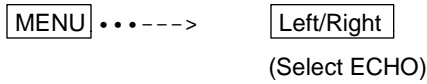Adjustment options to be conducted on the echoes displayed on the screen
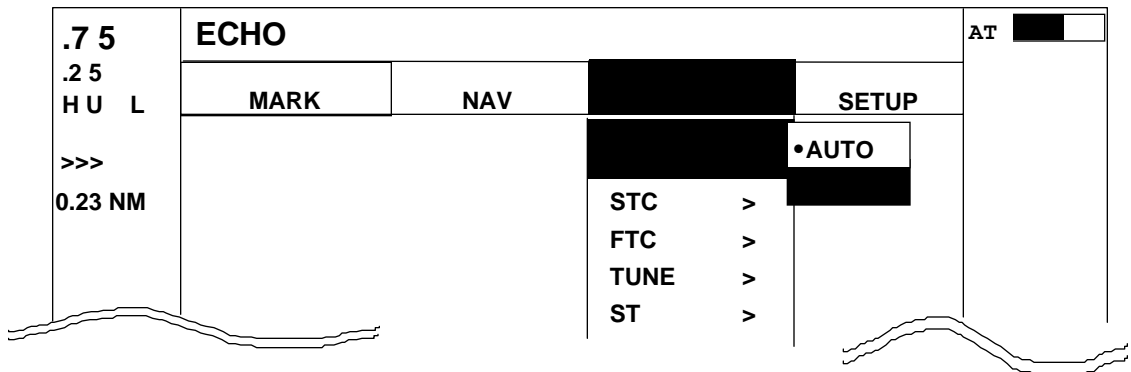
•**Common operations for the ECHO menu**   (Up to the point when "ECHO" menu is selected from the main menu)

Press the "MENU" key and select "ECHO" 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 │
└──────┘                └────────────┘
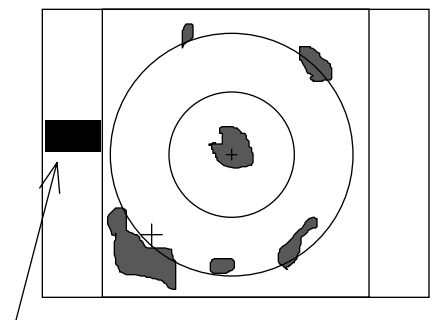                          (Select ECHO)

When the above-mentioned operations have been conducted, the items of the ECHO menu are vertically displayed.

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

```
.7 5    ECHO                                            AT  ███
.2 5
H U  L    MARK        NAV        ████████      SETUP
                                  ████████   •AUTO
>>>                                          ████████
0.23 NM                          STC    >
                                 FTC    >
                                 TUNE   >
                                 ST     >
```

### 5.5.3.1 Sensibility adjustment (GAIN)

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

(2)  Select MANU from the MANU/AUTO display beside the GAIN item using the up-down cursor keys, and press the "ENT" key.

(3)  The present state of GAIN is displayed in reverse on the screen left as **▪G 35▪** and an adjustable state is entered. When the control knob are operated in this state, the figure alternates within a range of 0 and 99 and the GAIN can thus be adjusted.

(4) The adjustment is completed by pressing the "ENT" key after adjustment.

When  AUTO action is to be entered, select AUTO in (2) and press the "ENT" key to complete the setting.

The setting value is displayed during MANUAL operation.
AT is displayed during AUTO operation.
(The same applies to STC, FTC and TUNE.)

```
Up/Down --> ENT --> Up/Down
(Select GAIN)           |->(Select MANU) ------------------>Control knob --> ENT

                        Set to MANU mode
                        |                         (GAIN adjustment)
                        |->(Select AUTO) --------------------------------->ENT

                        Set to AUTO mode
```

### 5.5.3.2 Removing sea clutter (STC)

Refer to the section, "Sensibility adjustment (GAIN)".

```
Up/Down --> ENT --> Up/Down
(Select STC)            |->(Select MANU) --> ENT --> Control knob --> ENT Set   to

MANU mode
                        |                              (STC adjustment)
                        |->(Select AUTO) --> ENT ---------------------------------

                        Set to AUTO mode
```

Note: When you select MANU mode, GAIN and FTC will be switched to MANU mode, too.

Note: When you select HARBOR mode, FTC will be switched to MANU mode.

### 5.5.3.3 Removing rain and snow clutter (FTC)

Refer to the section, "Sensibility adjustment (GAIN)".

```
Up/Down --> ENT --> Up/Down
(Select FTC)            |->(Select MANU) --> ENT --> Control knob --> ENT Set   to

MANU mode
                        |                              (FTC adjustment)
                        |->(Select AUTO) --> ENT ---------------------------------

                        Set to AUTO mode
```
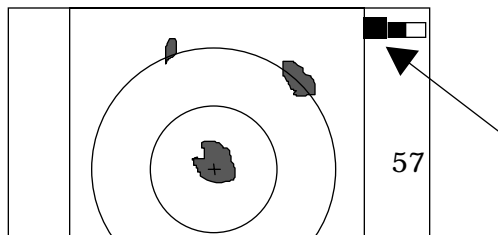
### 5.5.3.4 Adjusting receiver tuning (TUNE)

Refer to the section, "Sensibility adjustment (GAIN)".

```
Up/Down --> ENT --> Up/Down
(Select TUNE)           |->(Select MANU) --> ENT --> Control knob --> ENT Set to MANU

mode
                        |                              (TUNE adjustment)
                        |->(Select AUTO) --> ENT ---------------------------------

                        Set to AUTO mode
```
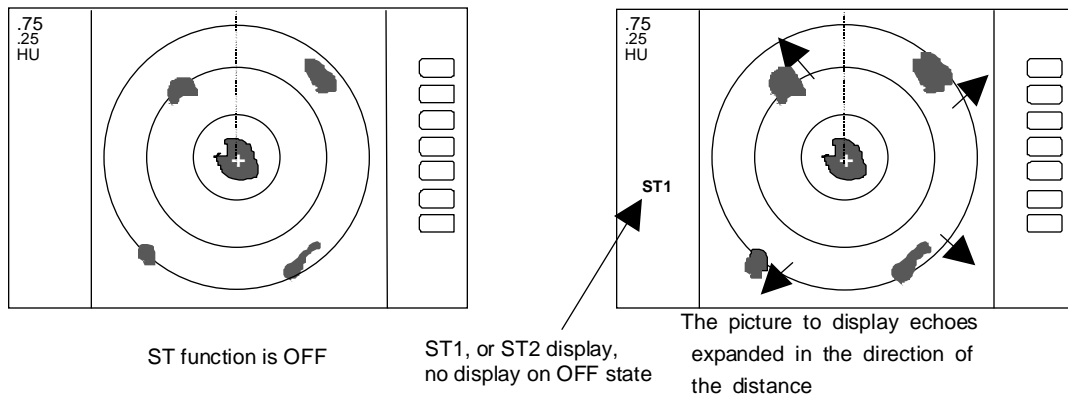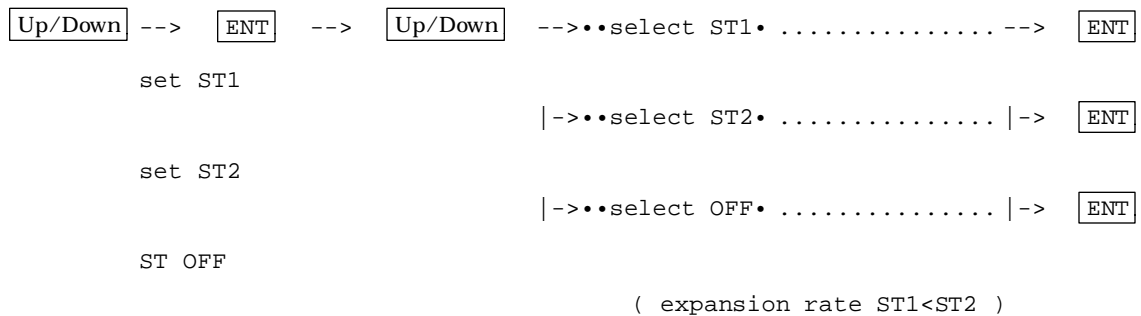
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### 5.5.3.5 Echo expansion (ST)

Expanding the echo to the direction of the distance.

Two types of echo expansion exist, select ST1 or ST2 from the menu.

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

(2) Select ST1 or ST2 from the display beside the ST item using the up-down cursor keys, and press the "ENT" key.

```
Up/Down --> ENT --> Up/Down -->••select ST1• ............... --> ENT
         set ST1
                              |->••select ST2• ............... |-> ENT
         set ST2
                              |->••select OFF• ............... |-> ENT
         ST OFF

                                     ( expansion rate ST1<ST2 )
```



ST function is OFF

ST1, or ST2 display,
no display on OFF state

The picture to display echoes
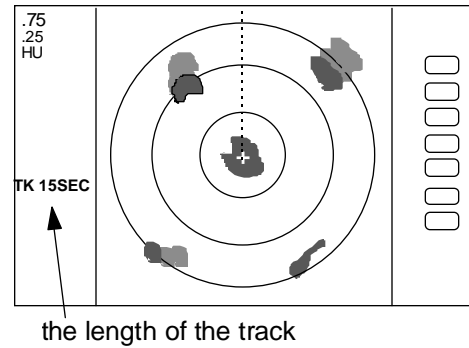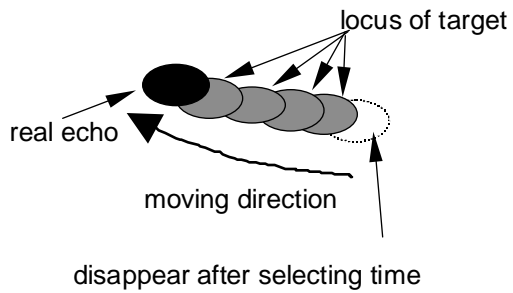expanded in the direction of
the distance

### 5.5.3.6 Displaying locus of target (TRACK)

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

(2) Select 15SEC, 30SEC, 1MIN, 3MIN, 6MIN, or CONT from the display beside the TRACK item using the up-down cursor keys, and press the "ENT" key.

"TRK 15S" is displayed on the left side of the screen and track mode is entered.  15S indicates the length of the track, and displays a maximum of 15-second-long sailing track.

locus of target

real echo

moving direction

disappear after selecting time

.75
.25
HU

TK 15SEC

the length of the track

```
up/down    -->    ENT         -->              up/down  ........... ->••select OFF•
       -> ENT    TRACK OFF

                          |---->••select 15SEC• .........................-> ENT
          set 15sec. track
                          |---->••select 30SEC• .........................-> ENT
          set 30sec. track
                          |---->•select 1MIN• ...........................-> ENT
          set 1 min. track
                          |---->•select 3MIN• ...........................-> ENT
          set 3 min. track
                          |---->••select 6MIN• ..........................-> ENT
          set 6 min. track
                          |---->••select CONT• ..........................-> ENT
          set continue track
```

### 5.5.3.7 Enlarging selected areas (ZOOM)

The video image centering around the cross cursor is doubled as it is displayed on the screen.

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

(2) Select the ON using up-down cursor keys from the ON/OFF display beside the ZOOM item, and press the "ENT" key.

(3) A small cross cursor for setting and "SET ZOOM POINT" are displayed at the screen center and at the bottom respectively, and the magnification point is to be set. Use cursor keys to move the cross cursor to the point to be magnified, press the "ENT" key and the setting is completed. The area around the cross cursor is displayed in 2x magnification, with blinking "ZOOM" displayed at the screen upper right, indicating that a ZOOM display is being conducted.
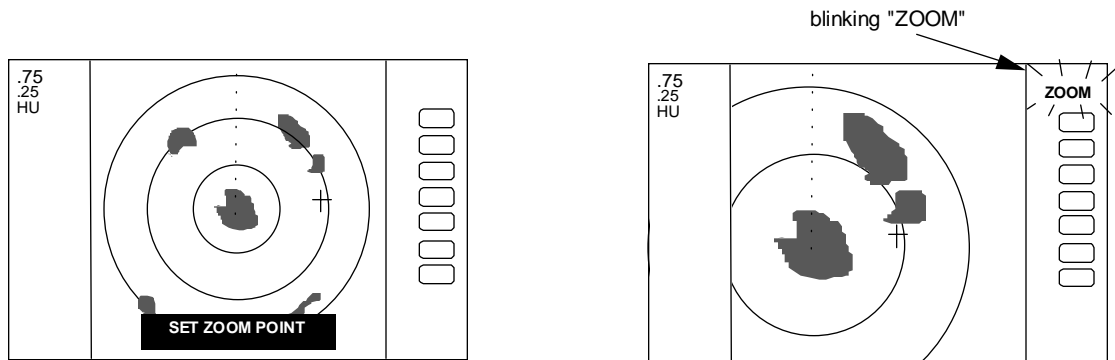
To cancel the ZOOM function, either select OFF in (1) or begin operation of range.

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```
Up/Down -->ENT --> Up/Down (Select ON) -->ENT --> Up/Down & Left/Right -->ENT

            ZOOM Setting
(Select ZOOM)         |                              (Move cross cursor)
                      |-->              (Select OFF) -->ENT ---------------

            ZOOM canceled
```
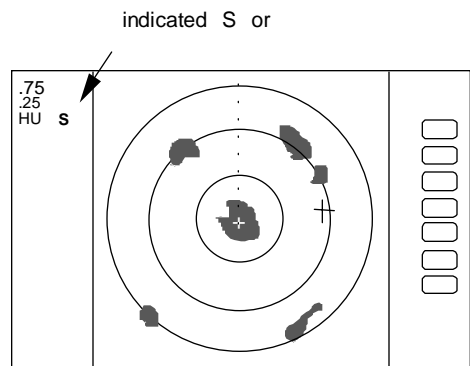
Note 1)  VRM2 and EBL2 do not follow the ZOOM function during a floating state.
Note 2)  Normal screen returns when you change the range scale.
Note 3)  ZOOM function is usable only in PPI screen.
Note 4)  ZOOM function is unusable in OFF-C.
Note 5)  Center of ZOOM can be set any desired position within the set range.



### 5.5.3.8 Increasing sensitivity (S/L)

The pulse width is automatically changed as you change the range. However, if you want to increase sensitivity, you can choose sensitivity from two pulse widths. The short pulse (SHORT) gives you sharp images with high distance resolution. The long pulse (LONG) provides high sensitivity and shows targets in large size for easy identification although distance resolution is reduced.

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

(2)  Select Pulse length(SHORT or LONG) using the up-down cursor keys from the SHORT/LONG display beside the S/L item

(3)  The setting will be completed when the "ENT" key is pressed after the selection.



```
Up/Down --> ENT                -->(Select SHORT) -------------------- -->
              ENT                     Set to short pulse
              |-->(Select LONG)-->   ENT -------------- Set to long pulse
```

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