5.5 MENU Operation

List of MENU

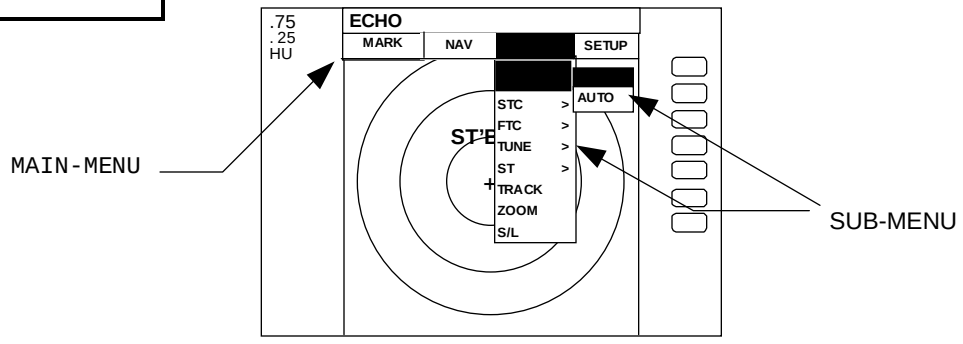
List of Main Menu

MARK (MAIN-MENU)		NAV (MAIN-MENU)		ECHO (MAIN-MENU)		SETUP (MAIN-MENU)	
EBL1	ON/OFF	MODE	HU/HS/NU/CU/TM •MANU/NMEA•	GAIN	AUTO/MAN	WINDOW	PPI/SEMI3D+PPI/ PPI+PPI/PPI+NAV/ ALLPPI/ALL PPI+PPI/MOB
VRM1	ON/OFF			STC	AUTO/MAN/HARBOR		
EBL2	ON/OFF	GZ	ON/OFF	FTC	AUTO/MAN		
VRM2	ON/OFF	OFF-C	ON/OFF	TUNE	AUTO/MAN	SEL WIN	
FL EBL2	ON/OFF	SLEEP	OFF/5min/10min/ 15min	ST	OFF/ST1/ST2	PICTURE	DAY/NIGHT
FL VRM2	ON/OFF			TRACK	OFF/15SEC/30SEC/ 1MIN/3MIN/6MIN/ CONT	SYSTEM CHECK	
HDG OFF	OFF					CUSTOM	KEY ASSIGNMENT PRESET1 (SUB-MENU) PRESET2 (SUB-MENU) ADJUST (SUB-MENU)
///CSR	ON/OFF			ZOOM	ON/OFF		
RINGS	ON/OFF			SL	SHORT/LONG		
VAR RNG	ON/OFF						
TARGET							
+MK LINE	ON/OFF						

List of Custom Menu

PRESET1 (SUB-MENU)		PRESET2 (SUB-MENU)	
HM FLSH	ON/OFF	GZ LEVEL	1-7
STERN M	ON/OFF	GZ MODE	IN/OUT
NORTH M	ON/OFF	HOLD	ON/OFF
ST'BY	NAVI/NOR	DISPLAY	RDR/MONI/NAV
BUZ VOL	OFF/LOW/HIGH	EXT BUZ	OFF / CONT / INT
RM UNIT	NM / KM / SM	IN P/R	1080/1024/2048/4096/360
DEPTH	M / FT / FM	OUT P/R	1080/1024/2048/4096/360
TEMP	°C / F	DEMO	ON / OFF
EBL BRG	REL / TRUE / MAG	IR	OFF / IR1 / IR2
WP BRG	TRUE / MAG	SPD SET	NMEA / MANU 0.0 KT
HEAD INPUT	NMEA / SIN•COS /12BIT / 10BIT	LANGUAGE	15 countries
HEAD	TRUE / MAG	SCAN SPEED	STD / HIGH
+MK MODE	DIST/BRG•/•LAT/LON		
P TABLE	0 - 2		

ADJUST (SUB-MENU)	
TIMING ADJ	
HEAD ADJ	
TUNING CAL.	
ANTENNA	1-9
GAIN	1-30
STC	1-16



5.5.1 Mark Menu

[XXX] •keys to press

Setting for markers and cursors

•Common operations for the MARK menu

(Up to the point when "MARK" menu is selected from the main menu)

Press the "MENU" key and select "MARK" from the displayed 4 main menus using the left-right cursor. (The contents of the selected MENU will appear on a pull-down display in accordance with the movement of the left-right cursor.)

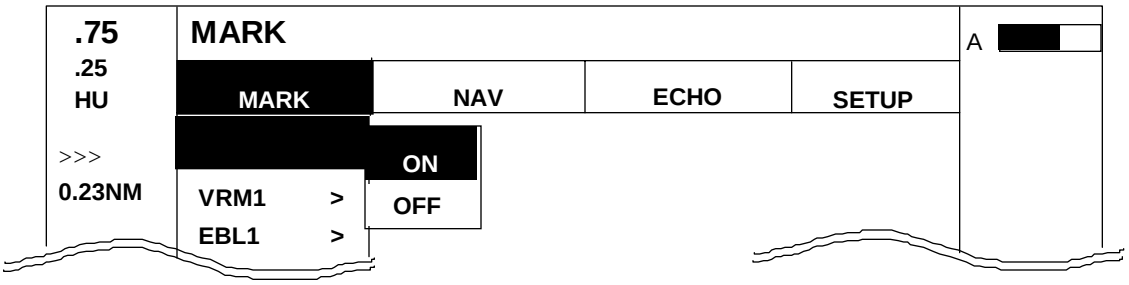
[MENU] → [Left/Right]
(Select MARK)

Further explanation about the MARK menu will be conducted on the assumption that this "common operation for the MARK menu" has already been completed.

5.5.1.1 Bearing measurement (EBL1)

(1) Select EBL1 from the pull-down display items using the up-down cursor key, and press the "ENT" key.

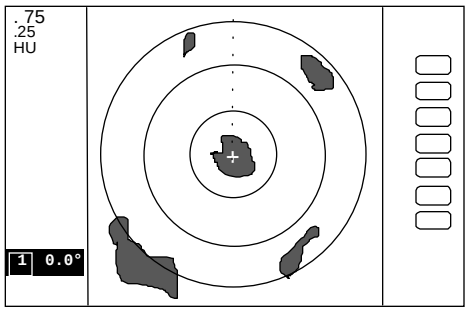
(2) When the ON/OFF sign is displayed beside the EBL1 item, select ON with the up-down cursor keys and press the "ENT" key.



(3) When the "ENT" key is pressed, electric bearing line (EBL1) appears and the angle from the direction of the ship's head which is set at 0 degree will appear in a reverse display at the lower left of the screen.

(4) Place the marker on the center of the target with the control knob and read the bearing. Then, the display setting for EBL1 will be completed either (a)with the EBL1 display still on the screen if the "ENT" key is pressed, or (b)without the EBL1 display if the "MENU" key is pressed. (c)Pressing another function key will lead to the function of that key with the EBL1 display still on the screen.

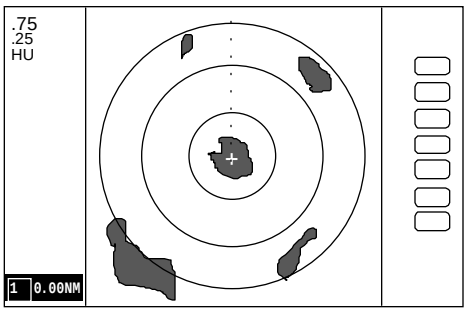
Note:• [1] xxx•xϕindicates EBL1.



[Up/Down] → [ENT] → [Up/Down] → [ENT] → [Control knob] ⟶ [ENT] (a)
(Select EBL1) (Select ON) (EBL1 operation) μ> [MENU] (b)
μ> [Other function key] (c)

Note: The displayed EBL angle is relative to heading or true to north, depends on the setting of "EBL BRG" in the "SETUP" menu.

5.5.1.2 Determining the distance (VRM1)



(1) Select VRM1 from the pull-down display items using the up-down cursor key, and press either the "ENT" key.

(2) When the ON/OFF sign is displayed beside the VRM1 item, select ON with the up-down cursor keys and press the "ENT" key.

(3) When the "ENT" key is pressed, the variable range marker1 (VRM1) and the distance in a reverse display appears at the lower left of the screen (See Note), and the display is set for VRM1.

(4) Place the marker on the front edge of the target with the control knob and read the distance. Then, the display setting for VRM1 will be completed either (a)with the VRM1 display still on the screen if the "ENT" key is pressed, or (b)without the VRM1 display if the "MENU" key is pressed. (c)Pressing another function key will lead to the function of that key with the VRM1 display still on the screen.

[Up/Down] → [ENT] → [Up/Down] →• [ENT] •→ [Control knob] ⟶ [ENT]

(a)

(Select VRM1) (Select ON) (VRM1 operation) μ>

[MENU] (b)

μ> [Other function key]

(c)

Note: [1] xx.xx NM indicates VRM1.

5.5.1.3 Bearing measurement (EBL2)

Refer to the section “Bearing measurement (EBL1)”.
The "EBL2" will appear in a reverse display at the lower right of the screen.
Note:• [2] xxx.xϕindicates EBL2.

5.5.1.4 Determining the distance (VRM2)

Refer to the section “Determining the distance (VRM1)”.
The "VRM2" will appear in a reverse display at the lower right of the screen.
Note: [2] xx.xx NM indicates VRM2.

5.5.1.5 Measuring the distance or angle between two points (FL EBL2, FL VRM2)

Determining the distance (VRM2)

(a) Preparation for the measurement

(1) Use the up-down cursor keys to select FL VRM2 from among the pull-down display items, and press the "ENT" key.

(2) Use the up-down cursor keys to select ON from the ON/OFF display beside the FL VRM2 items, and press the "ENT" key. “SET START POINT” is displayed and a small cross mark

appears. (Once this is set, the "ON" state continues unless changes are made.)

[Up/Down] → [ENT] → [Up/Down] → [ENT] ----------FL VRM2 is turned ON and

(Select FL VRM2) (Select ON) the small cross mark appears.

(b) Setting a reference point for measurement of the distance

Use the left-right and up-down cursor keys to place the small cross mark on one of the two echoes whose distance will be measured, and press the "ENT" key.

[Up/Down] & [Left/Right] →---------- [ENT] Criterion of the reference point is set.

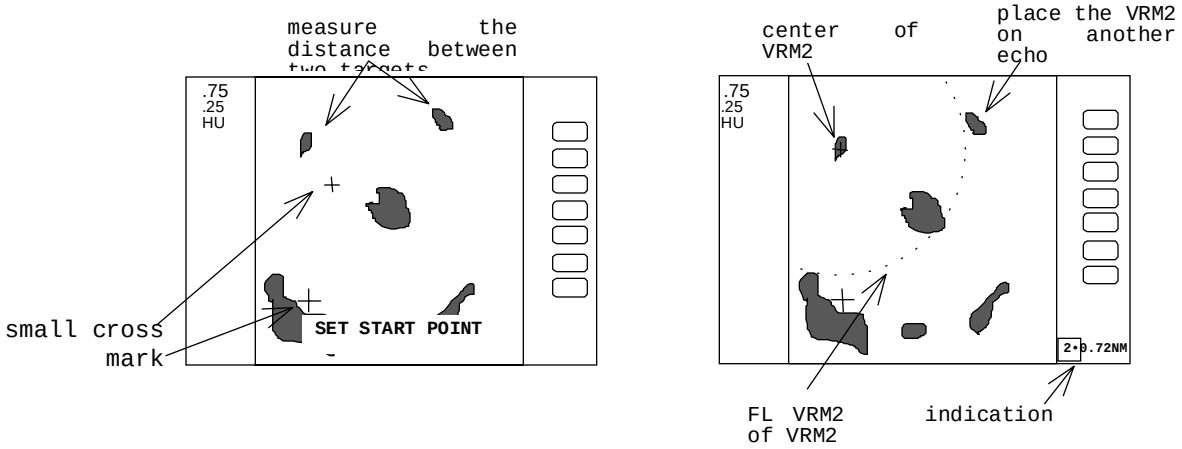
(Place the cross cursor on an echo)

(c) Measuring

Perform the operations in the above mentioned "Common operation for the MARK menu" and "measuring the distance(VRM2)", and place the VRM2 on another echo.

VRM2 is displayed on the screen around the placed fixed cross cursor.

"[2] xx. xNM" which is displayed at the lower right will be the distance between the two points.



Note: EBL2 and VRM2 are not follow to "ZOOM" and "OFF-C" function.

5.5.1.6 Measuring the angle between two points (FL EBL2)

(a) Preparation for the measurement

(1) Use the up-down cursor keys to select FL EBL2 from among the pull-down display items, and press the "ENT" key.

(2) Use the up-down cursor keys to select ON from the ON/OFF display beside the FL EBL2 items, and press the "ENT" key. "SET START POINT" is displayed and a small cross mark appears. (Once this is set, the "ON" state continues unless changes are made.)

[Up/Down] → [ENT] → [Up/Down] → [ENT] ----------FL EBL2 is turned ON and

(Select FL EBL2) (Select ON) the small cross mark appears.

(b) Setting a reference point for measurement of the angle.

Use the left-right and up-down cursor keys to place the small cross mark on one of the two echoes whose angle will be measured, and press the "ENT" key.

[Up/Down] & [Left/Right] → [ENT] --- Criterion of the reference point is set.

(Place the cross cursor on an echo)

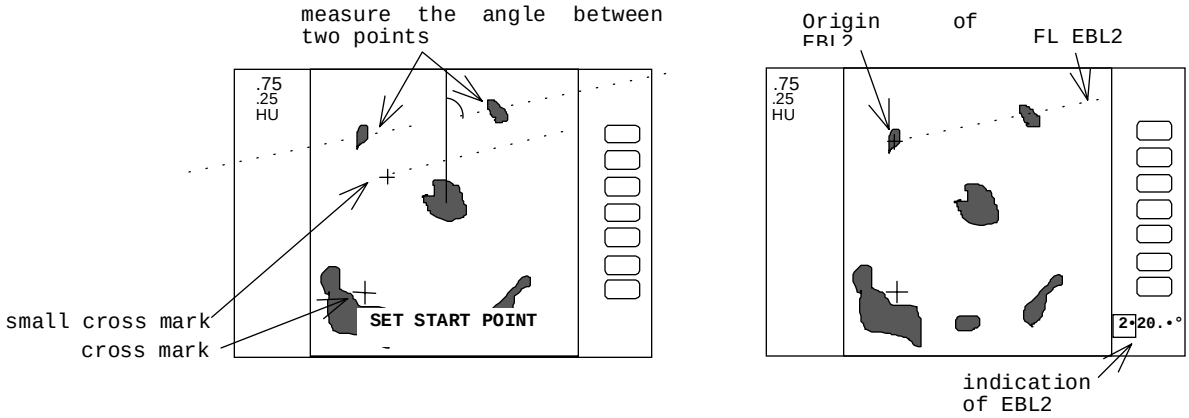
(c) Measuring

Perform the operations in the above mentioned "Common operation for the MARK menu" and "measuring the distance(EBL2)", and place the EBL2 on another echo.

EBL2 is displayed on the screen based on the placed fixed cross cursor.

"2 xx. xxϕ" which is displayed at the lower right will be the angle between the two points.

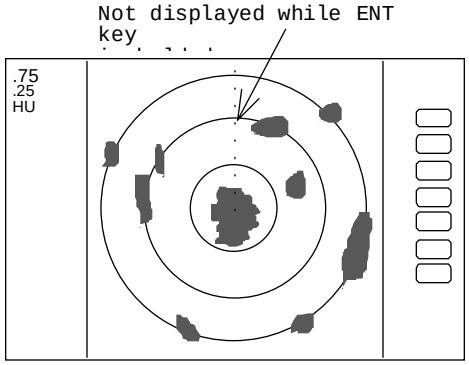
Note: The displayed EBL angle is relative to heading or true to north, depends on the setting of "EBL BRG" in the "SETUP" menu.



5.5.1.7 Erasing heading marker temporarily (HDG OFF)

(1) Use the up-down cursor key to select HDG OFF from among the pulled down and displayed items.

(2) Press the “ENT” key. The heading marker is not displayed as long as you hold it down.



Up/Down → ENT ---------- The heading marker is not displayed as long as you hold “ENT” key down.
(Select HDG OFF)

5.5.1.8 Using parallel cursors (///CSR)

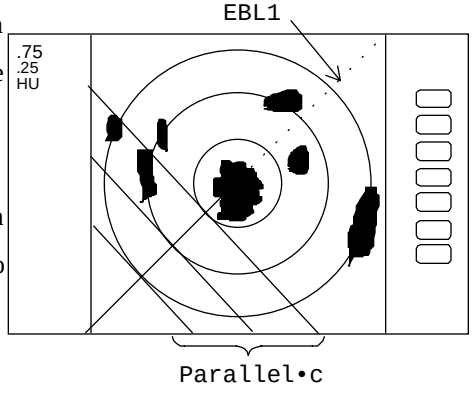
Normally EBL is used to measure the exact bearing from the position of your ship to a target. However, you can also use parallel cursors.

(1) Use the up-down cursor key to select ///CSR from among the pull-down and display items, and press the “ENT” key.(ON/OFF display beside the ///CSR item)

(2) Use the up-down cursor key to select ON .

(3) Press the “ENT” key. Parallel cursors will appear on the screen. As you move EBL, the parallel cursors also move.

To cancel the ///CSR function, either select OFF in (2).



Up/Down → ENT → Up/Down (Select ON) → ENT ----------Parallel cursor appears

(Select ///CSR) μ> Up/Down (Select OFF) → ENT ----------Parallel cursor non-appears

Note: Interval of ///CSR same as fixed range marker.

///CSR moves with EBL1.

5.5.1.9 Establishment of the indication of the RANGE RINGS (RINGS)

(1) Use the up-down cursor key to select RINGS from among the pull-down and display items, and press the "ENT" key.(ON/OFF displayed beside the RINGS item)

(2) Use the up-down key to select ON or OFF and press the "ENT" key

Select ON Range Rings ON

Select OFF Range rings OFF

Up/Down → ENT ---→ Up/Down (Select ON) → ENT ----------Range rings appears

(Select RINGS) μ> Up/Down (Select OFF) → ENT ----------Range rings non-appears

•Number of range rings and range interval

•Radome antenna (RA40C)

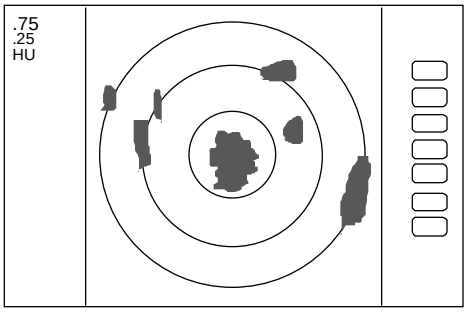
Range	0.125	•0.25	0.5	0.75	1.5	3	6	12	24
Number of Rings	2	2	2	3	6	6	6	6	6
Interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4

Radome antenna (RA41C)

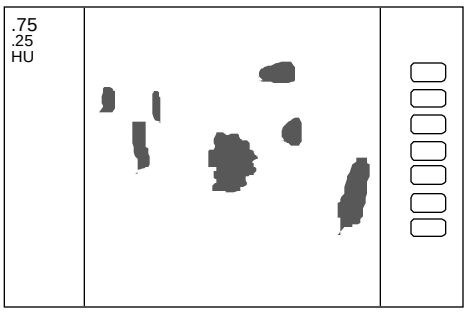
Range	0.125	0.25	0.5	0.75	1.5	3	6	12	24	36
Number of Rings	2	2	2	3	6	6	6	6	6	8
Interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	4

Open antenna (RA42C)

Range	0.125	0.25	0.5	0.75	1.5	3	6	12	24	48
Number of Rings	2	2	2	3	6	6	6	6	6	8
Interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	6



Range rings



Range rings OFF

5.5.1.10 Variable range function (VAR RNG)

Usually the range changes in steps as 0.5--0.75--1.5--3.0--....., but using this function will enable a consecutive change such as 0.5--0.6--0.7--0.8--..... .

(1) Use the up-down cursor keys to select VAR RNG from among the pulled down and displayed

items, and press the "ENT" key.

(2) When ON is selected with the up-down cursor key from the ON/OFF display beside the VAR RNG item, and the "ENT" key is pressed, the VAR RNG function becomes valid and VAR will be displayed at the upper left of the screen (beside MODE).

Setting procedure

[Up/Down]	→	[ENT]	→ [Up/Down] (Select ON)	→	[ENT]	VAR RNG function is turned ON
(Select VAR RNG)			μ> [Up/Down] (Select OFF)	→	[ENT]	VAR RNG function is turned OFF

(3) The range changes continuously with pressing the up-down cursor while the VAR RNG function is on, and it changes in steps with the "RANGE UP" or "RANGE DOWN" keys.

Method of use

[Up/Down] ---------- Range changes continuously

[RANGE UP] & [RANGE DOWN] ---------- Range changes in step

(4) To cancel the vari-range function, press a key except "RANGE UP" and "RANGE DOWN" key. When use the function, follow from (1) again.

5.5.1.11 Output the position data of Cursor (TARGET)

Place the cross cursor to the position that is to output position data with up-down and left-right key.

Use the up-down cursor keys to select TARGET from among the pull-down display items, and press the "ENT" key. The L/L data of the position will be output to NMEA port with TLL format.

[Up/Down] → [•••] • ..... output the L/L position of the cursor

(Select TARGET)

Note: When activate this function, nothing happens on the screen.

5.5.1.12 Follow the Distance and Bearing marker on the cursor (+MK LINE)

(1) Use the up-down cursor keys to select +MK LINE from among the pulled down and displayed items, and press the "ENT" key.

(2) When ON is selected with the up-down cursor key from the ON/OFF display beside the +MK LINE item, and the "ENT" key is pressed, the +MK LINE function becomes valid, and distance/bearing marker will be displayed at the cross cursor.

Setting procedure

[Up/Down]	→	[ENT]	→ [Up/Down] (Select ON)	→	[ENT]	+MK LINE function is turned ON
(Select +MK LINE)			μ> [Up/Down] (Select OFF)	→	[ENT]	+MK LINE function is turned OFF

(3) The distance/bearing marker follows to the cross cursor until +MK LINE function is turned OFF.