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	GAIN	AUTO MANU	WINDOW	PPI SEMI3D/PPI PPI/PPI PPI/NAV ALLPPI ALL PPI/PPI MOB
VRM1	ON OFF			STC	AUTO MANU HARBOR		
EBL2	ON OFF	GZ	ON OFF	FTC	AUTO MANU		
VRM2	ON OFF	OFF-C	ON OFF	TUNE	AUTO MANU	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	ACQ	(*1)			CUSTOM	KEY ASSIGNMENT PRESET1 (SUB-MENU) PRESET2 (SUB-MENU) NMEA PRESET ADJUST (SUB-MENU) ATA PRESET (*1)
///CSR	ON OFF	DATA	ON OFF (*1)	ZOOM	ON OFF		
RINGS	ON OFF	DEL	(*1)	SL	SHORT LONG		
VAR RNG	ON OFF	TGT NUM	(*1)				
TARGET		ALL DEL	(*1)				
+MK LINE	ON OFF						

(*1): For ATA

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 LOG 200P
HEAD INPUT	NMEA SIN/COS 12BIT 10BIT	LANGUAGE	16 countries
HEAD	TRUE MAG	SCAN SPEED	STD HIGH
+MK MODE	DIST/BRG LAT/LON	COLOR	MONO MULTI
P TABLE	0 – 2		

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

MAIN-MENU

SUB-MENU
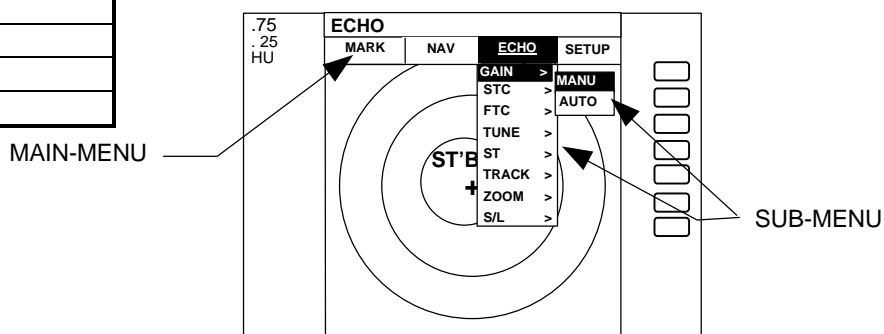
5.5.1 Mark Menu

Press the "MENU" key and select "MARK" from the four displayed menus by using the left or right arrows on the cursor pad.   The contents of the selected MENU will reveal beneath its name when it's highlighted.
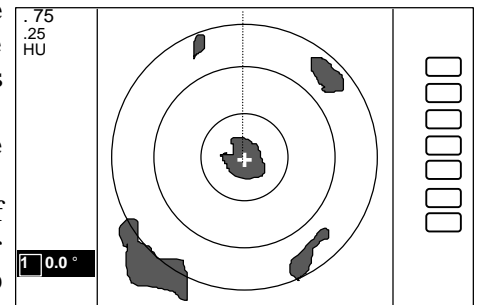
[MENU] ⟶ [Left/Right]
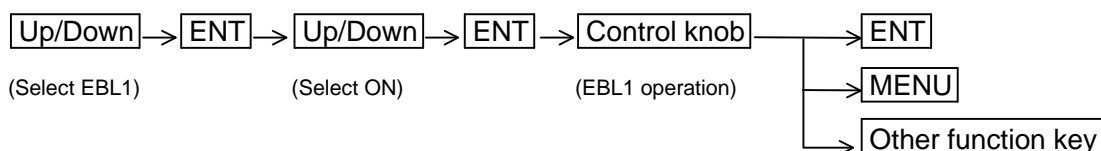
(Select MARK)

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 box is displayed beside the EBL1 item, select ON with the up-down cursor keys and press the "ENT" key.

.75 .25 HU	MARK				A ▮▮
	MARK	**NAV**	**ECHO**	**SETUP**	
>>> 0.23NM	EBL1 >	**ON**			
	VRM1 >	**OFF**			
	EBL2 >				
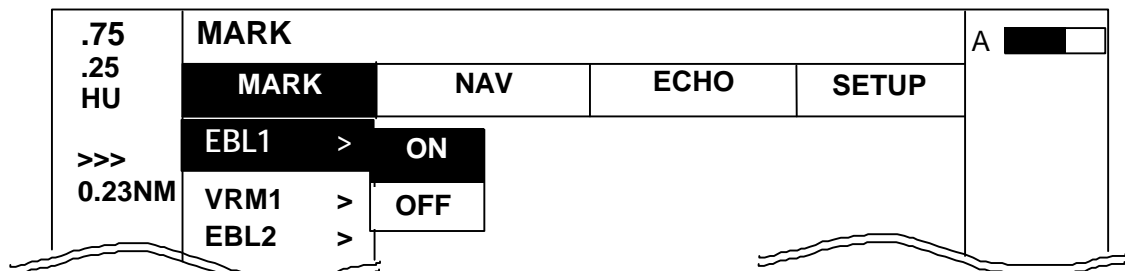
(3)   When the "ENT" key is pressed, electronic bearing line (EBL1) appears and the angle from the direction of the boat's heading will appear in a highlighted display at the lower left of the screen.   The displayed EBL angle is either relative to your heading, true or magnetic north, depending on the setting of "EBL BRG" in the "SETUP>CUSTOM>PRESET1" menu.

(4)   Rotate the control knob until the line is at the center of the target and read the bearing.   Press "ENT" or another function key and the EBL will remain onscreen.   To remove it, either use the menu or press the EBL1 soft key.
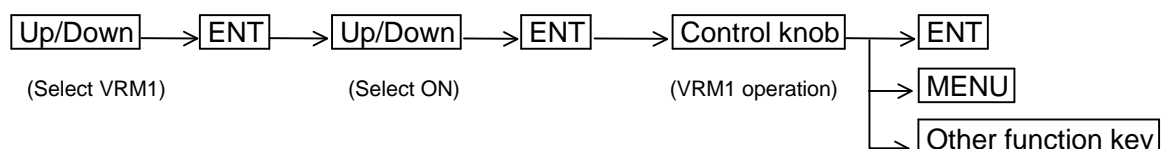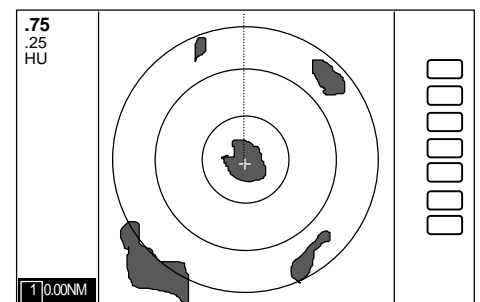
Note: ☐1 **xxx.x indicates the relative bearing measured by EBL1.**

[Up/Down] → [ENT] → [Up/Down] → [ENT] → [Control knob] ─── → [ENT]
                                                                → [MENU]
                                                                → [Other function key]

(Select EBL1)   (Select ON)   (EBL1 operation)

5.5.1.2 Determining distance (VRM1)

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

(2)   When the ON/OFF box 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) appears and the distance from it to the boat will appear in highlighted characters at the lower left of the screen.

(4)   Using the control knob, change the size of the ring until you place the marker on the front edge of the target.   Read the distance.   Press "ENT" or another function key and the VRM will remain onscreen.   To remove it, either use the menu or press the VRM1 soft key.

[Up/Down] → [ENT] → [Up/Down] → [ENT] → [Control knob] → [ENT]
                                                          → [MENU]
                                                          → [Other function key]

(Select VRM1)   (Select ON)   (VRM1 operation)

Note: ☐1 **xx.xx NM indicates VRM1.**

5.5.1.3 Bearing measurement (EBL2)

Use the same procedure for placing EBL1. The angle measurement will appear in highlighted characters at the lower right of the screen.

Note: 2   **xxx.x indicates EBL2.**

5.5.1.4 Determining distance (VRM2)

Use the same procedure for placing VRM1. The distance measurement will appear in highlighted characters at the lower right of the screen.

Note: 2   **xx.xx NM indicates VRM2.**

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

(1) Select FL VRM2 on the MARK menu and press the "ENT" key.
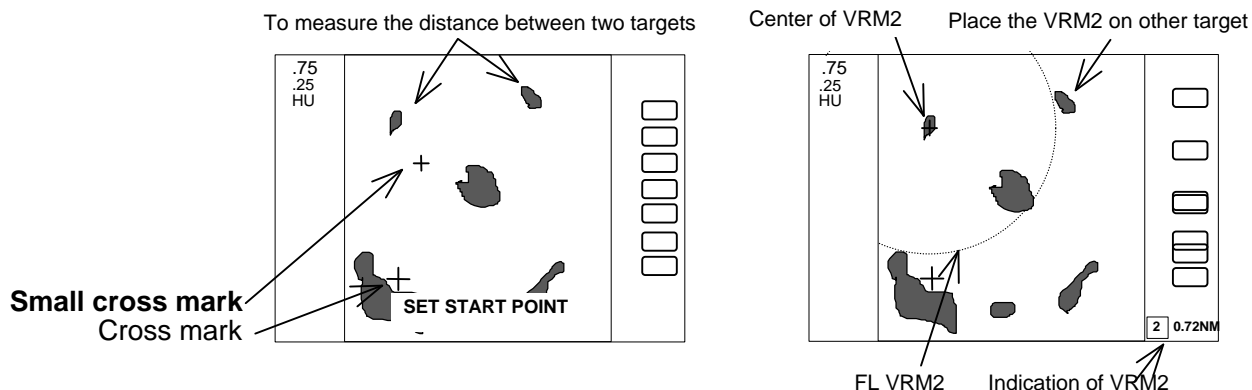(2) Select ON from the ON/OFF box and press "ENT".   "SET START POINT" is displayed and a small cross mark appears.

| Up/Down | ⟶ | ENT | ⟶ | Up/Down | ⟶ | ENT | ----------FL VRM2 is turned ON and the small cross
(Select FL VRM2)   (Select ON)   mark appears.

(3) Use the left-right and up-down cursor keys to place the 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)

(4) Select VRM2 from the menu as described previously or press the "VRM2" soft key.   Rotate the control knob until it is on the second echo, then read the distance between the two echoes or points in the highlighted text at the lower right of the screen

To measure the distance between two targets   Center of VRM2   Place the VRM2 on other target

Small cross mark
Cross mark

SET START POINT

FL VRM2   Indication of VRM2

Note: FL VRM2 center do not follow to the "ZOOM" and "OFF-C" modes.

5.5.1.6 Measuring the angle between two points (EBL2, FL EBL2)

(1) Select FL EBL2 on the MARK menu and press the "ENT" key.
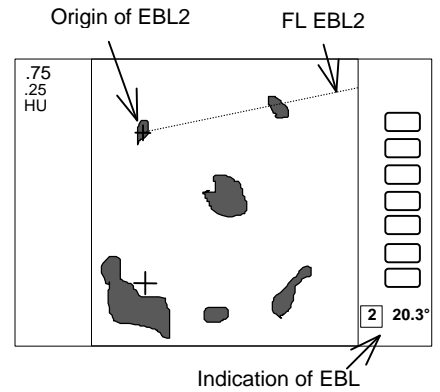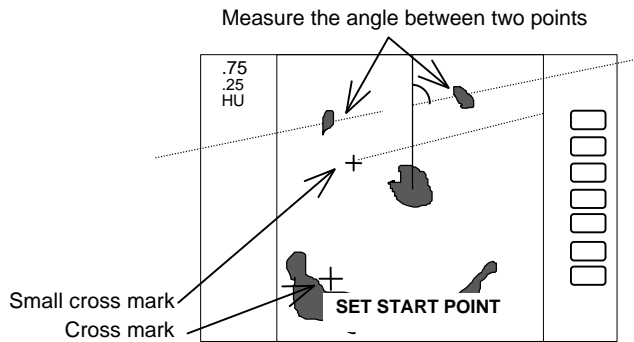(2) Select ON from the ON/OFF box and press "ENT".   "SET START POINT" is displayed and a small cross mark appears.

Up/Down ⟶ ENT ⟶ Up/Down ⟶ ENT --------- FL EBL2 is turned ON and the small cross mark appears.
(Select FL EBL2)   (Select ON)

(3) 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)

(4) Select EBL2 from the menu as described previously or press the "EBL2" soft key.   Rotate the control knob until it is on the second echo, then read the angle in the highlighted text at the lower right of the screen.   The angle is relative to either the boat's heading, true or magnetic north, depending on the setting of "EBL BRG" in the "SETUP>CUSTOM>PRESET1" menu.

Measure the angle between two points

Origin of EBL2   FL EBL2

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HU

SET START POINT

Small cross mark
Cross mark

.75
.25
HU

2 20.3°

Indication of EBL

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 down the "ENT" key.

Not displayed while ENT key is held

.75
.25
HU

Up/Down → ENT   The heading marker is off as long as you press and
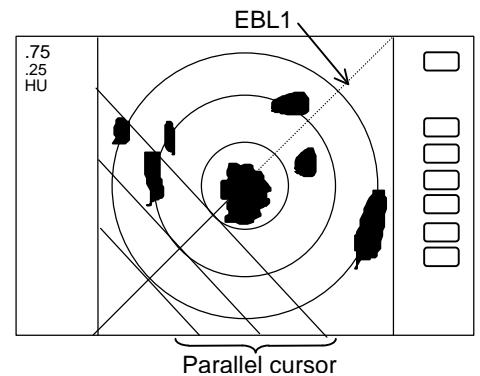
(Select HDG OFF)   hold the "ENT" key down.
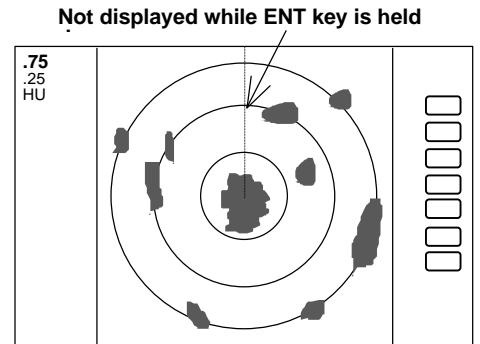
5.5.1.8 Using parallel cursor (///CSR)

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

(1) Select ///CSR from the MARK menu, press "ENT" and select ON.
(2) Press the "ENT" key. Parallel cursors will appear on the screen. As you move the EBL, the parallel cursors will also rotate.
(3) To cancel the ///CSR function, either select OFF in the menu or press the ///CSR soft key.

EBL1

.75
.25
HU

Parallel cursor

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

(Select ///CSR)   Up/Down (Select OFF) → ENT   Parallel cursor disappears.

Note: Interval of ///CSR is same as fixed range marker.   ///CSR moves with EBL1.

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

(1) Select RINGS from MARK menu and press the "ENT" key.
(2) Use the up-down key to select ON or OFF and press the "ENT" key

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

(Select RINGS)   Up/Down (Select OFF) → ENT ------------- Range rings disappear.

Number of range rings and range interval

Radome antenna (RA51)

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	6
Interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	6

Open antenna (RA52)

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	6
Interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	8

Open antenna (RA53)

Range	0.125	0.25	0.5	0.75	1.5	3	6	12	24	48	64
Number of Rings	2	2	2	3	6	6	6	6	6	6	4
Interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	8	16

Open antenna (RA54)

Range	0.125	0.25	0.5	0.75	1.5	3	6	12	24	48	72	
Number of Rings	2	2	2	3	6	6	6	6	6	6	6	
Interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	8	12	

Open antenna (RA55)

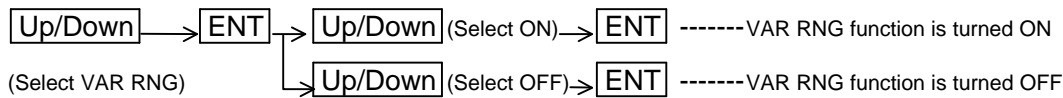| Range	0.125	0.25	0.5	0.75	1.5	3	6	12	24	48	96	120
Number of Rings	2	2	2	3	6	6	6	6	6	6	6	6
Interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	8	16	20
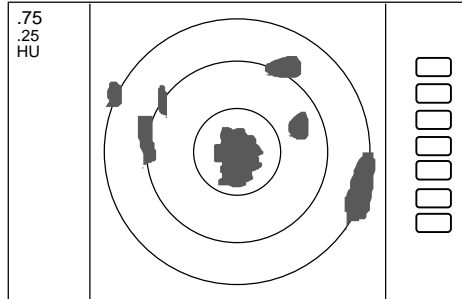
Range rings ON

Range rings OFF

5.5.1.10 Variable range function (VAR RNG)

Using the "RANGE UP" and "RANGE DOWN" buttons changes the displayed range in small predetermined increments. The VAR RNG function allows you to make the change in 0.1 NM increments using the up and down arrows on the cursor pad.

(1) Select VAR RNG from the MARK menu press "ENT", then turn on the function.
(2) 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) ⟶ Up/Down (Select OFF) ⟶ ENT ------- VAR RNG function is turned OFF

Method of use

Up/Down --- Range changes continuously

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

(3) To cancel the VAR RNG function, turn it off using the menu or press the "VAR RNG" soft key.

5.5.1.11 Output the position of the cursor location to another NMEA device (TARGET).

(1) Turn on the TARGET function in the MARK menu
(2) Using the cursor pad, move the cursor cross so it is directly over the position you would like to send to another navigation unit.
(3) When you press "ENT" the latitude and longitude data of the position will be output to the NMEA port in TLL format.

Up/Down ⟶ ENT --------------------------------- Output the L/L position of the cursor
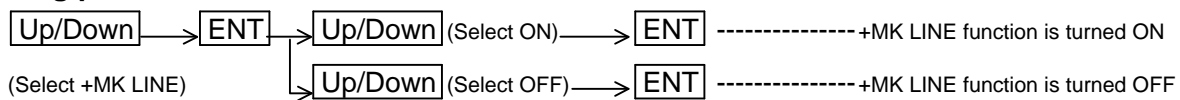
(Select TARGET)
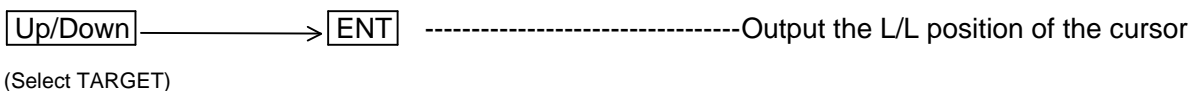
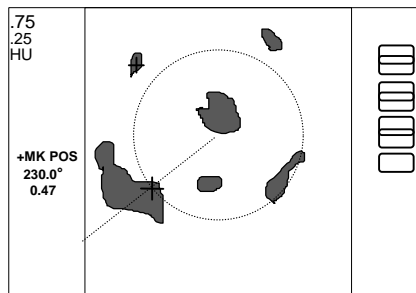**Note: When you activate this function, nothing happens onscreen.**

5.5.1.12 Determine the distance and bearing to a marker (+MK LINE).

(1) Select +MK LINE from the MARK menu and turn it on.
(2) A variable range marker and an electronic bearing line will appear onscreen. A cross marker will be at their intersection. This is the mark position.
(3) The variable range marker and the electronic bearing line will follow the cross marker with the Up/Down and Left/Right cursor pad control. Use them to place the cross marker over the position to which you want to determine range and bearing.
(4) The data will be displayed in the lower left corner of the screen.
(5) Turn off the function using the menu or press the "+MK LINE" soft key.

Setting procedure

Up/Down ⟶ ENT ⟶ Up/Down (Select ON) ⟶ ENT -------------- +MK LINE function is turned ON

(Select +MK LINE) ⟶ Up/Down (Select OFF) ⟶ ENT -------------- +MK LINE function is turned OFF

.75
.25
HU

+MK POS
230.0°
0.47

+MK LINE   OFF

.75
.25
HU

+MK POS
230.0°
0.47

+MK LINE   ON

The distance/bearing marker follows to cross
cursor. EBLs and VRMs can be used separately.