# CHAPTER 4. FUNCTIONS AND NAMES

Function and name of each part

The RA40C/41C/42C radar consists of a display unit to display video images on a screen and a scanner unit configured with an antenna to radiate radio waves and other components. The display unit has on its front panel eighteen(18) push-switch keys and one cursor key that lets you move a cursor in any desired direction. A combination of these keys allows you to utilize all functions of your radar, providing a comfortable, easy way to operate.
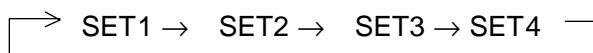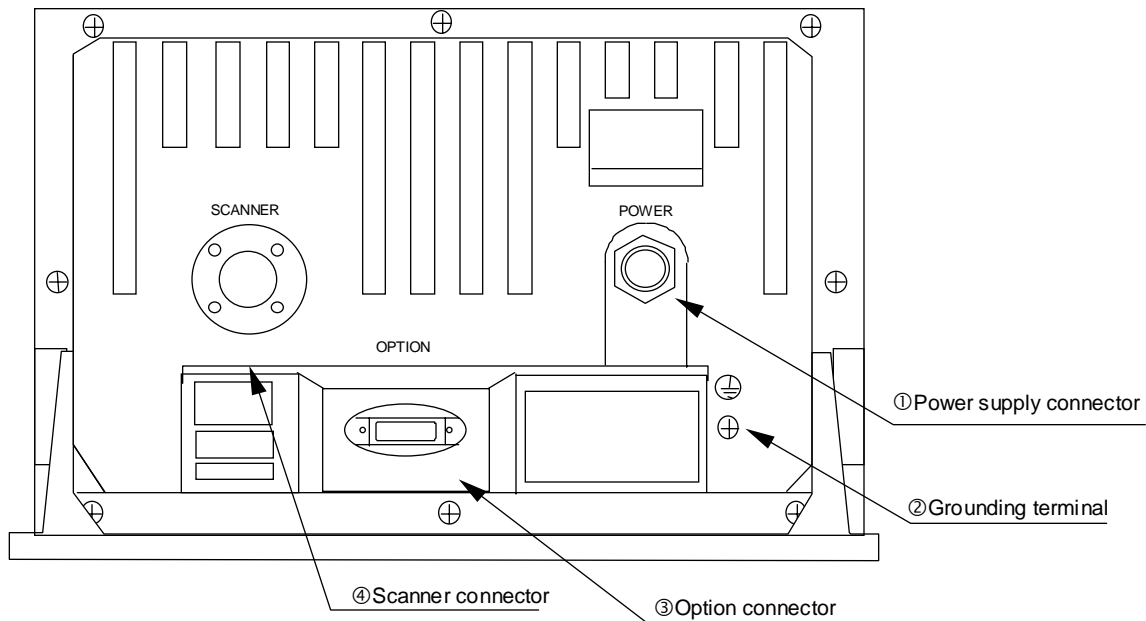
4.1 Key layout
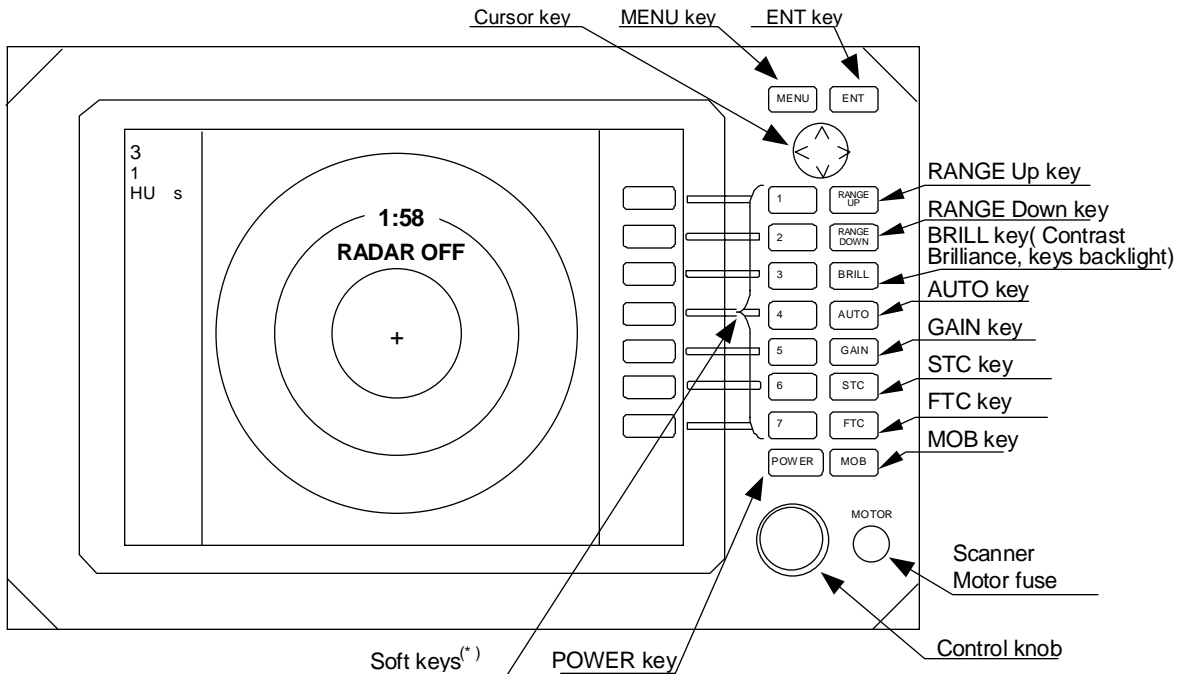
Key No.	SET1	SET2	SET3	SET4
1	EBL1	EBL2	RINGS	PPI
2	VRM1	VRM2	TUNE	PPI/3D
3	VAR RNG	FL EBL2	ST	PPI/PPI
4	TRACK	FL VRM2	ZOOM	PPI/NAV
5	TARGET	GZ	SLEEP	ALL PPI
6	SEL WIN	OFF-C	PICTURE	ALL PPI2
7	NEXT	NEXT	NEXT	NEXT

Tab. 5 Function of soft key (Factory setting)

*Every time Next key is pressed, soft key group switches as follows.

SET1 → SET2 → SET3 → SET4

4.2 Rear panel

① Power supply connector

Use this connector to plug in the power supply cable. Standard NMEA interface terminal is included in this connector. Refer to Section 3.7 " Connecting Cables " and Section 3.9 "Connecting External Equipment to Display Unit ".

② Grounding terminal

Use this terminal to connect grounding wire. Refer to Section 3.7 (3) "Grounding wire".

③ Option connector

Use this connector to connect NMEA, an external monitor, external buzzer and GYRO I/F. A dedicated cable or dedicated module box is required to connect these pieces of equipment.   Refer to Section 3.9 "Connecting External Equipment to Display Unit".

④ Scanner connector

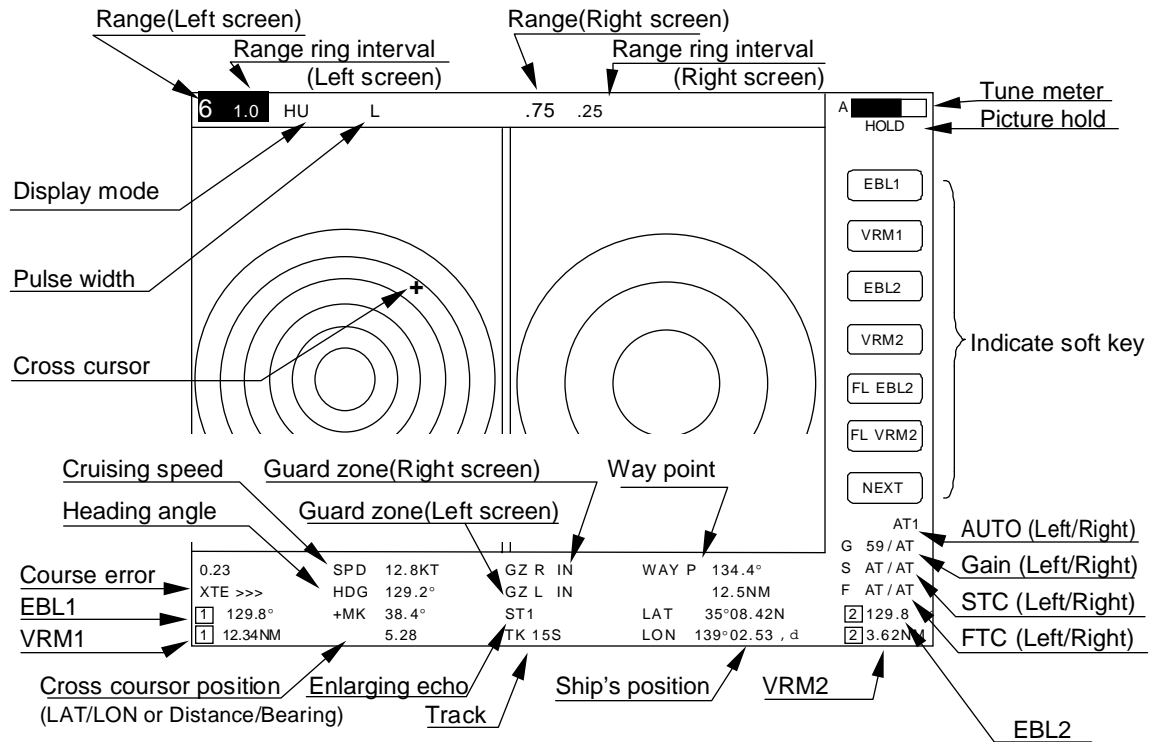Use this connector to plug in the inter-connecting cable to connect the scanner unit.

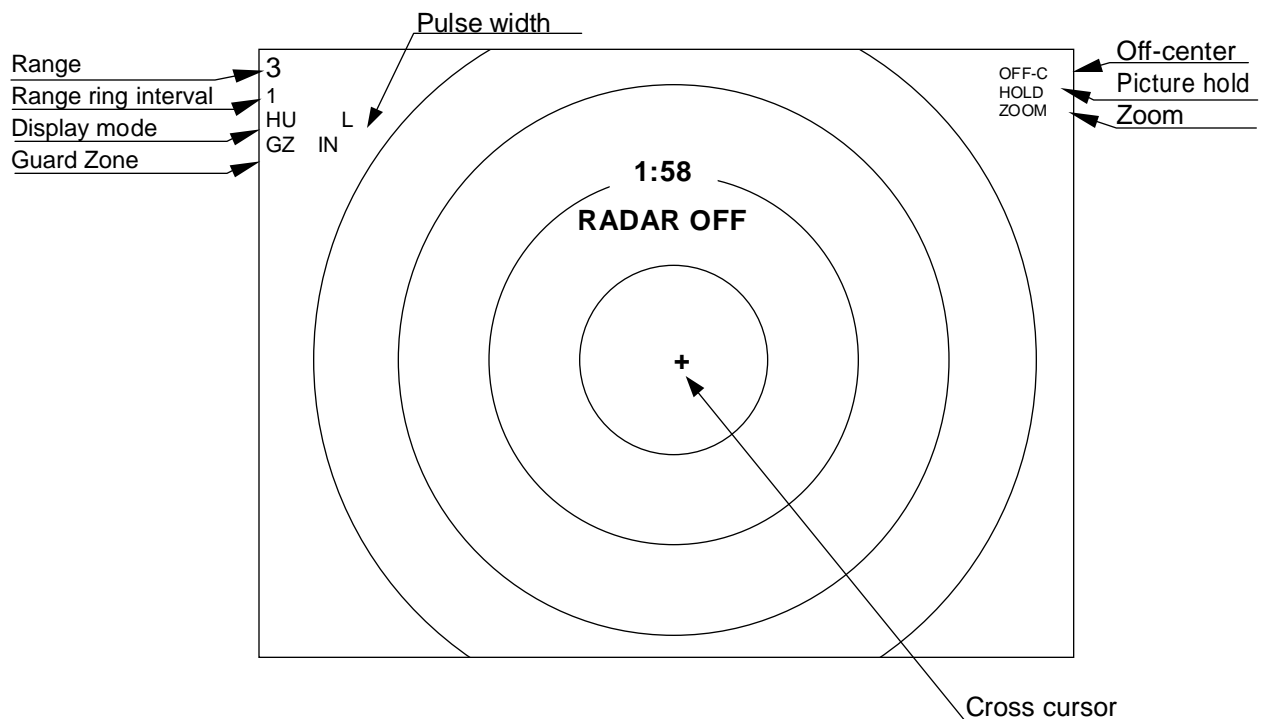 Refer to 3.7 "Connecting cable ".

4.3 Radar screen • Single screen •

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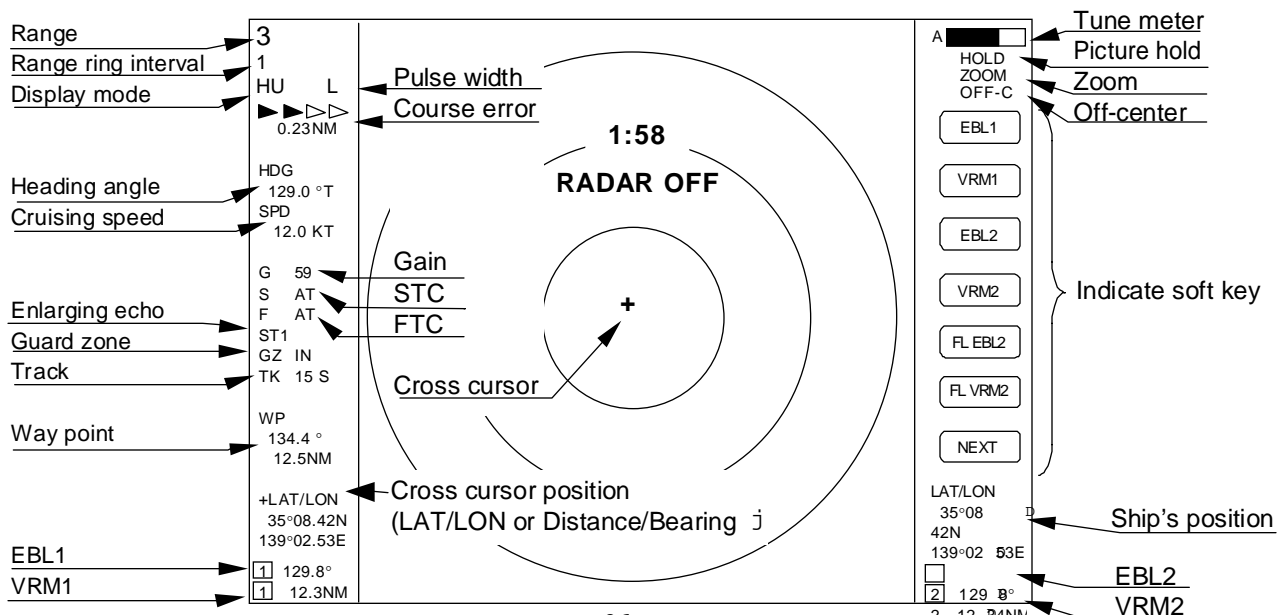
4.4 Radar screen (Dual screen)

ex) PPI/PPI screen

Range(Left screen)
Range ring interval (Left screen)
Range(Right screen)
Range ring interval (Right screen)
Tune meter
Picture hold

Display mode
Pulse width
Cross cursor

6 1.0 HU   L   .75 .25   A [   ] HOLD

EBL1
VRM1
EBL2
VRM2
FL EBL2
FL VRM2
NEXT

Indicate soft key

Cruising speed
Heading angle
Guard zone(Right screen)
Guard zone(Left screen)
Way point

Course error
EBL1
VRM1

0.23   SPD 12.8KT   GZ R IN   WAY P 134.4°   AT1
XTE >>>   HDG 129.2°   GZ L IN   12.5NM   G 59/AT
1 129.8°   +MK 38.4°   ST1   LAT 35°08.42N   S AT/AT   2 129.8
1 12.34NM   5.28   TK 15S   LON 139°02.53 , d   F AT/AT   2 3.62NM

AUTO (Left/Right)
Gain (Left/Right)
STC (Left/Right)
FTC (Left/Right)

Cross coursor position
(LAT/LON or Distance/Bearing)
Enlarging echo
Track
Ship's position
VRM2
EBL2

4.5 Radar screen (All PPI screen)

Pulse width
Range
Range ring interval
Display mode
Guard Zone

3
1
HU   L
GZ   IN

OFF-C
HOLD
ZOOM

Off-center
Picture hold
Zoom

1:58

RADAR OFF

+

Cross cursor

4.6 Radar screen (All PPI /PPI screen)

Range(Left screen)
Range ring interval (Left screen)
Range(Right screen)
Range ring interval (Right screen)

| 6 | 1.0 | HU | L | GZ | IN | | .75 | .25 | GZ | IN | HOLD | Picture hold |

Display mode
Pulse width
Cross cursor
Gurad zone(Right screen)
Guard zone(Left screen)

+

4.7 Navigation screen

```
        NAV DISPLAY

WP      134.4°          COURSE

        12.5 NM         >>>

HDG     129.0°          0.23 NM

SPD     12.8 KT

LAT     35°08.42N

LON     139.02.53E

TEMP    20.5°C

DEPTH   93.2 M          ST'BY
```

Way point
Heading angle
Cruising speed
Current position
Sea water temperature
Depth of water
Course error @(XTE)
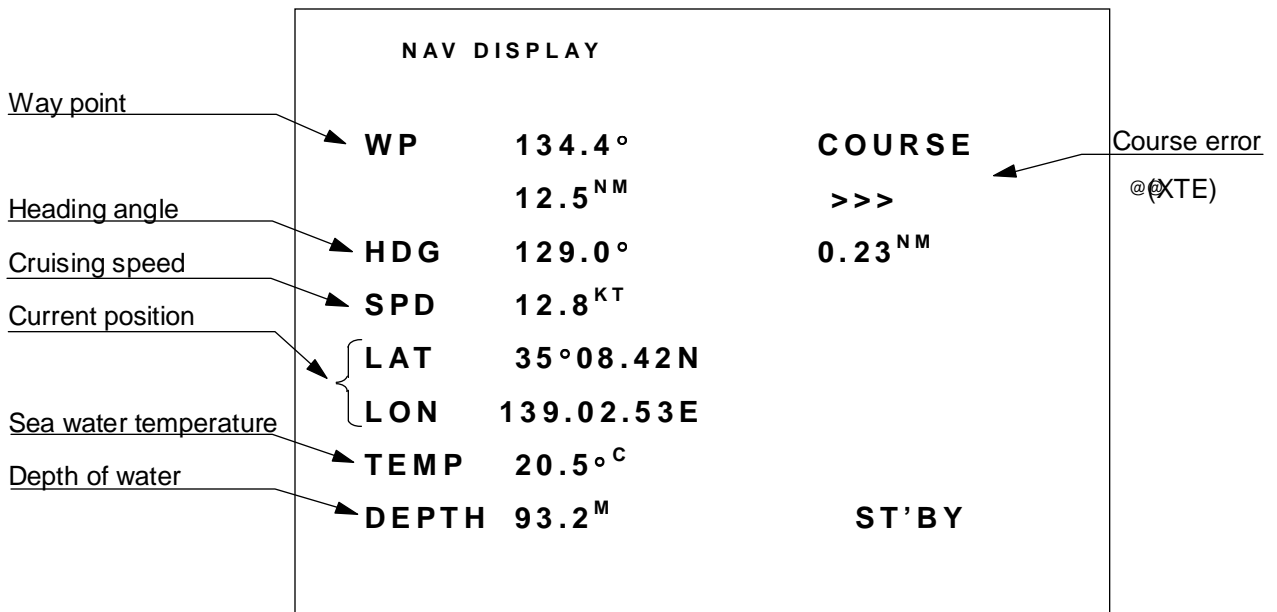
It is necessary that navigation equipment such as a GPS is connected to your radar, this screen displays the position and cruising speed of your ship, seawater temperature, and other navigation information.

Note: Heading angle will be displayed "COG" when Course Over Ground data is used.

Note: Cruising speed will be displayed "SOG" when Speed Over Ground data is used.

Deviation from course	Indication mark
0.00 --	><
0.02 --	> or <
0.04 --	>> or <<
0.08 --	>>> or <<<
0.16 --	>>>> or <<<<

Tab.6 Indication of deviation from course

> Indicates starboarding the helm (right)

< Indicates porting the helm (left)