

5.5.4.5.4 Changing the content of settings (ADJUST)

The items in the ADJUST menu are ones that need adjustment at the time of installation. The settings need not normally be altered.

(1) Adjusting distance (TIMING ADJ)

This adjustment is necessary to adjust the distance on the radar screen to the actual distance.

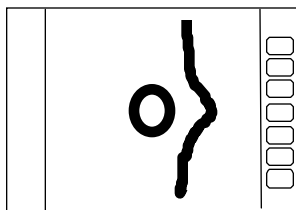
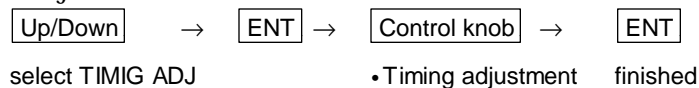
- (1) In preparation for adjusting the distance, the following adjustments are to be conducted. First, set the radar range to 0.25 NM, FTC to minimum, and GAIN to optimum. Then adjust STC until the pulse generated by your own radar appearing at the center of the screen is clearly recognized as a round dot.

- (2) Adjusting the distance.

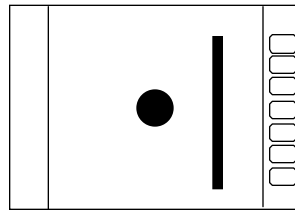
(2)-1 Select ADJUST by "common operations for CUSTOM", use up-down cursor keys to select TIMING ADJ from among the pull-down display items and press the "ENT" key.

(2)-2 As the distance adjustment screen is displayed, adjust timing until the center dot looks as (b) with the control knob. If there is a linear target such as a bridge or breakwater, adjust timing until the target appears straight in the screen.

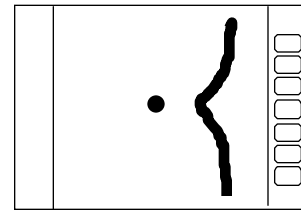
(2)-3 When the adjustment is finished, press the "ENT" key to exit from the distance adjustment screen.



a) Too far



b) Correct



c) Too shrunk

(2) Adjusting angle (HEAD ADJ)

This adjustment is necessary to adjust the head direction on the screen to the actual direction of the ship.

Note: Heading offset value for open antenna is different from that for a radome antenna.

- (1) In preparation for adjusting the angle, the following adjustments are to be conducted.

(1)-1 Find one small target within a 0.5 to 1.5 NM range which, lying in the bow direction, can be detected with eyes and is clearly visible in the radar screen.

(1)-2 Measure the bearing of this target from the bow direction using a compass. Let it be •c.

(1)-3 Measure the bearing of the above target in head up (HU) mode using EBL. Let it be •r.

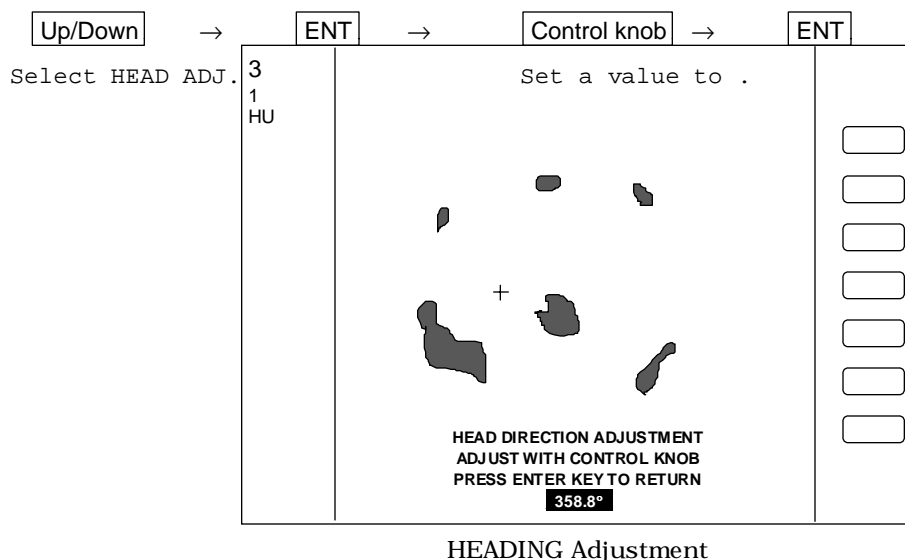
(1)-4 Calculate the following:
• c - • r • if • c is greater than • r

$360 - (\bullet r - \bullet c)$ • if $\bullet r$ is greater than $\bullet c$

This is the azimuth error of your radar at installation. If $\bullet c$ and $\bullet r$ are equal, the adjustment described below is unnecessary.

(2) Adjustment method

- (2)-1 Select ADJUST by "common operations for CUSTOM", use the up-down cursor keys to select HEAD ADJ from among the pull-down display items and press the "ENT" key.
- (2)-2 As the distance adjustment screen is displayed, set the value to the azimuth error you have calculated above with the control knob.
- (2)-3 When the adjustment is finished, press the "ENT" key to exit from the distance adjustment screen.



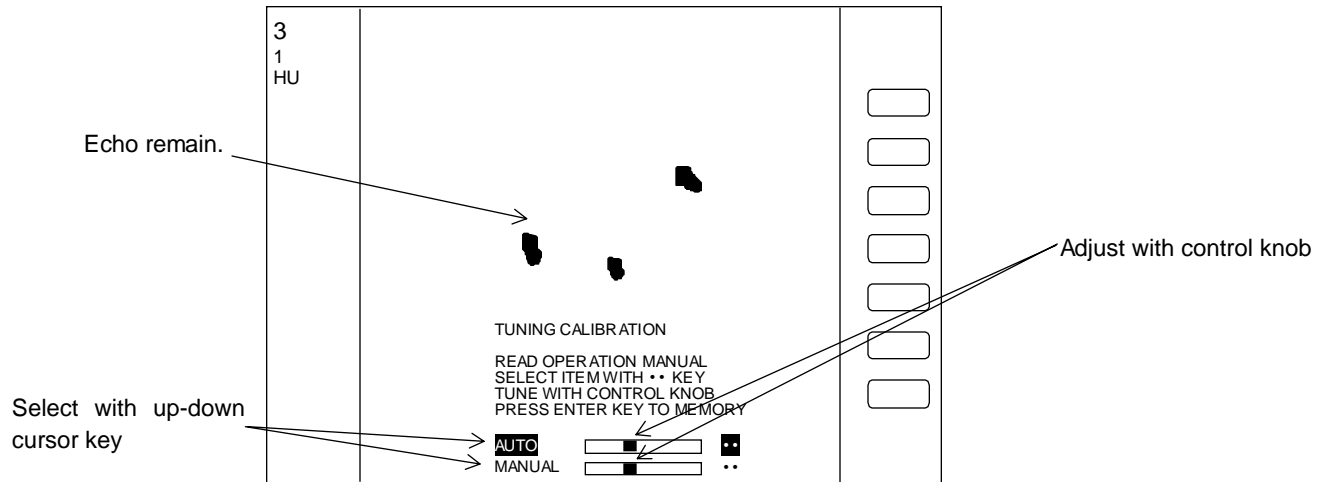
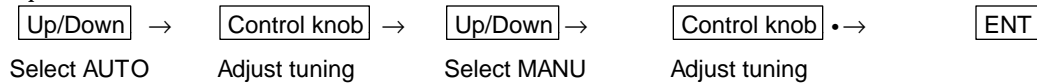
(3) Adjusting tuning circuit (TUNING CAL)

Normally you do not need to make this adjustment. This adjustment may necessary to ensure that the automatic tuning circuit operate at its best operating point. However, if sensitivity is poor or there is any symptom suggesting improper tuning, you may need to adjust this circuit following the procedure below.

- (1) Choose several stable video images in the 3 NM range or more.
- (2) Select ADJUST by "common operations for CUSTOM", use the up-down cursor keys to select TUNING CAL. from among the pull-down display items and press the "ENT" key.
- (3) As the tuning circuit adjustment screen(TUNING CALIBRATION) is displayed, select AUTO with up-down cursor key.
- (4) While watching video images, adjust until echoes are clearly visible with the control knob.
- (5) Select MANUAL with the down cursor key.

- (6) Adjust until echoes are clearly visible with the control knob. This set status is middle value of manual tuning.
- (7) When the adjustment is finished, press the "ENT" key to exit from the TUNING CALIBRATION screen.

Operate of (3) to (7)



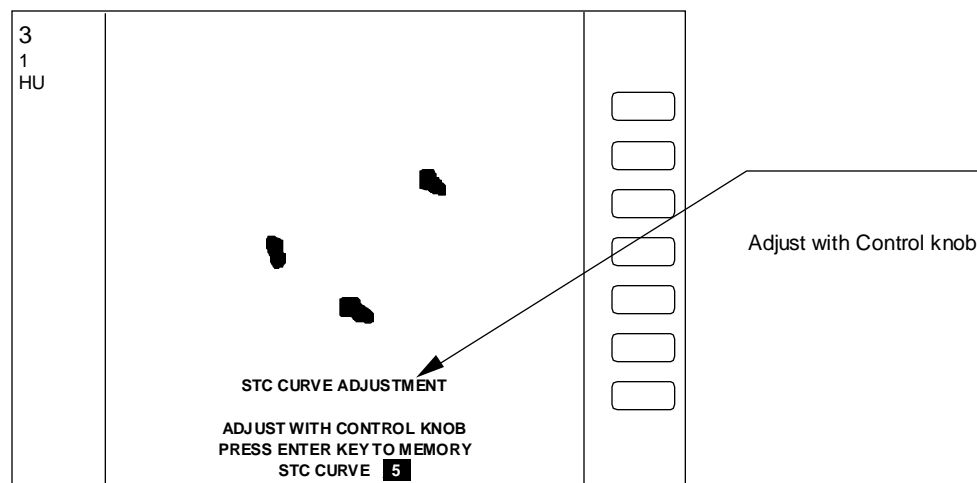
(4) Adjusting antenna height (ANTENNA)

Depending on the position at which the antenna is installed, it may be necessary to make the following correction. (Consult distributor for details.)

- (1) Select ADJUST by "common operations for CUSTOM", use the up-down cursor keys to select ANTENNA from among the pull-down display items and press the "ENT" key.
- (2) As the adjustment screen is displayed, using the control knob to choose your desired value from 1 to 9.
- (3) Press the "ENT" key to exit from the adjusting antenna height screen.



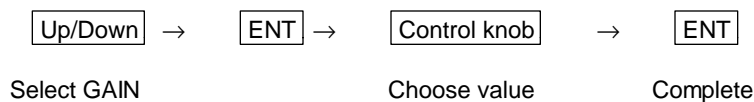
Select ANTENNA Choose value Complete



(5) Setting GAIN circuit (GAIN)

Here, you set the automatic and manual gain level. Normally, adjust this setting to be slight the noise echo appears on the screen. •When enter this setting at AUTO mode, you can preset AUTO GAIN level. When enter at MANUAL mode, you can preset the MANUAL GAIN to current MANUAL gain level as the standard. When you enter the setting at "G60" of gain level, for instance, gain level of "G60" is preset as the standard level.

- (1) Select ADJUST by "common operations for CUSTOM", use the up-down cursor keys to select GAIN from among the pull-down display items and press the "ENT" key.
- (2) As the adjustment screen is displayed, using the control knob to choose your desired value from 1 to 30.
- (3) Press the "ENT" key to exit from the adjustment screen.



(6) Setting STC circuit (STC)

Here, you set the STC level. Adjust this setting to be slight sea clutter appears on the screen, when you observe a small target (ex. Small buoy). When enter this setting at AUTO mode, you can preset AUTO STC level and AUTO FTC level. When enter at HARBOR (HBR) mode, you can preset HARBOR STC level.

When enter at MANUAL mode, you can preset MANUAL STC level as the standard level.

- (1) Select ADJUST by "common operations for CUSTOM", use the up-down cursor keys to select STC from among the pull-down display items and press the "ENT" key.
- (2) As the adjustment screen is displayed, using the control knob to choose your desired value from 1 to 16.
- (3) Press the "ENT" key to exit from the adjustment screen.

