5.3 Basic Operations

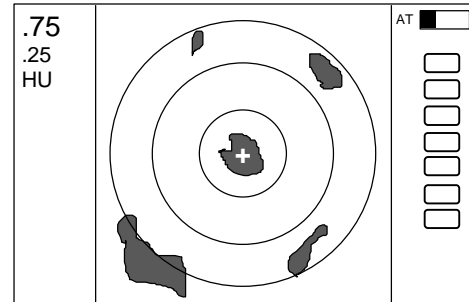### 5.3.1 Turning On and Off

POWER ON

[POWER]

Press the "POWER" key to power on. The 2 (or 3)-minute timer and "RADAR OFF" are displayed. After an initial 2 (or 3)-minute warm-up sequence, the radar will go into standby mode. "STBY" will be displayed on the screen. To power off, press and hold the "POWER" key for more than 3 seconds.

5.3.2 Transmitting

START

[POWER]

Press "POWER" momentarily and the radar picture appears on screen. The unit is now operating. Press "POWER" again, and the unit will return to the standby mode.

5.3.3 Adjusting the contrast and brilliance of screen, and key-backlight

SCREEN

[BRILL]

Press the "BRILL" key and control indicators will be displayed on the screen. Use the up and down arrows on the cursor pad to select the item you want to adjust, then adjust it with the control knob. When you are through making adjustments, press the "BRILL" or "ENT" key to exit. You can also press any other key and continue with that function.

Brilliance → [Up/Down]   Select brilliance.

→ [Control knob] Adjust brilliance with knob.

Key backlight → [Up/Down]   Select key backlight.

→ [Control knob] Adjust key backlight with knob.

→ [ENT]   Press "ENT" key to return.

5.3.4 Changing the range scale (RANGE UP, RANGE DOWN)

CHANGE RANGE

[RANGE UP] **or** Pressing "RANGE UP" key increases the distance the unit will scan,

[RANGE DOWN] the "RANGE DOWN" key decreases it.

RADOME SCANNER (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
Range ring interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	6

OPEN SCANNER (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
Range ring interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	8

OPEN SCANNER (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
Range ring interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	8	16

OPEN SCANNER (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
Range ring interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	8	12

OPEN SCANNER (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
Range ring interval	0.0625	0.125	0.25	0.25	0.25	0.5	1	2	4	8	16	20

5.3.5 Automatic adjustment (AUTO)

"AUTO" adjusts the GAIN, STC and FTC automatically.   If the "AUTO" key is pressed after you've adjusted GAIN, STC, or FTC manually, they will all be switched to "AUTO" or harbor mode (HBR).   By pressing the "AUTO" key repeatedly, you alternate among the AT1, AT2 and HBR modes.   By pressing "STC" key, all controls return to manual state.

AT1 Use when navigating in a harbor area, narrow channel, or area with small islands where there is a high level of echo.   The control condition is similar to turning down GAIN slightly. *

AT2 Use on open sea to suppress sea clutter.   The control condition is similar to high GAIN. *

HBR Also for use when navigating in a harbor area, narrow channel, or area with small islands.   The FTC is switched to manual mode.   The STC is set to a predetermined value that you can select.   See section 5.5.4.6.5 (7) "Setting Harbor STC".

 * Manual FTC may be used in these modes to reduce the appearance of noise on the screen.

You can make manual adjustments to GAIN and FTC during AUTO operation.

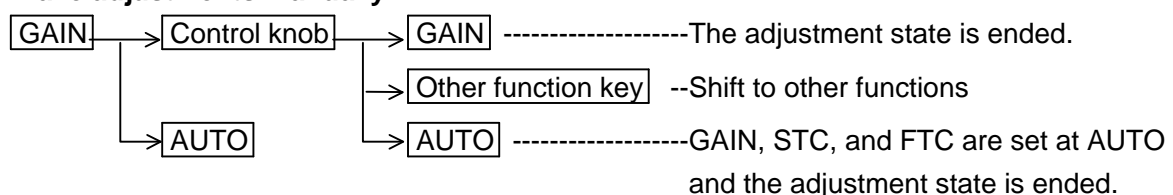If the "GAIN" key is pressed, only GAIN enters the manual state.

If the "FTC" key is pressed, only FTC enters the manual state.

However, if the "STC" key is pressed, STC, GAIN, and FTC all enter the manual state.

5.3.6 Sensitivity adjustment (GAIN)

(1) When the "GAIN" key is pressed, the GAIN display characters on the left side of the screen will be highlighted.

(2) Turn the control knob to select an acceptable level. The numbers will move in a range of 0 to 99.

(3) Press the "GAIN" key to exit from the adjustment state. You can also press any other key and continue with that function.
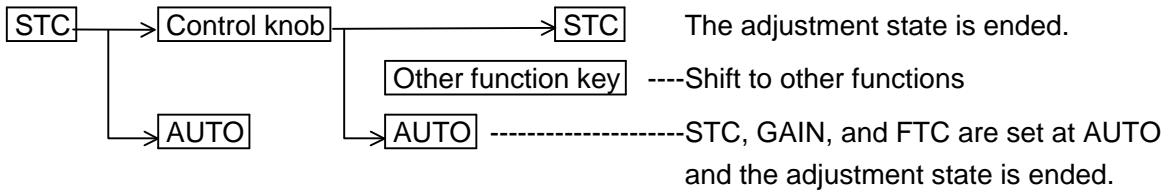
To make adjustments manually:

GAIN → Control knob → GAIN --------------------The adjustment state is ended.
→ Other function key --Shift to other functions
→ AUTO → AUTO -------------------GAIN, STC, and FTC are set at AUTO and the adjustment state is ended.

To switch from the MANUAL state

AUTO -- Set GAIN, STC and FTC at AUTO

5.3.7 Removing sea clutter (STC)

(1) When the "STC" key is pressed, the STC display characters on the left side of the screen will be highlighted.
(2) Turn the control knob to select an acceptable level. The numbers will move in a range of 0 to 99.
(3) Press the "STC" key to exit from the adjustment state. You can also press any other key and continue with that function.
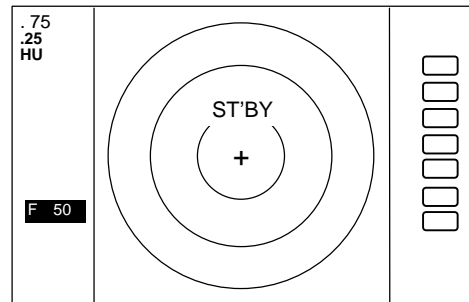
To make adjustments manually:

STC ⟶ Control knob ⟶ STC   The adjustment state is ended.

Other function key ----Shift to other functions

AUTO   AUTO --------------------STC, GAIN, and FTC are set at AUTO
and the adjustment state is ended.

To switch from the MANUAL state

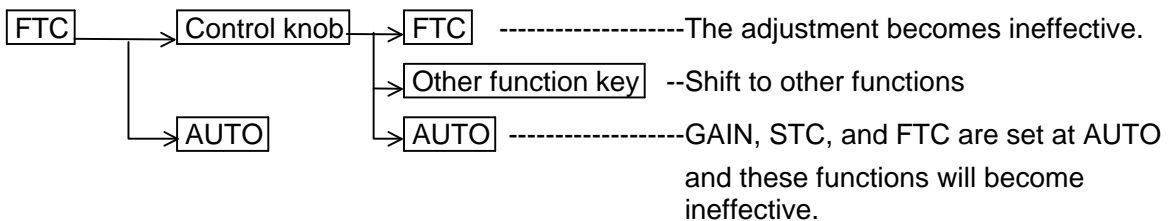AUTO --Set STC, GAIN and FTC at AUTO

5.3.8 Removing rain and snow clutter (FTC)

(1) When the "FTC" key is pressed, the FTC display characters on the left side of the screen will be highlighted.
(2) Turn the control knob to adjust to an acceptable level. The numbers move in a range of 0 to 99.
(3) After you've made an adjustment, press the "FTC" key again to exit. You can also exit by pressing any other function key and continuing with that function.

To make adjustments manually:

FTC ⟶ Control knob ⟶ FTC --------------------The adjustment becomes ineffective.

Other function key --Shift to other functions

AUTO   AUTO ------------------GAIN, STC, and FTC are set at AUTO
and these functions will become ineffective.

To switch from the MANUAL state

AUTO --Set GAIN, STC and FTC at AUTO

5.3.9 Man Over Board (MOB)

To activate the Man Overboard function, press the "MOB" button at the lower right of the display panel. This will send the boat's position to an external plotter through the NMEA port using the "WPL" format. It will only work if you are connected to an external navigation receiver and compass. You can then use the plotter to navigate a return to that position. To check position data, select "MOB" from the "WINDOW" menu in the "SETUP". The position of MOB and current position will be displayed on the screen. If you press the "MOB" key while watching the MOB screen, MOB data will be cleared and you will return to previous screen. If you press any other key, the MOB data will remain and you will return to the previous screen you had been viewing.