

## 5.5 MENU Operation

### List of MENU

#### List of Main Menu

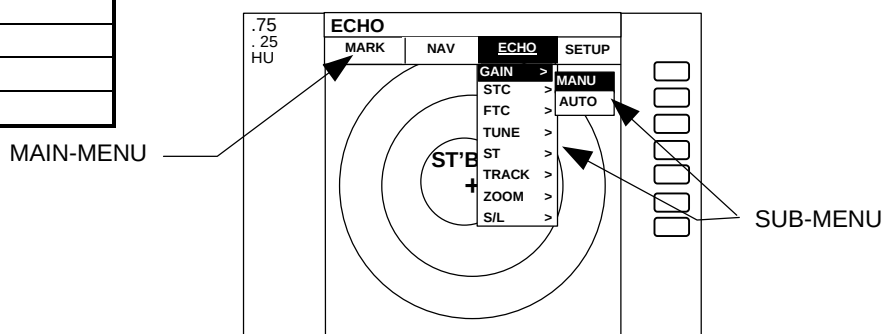
| MARK<br>(MAIN-MENU) |        | NAV<br>(MAIN-MENU) |                | ECHO<br>(MAIN-MENU) |                                           | SETUP<br>(MAIN-MENU) |                                                                                                                         |
|---------------------|--------|--------------------|----------------|---------------------|-------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------|
| EBL1                | ON OFF | MODE               | HU HS NU CU    | GAIN                | AUTO MANU                                 | WINDOW               | PPI SEMI3D/PPI<br>PPI/PPI PPI/NAV<br>ALLPPI ALL PPI/PPI<br>MOB                                                          |
| VRM1                | ON OFF |                    | TM             | STC                 | AUTO MANU<br>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 | ST                  | OFF ST1 ST2                               | PICTURE              | DAY NIGHT                                                                                                               |
| FL VRM2             | ON OFF |                    | 15min          | TRACK               | OFF 15SEC 30SEC<br>1MIN 3MIN 6MIN<br>CONT | SYSTEM CHECK         |                                                                                                                         |
| HDG OFF             | OFF    | ACQ                | (*1)           |                     |                                           | CUSTOM               | KEY ASSIGNMENT<br>PRESET1<br>(SUB-MENU)<br>PRESET2<br>(SUB-MENU)<br>NMEA PRESET<br>ADJUST (SUB-MENU)<br>ATA PRESET (*1) |
| ///CSR              | ON OFF | DATA               | ON OFF (*1)    | ZOOM                | ON OFF                                    |                      |                                                                                                                         |
| RINGS               | ON OFF | DEL                | (*1)           | SL                  | SHORT LONG                                |                      |                                                                                                                         |
| VAR<br>RNG          | ON OFF | TGT<br>NUM         | (*1)           |                     |                                           |                      |                                                                                                                         |
| TARGET              |        | ALL DEL            | (*1)           |                     |                                           |                      |                                                                                                                         |
| +MK<br>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 |



### 5.5.1 Mark Menu

XXX = keys to press

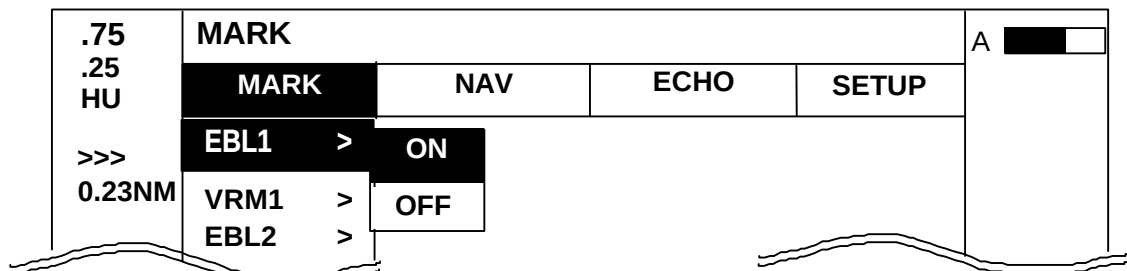
Press the "MENU" key and select "MARK" from the four displayed menus by using the left or right arrows on the cursor pad. The contents of the selected MENU will reveal beneath its name when it's highlighted.

MENU → Left/Right

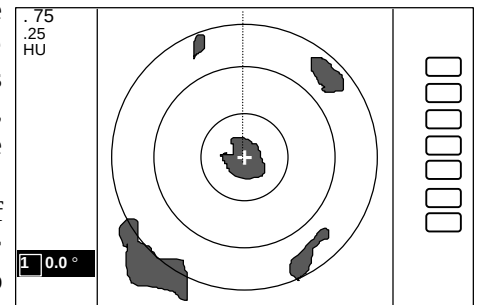
(Select MARK)

#### 5.5.1.1 Bearing measurement (EBL1)

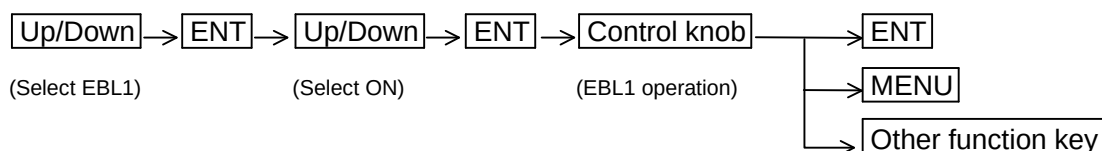
- (1) Select EBL1 from the pull-down display items using the up-down cursor key, and press the "ENT" key.
- (2) When the ON/OFF box is displayed beside the EBL1 item, select ON with the up-down cursor keys and press the "ENT" key.



- (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.

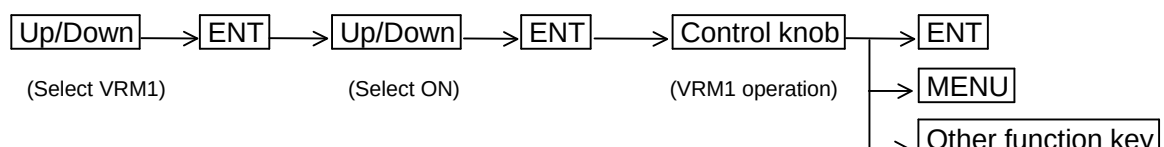
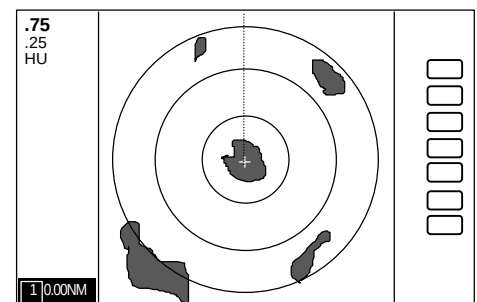


**Note:** 1 xxx.x indicates the relative bearing measured by EBL1.



#### 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.



**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.

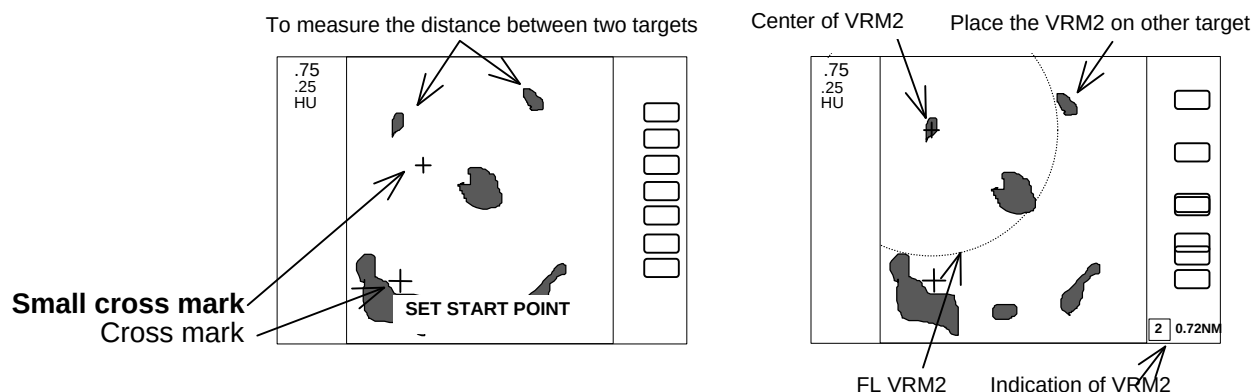
Up/Down → ENT → Up/Down → ENT ----- FL VRM2 is turned ON and the small cross mark appears.  
(Select FL VRM2) (Select ON)

- (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



**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.

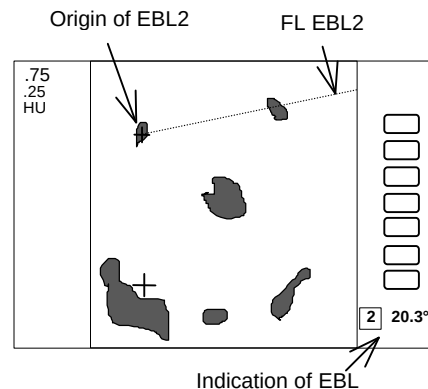
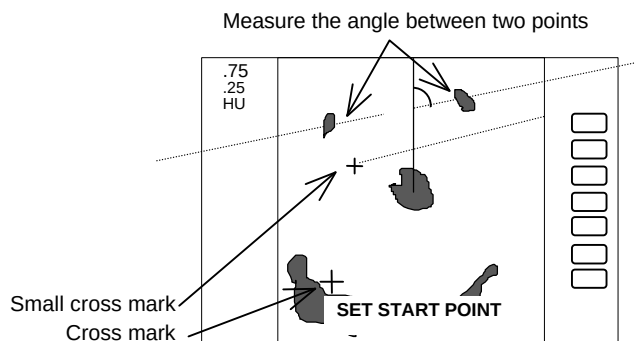
Up/Down → ENT → Up/Down → ENT ----- FL EBL2 is turned ON and the small cross mark appears.  
(Select FL EBL2) (Select ON)

- (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)

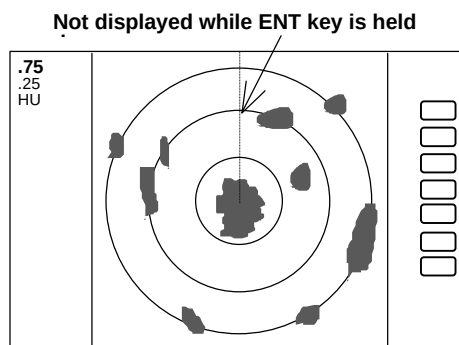
- (4) Select EBL2 from the menu as described previously or press the "EBL2" soft key. Rotate the control knob until it is on the second echo, then read the angle in the highlighted text at the lower right of the screen. The angle is relative to either the boat's heading, true or magnetic north, depending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



### 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.

**Up/Down** → **ENT** The heading marker is off as long as you press and hold the "ENT" key down.



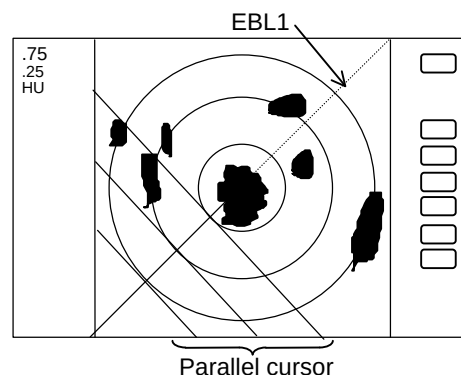
### 5.5.1.8 Using parallel cursor (///CSR)

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.

**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)

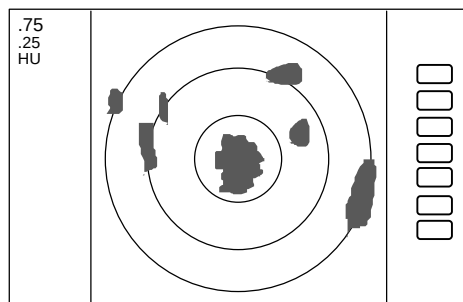
|                 |        |       |      |      |      |     |   |    |    |    |    |
|-----------------|--------|-------|------|------|------|-----|---|----|----|----|----|
| Range           | 0.125  | 0.25  | 0.5  | 0.75 | 1.5  | 3   | 6 | 12 | 24 | 48 | 64 |
| Number of Rings | 2      | 2     | 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



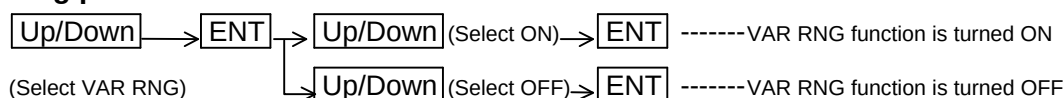
Range rings OFF

### 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



#### Method of use

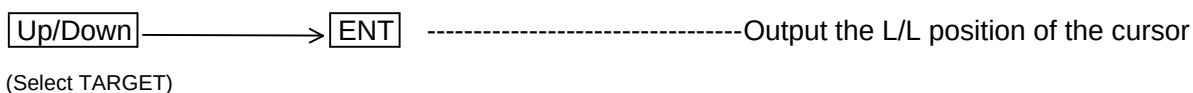
[Up/Down] -----Range changes continuously

[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.

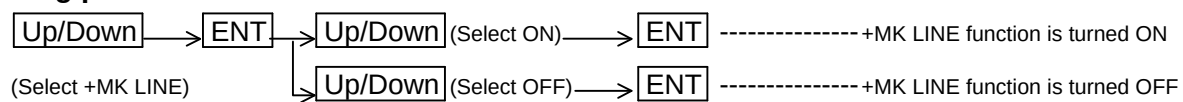


**Note:** When you activate this function, nothing happens onscreen.

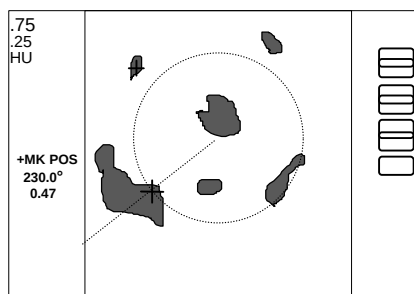
### 5.5.1.12 Determine the distance and bearing to a marker (+MK LINE).

- (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



**+MK LINE OFF**



**+MK LINE ON**

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