cable Attenuation" dialog is displayed in the Edit pane.



- 3 **Select a correction level from the [Correction level] combo box (0dB (OFF) 2dB/4dB/6dB).**

Select an appropriate level from the connected cable and the length by using "Determining the attenuation correction level" that is described below.

- 4 **Click on the [x] button.**

Determining the attenuation correction level

Perform the following procedure for the antenna for which cable attenuation is to be set.

- 1 Record the types and lengths of all the cables that are installed and used from the antenna to the display.**

In the environment where ISW is used, as the cable from the display to ISW is structured in two way mode, a double length is required.

- 2 Read the attenuation correction level corresponding to the installed cable that is recorded from the following correspondence table.**

Cable installed	Cable length [m]	Attenuation correction level [dB]
CFQ-6912	- 20	0
	20 - 35	2
	35 - 50	4
	50 -	6
2695110056 or 2695111153	- 25	0
	25 - 50	2
	50 - 75	4
	75 -	6
RG-10/UY (2661111153)	- 70	0
	70 - 140	2
	140 - 210	4
	210 -	6

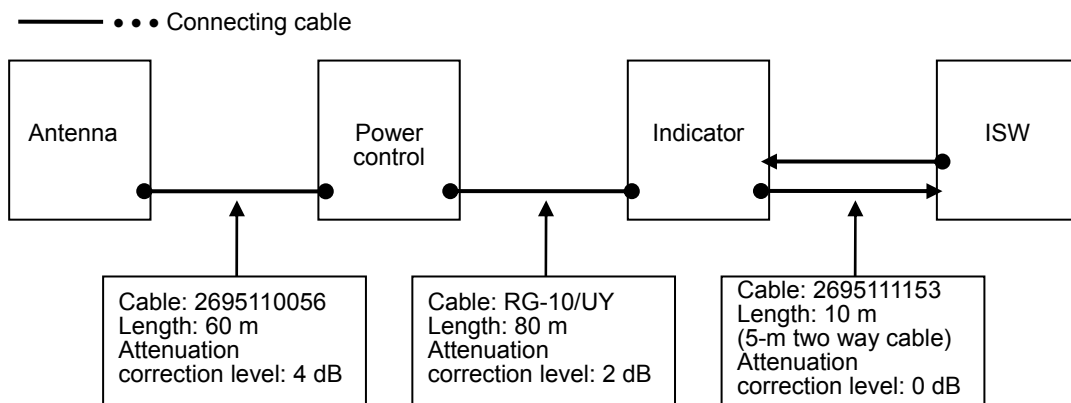
- 3 Select the total value of attenuation correction levels of all the cables that are installed.**

If the value is 6dB or more, use 6dB.

- 4 If ISW is available, perform the above procedure by changing the antenna to be set.**

(Example)

For the following configuration, select 6dB (=4dB+2dB+0dB).

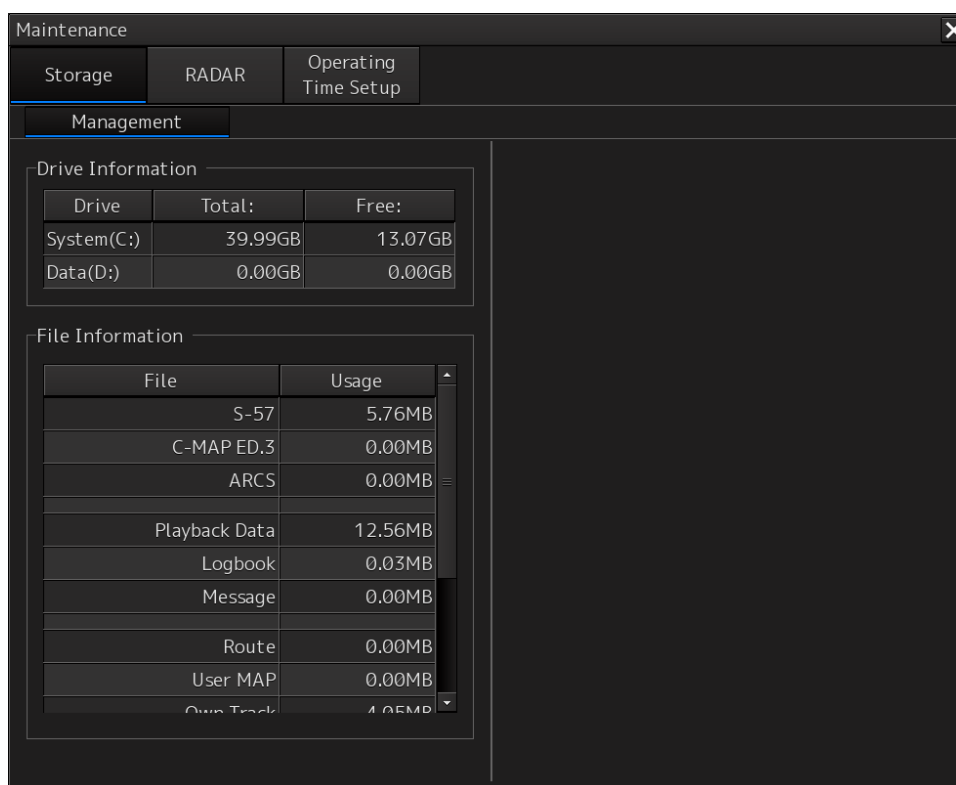


4.38 Verifying Storage [ALL]

Use the "Management" dialog to verify the storage that is used.

- 1 Display the dialog of the Maintenance submenu.
- 2 Select [Storage] in the 1st Classification pane and [Management] in the 2nd Classification pane.

The "Management" dialog is displayed in the Edit/Result pane.



The total storage capacity and free space on each of the drives (C and D) are displayed in the [Drive Information] list. The capacity of each of the files stored on the drives is displayed in the [File Information] list. The files managed by File Manager are applicable.

4.39 RADAR Adjustment (RADAR Screen Only) [RADAR]

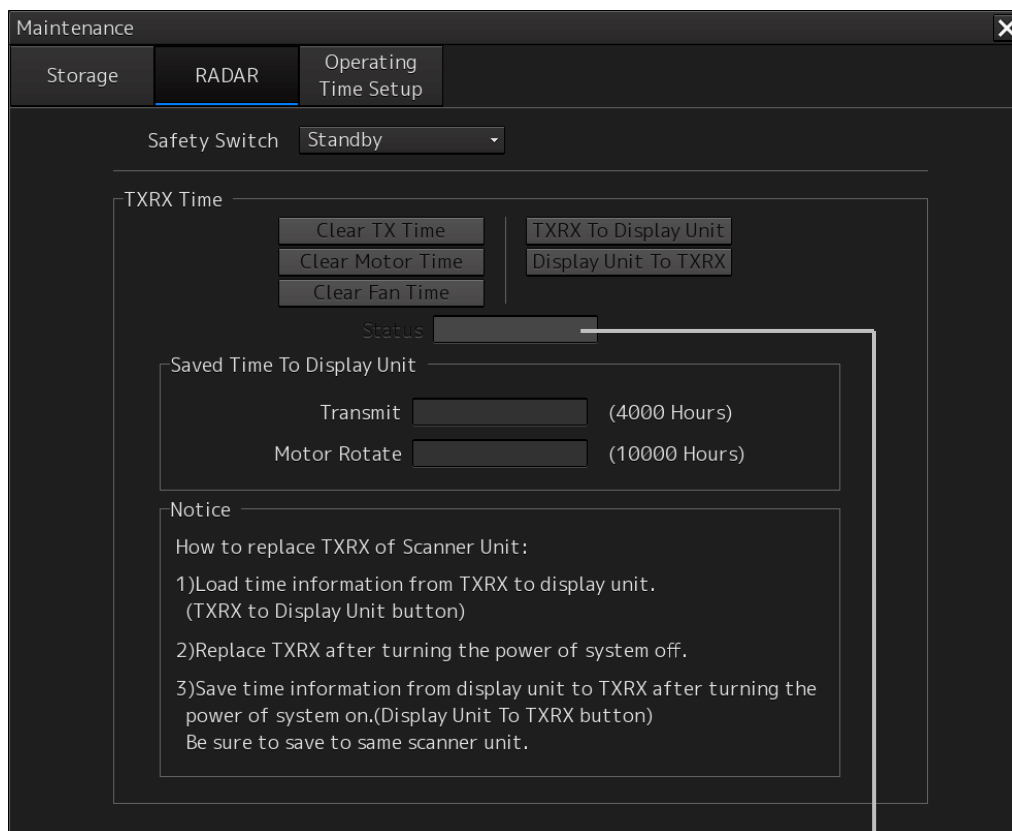
Use the "RADAR" dialog to maintain the radar.

Displaying the "RADAR" dialog

1 Display the dialog of the Maintenance submenu.

2 Select [RADAR] in the Classification pane.

The RADAR dialog is displayed in the Edit/Result pane.



Transmission result display

Changing the operation mode of the safety switch

Open the list of the [Safety Switch] box and select the operation to be performed when the safety switch of the radar antenna is set to OFF.

Setting	Operation
TX-Off	• No radiant section's rotation and transmission • PPI screen transmission status • Maintains the transmitting state without generating BP or BZ alarm
Standby	• No radiant section's rotation and transmission • PPI screen standby
TX-On	• No radiant section's rotation, with transmission • PPI screen transmission status • Maintains the transmitting state without generating BP or BZ alarm

Clearing a radar antenna operation time

The total transmission time, total motor rotation time, and the total fan rotation time of the radar antenna can be cleared.

Clearing the total transmission time of a radar antenna

Click on the [Clear TX Time] (resetting transmission time) button.

Clearing the total motor rotation time of a radar antenna

Click on the [Clear Motor Time] (resetting the motor rotation time) button.

Clearing the total fan rotation time of a radar antenna

Click on the [Clear Fan Time] (resetting the fan rotation time) button.

Replacing a TXRX circuit of a radar antenna

Check the total transmission time and the total motor rotation time and total fan rotation time of the radar antenna and use the information as the guideline for replacement.

Acquiring the data of the total transmission time, total motor rotation time, and total fan rotation time from the antenna

- 1 Click on the [TXRX To Display Unit] (transmitting from a radar antenna to a display unit) button.

The data of the total transmission time, the total motor rotation time and total fan rotation time is acquired from the radar antenna and is stored in a display unit. The time that is acquired is displayed on the [Saved Time To Display Unit] display section.

Transmit: Total time acquired from the radar antenna

Motor Rotate: Total motor rotation time acquired from the radar antenna

FAN time: Total fan rotation time acquired from the radar antenna

Saving the data of the total transmission time, total motor rotation time, and total fan rotation time in the radar antenna

- 1 Click the [Display Unit To TXRX] button (transmission from the display unit to the radar antenna).

The total transmission time and total motor rotation time and total fan rotation time saved in the display unit are saved to the radar antenna.

If data is saved normally, the data saved in the display unit will be deleted.

When a command is sent from the display unit to the radar antenna, the transmission result is displayed as follows.

Result waiting state: "Sending..." is displayed blinking at intervals of 1 sec.

When the result is success: "Completed" is displayed.

When the result is failure: "Not Completed" is displayed.

Replacing a TXRX circuit

The operation procedure and notes are displayed on the Notice display.

- 1** By clicking on the [TXRX To Display Unit] button, load the data of the total transmission time and the total motor rotation time from the radar antenna to the display unit.
- 2** Turn off the power of the system and replace the TXRX circuit.
- 3** Turn on the power of the system and write the data of the total transmission time and the total motor rotation time in the transceiver unit of the radar antenna by clicking on the [Display Unit To TXRX].

Note

- Make sure that data is written to the transceiver unit of the same radar antenna when the data is loaded.
- A total fan rotation time is acquired and saved for a solid state antenna only.

4.40 Operating Time Setup [ALL]

Use the "Operating Time Setup" dialog to specify a total operating time of the work station and verify the operating time of each installation.

When UPS is connected to the work station, the guideline of the replacement timing can be checked by registering the UPS installation date and time.

Displaying the "Operating Time Setup" dialog

- 1 Display the dialog of the Maintenance submenu.
- 2 Select [Operating Time Setup] in the Classification pane.

The "Operating Time Setup" dialog is displayed in the Edit/Result pane.

Maintenance

Storage RADAR **Operating Time Setup**

Operating Time of Work Station

Total	8	Hours	Clear
LCD	8	Hours	Clear
LCD FAN	8	Hours	Clear
CCU FAN	8	Hours	Clear
PSU FAN	8	Hours	Clear
UPS	0	Hours	

Setup of UPS

☐ Setup Date (UTC) 2014-01-29 06:10

Replace Time 0 Hours

The operating times of the following installations are displayed.

- LCD
- LCD FAN
- CCU FAN
- PSU FAN
- UPS

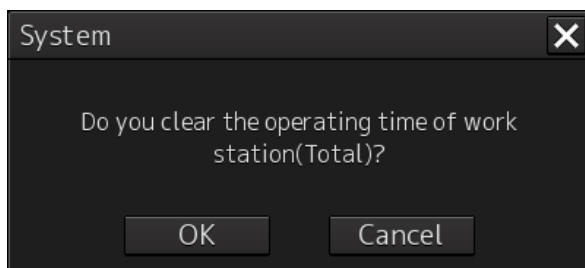
Entering an operating time of the work station

- 1 Click on the [Total] (total time) input box in the [Operating Time of Work Station].
A numeric input keyboard is displayed.
- 2 Enter a total operating time of the display unit (0 to 999999 hours).

Clearing the time that is currently displayed

- 1 Click on the [Clear] button on the right side of the operating time display.

The dialog for verifying execution of clearing is displayed.



- 2 To clear the time, click on the [OK] button. To cancel the clearing, click on the [Cancel] button.

Changing UPS installation date and time

- 1 Click on the calendar button.

A calendar is displayed.

- 2 Set a year and a month by using the year selection spin button and the month selection spin button.

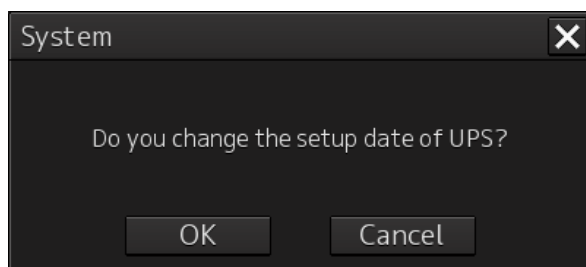
- 3 Click on the date to be set from the date selection box.

- 4 Set a time by clicking on the time spin button of the time picker.

- 5 Click on the [OK] button.

The setting is completed and the calendar is closed.

A dialog for confirming the change of the installation date and time is displayed.



- 6 To change the installation date and time, click on the [OK] button. To cancel the change, click on the [Cancel] button.

The UPS installation date and time is displayed in [Setup Date (UTC)].

- 7 Select the [Setup Date (UTC)] (installation date and time) check box in the [Setup of UPS] section.

Changing the UPS replacement time

Normally, it is not necessary to change the UPS replacement time. As the exception, when the UPS of a different replacement time is used, input of the replacement time is necessary. An alert can be generated at an appropriate timing when the UPS replacement time is reached.

1 To change the UPS replacement time, click on the [Replace Time] input box.

A numeric value input keyboard is displayed.

2 Input a replacement time (0-999999 Hours).

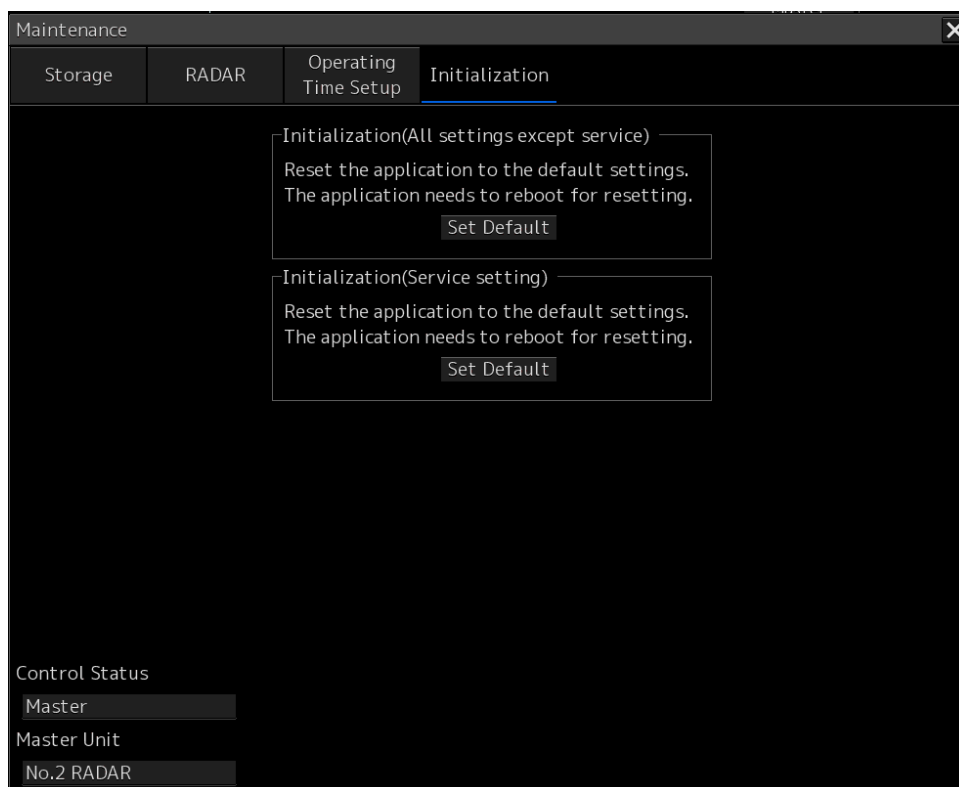
4.41 Initialization [ALL]

The "Initialization" dialog can be used to return (initialize) the menu setting to the factory delivery state.

Displaying the "Initialization" dialog

- 1 Display the dialog of the Maintenance submenu.
- 2 Select [Initialization] in the classification pane.

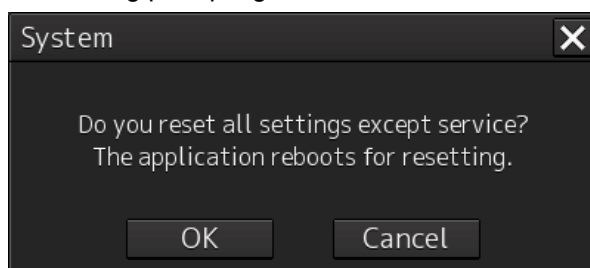
The "Initialization" dialog is displayed in the Edit/Result pane.



Initializing the settings other than the Service menu

- 1 Click on [Set Default] (resetting to the default setting) of [Initialization (All settings except service)].

The dialog prompting confirmation for execution of initialization is displayed.



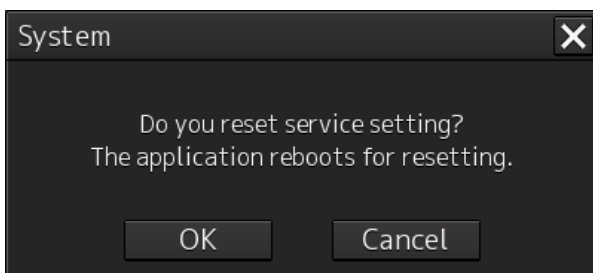
- 2 To execute initialization, click on the [OK] button. To cancel initialization, click on the [Cancel] or [x] button to close the dialog.

When the [OK] button is clicked on, the settings other than the Service menu are initialized and the equipment restarts.

Initializing the setting of the Service menu

- 1 Click on the [Set Default] (reset to the default setting) button of [Initialization (Service setting)].

The dialog for promoting confirmation for execution of initialization is displayed.



- 2 To execute initialization, click on the [OK] button. To cancel initialization, click on the [Cancel] or [x] button to close the dialog.

When the [OK] button is clicked on, the setting of the Service menu is initialized and the equipment restarts.

Memo

When the Control Status indicates Slave, the [Set Default] button of [Initialization (Service setting)] can not be clicked on.

4.42 Backup of Data [ALL]

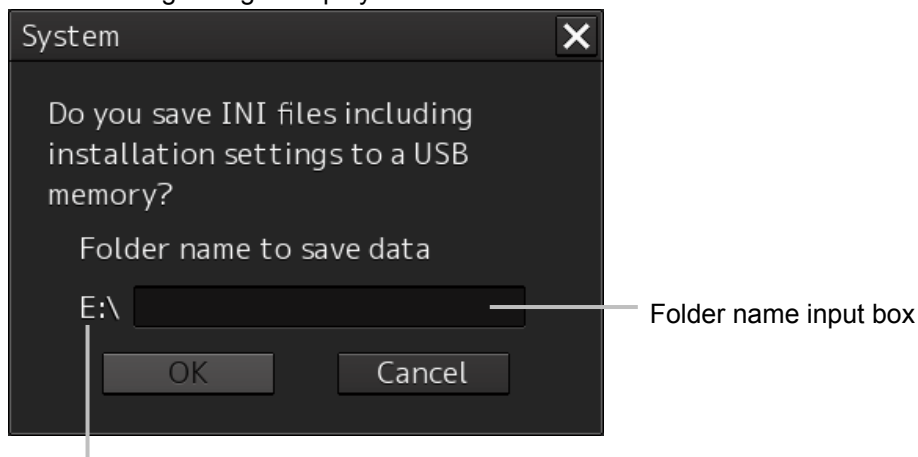
After completing installation, create a backup version (save) of the setting status in USB memory as the "INI" folder.

Use the backup data that is created in the INI folder as the attached reference material of the construction report.

Creating backup data

- 1 Enter 1111 in "Password" of the task menu.

The following dialog is displayed.



The drive of the first USB memory that is detected is displayed.

- 2 Click on the folder name input box.

A character input software keyboard is displayed.

- 3 Enter a name of the folder under which the INI folder is to be saved (up to 64 characters).

In a folder name input box, "unit number_YYYYMMDDHHMMSS" (UTC) is displayed in the state of the first stage.

Note

Do not enter any blank space in the folder name.

- 4 Click on the [OK] button.

The folder under the name that is specified in Step 3 is created in the USB memory and the INI folder is saved in that folder.

To cancel the backup operation of the INI folder, click on the [Cancel] button or the [X] button.

Case where the USB memory contains a folder of the same name

When the [OK] button is clicked on, a dialog is displayed prompting confirmation of overwriting the data. Specify whether the data is to be overwritten or the operation is to be cancelled and another folder name is to be specified.

Case where backup cannot be executed

In any of the following cases, the [OK] button is disabled, thereby disabling backup operation.

- The USB memory cannot be recognized.
- A folder name has not been input in the folder name input box.
- An invalid folder name (for example: containing blank space) is input in the folder name input box.

4.43 List of Common Setting Items [ALL]

Menu		Item	Remarks
Installation	System Configuration	Subsystem Installation	Excluding Own Task Station.
		CCRP	
		Serial Port	Excluding Serial Port of CCU.
		Contact	Excluding Contact of CCU.
		A/D	
		Network	Excluding IP address setting of own task station
		Redundancy	
	Ship's Parameter	Ship General	

4.44 Password List [ALL]

No.	Dialog	Password	Action
1	Menu-Maintenance-System Information-[Software] tab	0000	Displays the detailed software version for service engineers.
2	Menu-Code input	9999	Returns to the task menu.
3	Menu-Code input	0	Displays the service menu for users.
4	Menu-Code input	0009	Displays the service menu for service engineers.
5	Task menu-Code Input	9380	Opens the license import dialog.
6	Task menu-Code Input	1111	Opens the dialog for backing up the INI folder.
7	Task menu-Code Input	0913	Start Internet Explorer.
8	Task menu-Code Input	5254	Update the ini file on the Conning screen. Open the folder selection dialog and import the ini file in the folder and update the file.