JMA-3400 Series SIMPLIFIED MANUAL

Function mode
Scanner transmission status

Range
Tune/Pulse Width
MOB/Anchor Watch running icon

1.5 0.25 NM | RM(T) H-UP | HDG **50.0°** | SPD **6.0 kn** | HDG SPD 50.0° 6.00 knot D015

SP2 Standard | TX | 030 | 060

Alarm
Guard Zone mode
Wind direction/speed

8.0m/s T

Range Rings

EBL

VRM

Guard Zone

Anchor Watch

Cursor

MOB

Display color setting/
System running animation
*Icon drawing is updated
at regular intervals.

IR-OFF
ENH OFF
PROC OFF

Radar Echo setting
Sensitivity adjustment
Sea clutter suppression
Rain/snow clutter
suppression

Gain | 2 | M
Sea | 21 | M
Rain | 0 | A

240 | 210

Trails Off
Track Off
Vector T 6 min

Radar Trail length
Own Track length
Vector length

S E 35°52.9271' 136°47.9287' | EBL1 VRM1 36.1° 1.130 NM R | EBL2 VRM2 -.-° -.-- NM R
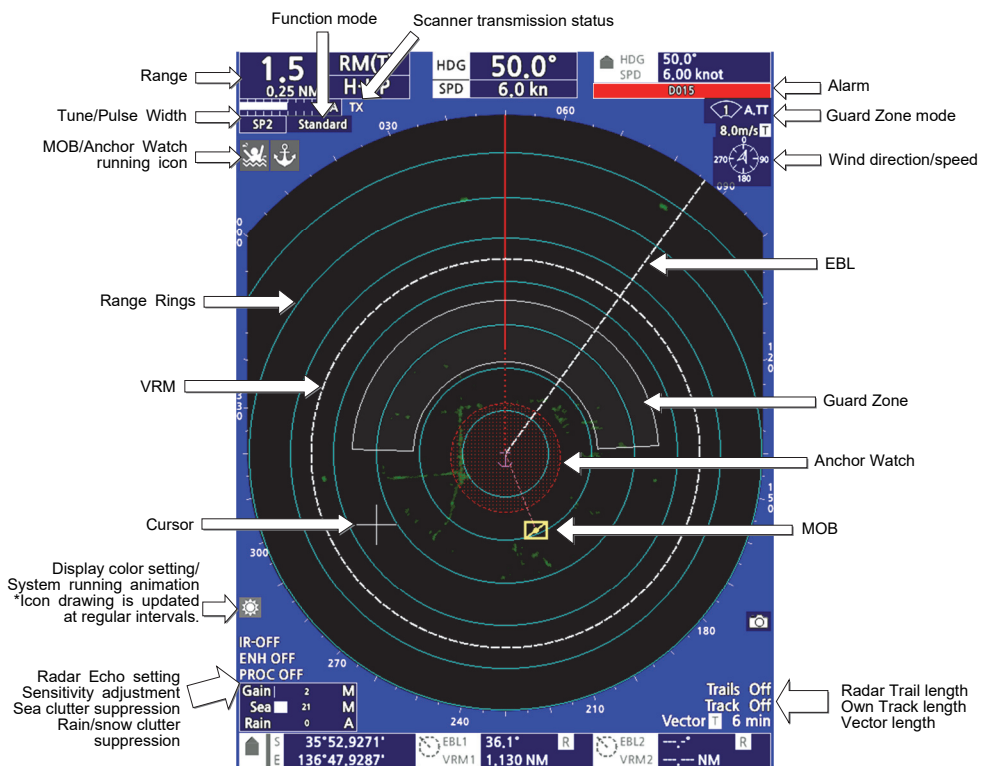
■Notice:

· Please read the instruction manual for details.
  Keep this simplified instruction manual in a safe place and refer to it when necessary.
· Use the radar only as a navigation aid.
  The final navigation decision must always be made by the operator him/herself.
  Making the final navigation decision based only on the radar display may cause accidents such as collisions or running aground.
· When using the sea clutter suppression function, never set the suppression level too high canceling out all image noises from the
  sea surface at close range.
  Detection of not only echoes from waves but also targets such as other ships or dangerous objects will become inhibited.
· When using the rain/snow reflection suppression function, never set the suppression level too high canceling out all image noises
  from the rain or snow. Detection of not only echoes from the rain or snow but also targets such as other ships or dangerous objects
  will become inhibited.
· Use the target tracking function only as a navigation aid.
  The final navigation decision must always be made by the operator him/herself.
  Making the final navigation decision based only on the target tracking function information may cause accidents.
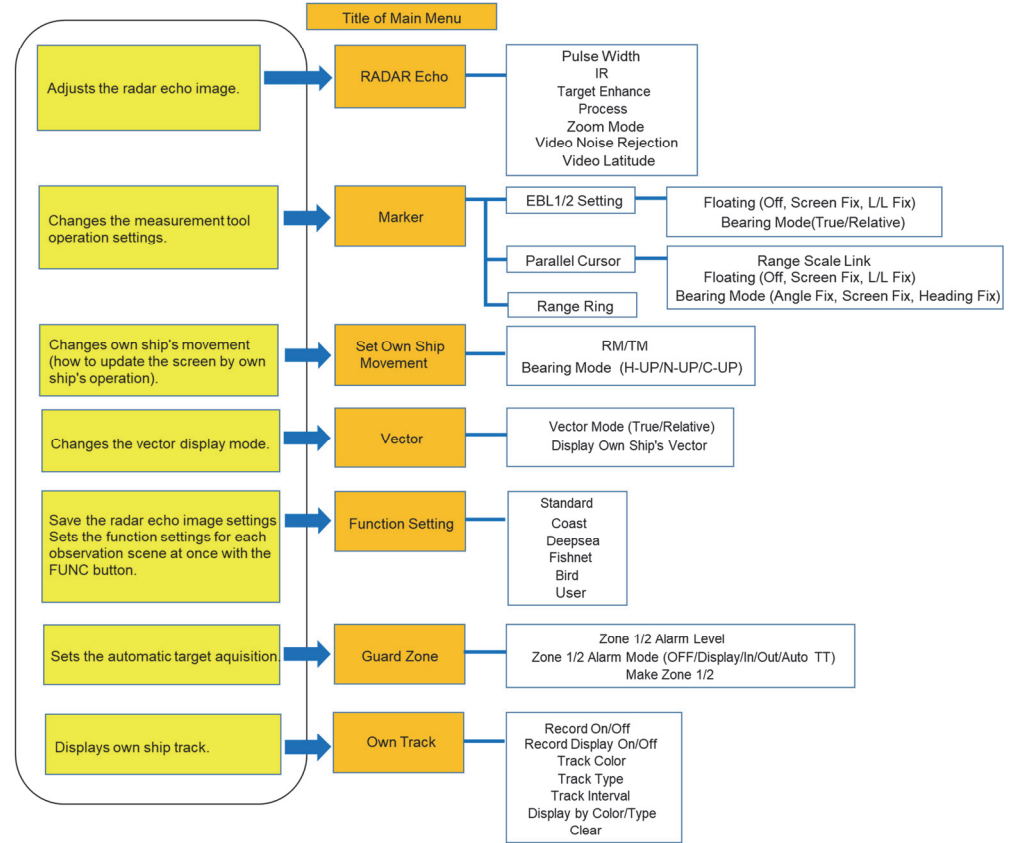
Operation Unit

Name	Shape	Main Function	Name	Shape	Main Function
MENU	MENU	Displays the main menu. Detailed function settings are performed from the main menu.	MULTI	MULTI	When no menu or dialog is displayed, the MULTI control menu is displayed with a press. Various functions such as EBL/VRM, MOB, and anchor watch can be used. Turn left or right to move the cursor, move the menu selection focus, or increase or decrease the value of the numeric input. When the MULTI control is turned left or right while pressing, the cursor can be moved up and down, and the parallel line interval value can be changed when operating the Parallel Cursor.
CLR	CLR	Press: Returns to upper menu hierarchy or clears a dialog. The alarm sound can be silenced while the alarm sound is sounding. Long press: Exit the current function and display the normal screen (transimit /standby screen). * Antenna transmission does not end.	MULTI		
Cross Key		Used to select menu items (focus movement) or move the cursor. Long press to accelerate the cursor move.	GAIN	GAIN	Turn left or right to adjust sensitivity. Push: to switch between AUTO and MANUAL of sensitivity adjustment.
ENT	ENT	Decides menu selection and numeric input. When any menu is not displaying and this button is pressed during antenna transmission, TT is manually aquired at the point where the cursor is. If AIS or TT is already displayed at the cursor location, numerical information is displayed.	SEA	SEA	Turn left or right to adjust sea clutter suppression. Push: to switch between AUTO and MANUAL of sea clutter suppression adjustment.
RANGE	RANGE + −	Switches the display range. Press + to increase the range and press - to decrease the range.	RAIN	RAIN	Turn left or right to adjust rain/snow clutter suppression. Push: to switch between AUTO and MANUAL of rain/snow clutter suppression adjustment.
USER1/ USER2	USER1 USER2	Screen capture function and TLL transmission function can be registered and operated. Also, frequently used menus can be assigned as menu shortcuts to each short press and long press.	FUNC	FUNC	The radar image setting (function mode) that matches the observation scene can be set instantly. Long press to turn off the function mode.
			BRILL	BRILL	Turn left or right to adjust display brightness. When pressed, the display color can be switched to the day, dusk and night. Adjust to a state suitable for the operating time and ambient lightness. Long press to maximize brightness.
EBL	EBL	Calls the EBL function. Used when measuring the direction.			
VRM	VRM	Calls the VRM function. Used when measuring distance.	STBY	STBY	Press to switch to standby mode during antenna transmission. When pressed simultaneously with the [TX/PRF] button, the display unit turns off.
			TX/PRF	TX/PRF	When pressed during antenna standby, switches to the transmission state. Long press during preheat countdown to forcibly terminate preheat countdown. Long press to hide the heading line only while pressing.

MULTI control menu

Name	Example	Overview	Name	Example	Overview
EBL1/EBL2		Measures the target direction. To turn off, by long pressing the MULTI control while focusing on [EBL1] or [EBL2] in the menu.	AIS	AIS List / Ship Name	Diplays the AIS list and ship name.
VRM1/VRM2		Measures the distance to the target. To turn off, by long pressing the MULTI control while focusing on [VRM1] or [VRM2] in the menu.	TT	TT List	Displays TT list or cancels all aquired targets.
Parallel Cursor		Measures the distance and direction with parallel lines. To turn off, by long pressing the MULTI control while focusing on [Parallel Cursor] in the menu.	OFF-CENTER		Moves the display position of own ship.
MOB		Records the point of falling overboard. To turn off, by selecting the menu again.	Mark		Marks any point. To delete each item individually, select [Delete]. To delete all items at once, long press he MULTI control while focusing the [Mark] in menu.
Anchor Watch		Starts watching the anchor dragging. Select "Finish" from the menu to hide the watch circle.	Line	Solid Line / Dashed Line (Short) / Dashed Line (Long)	Draws a line at any point. To delete each item individually, select [Delete]. To delete all items at once, long press he MULTI control while focusing the [Line] in menu.
Vector Length	Ex.) increase	Set the length of the vector taht displayed by calculating from the ship speed/course.	Ownship Mark		Marks own ship's position at the time of menu selection. To delete them individually, select [Delete]. To delete them all at once, long press he MULTI control while focusing the [Ownship mark] in menu.
Radar Trails		Set the display time of radar trails.	Data Off (On)	Data On Data Off	Hides all but the radar image, trails, and cursor etc.

● The main functions of the Main Menu and the usage of the hierarchy are shown below.
Not all menu contents. Refer to the INSTRUCTION MANUAL for details.

Title of Main Menu

- Adjusts the radar echo image. → **RADAR Echo** → Pulse Width / IR / Target Enhance / Process / Zoom Mode / Video Noise Rejection / Video Latitude

- Changes the measurement tool operation settings. → **Marker** →
  - EBL1/2 Setting → Floating (Off, Screen Fix, L/L Fix) / Bearing Mode(True/Relative)
  - Parallel Cursor → Range Scale Link / Floating (Off, Screen Fix, L/L Fix) / Bearing Mode (Angle Fix, Screen Fix, Heading Fix)
  - Range Ring

- Changes own ship's movement (how to update the screen by own ship's operation). → **Set Own Ship Movement** → RM/TM / Bearing Mode (H-UP/N-UP/C-UP)

- Changes the vector display mode. → **Vector** → Vector Mode (True/Relative) / Display Own Ship's Vector

- Save the radar echo image settings Sets the function settings for each observation scene at once with the FUNC button. → **Function Setting** → Standard / Coast / Deepsea / Fishnet / Bird / User

- Sets the automatic target aquisition → **Guard Zone** → Zone 1/2 Alarm Level / Zone 1/2 Alarm Mode (OFF/Display/In/Out/Auto TT) / Make Zone 1/2

- Displays own ship track. → **Own Track** → Record On/Off / Record Display On/Off / Track Color / Track Type / Track Interval / Display by Color/Type / Clear

● In addition to the main menu, the basic functions and functions that may be used during navigation are shown below.

- Turns on the display unit. → STBY — Push the STBY button.
- Turns off the display unit. → STBY + TX/PRF — Press the STBY button and TX/PRF button simultaneously.
- Starts the transmission. → TX/PRF — Push the TX/PRF button.
- Ends the transmission. → STBY — Push the STBY button.
- Changes the color and brightness. → BRILL — Press the BRILL control to change the color tone in 3 steps. / BRILL — Turning the BRILL control changes the display brightness.
- Changes the sound volume. → The volume of each sound can be changed with the "Buzzer" setting of Adjust Menu (long press MENU button, enter 0 in Code input). Note that depending on the setting, important sounds such as alarms may not be heard.

Note: Each display color can be changed in the "Display Screen" setting of the Adjust Menu (long press the MENU button and enter 0 for Code input). Please note that depending on the settings, important displays such as targets may be difficult to see.