xxx = keys to press

### 5.3.1 Powering On and Off

**POWER ON**  POWER  Press "POWER"key to power on.

2 minutes timer and "RADAR OFF" are displayed.

Keep pressing "POWER" key to power off.

**SCREEN**  BRILL  Press the "BRIL" key.
Control bar is indicated on the screen.

brilliance→ Up/Down  Select brilliance.
→ Control knob  Adjust brilliance with
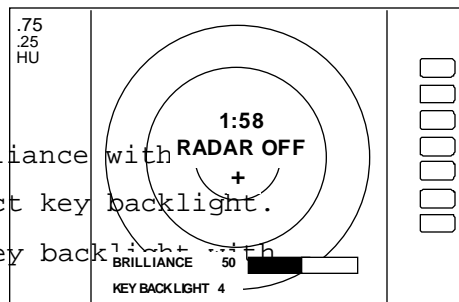
key backlight  Up/Down  Select key backlight.
→ Control knob  Adjust key backlight with
knob.
ENT  Press "ENT"key to return.
→

.75
.25
HU

1:58
RADAR OFF
+
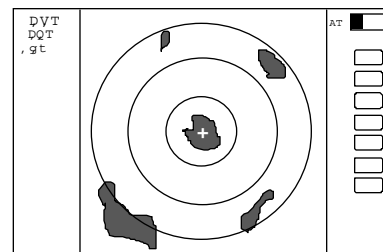
BRILLIANCE  50
KEY BACKLIGHT  4

Radar turns into "ST'BY"mode when 2 minutes timer is finished and
"ST'BY" is displayed.

### 5.3.2 Transmitting

**START**  POWER  Press "POWER" key to operate, radar picture appears on the screen. Another press "POWER" key, radar turns to stand-by mode.

DVT
DQT
,gt

AT

Keep pressing "POWER" key more than 3 seconds, radar turns to power off.
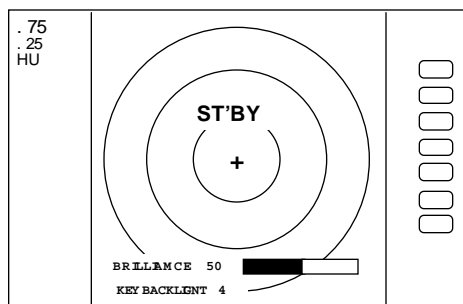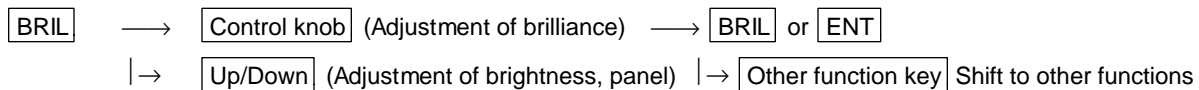
**CHANGE RANGE**  RANG UP  or
RANGE DOWN  Pressing "RANGE UP" key produces a long-distance range, "RANGE DOWN" key a short-distance range.

### 5.3.3 Adjusting brilliance of screen and key-backlight

(1)  Press the "BRILL" key.  (Bar and figure indicating brightness, and figure indicating back-light  appears on the screen.)

(2)  Select brilliance or key-backlight with the up-down cursor.

(3)   Adjust each item with the control knob.

(4)   When the adjustment is finished, press either the "BRILL" key or the "ENT" key to exit from the adjustment screen.  (Pressing some other key after adjustment will lead to the function of the pressed key.)

BRIL  ⟶  Control knob (Adjustment of brilliance)  ⟶  BRIL or ENT

⌐→  Up/Down (Adjustment of brightness, panel)  ⌐→ Other function key Shift to other functions

```
. 75
. 25
HU

        ST'BY
          +

BRILLAMCE  50
KEY BACKLIGNT  4
```

### 5.3.4 Changing Distance Range (RANGE UP, RANGE DOWN)

Pressing "RANGE UP" key produces a long-distance range, and "RANGE  DOWN" key a short-distance range.

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

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

OPEN SCANNER (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 | 6 |
| Range ring interval | 0.0625 | 0.125 | 0.25 | 0.25 | 0.25 | 0.5 | 1 | 2 | 4 | 8 |

### 5.3.5 Automatic adjustment (AUTO)

AUTO adjusts the GAIN, STC and FTC automatically.

If the "AUTO" key is pressed while GAIN, STC, or FTC are under manual settings, they will all be switched to AUTO or HBR(Harbor) mode.

Pressing "AUTO" key, AT1, AT2 and HBR changes in turn. Pressing STC key, all

controls return to manual state.

> **AT1** Use when find navigation way in much echo such as port area, narrow channel, small islands area. The control condition is similar to slightly down GAIN.
>
> **AT2** Use at open sea to suppress the sea clutter. The control condition is similar to high GAIN.
>
> **HBR** Use at in a bay area, inlet, or a harbor. The control condition becomes manual STC by
> using the value established HARBOR of ADJUST menu.
> Note) Refer to "Setting STC circuit(STC)" in section 5.5.4.5.4(6).
> Note) When you select HBR mode, FTC will be switched to MANU mode.

\* What happens if GAIN, STC, and FTC keys are pressed during AUTO operation?

1)  If GAIN key is pressed,  Only GAIN enters a manual state.

2)  If FTC key is pressed,  Only FTC enters manual state.

3)  If STC key is pressed,  STC, GAIN, and FTC enter manual state.
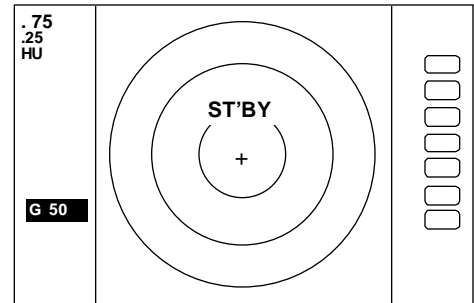
### 5.3.6 Sensitivity adjustment (GAIN)

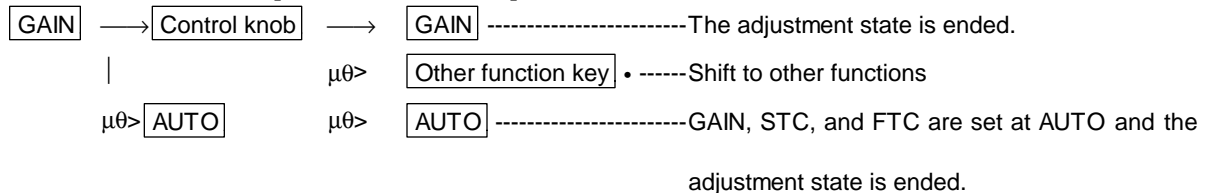(1)  When the "GAIN" key is pressed, the GAIN display on the left side of the screen will be reversed as **G 35** and the adjustable state will be entered.

(2)  When the control knob is turned, the figure will be shifted within a range of 0 and 99, and the sensitivity can be manually adjusted. When the "AUTO" key is pressed, all (GAIN, STC and FTC) will enter an AUTO state.

(3)  After the adjustment is finished, press the "GAIN" key to exit from the adjustment state. If some other function key is pressed, shift to that function will take place.

(a)  To make adjustments by MANUAL (When the GAIN key is pressed under AUTO operation, shift to a manual operation will take place.)

GAIN ⟶ Control knob ⟶ GAIN ------------------------The adjustment state is ended.

|  μθ>  Other function key • ------Shift to other functions

μθ> AUTO  μθ>  AUTO -----------------------GAIN, STC, and FTC are set at AUTO and the

adjustment state is ended.

(b)  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 on the left side of the screen will be reversed as **S 35** and the adjustable state will be entered.

(2) When the control knob is turned, the figure will be shifted within a range of 0 and 99, and the STC can be manually adjusted. When the "AUTO" key is pressed, all (GAIN, STC and FTC) will enter an AUTO state.

(3) After the adjustment is finished, press the "STC" key to exit from the adjustment state. If some other function key is pressed, shift to that function will take place.

(a) To make adjustments by MANUAL (When the STC key is pressed under AUTO operation, shift to a manual operation will take place.)
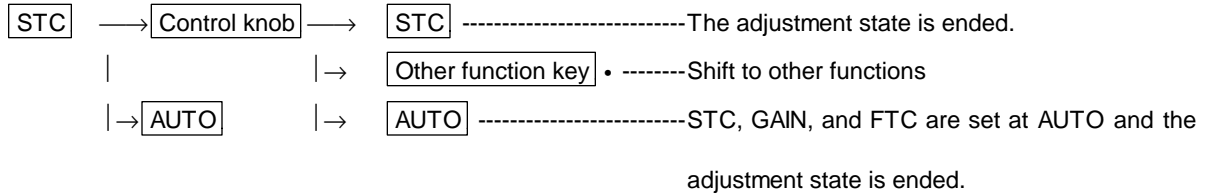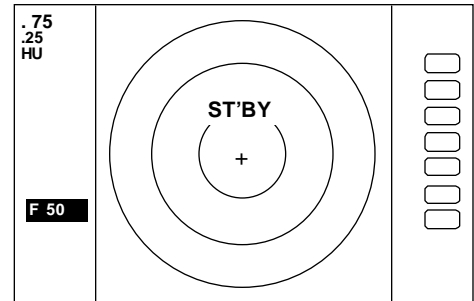
```
STC   ⟶ Control knob ⟶   STC  ---------------------------The adjustment state is ended.
 |                    |→   Other function key • --------Shift to other functions
 |→ AUTO              |→   AUTO  -------------------------STC, GAIN, and FTC are set at AUTO and the
                                                          adjustment state is ended.
```

NOTE) When you select MANU mode, GAIN and FTC will be switched to MANU mode, too.


(b) To switch from the MANUAL state

```
AUTO  ---------------------------------------------------------------------Set STC, GAIN and FTC at AUTO
```
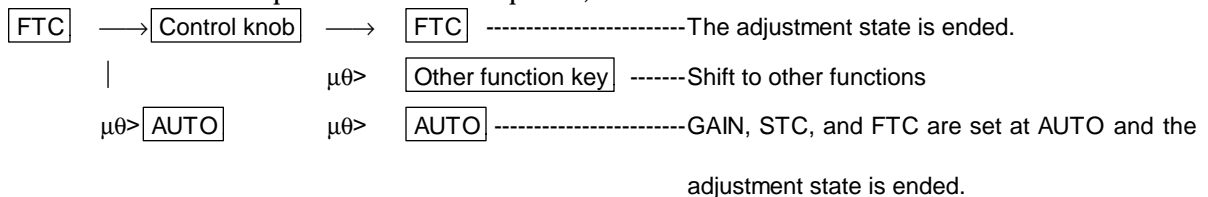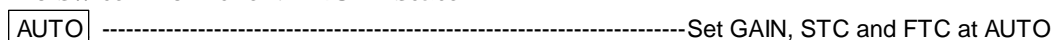
### 5.3.8 Removing rain and snow clutter (FTC)

(1) When the "FTC" key is pressed, the FTC display on the left side of the screen will be reversed as **F 50** and the adjustable state will be entered.

(2) When the control knob is turned, the figure will be shifted within a range of 0 and 99, and the sensitivity can be manually adjusted. When the "AUTO" key is pressed, all (GAIN, STC and FTC) will enter an AUTO state.

(3) After the adjustment is finished, press the "FTC" key to exit from the adjustment state. If some other function key is pressed, shift to that function will take place.



(a) To make adjustments by MANUAL (When the FTC key is pressed under AUTO operation, shift to a manual operation will take place.)

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


(b) To switch from the MANUAL state

```
AUTO  -----------------------------------------------------------------Set GAIN, STC and FTC at AUTO
```

33

### 5.3.9 Man Over Board (MOB)

Pressing the MOB key will send the own ship's position data to the external equipment through NMEA port with "WPL" format. There is no change on the screen.

To check the MOB 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 press the "MOB" key while watching the MOB screen, MOB data will be cleared and return to previous screen. If press other keys, MOB data will be remained and return to previous screen.