

Appendix B Alert List

When an alert occurs, alert information is displayed in the alert notification area.



The numbers displayed in the buttons indicate the number of such alerts that have occurred.

Memo

The alert button of a category that has not occurred will not be displayed.

The display colors of alert messages are defined as follows according to the type and seriousness of alerts.

Alert Type	Alert Class (Seriousness)	Display Color	Alert Display Status	Alert Sound
Alarms (An alert indicating a state asking sailors to pay immediate attention and take immediate action.)	Alarms	Red	Before alarm acknowledgement: Blinking After alarm acknowledgement: Lighting	Present (repetitive)
Warnings (An alert indicating that the state has changed, which although is not immediately dangerous, but may become so in the near future if no action is taken. Warnings are alerts displayed for preventing possible future hazardous states.)	Warnings	Orange	Before alarm acknowledgement: Blinking After alarm acknowledgement: Lighting	Present (once)
Cautions (Although these are neither alarms nor warnings, these alerts indicate that it is necessary to pay more than normal attention to cautions, statuses, or to the supplied information.)	Cautions	Yellow	Lighting	No sound
No Alarm	-	Green	-	-

The list of alert messages by alert type is shown below.

Each item in the “Subject” column indicates the following.

TCS: Alert relating to the TCS function

HCS: Alert relating to the HCS function

INS: Alert relating to the INS function

ECDIS: Alert relating to the ECDIS function

RADAR/AIS: Alert relating to the RADAR/AIS function

S-JOY: Alert relating to the S-JOY function

Control unit: Alert relating to the control unit

Antenna: Alert relating the antenna

Display unit: Alert relating to the display unit

Operation unit: Alert relating to the operation unit

Power supply: Alert relating to power supply

AIS: Alert relating to the AIS function

Maintenance: Alert relating to maintenance

Others: Other alert

B.1 Alarms

Message	Subject	Explanation
ACCA	TCS	Reached Wheel Over Line alert (Displayed by TCS Ed.1.)
ACCA(Back-up Navigator Call)	TCS	Arrival at Wheel Over Line Alarm was not acknowledged for 30 seconds. (Displayed by TCS Ed.1.)
Actual course change	TCS	Arrival at Wheel Over Line Alarm was not acknowledged for 30 seconds. If the alarm is not acknowledged for an extra period of 30 seconds, Back-up Navigator Call is transferred to BNWAS. (Displayed by TCS Ed.2.)
Break Off WPT	ECDIS	WP off course
Change Autopilot steering mode	TCS	Manual steering prompt alert (Displayed by TCS Ed.1.)
Change Autopilot steering mode	TCS	Manual steering prompt alert (Displayed by TCS Ed.2.)
Collision avoidance function lost	INS	Loss of the collision avoidance function
CPA/TCPA(AIS)	RADAR/AIS	CPA/TCPA alarm
CPA/TCPA(TT)	RADAR/AIS	CPA/TCPA alarm
Cross Track	ECDIS	The off-track distance from the planned route exceeded the limit.
Crossing Safety Contour	ECDIS	Crossing the safety contour
Depth below keel	INS	Alarm on the depth below the keel

Message	Subject	Explanation
Early course change	TCS	An early course change alarm was not acknowledged for 30s seconds. If the alarm is not acknowledge for an extra period of 30 seconds, Back-up Navigator Call is transferred to BNWAS. (Displayed by TCS Ed.2.)
End Of Track	TCS	An End Of Track notice was not acknowledged for 30 seconds. If the notice is not acknowledge for an extra period of 30 seconds, Back-up Navigator Call is transferred to BNWAS. (Displayed by TCS Ed.2.)
End Of Track	TCS	End of Track notice 1 to 5 minutes before the arrival of the last WP (Displayed by TCS Ed.1.)
End Of Track (Back-up Navigator Call)	TCS	An End Of Track notice was not acknowledged for a period of 30 seconds. (Displayed by TCS Ed.1.)
Heading(Sensor Failure)	TCS	Heading sensor failure (Displayed by TCS Ed.1.)
Heading(Sensor Failure)	TCS	Heading sensor failure If the failure is not acknowledge for a period of 30 seconds, Back-up Navigator Call is transferred to BNWAS. (Displayed by TCS Ed.2.)
Heading(Sensor Failure, Back-up Navigator Call)	TCS	A Heading sensor failure was not acknowledged for a period of 30 seconds. (Displayed by TCS Ed.1.)
POSN1(Sensor Failure)	TCS	POSN1 sensor failure (Displayed by TCS Ed.1.)
POSN1(Sensor Failure)	TCS	POSN1 sensor failure If the failure is not acknowledged for a period of 30 seconds, Back-up Navigator Call is transferred to BNWAS. (Displayed by TCS Ed.2.)
POSN1(Sensor Failure, Back-up Navigator Call)	TCS	A POSN1 sensor failure was not acknowledged for a period of 30 seconds. (Displayed by TCS Ed.1.)
Speed(Sensor Failure)	TCS	Speed sensor failure (Displayed by TCS Ed.1.)
Speed(Sensor Failure)	TCS	Speed sensor failure If the failure is not acknowledged for a period of 30 seconds, Back-up Navigator Call is transferred to BNWAS. (Displayed by TCS Ed.2.)
Speed(Sensor Failure, Back-up Navigator Call)	TCS	A speed sensor failure was not acknowledged for a period of 30 seconds. (Displayed by TCS Ed.1.)
Track Control Stopped	TCS	TCS stopped (Displayed by TCS Ed.1.)

Message	Subject	Explanation
Track Control Stopped	TCS	TCS Stop was not acknowledged for a period of 30 seconds. If the effect is not acknowledged for an extra period of 30 seconds, Back-up Navigator Call is transferred to BNWAS. (Displayed by TCS Ed.2.)
Track Control Stopped(Back-up Navigator Call)	TCS	TCS Stop was not acknowledged for a period of 30 seconds. (Displayed by TCS Ed.1.)
Track Control Stopped (Reboot)	TCS	TSC stopped since MFD restarted during auto sailing (Displayed by TCS Ed.1.)

B.2 Warnings

Message	Subject	Explanation
ACCI	TCS	Waypoint notification 30 seconds prior to the arrival at WOL (Displayed by TCS Ed.1.)
Actual course change	TCS	Arrival at Wheel Over Line alarm 30 seconds prior to the arrival at WOL (Displayed by TCS Ed.2.)
AIS 95% Capacity	RADAR/AIS	Exceeded 95% of the maximum number of AIS targets
AIS ACT 95% Capacity	RADAR/AIS	Exceeded 95% of the maximum number of AIS activation targets
AIS ACT Max	RADAR/AIS	The number of activated AIS targets has reached the maximum number of active targets.
AIS(Communication failed, Direct)	INS	AIS communication failure on serial port of CCU
AIS(Communication failed, Main LAN)	INS	AIS communication failure on LAN1 (Main network)
AIS(Communication failed, Sub LAN)	INS	AIS communication failure on LAN2 (Sub network)
AIS(invalid)	INS	AIS data validity error
AIS(unavailable)	INS	AIS data not received yet
AIS Max Target	RADAR/AIS	The AIS target count exceeded the maximum target display count
ALC #n(Communication failed, Main LAN)	INS	ALC#n communication failure on LAN1 (Main network)
ALC #n(Communication failed, Sub LAN)	INS	ALC#n communication failure on LAN2 (Sub network)
Anemometer(Communication failed, Main LAN)	INS	Anemometer communication failure (wind direction/wind speed) on LAN1(Main network)
ARCS Security failed	ECDIS	[ARCS] Alert related to ARCS security
Arrived at WOL	ECDIS	Approach to the Wheel Over Line
Arrived at WPT	ECDIS	Arrived at a WPT
Autopilot(Invalid)	INS	Autopilot data validity error
Autopilot(Not Plausible)	INS	Autopilot data plausibility error
Autopilot(Unavailable)	INS	Autopilot data not received yet
Autopilot(Communication Failed, Main LAN)	INS	Autopilot communication failure on LAN1(Main network)
Autopilot malfunction	S-JOY	AP equipment malfunction
Blizzard#n-DSP#m(Communication error)	Control section	Communication error with the DSP (Blizzard#n - DSP#m)

Message	Subject	Explanation
Blizzard#n DSP#m (Load Failed)	Control section	The transfer of the DSP program did not succeed. (Blizzard #n - DSP#m)
Blizzard#n High TEMP	Control section	Blizzard#n temperature rise
Blizzard(Process Error)	Radar antenna	Signal process error within Blizzard
Blizzard(SYNC Signal Lost)	Radar antenna	Interrupt signal (without external synchronous signal)
BNWAS(Communication Failed, Main LAN)	INS	BNWAS communication failure on LAN1 (Main network)
CCU Fan	Control section	Drop in CCU fan revolution per speed
Change Autopilot steering mode	TCS	Manual steering prompt alert (Displayed by TCS Ed.2.)
Chart database failure	ECDIS	Chart database corrupted
Chart Shift	ECDIS	ARCS chart shift
Chart Shift to WGS84	ECDIS	Chart shift to WGS84 in ARCS chart
CIF(Communication error)	Control section	Communication error between the CPU and the Companion MPU
CMP RelaySoftware(Communication error)	Control section	Communication error between the Companion MPU relay software and the MFD
COG/SOG(doubtful)	INS	Integrity verification of COG/SOG data is doubtful
COG/SOG(failed)	INS	Integrity verification of COG/SOG data failed
COG/SOG(invalid)	INS	COG/SOG data validity error
COG/SOG(not plausible)	INS	COG/SOG data plausibility error
COG/SOG(unavailable)	INS	COG/SOG data not received yet
Course difference(heading deviates from track course)	TCS	Course difference (ship's heading deviates from track course) (Displayed by TCS Ed.1/Ed.2.)
CPU Core#n Clock down	Control section	CPU Core#n clock down
CPU Core#n High TEMP	Control section	CPU Core#n temperature rise
CPU High TEMP	Control section	(RPS) CPU temperature rise
Crossing a danger(Buoy/Light)	ECDIS	Crossing a buoy/light
Crossing a danger(dangerous symbol)	ECDIS	Crossing a danger symbol
Crossing a danger(obstruction)	ECDIS	Crossing an obstacle
Crossing a danger(spot sounding)	ECDIS	Crossing a dangerous water depth

Message	Subject	Explanation
Crossing a danger(under water rock)	ECDIS	Crossing underwater rock
Crossing a danger(wreck)	ECDIS	Crossing a wreck
Crossing anchorage area	ECDIS	Crossing an anchorage area
Crossing anchorage prohibited	ECDIS	Crossing an anchorage prohibited area
Crossing archipelagic sea lane	ECDIS	Crossing an archipelagic sea lane
Crossing cable area	ECDIS	Crossing an underwater cable area
Crossing cargo transshipment area	ECDIS	Crossing a cargo transshipment area
Crossing caution area	ECDIS	Crossing a caution area
Crossing channel	ECDIS	Crossing a channel
Crossing dangerous area	ECDIS	Crossing a dangerous area
Crossing dangerous line	ECDIS	Crossing a dangerous line
Crossing deeper water route	ECDIS	Deeper water route (crossing a deeper water route)
Crossing depth area	ECDIS	Crossing an area shallower than the safe water area
Crossing dredge area	ECDIS	Crossing a dredge area
Crossing dumping ground	ECDIS	Crossing a dumping ground
Crossing fairway	ECDIS	Crossing a fairway
Crossing fishing ground	ECDIS	Crossing a fishing ground
Crossing fishing prohibited	ECDIS	Crossing a fishing prohibited area
Crossing ice area	ECDIS	Crossing an ice area
Crossing Incineration area	ECDIS	Crossing an incineration area
Crossing inshore traffic zone	ECDIS	Crossing an inshore traffic zone
Crossing marine farm/aquaculture	ECDIS	Crossing a marine farm/aquaculture
Crossing military practice area	ECDIS	Crossing a military practice area
Crossing offshore production area	ECDIS	Crossing an offshore production area
Crossing pipeline area	ECDIS	Crossing a pipeline area
Crossing recommended traffic lane	ECDIS	Crossing a recommended traffic lane
Crossing restricted area	ECDIS	Crossing a restricted area
Crossing seaplane landing area	ECDIS	Crossing a seaplane landing area
Crossing sensitive sea area	ECDIS	Crossing a sensitive area
Crossing specially protected area	ECDIS	Crossing a specially protected area
Crossing spoil ground	ECDIS	Crossing a spoil ground
Crossing submarine transit area	ECDIS	Crossing a submarine transit area
Crossing traffic Crossing	ECDIS	Crossing a traffic crossing area
Crossing traffic precautionary	ECDIS	Crossing a traffic precautionary area
Crossing traffic roundabout	ECDIS	Crossing a traffic roundabout

Message	Subject	Explanation
Crossing traffic separation zone	ECDIS	Crossing a traffic separation zone
Crossing two way traffic	ECDIS	Crossing a two-way traffic route
Current(invalid)	INS	Current data validity error
Current(not plausible)	INS	Current data plausibility error
Current(unavailable)	INS	Current data not received yet
Current (Communication failed, Main LAN)	INS	Current communication failure on LAN1 (Main network)
Data Disk(Failed)	Control section	Disk #n failed and cannot be accessed
Data Disk (Not Connected)	Control section	Disk #n not acknowledged yet
DATUM(invalid)	INS	DTM sentence validity error
DATUM(not plausible)	INS	DTM sentence plausibility error
DATUM(unavailable)	INS	DTM sentence not received yet
Depth(doubtful)	INS	Integrity verification of depth data is doubtful
Depth(failed)	INS	Integrity verification of depth data failed
Depth(invalid)	INS	Depth data validity error
Depth(not plausible)	INS	Depth data plausibility error
Depth(unavailable)	INS	Depth data not received yet
DSC(Communication failed, Main LAN)	INS	DSC (Digital Selective Calling) communication failure on LAN1 (Main network)
DSP(Heading Data)	RADAR/AIS	Heading data error (heading error received by the Companion MPU)
DSP(Sweep Data)	RADAR/AIS	Missing header in sweep data
Early course change	TCS	Early course change alarm 3-6 minutes prior to the arrival at WOL (Displayed by TCS Ed.2.)
ECCI	TCS	Early waypoint notification 1-5 minutes prior to the arrival at WOL (Displayed by TCS Ed.1.)
Echo Sounder(Communication failed, Main LAN)	INS	Echo sounder communication failure on LAN1 (Main network)
Echo Sounder(Communication failed, Sub LAN)	INS	Echo sounder communication failure on LAN2 (Sub network)
Emergency Mode	Others	The system is running in the Emergency Mode activated when both disks have failed

Message	Subject	Explanation
End Of Track	TCS	Final WP notice 3-6 minutes prior to the arrival at final WP (Displayed by TCS Ed.2.)
e-Token(Communication error)	Control section	Communication error between the CPU and e-Token
External TT#n(invalid)	INS	TT#n data validity error
External TT#n(unavailable)	INS	TT#n data not received yet
GIF(Communication error)	Control section	Communication error between the Companion MPU and the Gyro IF (USB connection)
GIF-RIF(Open)	Control section	The open state was detected between the GIF and the RIF
GIF-SLC(Open)	Control section	The open state was detected between the GIF and the SLC
GPS #n(Communication failed, Direct)	INS	GPS#n communication failure in the CCU serial port
GPS #n(Communication failed, Main LAN)	INS	GPS #n communication failure in LAN1 (Main network)
GPS #n(Communication failed, Sub LAN)	INS	GPS #n communication failure in LAN2 (Sub network)
GPS Compass(Communication failed, Direct)	INS	GPS Compass communication failure on serial port of CCU
GPS Compass(Communication failed, Main LAN)	INS	GPS Compass communication failure on LAN1 (Main network)
GPS Compass(Communication failed, Sub LAN)	INS	GPS Compass communication failure on LAN2 (Sub network)
Gyro #n(Communication Failed, Direct)	INS	Gyro communication failure on the CCU serial port
Gyro #n(Communication Failed, GIF-Direct)	INS	Gyro IF communication failure on the CCU serial port
Gyro #n(Communication Failed, GIF-Main LAN)	INS	Gyro IF communication failure on LAN1 (Main network)
Gyro #n(Communication Failed, GIF-Sub LAN)	INS	Gyro IF communication failure on LAN2 (Sub network)
Gyro #n(Communication Failed, Main LAN)	INS	Gyro communication failure on LAN1 (main network)
Gyro #n(Communication Failed, Sub LAN)	INS	Gyro communication failure on LAN2 (sub network)
HASP(Communication error)	Control section	Communication error between the CPU and the HASP
Heading(invalid)	INS	Heading validity error
Heading(not plausible)	INS	Heading plausibility error
Heading(unavailable)	INS	Heading data not received yet

Message	Subject	Explanation
Heading(failed)	INS	Integrity verification of heading data failed
IAS(Communication Failed, Main LAN)	INS	IAS communication failure on LAN1 (Main network)
IAS(Communication Failed, Sub LAN)	INS	IAS communication failure on LAN2 (sub line)
ISW(Communication error)	RADAR/AIS	Communication error between the Companion MPU and the ISW
LAN(TCS-ECDIS)(Communication error)	S-JOY	Communication error with ECDIS with TCS authorization
LAT(Out Of Bounds)	ECDIS	Exceeded the system's operating latitude range (out of bounds)
LCD Fan#n(LCD)	Display Unit	The LCD fan#n stopped
LCD High TEMP	Display Unit	LCD temperature rise
Loading Different Datum Chart	ECDIS	Loading a different datum chart
Loading Unknown Datum Chart	ECDIS	Loading [ARCS] unknown datum chart
Log #n(Communication failed, Direct)	INS	Log communication failure on the CCU serial port
Log #n (Communication failed, GIF-Direct)	INS	Failure of log communication via Gyro IF on the CCU serial port
Log #n (Communication failed, GIF-Main LAN)	INS	Failure of log communication via Gyro IF on LAN1 (main network)
Log #n (Communication failed, GIF-Sub LAN)	INS	Failure of log communication via Gyro IF on LAN2 (sub network)
Log #n (Communication failed, Main LAN)	INS	Log communication failure on LAN1 (main network)
Log #n (Communication failed, Sub LAN)	INS	Log communication failure on LAN2 (sub network)
Lost(AIS)	RADAR/AIS	AIS target lost
Lost(TT)	RADAR/AIS	TT target lost
Low Speed	TCS	Low speed alarm (Displayed by TCS Ed.1.)
NAVTEX(Communication failed, Main LAN)	INS	NAVTEX communication failure on LAN1 (main network)
New Target(AIS)	RADAR/AIS	AIS is in the initial acquisition state
New Target(TT)	RADAR/AIS	TT is in the initial acquisition state
No.#n Conning(Communication failed, Main LAN)	INS	No.#n Conning communication failure on LAN1 (main network)
No.#n ECDIS(Communication failed, Main LAN)	INS	No.#n ECDIS communication failure on LAN1 (Main network)
No.#n Radar(Communication failed, Main LAN)	INS	No.#n Radar communication failure on LAN1 (Main network)

Message	Subject	Explanation
No.1#nRemote-Conning(Communication failed, Main LAN)	INS	No.#n Remote-Conning communication failure on LAN1 (main network)
No.#n RPS(Communication failed, Main LAN)	INS	No.#n RPS communication failure in LAN1 (main network)
No. #n Wing-Conning(Communication failed, Main LAN)	INS	No.#n Wing-Conning communication failure on LAN1 (main network)
OPA-OPB(Communication error)	Operation section	OPA-OPB open detection
OPU-Serial(Communication error)	Control section	Communication error between the Companion MPU and the operation unit (serial)
OPU-USB(Communication error)	Control section	Communication error between the Companion MPU and the operation unit (USB connection)
Position1(NON-WGS84)	ECDIS	Primary datum failure
Position2(NON-WGS84)	ECDIS	Secondary datum failure
Position monitor	TCS	Monitoring of the position (Displayed by TCS Ed.1/Ed2.)
Position(failed)	INS	Integrity verification of Position data failed
Position(GPS#n) Not Differential	INS	GPS#n is not DGPS
Position(invalid)	INS	Position validity error
Position(not plausible)	INS	Position plausibility error
Position(unavailable)	INS	Position not received yet
Power(AC Low Voltage)	Power supply	AC Power supply OFF
Power(DC Low Voltage)	Power supply	DC Power supply voltage low
Power Fail	Control section	3.3V/2.5V/1.5V/1.2V and other receiving power dropped or stopped
Power(Fan)	Power supply	The fan in the power supply unit is broken
Power(TXRX, Failed)	Power supply	Radar antenna power supply failure operation
PROC(AZI)	RADAR/AIS	Azimuth signal abnormality (signal processor)
PROC(HL)	RADAR/AIS	Heading line signal abnormality (signal processor)
PROC(Interrupt 1)	RADAR/AIS	Stern interrupt abnormality in the signal processor
PROC(Trigger)	RADAR/AIS	Trigger signal abnormality (signal processor)
PROC(Video)	RADAR/AIS	Radar video signal abnormality (signal processor)

Message	Subject	Explanation
RADAR PROC(Data)	RADAR/AIS	RADAR PROC or RADAR Draw control failure
RIF(Communication error)	Control section	Communication error between the Companion MPU and the RIF
ROT(invalid)	INS	ROT data validity error
ROT(unavailable)	INS	ROT data not received yet
Rudder(Communication failed, Main LAN)	INS	Rudder communication failure on LAN1 (Main network)
S-J I/O <-> AP(Communication error)	S-JOY	Communication error between S-J I/O and AP
S-J I/O(Unit failure)	S-JOY	S-J I/O Unit failure
S-J I/O Time Out	S-JOY	Communication error between S-J I/O and the display unit
S-JOY <-> S-J I/O(Communication error)	S-JOY	Communication error between S-JOY and S-J I/O
S-JOY(Unit failure)	S-JOY	S-JOY unit failure
Safety contour monitoring stopped	ECDIS	Safety contour monitoring confirmation stopped
SLC1-#n(Communication failed, Main LAN)	INS	SLC1-#n Communication failure on LAN1 (Main network)
SLC2-#n(Communication failed, Sub LAN)	INS	SLC2-#n Communication failure on LAN2 (Sub network)
STW Speed(invalid)	INS	STW validity error
STW Speed(not plausible)	INS	STW plausibility error
STW Speed(unavailable)	INS	STW data not received yet
TEMP(invalid)	INS	Water temperature data validity error
TEMP(unavailable)	INS	Water temperature data not received yet
Track Control Stopped	TCS	TCS stopped (Displayed by TCS Ed.2.)
TT 95% Capacity	RADAR/AIS	Exceeded 95% of the maximum number of TT targets
TT: Out of Range	RADAR/AIS	TT exceeded 32NM
TT: REF TT(Lost target)	RADAR/AIS	TT reference target lost
TT: Max Target	RADAR/AIS	The maximum number of TT targets is being acquired
TXRX(AZI)	Radar antenna	Azimuth signal abnormality (transceiver section)
TXRX(Communication error)	RADAR/AIS	Communication error between Companion MPU and radar antenna
TXRX(DRV AC LKV)	Radar antenna	Drive section failure (insufficient AC power supply)

Message	Subject	Explanation
TXRX(DRV AC OVV)	Radar antenna	Drive section failure (AC over-voltage)
TXRX(DRV COM)	Radar antenna	Drive section failure (communication error)
TXRX(DRV CPU1)	Radar antenna	Drive section failure (motor driver CPU1 failure)
TXRX(DRV Hall Sensor)	Radar antenna	Drive section failure (hall sensor failure)
TXRX(DRV High Rotate)	Radar antenna	Drive section failure (high rotation speed error)
TXRX(DRV IPM OVH)	Radar antenna	Drive section failure (IPM overheating)
TXRX(DRV Low Rotate)	Radar antenna	Drive section failure (low rotation speed error)
TXRX(DRV MOT OVH)	Radar antenna	Drive section failure (motor overheating)
TXRX(DRV OVC)	Radar antenna	Drive section failure (over-current)
TXRX(DRV Over Rotate)	Radar antenna	Drive section failure (over-rotation error)
TXRX(DRV VBUS LKV)	Radar antenna	Drive section failure (insufficient VBUS voltage)
TXRX(DRV VBUS OVV)	Radar antenna	Drive section failure (VBUS over-voltage)
TXRX(Fan #n)	Radar antenna	Radar antenna Fan #n abnormality (This warning is not issued when a solid state antenna is connected.)
TXRX(Heater)	Radar antenna	Magnetron heater over-voltage error (Although radar transmission can be continued while this warning is issued, it is recommended to restrict the use of the equipment under an emergency situation only since the equipment is damaged.)
TXRX(High Temperature)	Radar antenna	Radar antenna (internal temperature failure)
TXRX(HL)	Radar antenna	Ship's heading signal abnormality (transceiver section)
TXRX(IF PLL)	Radar antenna	PLL lock error inside of DAC for IF
TXRX(LO PLL)	Radar antenna	Radar antenna LO frequency error
TXRX(Magnetron Current)	Radar antenna	Prevention of modulation circuit damage by damaged magnetron
TXRX(MHV)	Radar antenna	Modulation voltage error

Message	Subject	Explanation
TXRX(Motor Current)	Radar antenna	Motor over-current error
TXRX(Option)	Radar antenna	Radar antenna Option module error
TXRX(PROC)	Radar antenna	Radar antenna Signal processing circuit error
TXRX(PS)	Radar antenna	Radar antenna Power supply circuit error
TXRX(SSW Off)	Radar antenna	Safety switch OFF
TXRX(Reverse)	Radar antenna	Radar antenna rotating in reverse
TXRX(Trigger)	Radar antenna	Trigger signal abnormality (transmission/reception section)
TXRX(Video)	Radar antenna	Radar video signal abnormality (transmission/reception section)
VDR(Delivery Failed)	RADAR/AIS	The delivery of capture images for the VDR failed continuously for 1 min (i.e., continuously 4 times)
VDR(Unexpected Data)	RADAR/AIS	Abnormality when the connected socket received some signal at image distribution to VDR
VDR (Communication failed, Main LAN)	INS	VDR communication failure on LAN1 (Main network)
VDR(Communication failed, Sub LAN)	INS	VDR communication failure on LAN2 (sub network)
Water Thermometers communication failed(LAN1)	INS	Water TEMP communication failure on LAN1 (Sub network)

The AIS alerts received from external sensors are as shown below.

For the AIS alerts received from external sensors, alert messages are suffixed by (External).

Example: Antenna VSWR exceeds limit (External)

Message	Subject	Explanation	Alert ID
Antenna VSWR exceeds limit	AIS	Antenna output error	002
Data Flash memory err	AIS	Transponder data storage circuit error	063
external EPFS lost	AIS	Abnormality in external EPFS connection	025
general failure	AIS	General error	006
Heading lost/invalid	AIS	Ship's heading data has not been input or is invalid.	032
MKD connection lost	AIS	Abnormality in the connection between the transponder and the controller	008
mkd connection lost	AIS	No response from the transponder (detected in the display)	064
no sensor position in use	AIS	Internal GPS data has not been input or is invalid.	026
no valid COG information	AIS	COG data has not been input or is invalid.	030
no valid ROT information	AIS	ROT data has not been input or is invalid.	035
no valid SOG information	AIS	SOG data has not been input or is invalid.	029
Not Transmitting Tx malfunction	AIS	Malfunction at or during transmission	001
Pa current error	AIS	Error in the current during transmission	054
Pa temp error	AIS	Abnormal temperature rise during transmission	055
Power supply error	AIS	Error in power supply voltage	053
Program Flash memory err	AIS	Control circuit error of the transponder	062
Rx channel 1 malfunction	AIS	Malfunction of reception channel 1	003
Rx channel 2 malfunction	AIS	Malfunction of reception channel 2	004
Rx channel 70 malfunction	AIS	Malfunction of reception channel 70	005
SSD mismatch	AIS	Mismatch in static information (between the display and the transponder)	065
Tx pll unlock	AIS	Error in the synthesizer circuit for transmission	060
Tx power down	AIS	Transmit by reducing output power due to error	051
Tx power supply error	AIS	Error in power supply voltage during transmission	052
Tx power too high	AIS	Power is higher than the specified transmission power.	059
Tx power too low	AIS	Power is lower than the specified transmission power.	056
Tx stop interrupt	AIS	Transmission is forcibly stopped by the transmission monitoring circuit.	058
Vr error	AIS	Transmission system output error	057

B.3 Cautions

Message	Subject	Explanation
AIS(invalid)	INS	AIS data validity error
AIS(unavailable)	INS	AIS data not received yet
AMS #n(Alert Communication Failed, Main LAN)	INS	AMS#n communication failure on LAN1 (main network)
AMS #n(Alert Communication Failed, Sub LAN)	INS	AMS#n communication failure on LAN1 (sub network)
Autopilot(invalid)	INS	Autopilot data validity error
Autopilot(unavailable)	INS	Autopilot data not received yet
AZ area : Different thresholds entered	INS	Threshold value was entered, but the AZ area is different.
Chart licence expired(SSE 25)	ECDIS	The chart license has expired
Chart licence will expire soon(SSE 20)	ECDIS	The chart license will expire within 30 days
COG/SOG(invalid)	INS	COG/SOG data validity error
COG/SOG(unavailable)	INS	COG/SOG data not received yet
Customized display indication	ECDIS	Display is customized.
DATUM(invalid)	INS	DTM sentence validity error
DATUM(unavailable)	INS	DTM sentence not received yet
Dongle Disable Mode	ECDIS	Operation is performed in the Dongle Disable mode at a USB dongle failure
Depth(invalid)	INS	Water depth data validity error
Depth(unavailable)	INS	Water depth data not received yet
ENC Data Are Available	ECDIS	ENC chart is available
External TT#n(invalid)	INS	TT#n data validity error
External TT#n(unavailable)	INS	TT#n data not received yet
HDOP Exceeded (GPS #n)	INS	GPS #n HDOP increased (deterioration of GPS precision)
Heading(invalid)	INS	Heading data validity error
Heading(unavailable)	INS	HDG data not received yet
Information overscale	ECDIS	When own ship moves to another chart, the chart is expanded to the double scale or more of the chart scale
Larger scale ENC available indication	ECDIS	A detail chart is available.
Life Expectancy FAN(CCU)	Maintenance	CPU FAN approaching its life expectancy
Life Expectancy FAN(Power)	Maintenance	Power FAN approaching its life expectancy
Life Expectancy LCD Backlight	Maintenance	LCD Backlight approaching its life expectancy
Life Expectancy LCD FAN#n	Maintenance	LCD FAN#n approaching its life expectancy

Message	Subject	Explanation
Life Expectancy Magnetron#n	Maintenance	Magnetron#n approaching its life expectancy
Life Expectancy SSD#n	Maintenance	SSD#n approaching its life expectancy
Life Expectancy TXRX#n FAN	Maintenance	Antenna#n fan approaching its life expectancy
Life Expectancy TXRX#n Motor	Maintenance	Antenna#n motor approaching its life expectancy
Life Expectancy UPS	Maintenance	UPS approaching its life expectancy
No ENC Available indication	ECDIS	Scaling factor/sea area chart to be indicated is unavailable in ECDIS
Not up-to-date(Chart)	ECDIS	The chart that is indicated is not the latest chart
Position Shift	ECDIS	When own ship's position is offset
Position(invalid)	INS	Position validity error
Position(not plausible)	INS	Position plausibility error
Position(unavailable)	INS	Position not received yet
ROT(invalid)	INS	ROT data validity error
ROT(unavailable)	INS	ROT data not received yet
RSA(invalid)	INS	RSA data validity error
RSA(unavailable)	INS	RSA data not received yet
Scanner Rotating	RADAR/AIS	The scanner is rotating (waveforms not transmitted yet): ICE CLASS standby
Selected Fix View	ECDIS	When Fix View is selected
STW Speed(invalid)	INS	STW data validity error
STW Speed(unavailable)	INS	STW data not received yet
TEMP(invalid)	INS	Water temperature data validity error
TEMP(unavailable)	INS	Water temperature data not received yet
TIME(invalid)	INS	Time validity error
TIME(unavailable)	INS	Time not received yet
Trial	RADAR/AIS	Trial

B.4 List of Alert Icons

The alert icons displayed in the alert status area are listed below.

No.	Name of alert icon	Functional outline	Alert icon
1	Active – unacknowledged alarm	A flashing red triangle. A symbol of loudspeaker in the middle of the triangle.	
2	Active – silenced alarm	A flashing red triangle. A symbol as in icon number 1 with a prominent diagonal line above it.	
3	Active – acknowledged alarm	A red triangle. An exclamation mark in the middle of the triangle.	
4	Active - responsibility transferred alarm	A red triangle. An arrow pointing towards the right in the middle of the triangle.	
5	Rectified – unacknowledged alarm	A flashing red triangle. A tick mark in the middle of the triangle.	
6	Active - unacknowledged warning	A flashing yellowish orange circle. A symbol of loudspeaker in the middle of the circle.	
7	Active – silenced warning	A flashing yellowish orange circle. A symbol as in icon number 6 with a prominent diagonal line above it.	
8	Active – acknowledged warning	A yellowish orange circle. An exclamation mark in the middle of the circle.	
9	Active - responsibility transferred warning	A yellowish orange circle. An arrow pointing towards the right in the middle of the circle.	
10	Rectified – unacknowledged warning	A flashing yellowish orange circle. A tick mark in the middle of the circle.	
11	Caution	A yellow square. An exclamation mark in the middle of the square.	
a	Aggregation	A plus sign. To be presented together with icons number 1 to 11	
b	Acknowledge not allowed for alarm	A red triangle with a cross in the middle of triangle. To be presented together with icons number 1, 2 and 5.	
c	Acknowledge not allowed for warning	A yellowish orange circle with a cross in the middle of circle. To be presented together with icons number 6, 7 and 10.	

Appendix C Setting the Inter switch

C.1 Overview

C.1.1 Overview

The Inter switch NQE-3141 is equipment that makes it possible to freely select several radar display units provided in the bridge and the several radar antennas with different properties.

Even when the power supply of the display unit has been switched OFF or has become faulty, it is possible to operate the radar antennas from other display units.

When it has become impossible to use the Inter switch, it is possible to carry out operations independently.

The selection can be made up to a maximum of 8 units.

When the radar antenna is switched, the following settings are read out.

Setting	Reference
Rough adjustment tuning	19.2.2 Performing basic adjustments on the radar
Bearing adjustment	
Range adjustment	
Antenna height	19.2.3 Adjusting TXRX (Radar screen only)
TXRX settings	
Performance monitor adjustment	19.2.4 Adjusting a radar performance monitor (Radar screen only)
Sector blank	19.2.5 Setting Sector Blank (Radar screen only)
Radar antenna position	19.3.2 Verifying/Setting CCRP (Consistent Common Reference Point)

The setting of each of coarse adjustment tuning, tuning peak setting, tuning indication level, bearing adjustment, monitor transmission level (performance monitor adjustment), Tune Indicator (TXRX adjustment), and Sector Blank is read from the antenna at switching.

Other settings are read from the indicator that is used.

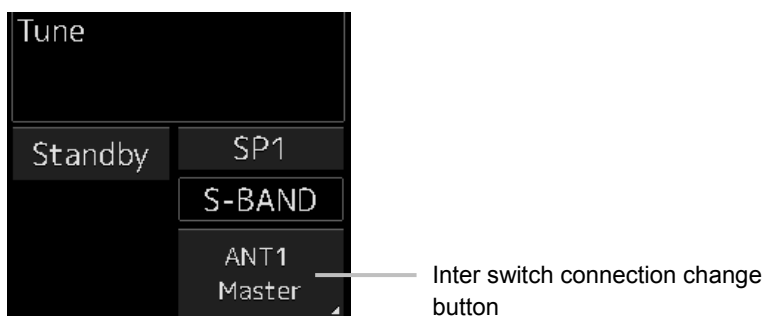
The settings that are saved in the indicator are saved by antenna and the previous setting is read at the connection.

C.1.2 Checking the connection status with the connected radar antennas

The status of connection with the connected radar antenna is displayed by the Inter switch connection change button of the Radar system information.

Note

Always a display unit that becomes the master is necessary for making a slave connection.
When putting a slave display unit in the transmit state, it is necessary to put the master display unit in the transmit state.



The name of the connected radar antenna is displayed in the upper part.
The connection state is displayed in the lower part.

Memo

In simple Inter switch mode, only the connection status is displayed.

Connection state

[Master]: The state in which the display unit can control the radar antenna.

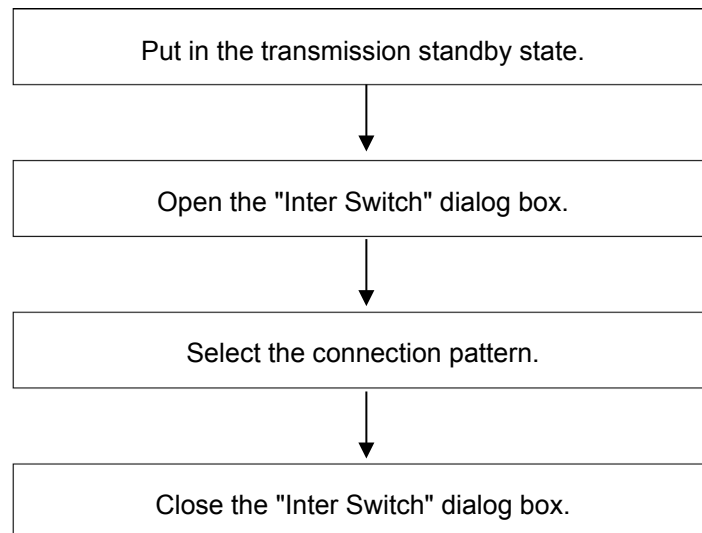
[Slave]: The control of the radar antenna is not possible.

In the [slave] state, transmit/stop, and pulse length change cannot be made. Also, there will be restrictions on the usable range.

C.2 Inter switch Operations

When changing the connection pattern, carry out the operations according to the following flow.

C.2.1 Flow of operations



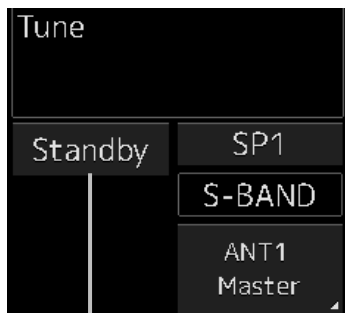
C.2.2 Opening the "Inter Switch" dialog box

Memo

The "Inter Switch" dialog can be displayed in the Transmission Not Ready state or preheat state. When transmission is not ready, "Preheat" or "Standby (disable)" is displayed on the Standby/Transmission change button.

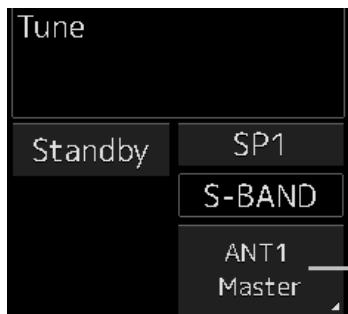
1 In the transmission state, click on the Standby/Transmission change button.

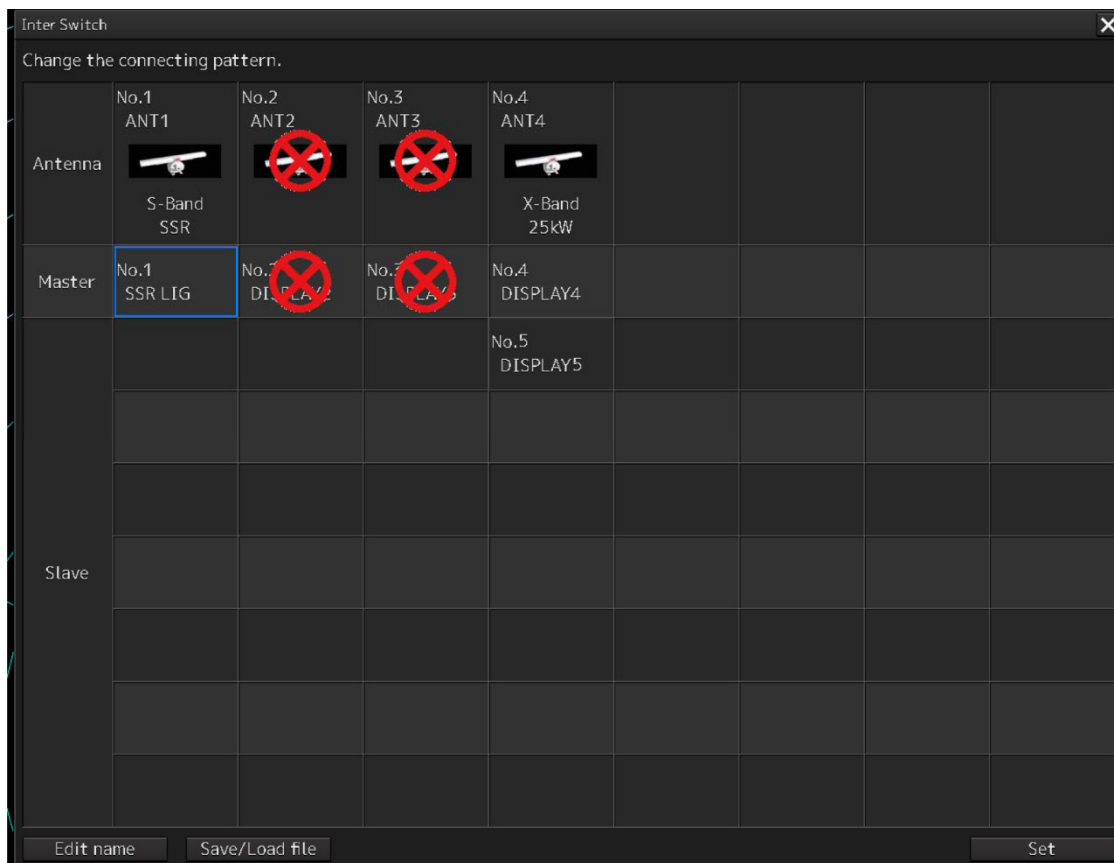
"Standby" is displayed on the button and the equipment is set to Transmission Not Ready state. If the equipment is already in the Transmission Not Ready state, this operation is not required.



Standby/Transmit changeover button

2 Click the Change Inter switch connection button.





The "Inter Switch" dialog box is displayed.

The connection state between the current radar antenna and the display unit obtained by communication with the Inter switch is displayed in the "Inter Switch" dialog box.

C.2.3 Checking the connection pattern

■ When connecting 3 to 4 radar antennae (extension) × 3 to 8 display units

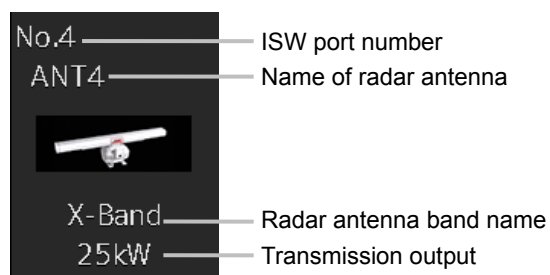


[1] [×] button

Closes the "Inter Switch" dialog box.

[2] Connected radar antenna

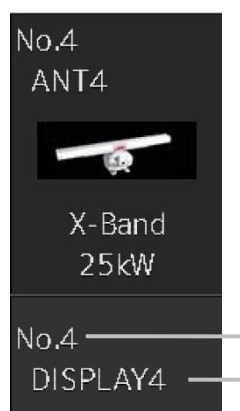
The connected radar antennas are displayed.



[3] Master display unit selection button

Displays radar antenna to which the master display units are respectively connected.

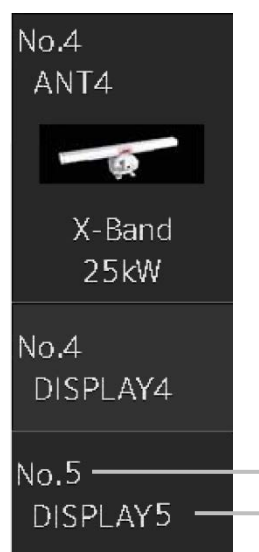
For changing the combinations of master display units and radar antennas, refer to "C.2.4 Changing the connection pattern".



[4] Slave display unit selection button

Displays radar antenna to which the slave display units are respectively connected.

For changing the combinations of slave display units and radar antennas, refer to "C.2.4 Changing the connection pattern".



[5] [Set] button

When this button is clicked, the information of the set connection pattern is transmitted to the Inter switch.

Note

When a master or slave display unit button in which the error notification mark (❗) is being displayed, the [Set] button becomes disabled.

For the details of error notification marks, refer to " C.2.3.1 About equipment defect mark (❌) and error notification mark (❗)".

[6] [Edit name] button

When this button is clicked, a dialog box is displayed for changing the names of the radar antennas and display units.

Regarding the operations in the "Edit name" dialog box, refer to "C.2.5 Changing the name of radar antenna or display unit".

[7] [Save/Load file] button

When this button is clicked, the "Connection pattern file operation" dialog box is displayed.

The current connection pattern can be saved in the file or the connection pattern that has been saved previously can be loaded.

For details of the "Connection pattern file operation" dialog box, refer to "C.2.6 Using the set connection pattern".

C.2.3.1 About equipment defect mark (❌) and error notification mark (⚠)

■ Equipment defect mark

This mark is displayed when the power supply of the radar antenna or the indicator unit is OFF or faulty.

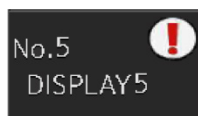
Check the cause and take corrective action.



■ Error notification mark

This mark is displayed when there is some error in the settings of a radar antenna or a display unit.

Check the cause and take corrective action.



Cause	Countermeasure
The master display unit does not exist or is faulty although the slave display unit is connected.	Connect the master display unit.
The master or slave display unit that is connected is not permitted to be connected to a radar antenna.	Check the setting by selecting [Service] - [Installation] - [Settings] - [Inter switch] on the menu and permit the connection to the display unit or connect another display unit whose connection to the radar antenna is permitted.

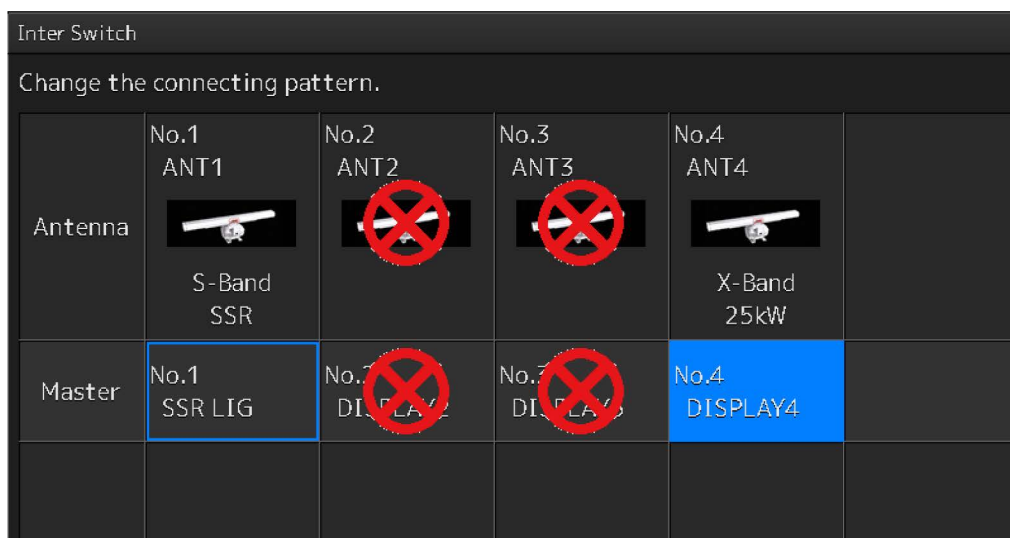
C.2.4 Changing the connection pattern

1 Click the "Change Inter switch connection" button.

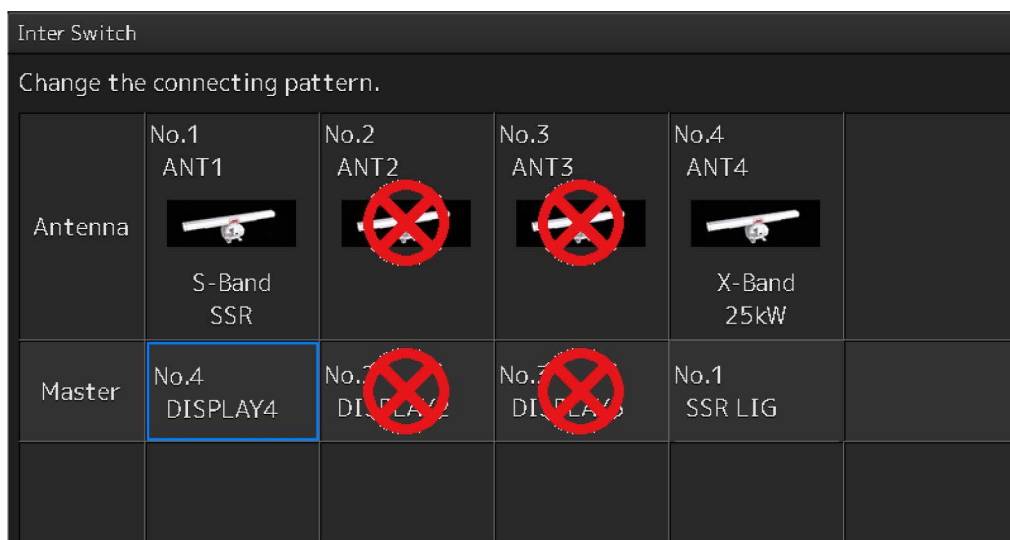
The "Inter Switch" dialog box is displayed.

2 Click the Master or Slave display unit selection button to be connected to the radar antenna.

The selected display unit is highlighted.



3 Place the cursor to the destination of change and click it on.



The currently selected display unit and the change destination display unit are interchanged.

4 If necessary, carry out the steps 2 and 3 for other display units.

5 Click the [Set] button.

The information of the set connection pattern is transmitted to the Inter switch.

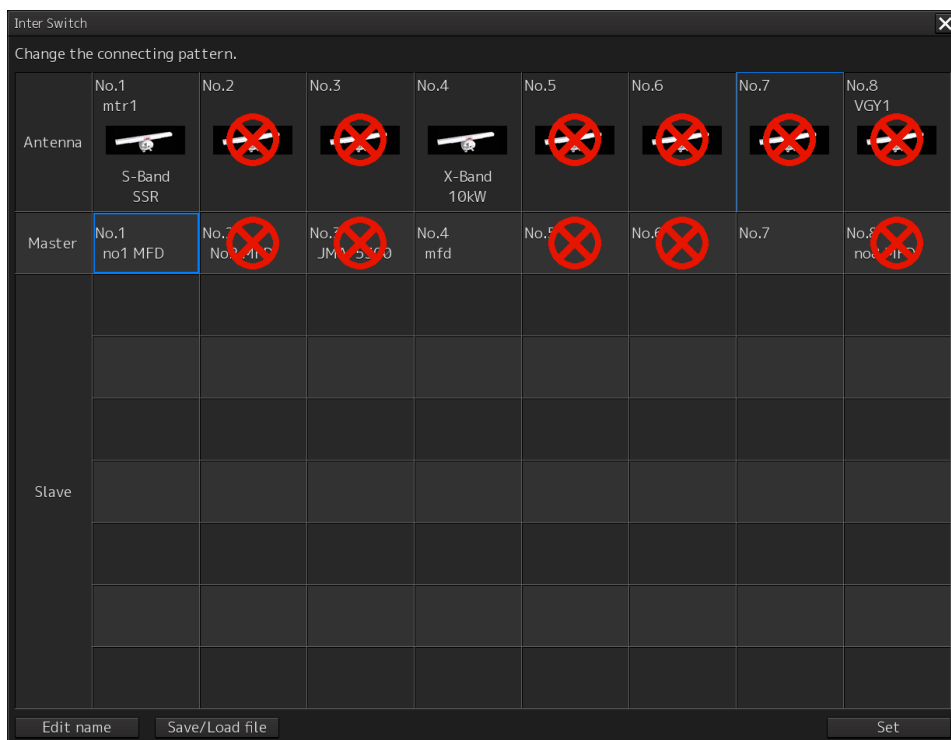
6 Click the [×] button.

The "Inter Switch" dialog box is closed.

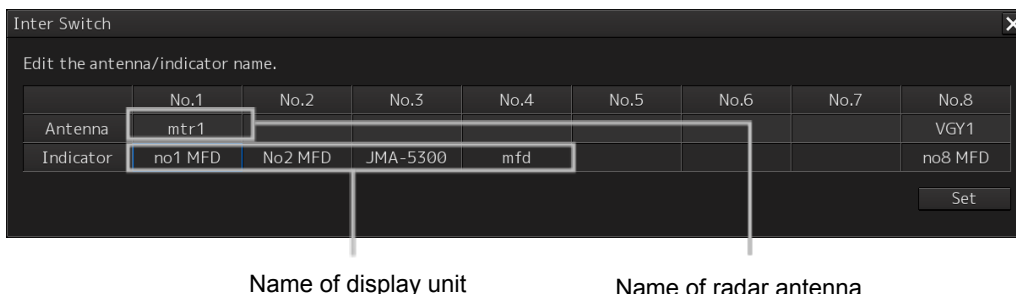
C.2.5 Changing the name of radar antenna or display unit

- 1 Click the [Edit name] button of the "Inter Switch" dialog box.

The "Edit name" dialog box is displayed.



- 2 Click the name of the radar antenna or the display unit whose name is to be edited.



A software full keyboard is displayed.

- 3 Change the name.
The name can be input by using 1 to 8 alphanumeric characters and symbols.
- 4 Click the [Set] button.
The name is changed.
- 5 Click the [x] button.
The "Edit name" dialog box is closed.

C.2.6 Using the set connection pattern

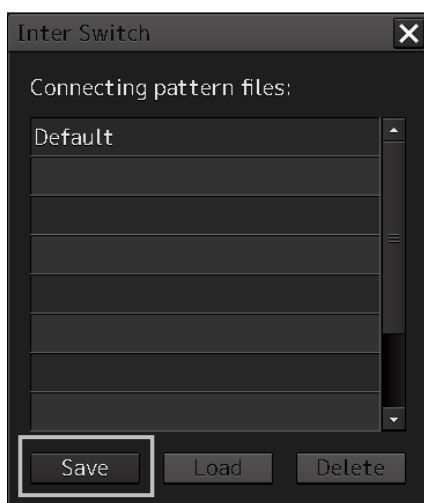
When connecting 3 to 8 radar antennas × 3 to 8 display units, it is possible to save the set connection pattern in a file. By reading out the saved connection pattern when required, it is possible to quickly change the connection pattern.

■ Saving a connection pattern

- 1 After setting a connection pattern, click the [Save/Load file] button of the "Inter Switch" dialog box.

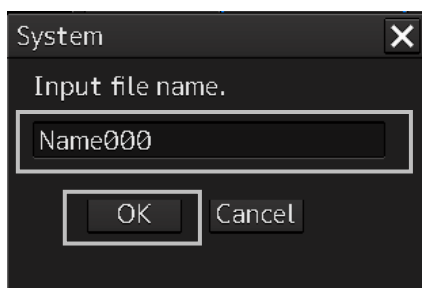
The "Connection pattern file" dialog is displayed.

- 2 Click the [Save] button.

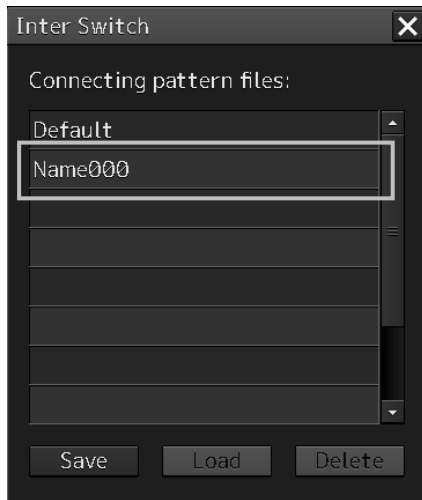


The "Input file name" dialog is displayed.

- 3 Input the file name using the software full keyboard.
- 4 Click the [OK] button.



The connection pattern is saved, and the connection pattern name is displayed in the "Connecting pattern files:" dialog.



Note

- The number of connection patterns that can be saved is up to 10 apart from the connection pattern set at the time of shipment from the factory (default).

If any more connection patterns are attempted to be saved, the following message dialog box appears.



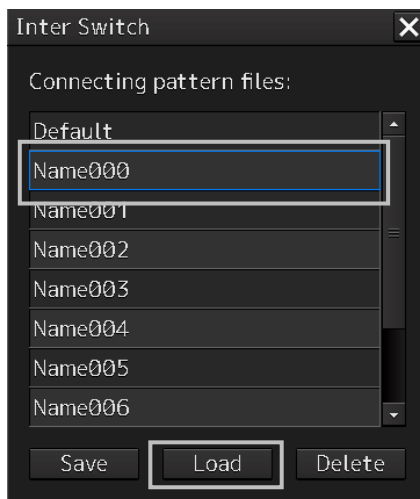
- The pattern that is set at factory delivery (Default) cannot be changed.

■ **Loading a connection pattern**

- 1** Click the [Save/Load file] button of the "Inter Switch" dialog box.

The "Connecting pattern files:" dialog is displayed.

2 Click the connection pattern to be loaded.



3 Click on the [Load] button.

The loaded connection pattern is displayed in the "Inter Switch" dialog.

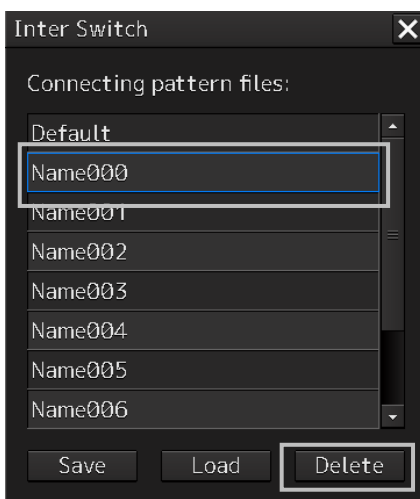
4 Click the [x] button.

■ Deleting a connection pattern file

1 Click the [Save/Load file] button of the "Inter Switch" dialog box.

The "Connecting pattern files:" dialog is displayed.

2 Click the connection pattern to be deleted.



3 Click the [Delete] button.

A dialog box for confirmation of deleting is displayed.

4 Click the [OK] button in the dialog box to delete.

The selected connecting pattern file is deleted.

C.3 Reference

C.3.1 Pre-heat time after changing the connection pattern

After changing an Inter switch connection pattern has been completed, the pre-heat time varies depending on the connection state of the radar antenna and display unit before the change.

This is for protecting the electron tube that emits the radio waves.

- If the radar antenna was already being used before setting the new connection pattern, a pre-heat time will not be required.
- If the radar antenna was not being used before setting the new connection pattern, a pre-heat time will be required.

C.3.2 Precautions while changing the connection pattern

A setting of change of the connection pattern may not be reflected immediately. This is because time is taken for the internal processing and, in this case, repeat the changing operation again after leaving a time gap of several seconds.

C.3.3 Precautions during a slave connection

When the master display unit is not in the transmit state, it is not possible to put the slave display unit in the transmit state. Further, when the master display unit goes from the transmit state to the transmission standby state, the slave display unit is forcibly put into the transmission standby state. In this case, the message "ISW(Master Standby)" is displayed in the alert notification area and the notification sound is made.

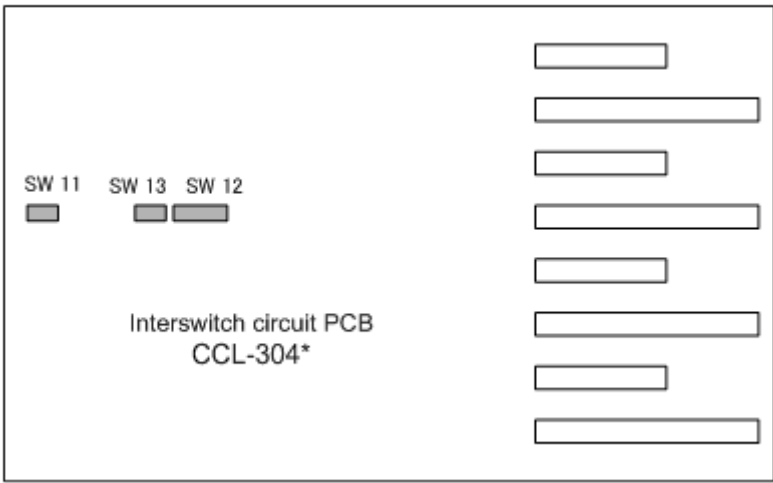
It is not possible to carry out control of tuning in a slave display unit. Tuning is controlled by a master display unit.

Changing the distance range of a slave display unit is restricted by the range and transmission pulse length/transmission pulse repetition frequency of the master display unit. As a rule, although it is not possible to change the range of the slave display unit to a range larger than the range of the master display unit, depending on the range, if the transmission pulse length and the transmission pulse repetition frequency are the same, it may be possible to select a range larger than the range of the master display unit. When the master display unit makes the range smaller or changes the transmission pulse length, the range of the slave display unit may be changed forcibly. In this case, the message "Master Range CHG" is displayed in the alert notification area and the notification sound is made.

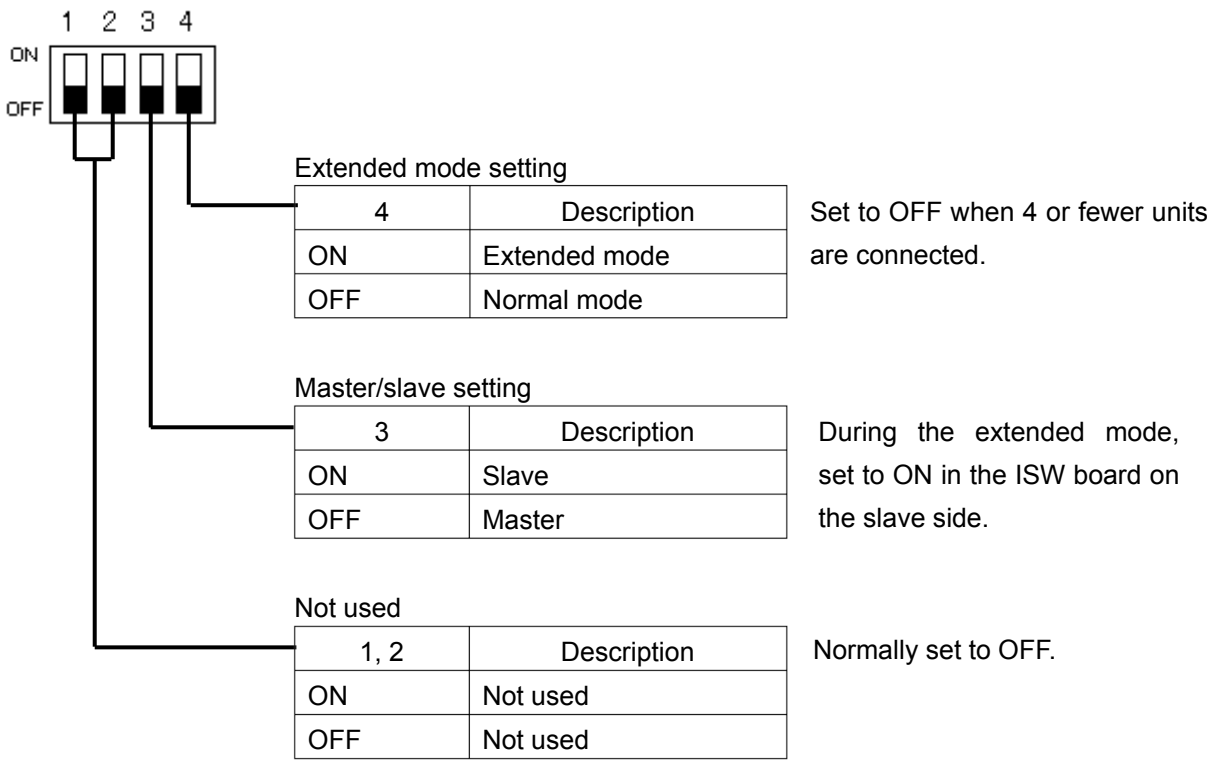
C.3.4 Setting during installation

■ Setting of the Inter switch circuit (CCL-304*)

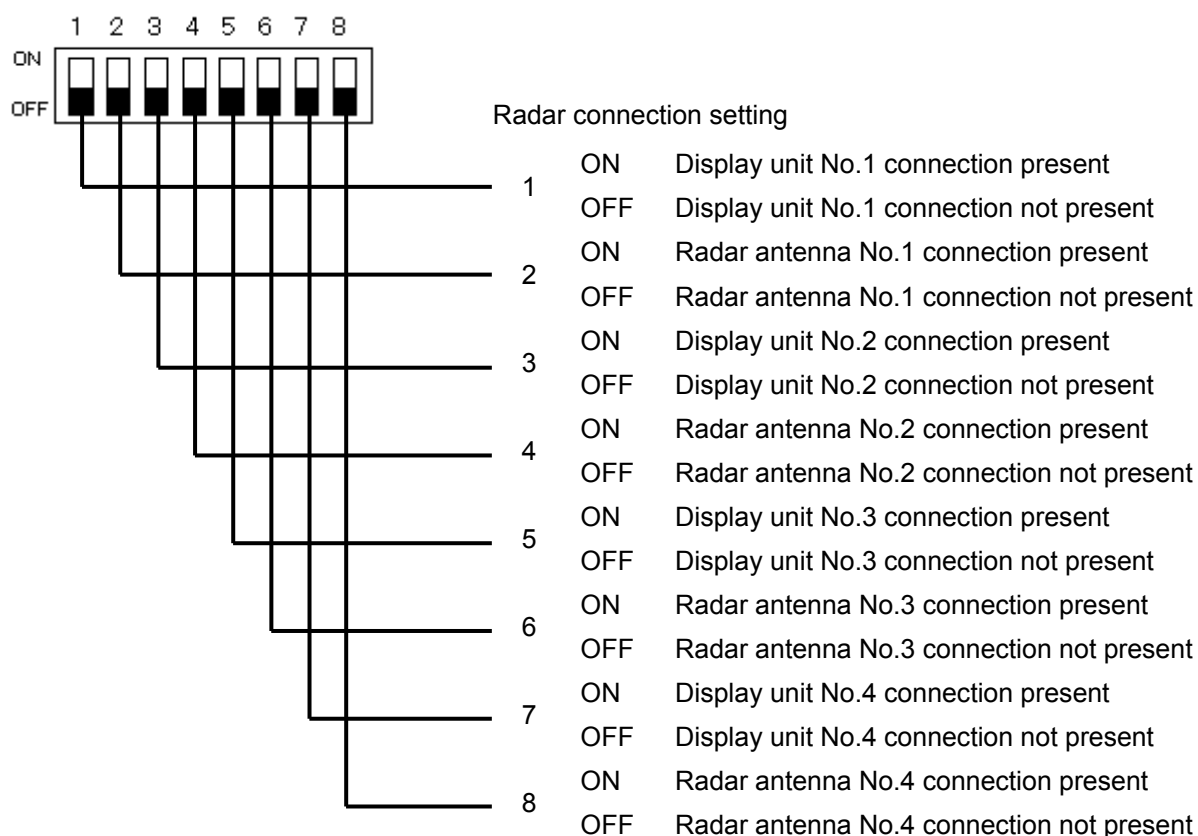
The details of the dip switches SW11, SW12, and SW13 are given below.



1) Setting of SW11 (setting of extended mode, master/slave)



2) Setting of SW12 (Radar connection setting)



3) Setting of SW13 (Not used)



Note

When setting the dip switches of the Inter switch circuit, turn OFF the circuit breaker of the Inter switch, and ensure safety before carrying out the setting.

Appendix D Menu List and Materials

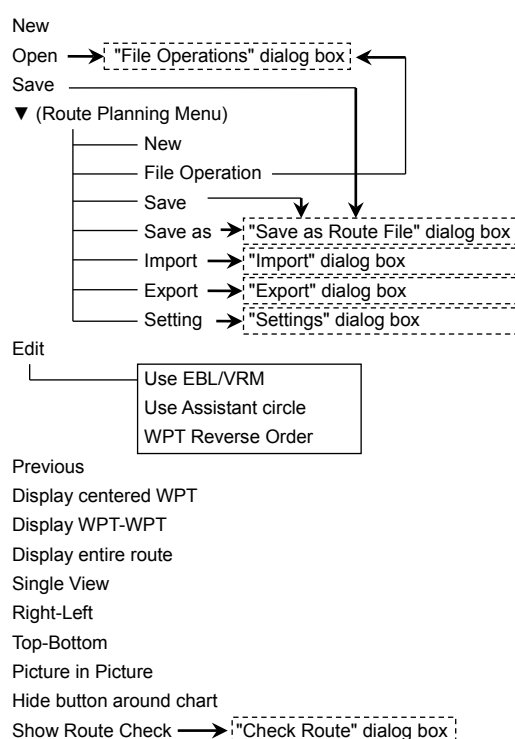
D.1 Menu List

This section shows the menus and dialog items of this equipment by target menu.

- * **ECDIS RADAR CONNING** indicates the task that is targeted for display.
- * Items that are enclosed by a frame of broken lines indicate the dialog and window names that are displayed by selecting the relevant menu.

D.1.1 Route Planning

ECDIS



Planned Route tab

Insert

Delete

Comment

(WPT list)

WPT No.
Name
Position-LAT
Position-LON
Leg-Course
Leg-Distance
Sail
XTL -PORT
XTL -STBD
Arrival Radius
Turn Radius
Plan Speed
ROT
ETA
Time Zone
TTG
Total Distance

D.1.2 Route Monitoring

ECDIS

RADAR

Route

To WPT

"File Operations" dialog box display button → "File Operations" dialog box

Voyage Information → "Voyage Information" dialog box

Voyage Calculation → "Voyage Calculation" dialog box

Pair of data → "Pair of data" dialog box

D.1.3 Anchor Watch

ECDIS

RADAR

Monitoring Anchor

Mode

(Mode: Selecting [Circle])

Position

Radius

(Mode: Selecting [Polygon])

New

Point

(list)

D.1.4 Autosail*

ECDIS

* Displayed when the automatic sailing option is attached.

(Select Route)

Track
Click here to plan a new track
Click here to confirm and modify the track.
Next

Select WPT

TO-WPT
Start
Back

D.1.5 Chart

ECDIS

RADAR

Manual Update ECDIS

Select Chart → "Select Chart" dialog box
Save
Chart Name
FIX
Display All Object
Display Hidden Objects

My Port List ECDIS

Save
My Port List
Delete
Jump

Select S-57 Chart ECDIS

Search
Chart List
Reset Picked Chart
OK

Off Center by Entering Position ECDIS

Jump to the following position
LAT/LON

Accept S-57 Updates ECDIS

S-57 Chart List
Show
Accept

Date-dependent View ECDIS

UTC/LMT
Date
Time
Calendar Icon
Time Zone

Chart Boundary ECDIS

Chart Boundary
 Overview
 General
 Coastal
 Approach
 Harbour
 Berthing
 Show Chart Name
 Show ENC Data



"Edition and date of chart" dialog box

* Displayed when the chart is clicked on while the "Chart Boundary" dialog box appears.

Chart Abbreviation

T & P(ARCS) ECDIS

Number
Temporary and Preliminary Notice to Mariners

Datum Offset(ARCS) ECDIS

Offset by Cursor
Clear Offset
Offset

Datum Transformation **ECDIS**

(Geodetic Datum)

From

To

(Reference Position)

Position

Ship Position

by Cursor

(Chart Shift)

Reference Position

[Position]

Shifted Position

[Position]

OK

Cancel

D.1.6 User Map

ECDIS

RADAR

File Operation

- New
- Delete
- Copy
- Import
- Export
- Merge Display Files
- Geodetic
- (File List)
- Edit User Map
- Display Objects

Mark/Line List

- User Map tab
 - Symbol
 - Line
 - Area
 - Text
 - Delete
 - Page feed button
 - Page number specification
 - Object list
 - Jump
- Mariner's Mark/Line tab
 - Event Mark
 - Information Mark
 - Tidal Stream
 - Highlight
 - Clearing Line
 - Delete
 - All Delete
 - Page feed button
 - Page number specification
 - Object list
 - Jump
- Manual Update tab
 - Symbol
 - Line
 - Area
 - Text
 - Hide
 - Restore
 - Page feed button
 - Page number specification
 - Object list
 - Jump

Delete by type/color

- Type
- Color
- OK

D.1.7 Logbook

ECDIS

Date

Calendar Icon

Event

Event List (Event List)

User Task Log tab

No.

Date(LMT)

Event

Navigation Alert Log tab

No.

Date(LMT)

Event

System Alert Log tab

No.

Date(LMT)

Event

Event details page (Event detail information)

Event

Date

Time Zone

Descriptions

(Position)

Longitude

Latitude

POSN1

POSN2

(Course/Speed)

HDG

STW

COG

SOG

SOG-Av.(4h)

SOG-Av.(24h)

Depth

Chart

INFO

(Current)

Set

Drift

(Wind)

Dir.

SPD

BFT

(Wave)

Dir.

Height

(Voyage Distance)

(Ground)

(Water)

(Weather)

Air Pressure

Air Temperature

Water Temperature

Weather Condition

Engine Rev.

Comment

D.1.8 TT/AIS

ECDIS

RADAR

AIS Voyage Data

Destination
ETA(UTC)
Calendar Icon
NAV Status
Draft
Cargo cat.
Persons on-board
Send

Edit and Send AIS Message

(Send To:)
Addressed MMSI
Name
Target ID
Broadcast
Category
LL&Time
View Tray
Message
Save
Send

AIS Message - AIS MSG Tray: Same as the common information window (AIS MSG Tray of the information reference screen)

Tray Select
Message Format:
Message Category:
Message List
MMSI
Ship's Name
AIS Message
Edit
Select

Highlighting

Highlighting by the following search criteria
(TT/AIS)

Transit direction
TCPA(MIN-MAX)
TCPA MIN
TCPA MAX
CPA(MIN- MAX)
CPA MIN
CPA MAX
SOG(MIN- MAX)
SOG MIN
SOG MAX
Unknown Ship

(AIS)

Length MIN- MAX
Type of Ship
Cargo category
Registry of ship
Navigation Status

Trial Maneuver **RADAR**

- Trial Function
 - Course
 - Speed
 - Vector Time
 - Time to Maneuver
 - Own Ship's Dynamic Trait

TT/AIS List: Same as the TT/AIS list of the common information window (information monitoring screen)

- List Select
- List Expand
- List Normal
- (TT List)
 - Column
 - ID
 - CPA
 - TCPA
 - BCR
 - BCT
 - CTW or COG
 - STW or SOG
 - BRG
 - RNG
 - LAT
 - LON
 - Status

- (AIS List)
 - Column
 - ID
 - CPA
 - TCPA
 - CTW
 - STW
 - Name
 - Call Sign
 - MMSI
 - BCR
 - BCT
 - BRG
 - RNG
 - HDG
 - LAT
 - LON
 - Status
 - Show AIS Detail

Own Ship AIS Data: Same as AIS of the common information window (information reference screen)

Own Ship AIS Data/Last Lost AIS Target
Name
Call Sign
MMSI
IMO No.
Length
Beam
Destination
ETA(UTC)
Navigation Status
Draft
Type of Ship
Cargo category
CTW or COG
STW or SOG
Heading
ROT
Position
Position Accuracy
Position Sensor

Last Lost AIS Target: Same as AIS of the common information window (information reference screen)

Own Ship AIS Data/Last Lost AIS Target
Name
Call Sign
MMSI
IMO No.
Length
Beam
Destination
ETA(UTC)
Navigation Status
Draft
Type of Ship
Cargo category
Persons on-board
Bearing
Range
CTW or COG
STW or SOG
Heading
ROT
Position
Position Accuracy
Position Sensor

D.1.9 Tools

ECDIS

RADAR

Marker

Position
Bearing
Range
Unit switching button
TTG
Time

EBL/VRM readout **ECDIS**

EBL1
VRM1
EBL2
VRM2
Origin Position of EBL1/VRM1
Origin Position of EBL2/VRM2
EBL Bearing Reference
VRM Distance Unit
Control Indication

PI Menu

Display for All Lines
Mode
(All)
PI Bearing
Interval
Unit switching button
Operation Area
(Individual)
Index Line
Display
PI Bearing
Interval
Unit switching button
Length L
Length R
Unit switching button
Sequential
(Track)
Group
Display
PI Bearing
Interval
Unit switching button
(Equiangular)
Group
Display
PI Bearing
Vertical Angle
Floating
Heading Link
Reference Bearing

EBL Maneuver Setting

Display Maneuver curve
Course T
Course R
Reach
(Turn set)
[Radius]
[Rate]
WOL
TTG

Manual position fix ECDIS

LOPs Fixing tab
[LOP]
Total, MAX
(Observations Time)
[Date]
[Calendar Icon]
[Time (UTC)]
Position(e.g. landmark)
Bearing
Distance
Transfer Position Line
[HDG/STW]
[COG/SOG]
[HDG]
[STW]
[Set]
[Drift]
[Set]
Delete
Plot
Set plotted position → "Select LOP or TPL" dialog box
Offset to plotted POSN(Main)
Offset to plotted POSN(Sub)
Plot by cursor
[Clear all lines]
Position Offset tab
[(POSN(Main))]
[Offset]
[Clear Offset]
[Enter Offset]
[Enter Position]
[(POSN(Sub))]
[Offset]
[Clear Offset]
[Enter Offset] → "Enter Offset" dialog box
[Enter Position] → "Enter Position" dialog box

Node Fixed EBL/VRM ECDIS

Use node fixed EBL/VRM
Bearing
Distance

Cursor readout **ECDIS**

BRG
RNG
POS
TTG
ETA

File Manager

File Management tab

File Type
Drive
Name
Copy >>
<< Copy
Select All
Delete

File Load/Save tab

File Type
File Type (Included GPS Buoy Track)*
*Setting for using [Utilities] - [GPS Buoy] when [File Type] is [Target Track]
File List - Name
File List - Modified
File List - Display
Load Mode
Load
Unload
Save Current Target Track

D.1.10 View

View-Multi View Mode **ECDIS**

Multi View Mode

View selection

Select Area from View1 for View2

View-Options

Own Ship

Type **ECDIS**

Heading and Beam Line **ECDIS**

Stern Line **RADAR**

(Vector)

Ground stabilised vector

Sea stabilised vector

Time

Stabilization indicator **RADAR**

Vector Time Mark

Interval

POS2 Symbol **ECDIS**

Setting of AIS Filter

Setting of AZ

Setting of Anti-Grounding Vector/Sector*

* Case where the chart option is assigned to the radar (chart radar)

Own Track **ECDIS***

* Selecting [ECDIS own Track] on the Utilities menu

Past Track

Plot Color

Track Period

Time Label

Interval

Past Position

Interval

Route

For ECDIS **ECDIS RADAR***

* Selecting ECDIS Route on the Utilities menu.

(Date/Time for Monitoring)

Format

Show ETA

Cross Track Limit Line

Color

Show WPT Name

WPT Name Font Size

User Map

(Object Type)

(Selecting Individual)

Symbol

Line

Area

Text

Area Fill

Symbol/Simple Line Color

Mark Size

Comment Font Size

Mariner's Mark/Line **ECDIS RADAR**

Clearing Line

Tidal Stream

Information Mark

Highlighting

Event Mark

Plotted position

NAVTEX Mark

RADAR **ECDIS** RADAR

RADAR
RADAR Overlay
Transparency of Echo/Trails

Target

CPA Ring **RADAR**
AIS Symbol
TT Symbol
TT1 Symbol
TT1 Symbol Source Selection
TT2 Symbol
TT2 Symbol Source Selection
TT Vector **ECDIS**
TT Target ID
AIS Target ID

Target Track **ECDIS** RADAR

Display tab
(Target Track Display)
(Selecting Individual)
Track 1
Track 2
Track 3
Track 4
Track 5
Track 6
Track 7
Track 8
Track 9
Track 10
Track 11 to 20
File Load/Save

Plot tab
(Plot Color)
For All Target Track
For individual Target Track
Track 1
Track 2
Track 3
Track 4
Track 5
Track 6
Track 7
Track 8
Track 9
Track 10
Track 11 to 20
Plot Interval
File Load/Save

Clear tab
(Clear by Specified Color)
Track Color
(Clear by Specified Number)
Track Number

Chart Common **ECDIS RADAR***

* Case where the chart option is assigned to the radar (chart radar)

Area Boundary
Chart Symbol
Full Light Line
Consider Scale MIN
(Depth)
Shallow Contour
Safety Depth
Safety Contour
Deep Contour
Two Color Depth
Shallow Pattern
Show Isolated Danger In Shallow Water
C-MAP Ed.3 Database

Chart View **ECDIS RADAR***

* Case where the chart option is assigned to the radar (chart radar)

(For Chart Radar)
Chart Type
Primary Chart INFO.Set
Coastlines
Safety Contour
Danger To Navigation
Fixed and Floating Aids to Navigation
Land Area
Depth Contour
Scale Boundary
Sounding
Text
Other Objects
Text Size
(FOR ECDIS)
View1 tab
Chart Type
Chart Load
Text Size
Layer
Text
View2 tab
Chart Type
Chart Load
Text Size
Layer
Text

AIO

All AIO Objects
Temporary Notice(T)
Preliminary Notice(P)
ENC Preliminary Notice(EP)
No Information Objects

Tools **ECDIS RADAR**

- Range Rings
- Bearing Scale **ECDIS**
- EBL1
- EBL2
- VRM1
- VRM2
- PI
- Index Line 1
- Index Line 2
- Index Line 3
- Index Line 4
- Index Line 5
- Index Line 6
- Index Line 7
- Index Line 8
- Node Fixed EBL/VRM

Unit **ECDIS CONNING**

- Depth(Included depth in Chart)
- Current Speed
- Wind Speed
- Propeller Revolution
- Propeller Pitch Angle
- Thruster Revolution
- Thruster Pitch Angle
- Air TEMP
- Water TEMP
- Air Pressure
- Wind Direction(True)

Control

- (Top Level Screen Information on RADAR) **RADAR***
- * Group box units
 - Show Own Track Control
- (Top Level Screen Information on ECDIS) **ECDIS***
- * Group box units
 - Show Sub Information Window
 - Watch(Vector / RADAR / Target status)
 - POSN DIFF(Difference between POSN(Main) and POSN(Sub))
 - Depth
 - Current

Depth Graph *

* Case where the depth sensor is connected.

- (Depth Trend Graph)
 - Depth Range(Docking) **CONNING**
 - Depth Range(Voyage)
 - Time Range
 - Reference

Rudder Graph

* Case where the gyro and rudder is connected.

(Rudder Trend Graph)
Time Range
Rudder Range

Gyro/Rudder Graph *

* Case where the depth sensor is connected.

(Gyro/Rudder Trend Graph)
Time Range
Rudder Range

Engine Graph *

* Case where the engine is connected.

(Engine REV Trend Graph)
Time Range
Maximum RPM
Minimum RPM

ROT

(ROT)
[ROT Scale]

D.1.11 Alert

ECDIS

RADAR

CONNIN

Collision Avoidance ECDIS RADAR

(CPA/TCPA Alarm)

CPA Limit

TCPA Limit

(Alarm Detection)

AIS Lost Alarm

AIS CPA/TCPA Alarm

New Target Alarm ECDIS RADAR

Use AZ 1

Use AZ 2

1 tab

Make AZ1 ⇒ Change to the AZ1 range setting mode

Start Angle

End Angle

Start Distance

End Distance

2 tab

Make AZ 2 ⇒ Change to the AZ2 range setting mode

Start Angle

End Angle

Start Distance

End Distance

Depth/Safety Contour ECDIS RADAR *

* Case where the Chart option is assigned to the radar (Chart RADAR)

(Depth Below Keel Alarm)

Depth Below Keel

(Crossing Safety Contour Alarm)

Shallow Contour

Safety Depth

Safety Contour

Deep Contour

View Settings for Chart Common

Vector/Sector ECDIS RADAR *

* Case where the Chart option is assigned to the radar (Chart RADAR)

(Vector)

Use Vector

Vector Length

Vector Width

(Sector)

Use Sector

Sector Radius

Sector Width

Area warning ECDIS RADAR *

* Case where the Chart option is assigned to the radar (Chart RADAR)

Area Warning

Track Control ECDIS RADAR

(Course difference warning) *

[Course difference limit]

(End of track warning) *

[End of track limit]

(Early course change warning) *

[ECC limit]

* Case where [Show Alert On/Off for Track Control] on the utilities menu is set to [On].

Position Integrity

(Position monitor warning)

Position Difference Limit

Radius Limit (GPS)

Radius Limit (DGPS)

Time Limit

(HDOP exceeded caution)

[HDOP Limit]

AMS

(Reactivation of Silenced Alert)
Time Limit
(Transfer to BNWAS)
Time Limit
(Repetition of UNACK Warning)
Time Limit

Timer

(Timer)
(LMT)

D.1.12 Settings

ECDIS

RADAR

CONNING

Signal Process(Basic) ECDIS *

* Case where the radar is connected

Gain
Sea
Rain
IR
Target Enhance
Echo Process

Signal Process ECDIS * RADAR

* Case where the radar is connected

Video Latitude
Video Noise Rejection
Auto Dynamic Range Control
(Process Switch)
[Process Switch
2nd Process Mode *
* Case where [Process Switch] is set to [Off]
Process Switch Range *
* Case where [Process Switch] is set to [Range Fix]]
Fast Target Detection
SART RADAR

Obs, Scene Preset RADAR

Obs.Scene
(page 1/6)
IR
Target Enhance
Echo Process
Sea
Rain
Save Present State
Next
(page 2/6) 4kW, 6kW, 10kW, 25kW, 30kW, 50kW, 60kW scanner or solid-state radar connector
(Pulse Width)
[0.75(0.75 to 1.5)
1.5(1.5 to 3)NM
3(3 to 6)NM
6(6 to 12)NM
12(12 to 16)NM]
Back
Next
(page 3/6)
Video Latitude
Video Noise Rejection
AUTO Dynamic Range Control
(Process Switch)
[Process Switch
2nd Process Mode *
* [Process Switch] is other than [Off]
Process Switch Range *
* [2nd Process Mode] is other than [Range Fix]]
Fast Target Detection
Back
Next
(page 4/6)
Trails Mode
Trails Ref Level
Trails Reduction
MAX Length
Trails Length
Back
Next

	(page 5/6) Gain offset PRF Small Buoy Detection Fishnet Detection Antenna Height Back Next (page 6/6) Save as User Default Load User Default Initialize Back
Trails RADAR	Trails Mode Trails Ref Level Trails Reduction MAX Length
TXRX RADAR	PRF Fine Tuning Stagger Trigger PRF Ice Class Standby Mode
Association ECDIS RADAR	Association Priority * (Threshold) * Bearing Range Course Speed Applicable AIS Target * * Case where [Association] is [On]
Ship's Dynamic Trait ECDIS RADAR	Reach Turn Mode (Turn Set) Radius Rate Acceleration Deceleration
TT Test RADAR	Test Video TT Simulator Gate Display (Status) Vector Constant VD Level Mode (Manual) VD Level (Manual) VD Level (Auto) Gate Size Tracking

Filter **ECDIS RADAR**

Sector Filter
Start Angle
End Angle
Ring Filter
Distance
Filtering Mode
Sector tab
[Make AIS Filter
Start Angle *
End Angle *
* Case where [Make AIS Filter] is On]
Ring tab
[Make AIS Filter
Distance *
* Case where [Make AIS Filter] is On]

Target Track **ECDIS RADAR**

Target Track Function
View for Target Track
File Load/Save

Route

For (ECDIS route) **ECDIS RADAR** *
* Selecting [ECDIS Route] on the Utilities menu
(Default)
[XTL(PORT)
XTL(STBD)
Arrival radius
Speed
Sail
Turn radius
Time zone]
Distance calculation mode
Monitoring
MAX Latitude
Minimum Leg Length for Limit Check

Autosail * **ECDIS RADAR**

* Displayed when the automatic sailing option is attached.

Turning Gain *
* Auto Pilot is displayed in the following cases
- Tokyo Keiki TCS Category C
- Tokyo Keiki TCS Category B (new mode)
Tracking Gain **
Drift Correction **
Dead Band **
Dead Band **
Alert for Track Control
** Auto Pilot is displayed in the following cases
- Tokyo Keiki TCS Category B (old mode)
- YDK TCS Category C
- YDK TCS Category B
- All the autosail types

Temporary Route **ECDIS RADAR**

Pre Run Speed
Pre Run Time
Pre Run Distance
Enter Angle
Turn radius
XTD MAX

Chart ECDIS RADAR *

* Displayed when the Chart option is assigned to the radar (Chart RADAR)

Chart
(Redraw)
[Border Range ECDIS]
[Margin(Chart Rotation)]
AUTO Accepting S-57 Updated Chart
Deletion Mode(Chart Maintenance)

Logbook ECDIS

Logging Events tab
[At noon]
[Every]
[Event Mark]
[Manual Position Fix]
[Chart Manual Updating]
[System Start]
[System Exit]
[Route Alert]
[Chart Alert]
[Autosail Alert]
[System Alert]
View Filter tab
[At noon]
[Specified Period]
[Event Mark]
[Manual Position Fix]
[Chart Manual Updating]
[System Start]
[System Exit]
[Route Alert]
[Chart Alert]
[Autosail Alert]
[System Alert]
[Latest Display Days]

General ECDIS RADAR

(Gyro I/F) *
[GYRO Setting]
[* Gyro I/F is equipped]

Color and Brightness

Day/Night

Def.

Display Color tab

OuterPPI */Dialog

InnerPPI *

Character

RADAR Video *

* Under radar connection

RADAR Trails(Time)

Target Symbol *

* Displayed at the equipment setting for receiving TT information

Range Rings *

* Under radar connection

EBL1/VRM1/PI

EBL2/VRM2

Own Symbol/HL/Vector

Brightness tab

Character

RADAR Video *

* Under radar connection

Target Symbol *

* Displayed at the equipment setting for receiving TT information

Range Rings *

* Under radar connection

EBL/VRM/PI

Own Symbol/HL/Vector

Panel

Day1 : Level4 / Day2 : Level3 / Day3 : Level2 / Dusk,Night : Level1

Display

<26 inch>[0~100]Day1/Day2/Day3 : 67 / Dusk : 60 / Night : 11

<19 inch> Day1/Day2/Day3 : 42 / Dusk : 20 / Night : 4

Sounds

Volume tab

Key ACK

Misoperation

Response/Notification

Message Notification

Alert Setting Reminder

Navigation 1 Alarm *

* For UKC alarm

Navigation 2 Alarm

Navigation 3 Alarm

CPA/TCPA Alarm

Warning

Melody tab

Navigation 1

Navigation 2

Navigation 3

CPA/TCPA

Key Assignment

User Keys tab *

* Under the connection of the optional unit

DISP Off Key

User Key 1

User Key 2

Multi Dial tab

Vector Time

Trails Length

C UP Angle

Own Track Color

Manual Tune

Display Brightness

Panel Brightness

Gain *

Sea *

Rain *

* Under radar connection

AZ Key tab * ECDIS RADAR

* Under the connection of the optional unit and radar

AZ 1

AZ 2

Preferences ECDIS RADAR

Name

Save *

* Disable is displayed when up to the maximum private settings are saved.

Load *

* Disable is displayed when no item is selected in the name list.

Delete *

* Disable is displayed when no item is selected in the name list.

Default display configurations

Screen capture ECDIS RADAR

AUTO Capture Interval

AUTO File Erase

* Disable is displayed when [AUTO Capture Interval] is set to [0].

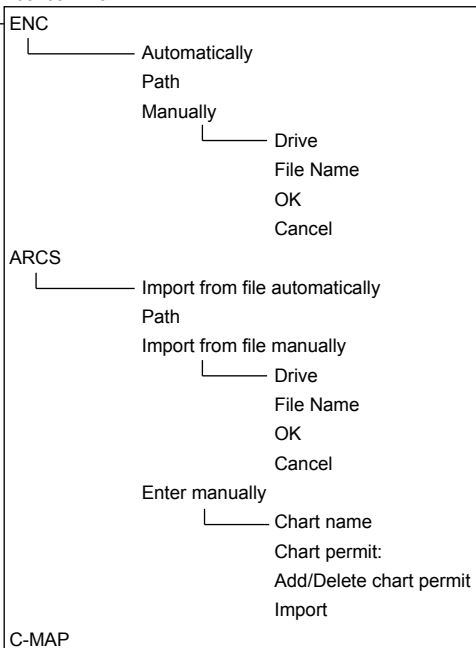
File Management

D.1.13 Chart Maintenance

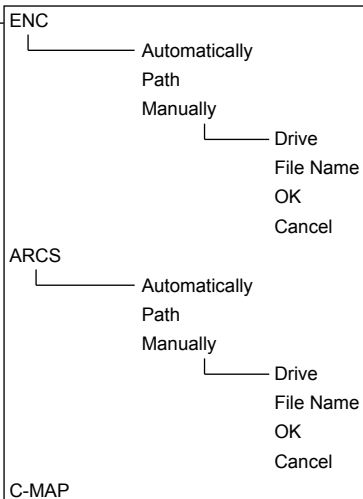
ECDIS

RADAR

Import/Update Licence file



Import/Update charts



Check Status

Status List tab

- Delete
- (Chart list)
 - Cell Name
 - Cell Ver.
 - Issue Date
 - Edition Date
 - Last Update
 - Expiry Date
 - Accepted
- (Licence information)
 - S-63 User permit
 - S-63 Cell permit
 - (SA certificate)
 - SA certificate file
 - Data Server
 - Load new SA certificate
- (Licence Information)
 - ARCS User Permit
 - ARCS Chart Permit
 - Licensee
 - Vessel Name
 - Fixed Site #1
 - Host Name
 - Licence Type
- (Cell Information)

Log tab

- Log
- Import/Update Charts
- Import/Update Licence

D.1.14 Maintenance

ECDIS

RADAR

CONNING

Date/Time/Time Zone

(Date)
[Month
Year
Day]
Time(LMT)
Time Zone
Display Style
Synchronize with Time Source

System Information

Software tab
[Type
Application
Maintenance No.
TXRX
TCS
Presentation Library]
Functionality tab
[Device Licence Status
Option Licence Status]
H/W Key tab
[(ARCS Information)
[PIN
User Permit]
(S-63 Information)
User Permit]
Specification tab
Specifications
Save to USB Device

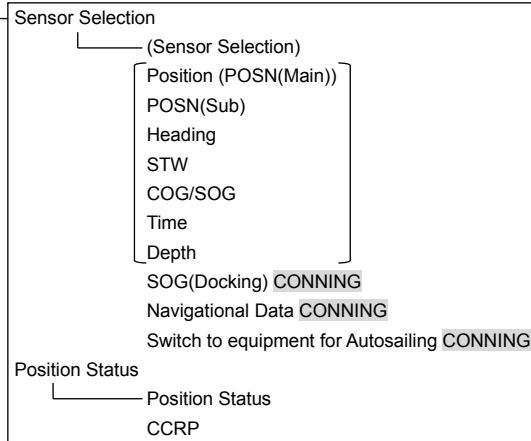
Operating Time

(Operating Time of Work Station)
[Total
SSD1
SSD2
LCD
LCD FAN
CCU FAN
PSU FAN
UPS]
(Operating Time of Scanner)*
* Under radar connection
[Total
Transmit
Motor
FAN]

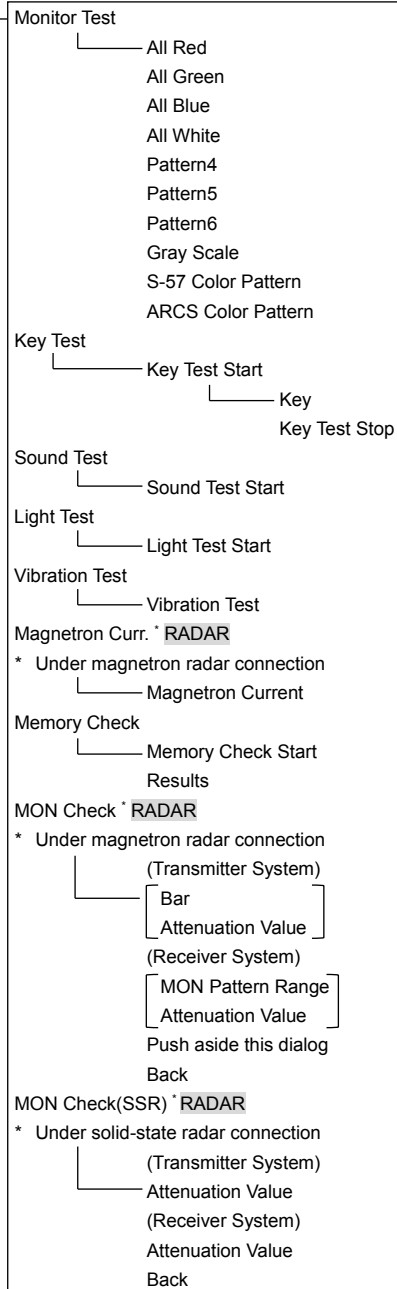
Voyage Distance

(Current Voyage Distance)
[Ground
Water]
Clear

Sensor Selection/Status



Diagnosis



Software Update

Software Update
Help Install

DVD Drive Cleaning

D.1.15 Help

ECDIS

RADAR

CONNING

←

→

Home

(Contents tab)

(Search tab)

keyword

Search

Results

D.1.16 Code Input

ECDIS

RADAR

CONNING

Password

D.1.17 Service

ECDIS

RADAR

CONNING

Adjustment ECDIS RADAR

Basic Adjustment

Tune Adjustment *

* Under magnetron radar connection

Bearing Adjustment

Range Adjustment

Master/Slave (radar operation mode)

TXRX RADAR

Antenna Height

Tune Peak Adjustment *

* Under magnetron radar connection

Tune Indicator

Output BP

Performance Monitor (under magnetron connection) RADAR

MON Adjustment

MON Indicator Adjustment

MON Level

Performance Monitor(SSR) (under SSR connection) RADAR

TX Monitor Adjustment

RX Monitor Adjustment

Monitor Sector

Monitor Range

RX Monitor Gain

Reference of Attenuator Value

Sector Blank RADAR

Use Sector1

Use Sector2

Use Sector3

1 tab

[Make Sector1
Start Angle
End Angle]

2 tab

[Make Sector2
Start Angle
End Angle]

3 tab

[Make Sector3
Start Angle
End Angle]

TNI Blank RADAR (Menu for a person in charge of installation)

Use TNI Blank *

* Under magnetron radar connection

Make Sector

Start Angle

End Angle

Input BP Count (Menu for a person in charge of installation)

RADAR1

RADAR2

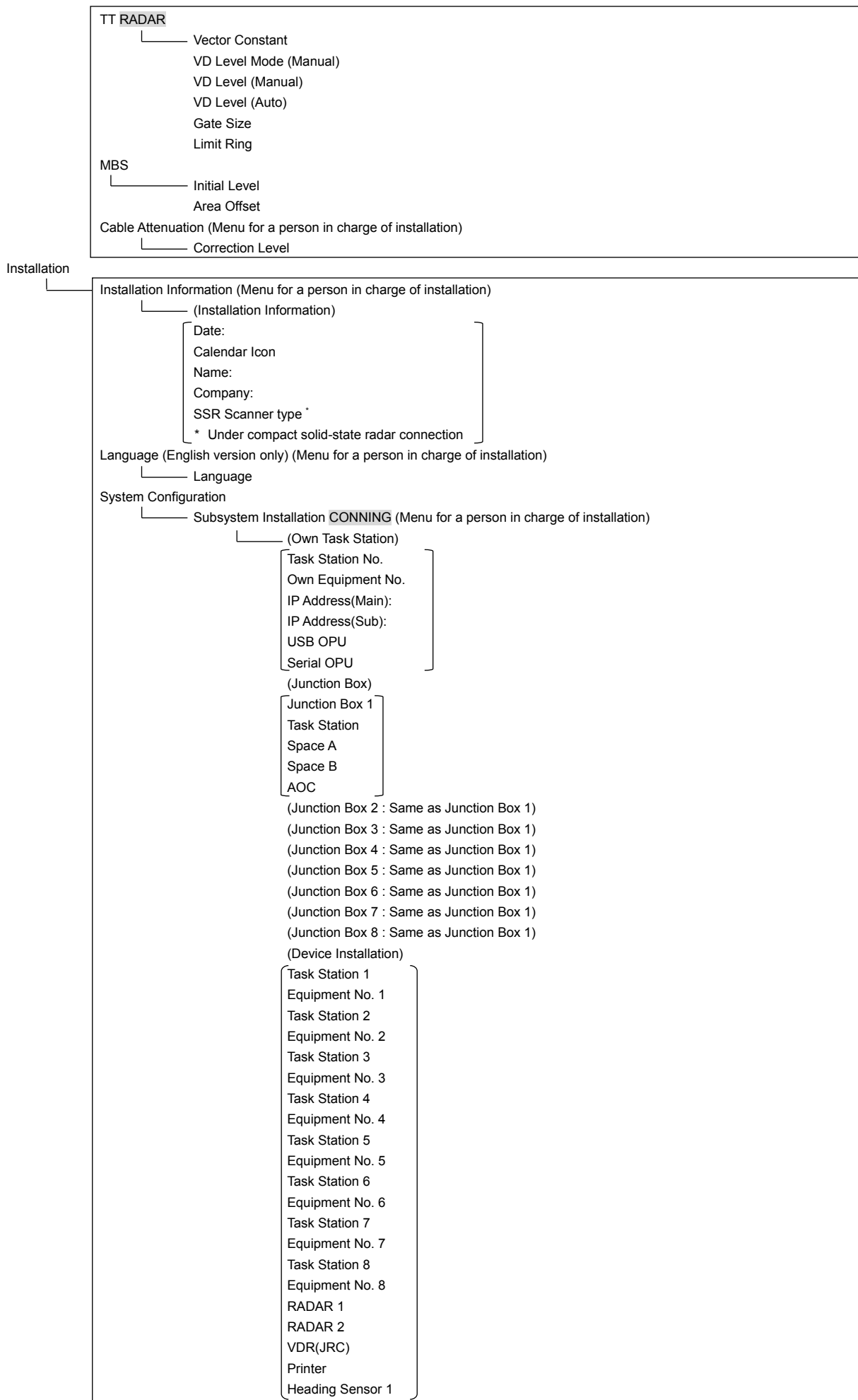
Output BP Count (Menu for a person in charge of installation)

Output BP

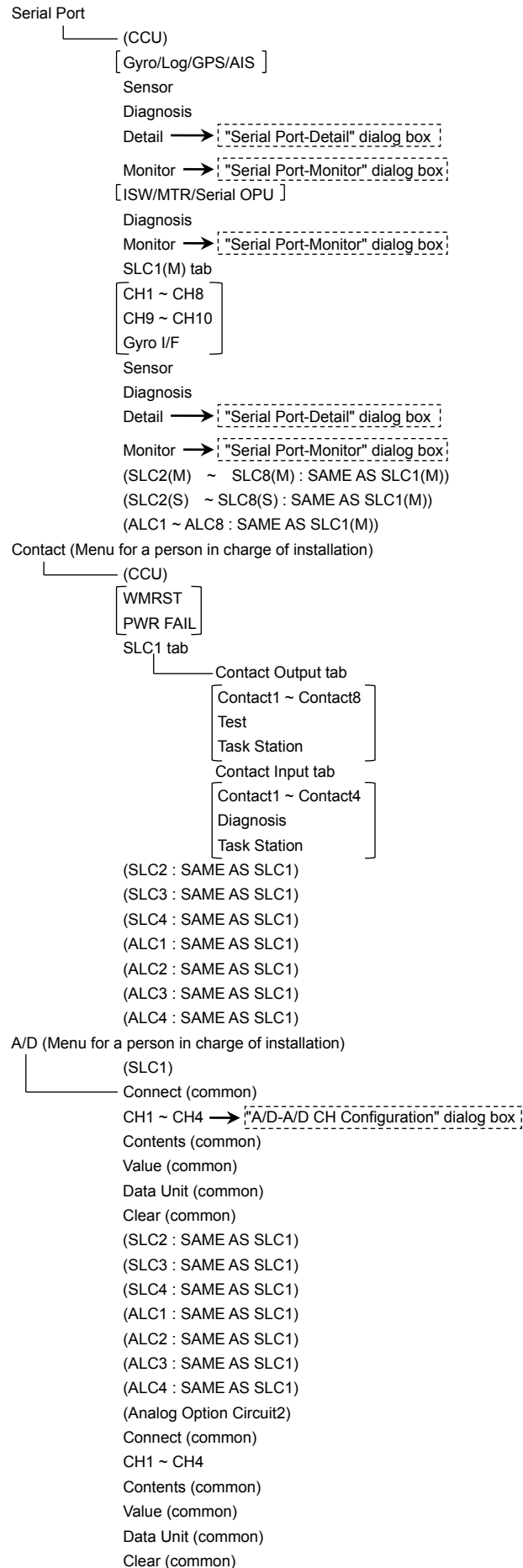
Echo Noise Level (Menu for a person in charge of installation)

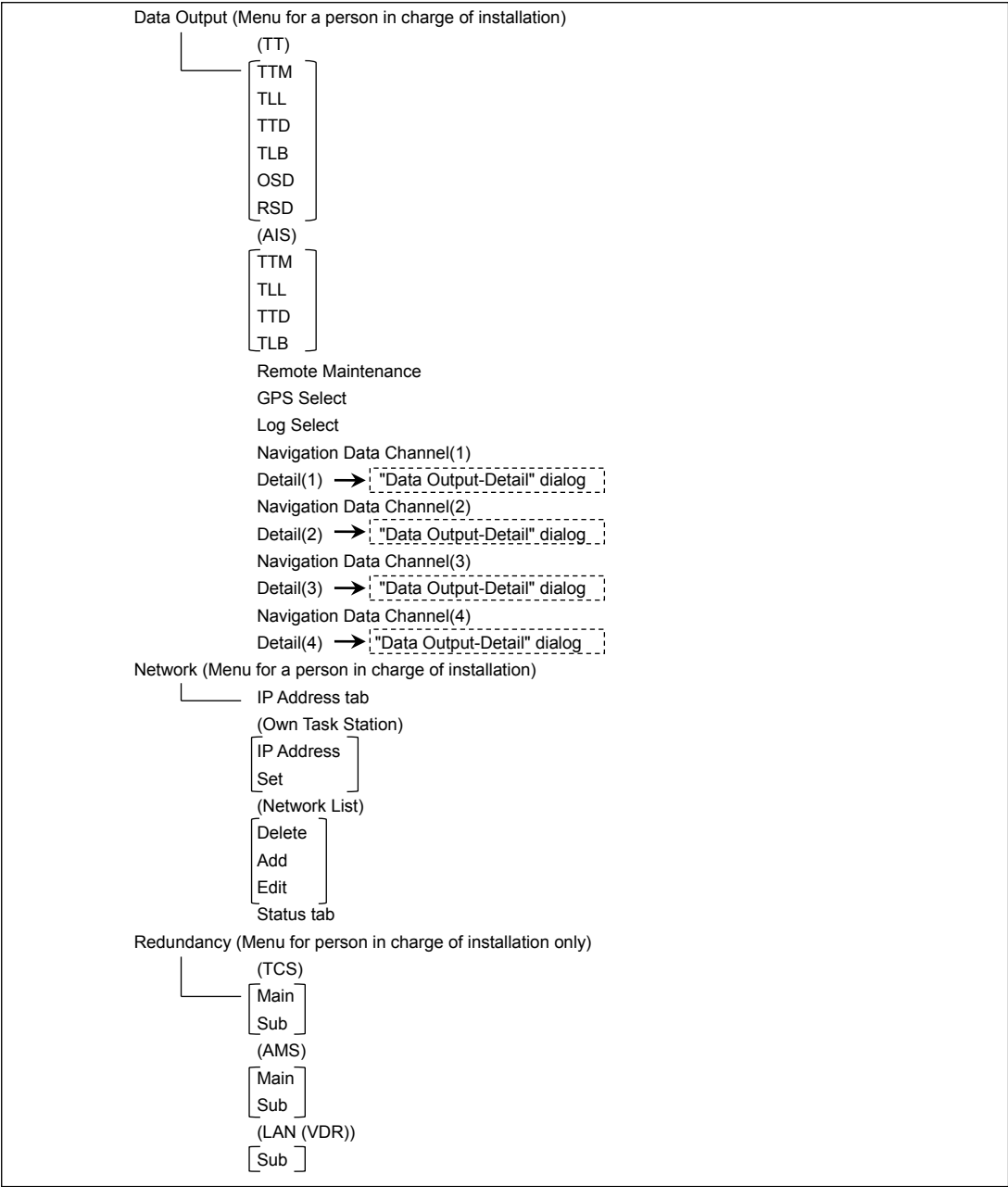
Echo Noise Level

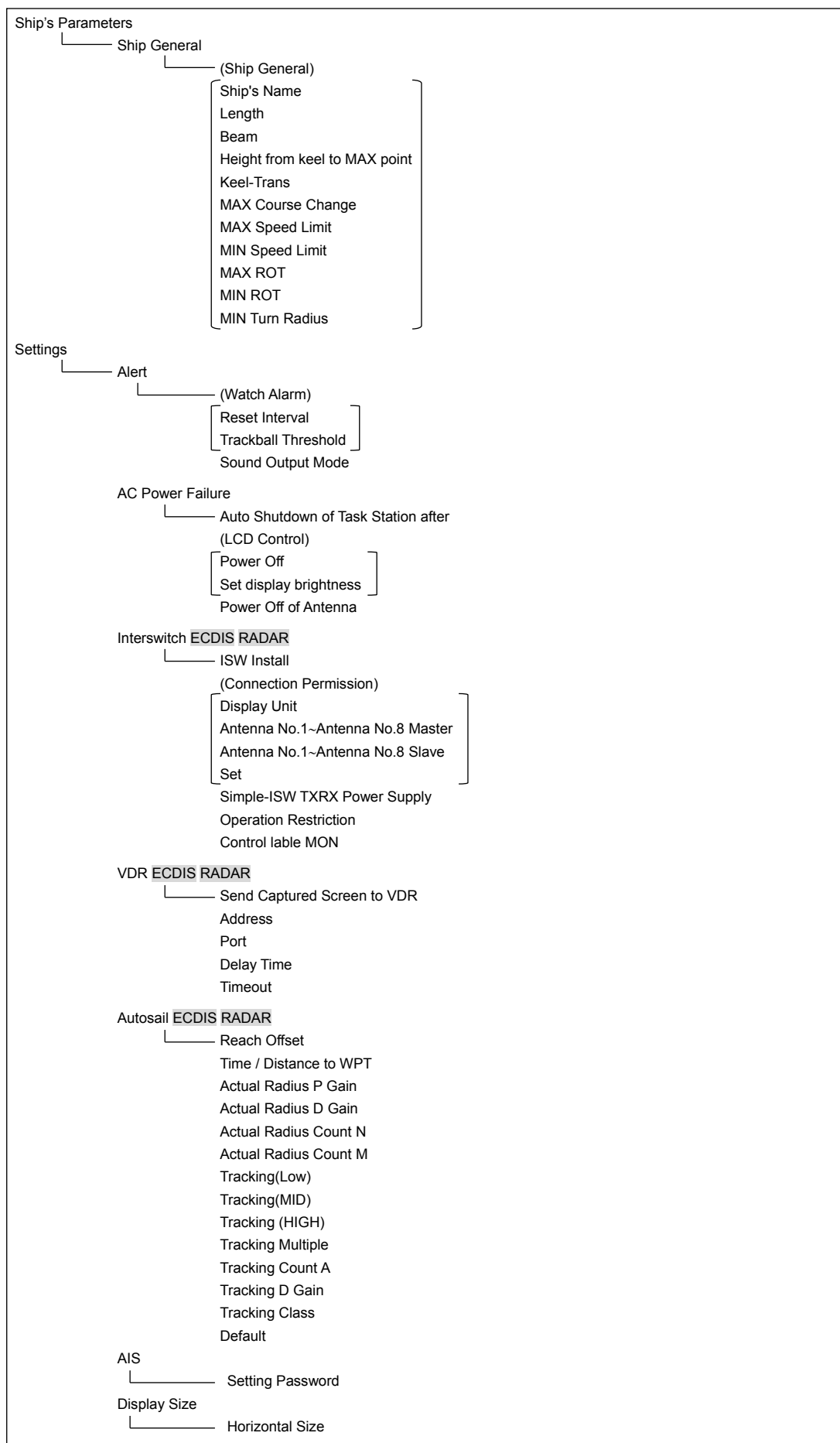
Adjustment Mode

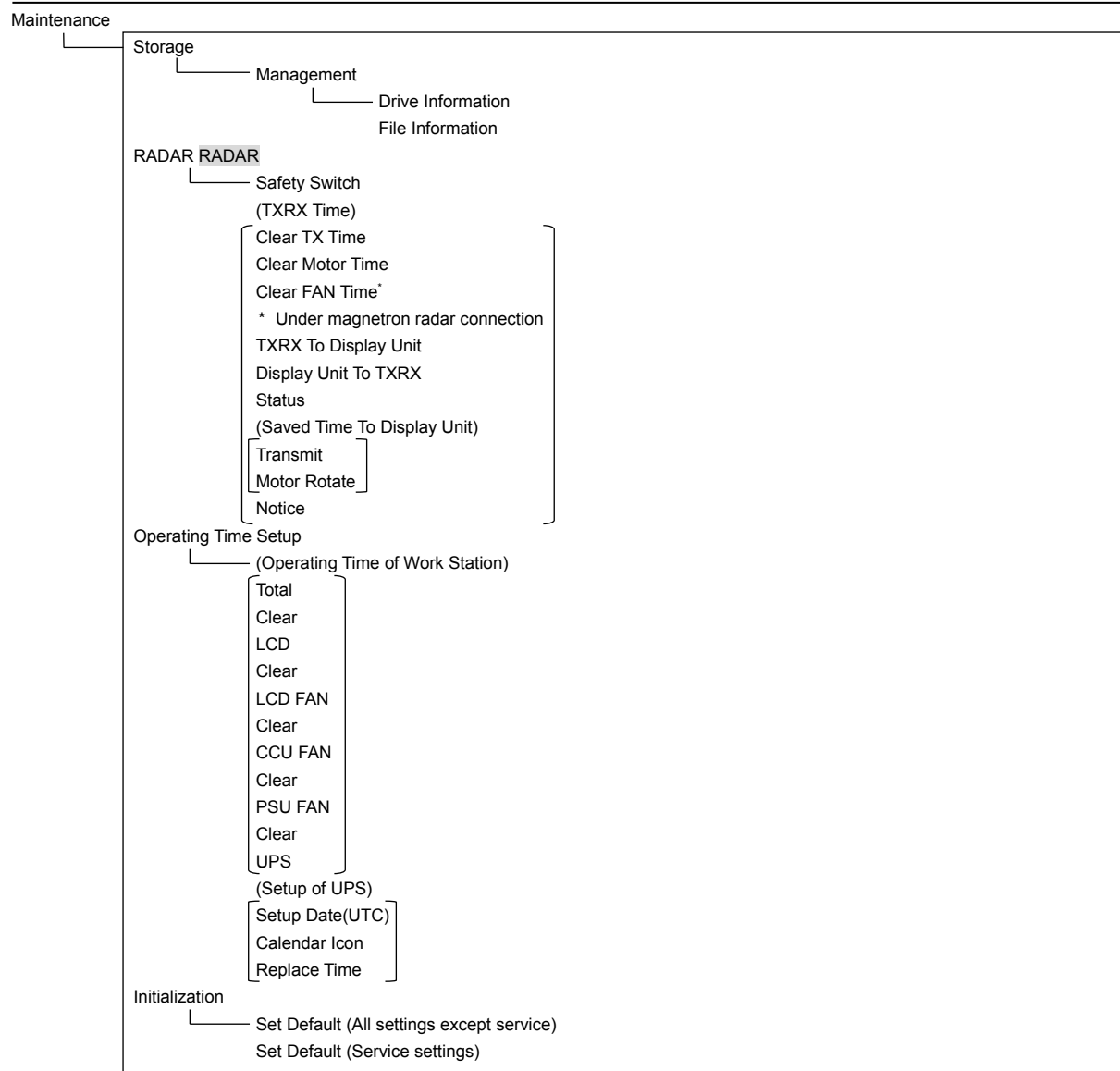


	(Heading Sensor 1(Type) Heading Sensor 2 Heading Sensor 2(Type) Log 1 Log 1 Interface/Type Log 2 Log 2 Interface/Type GPS 1 GPS 2 GPS 3 GPS 4 Ship's Clock Echo Sounder (T/D 1) Echo Sounder (T/D 1) Position Echo Sounder (T/D 2) Echo Sounder (T/D 2) Position Echo Sounder (T/D 3) Echo Sounder (T/D 3) Position AIS NAVTEX Anemometer Water TMP Meter Current Meter Climate Meter Autopilot Autopilot Type Rudder Rudder Number Engine/Propeller Engine/Propeller Number Engine Telegraph Engine Telegraph Number Bow Thruster Bow Thruster Number Stern Thruster Stern Thruster Number Azimuth Thruster Azimuth Thruster Number Generator Generator Number Fin Stabilizer Fin Stabilizer Number YEOMAN Digitizer Radar Simulator S-JOY1 S-JOY2 S-JOY3 S-JOY4 S-JOY5 GPS Selector Log Selector Set)
CCRP	Length Beam GPS1 X ~ GPS4 X GPS1 Y ~ GPS4 Y RADAR Antenna1 X ~ RADAR Antenna8 X RADAR Antenna1 Y ~ RADAR Antenna8 Y CCRP1 X ~ CCRP4 X CCRP1 Y ~ CCRP4 Y (Speed Position(from fore Draft)) [Bow Stern]









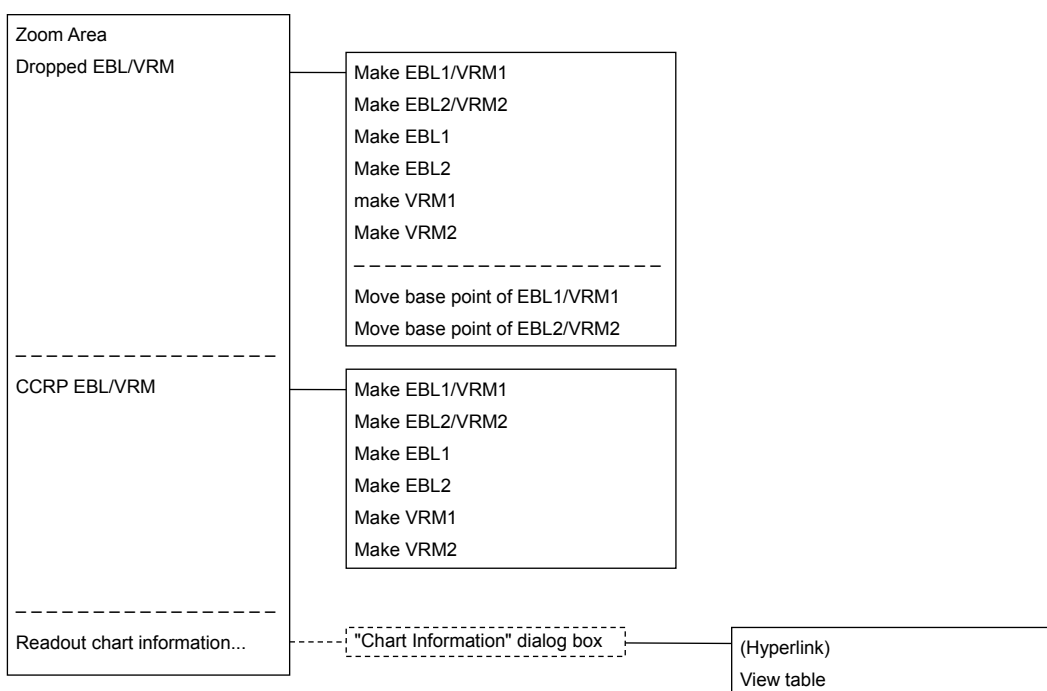
D.2 Context Menu List

This section shows the context menus that are displayed by clicking the right button by target object.

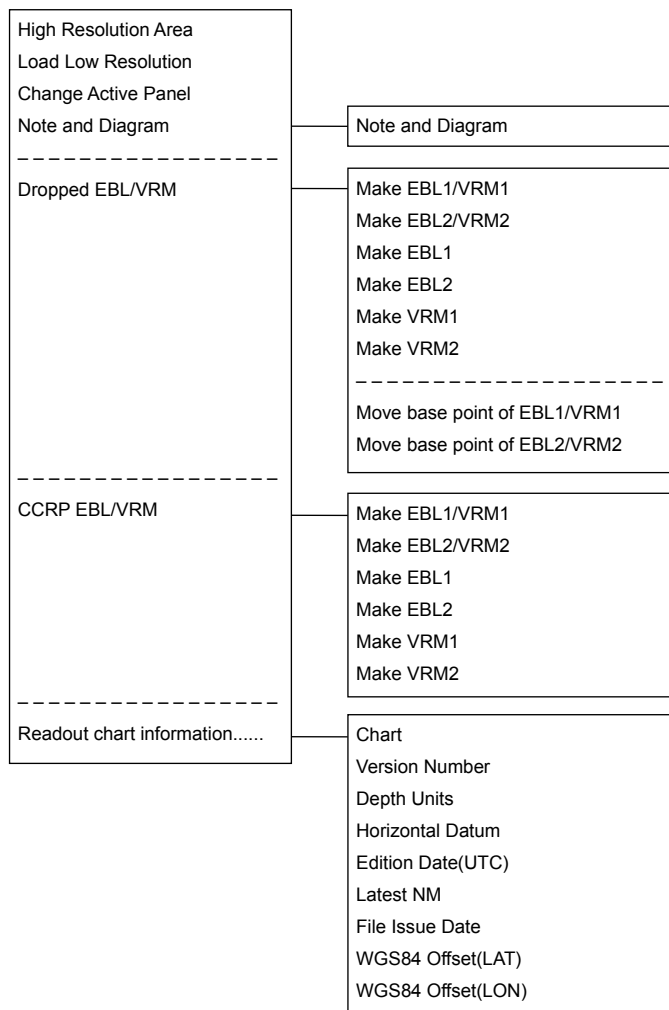
* The items that are enclosed by the frame of broken lines indicate the dialogs and windows that are displayed by selecting the relevant menu.

D.2.1 No object

D.2.1.1 ECDIS (S57/C-MAP) screen



D.2.1.2 ECDIS(ARCS) screen

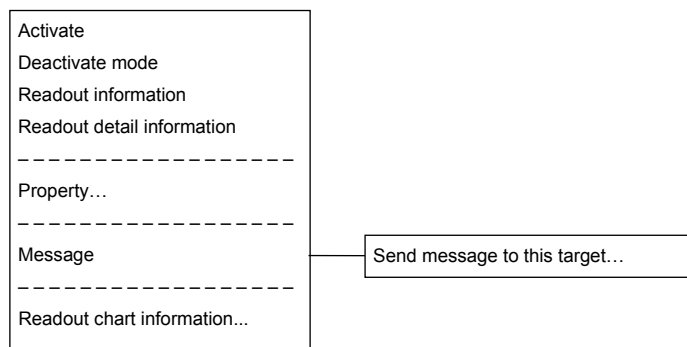


D.2.1.3 RADAR screen

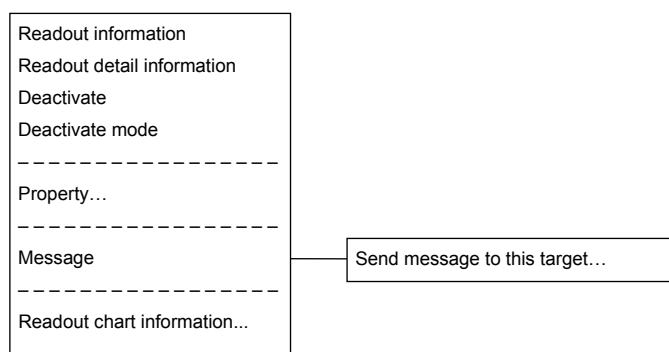
Acquire
Acquire and readout information
Cancel all TTReadout chart
information...

D.2.2 AIS

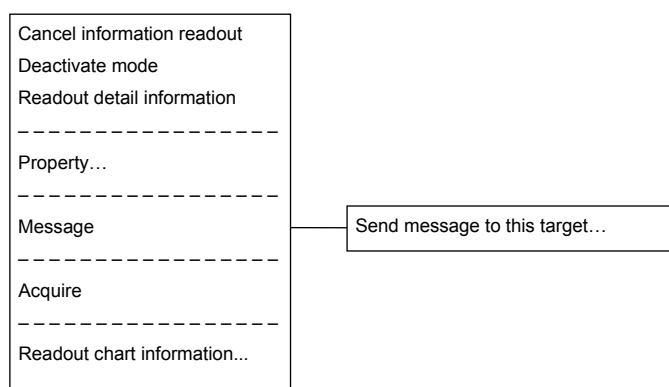
D.2.2.1 Sleeping AIS target



D.2.2.2 Activated AIS target



D.2.2.3 Numeric displayed AIS target



D.2.3 TT

D.2.3.1 Internal TT

Readout information
Cancel TT
Cancel all TT
Cancel TT mode

Property...

Readout chart information...

D.2.3.2 External TT

Readout information

Property...

Readout chart information...

D.2.3.3 TT detail information display (internal TT)

Cancel information readout
Cancel TT
Cancel all TT
Cancel TT mode

Property...

Readout chart information...

D.2.3.4 TT detail information display (external TT)

Cancel information readout

Property...

Readout chart information...

D.2.4 NAVTEX

D.2.4.1 NAVTEX

Readout NAVTEX information

Readout chart information...

D.2.5 Mariner's Mark/Line

D.2.5.1 Event mark

Delete this object.

Show Mark/Line List

Readout chart information...

D.2.5.2 Information mark

Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.5.3 Current mark

Move this object
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.5.4 Clearing line

Move start point
Move end point
Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.5.5 Highlighted display

Insert vertex

Move vertex

Delete vertex

Move this object.

Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6 User map

D.2.6.1 Symbol

Move this object.

Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.2 Simple line

Add vertex

Insert vertex

Move vertex

Delete vertex

Select All

Move this object.

Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.3 Line - Circle

Change radius

Move this object.

Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.4 Line - Ellipse

Change horizontal and vertical

Move this object.

Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.5 Arc

Change radius
Change start angle
Change end angle
Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.6 Polygon

Insert vertex
Move vertex
Delete vertex

Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.7 Area - Circle

Change radius
Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.8 Area - Ellipse

Change horizontal and vertical
Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.9 Fan

Change radius
Change start angle
Change end angle
Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.10 Text

Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.6.11 Arrow

Move start point
Move end point
Move this object.
Delete this object.

Show Mark/Line List

Readout chart information...

D.2.7 Manual Update

D.2.7.1 Objects that have not been saved

Same as "D.2.6 User map"

D.2.7.2 Saved objects (hidden)

Hide
Restore

Show Mark/Line List

Readout manual update information...

Readout chart information...

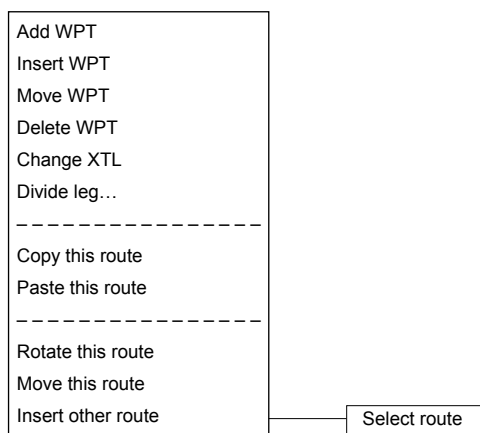
D.2.8 Monitored route

D.2.8.1 Monitored route

Readout WPT information ... ----- Edit this route ----- Readout chart information...
--

D.2.9 Planned route

D.2.9.1 Planned route



D.2.10 Monitoring dragging anchor

D.2.10.1 Dragging anchor monitoring circle

Change radius
Move this object.
Finish Monitoring Anchor.

Readout chart information...

D.2.10.2 Dragging anchor monitoring polygon

Insert vertex
Delete vertex
Move this object.
Delete this object.

Readout chart information...