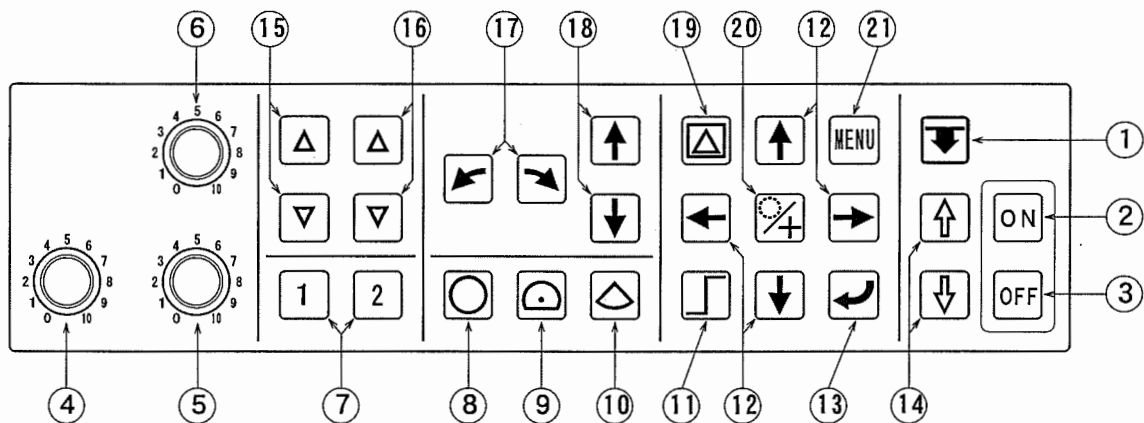# SUZUKI COLOR LCD   SERCHLIGHT SONAR
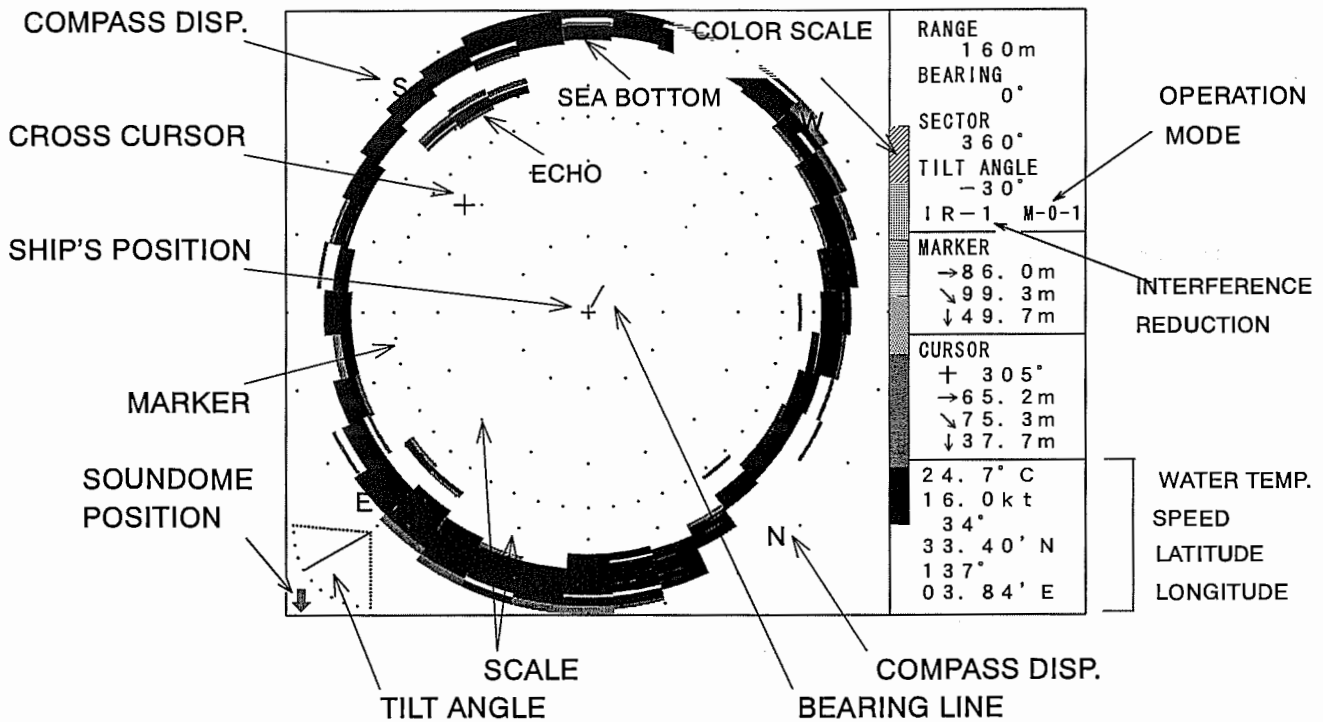
S-1400

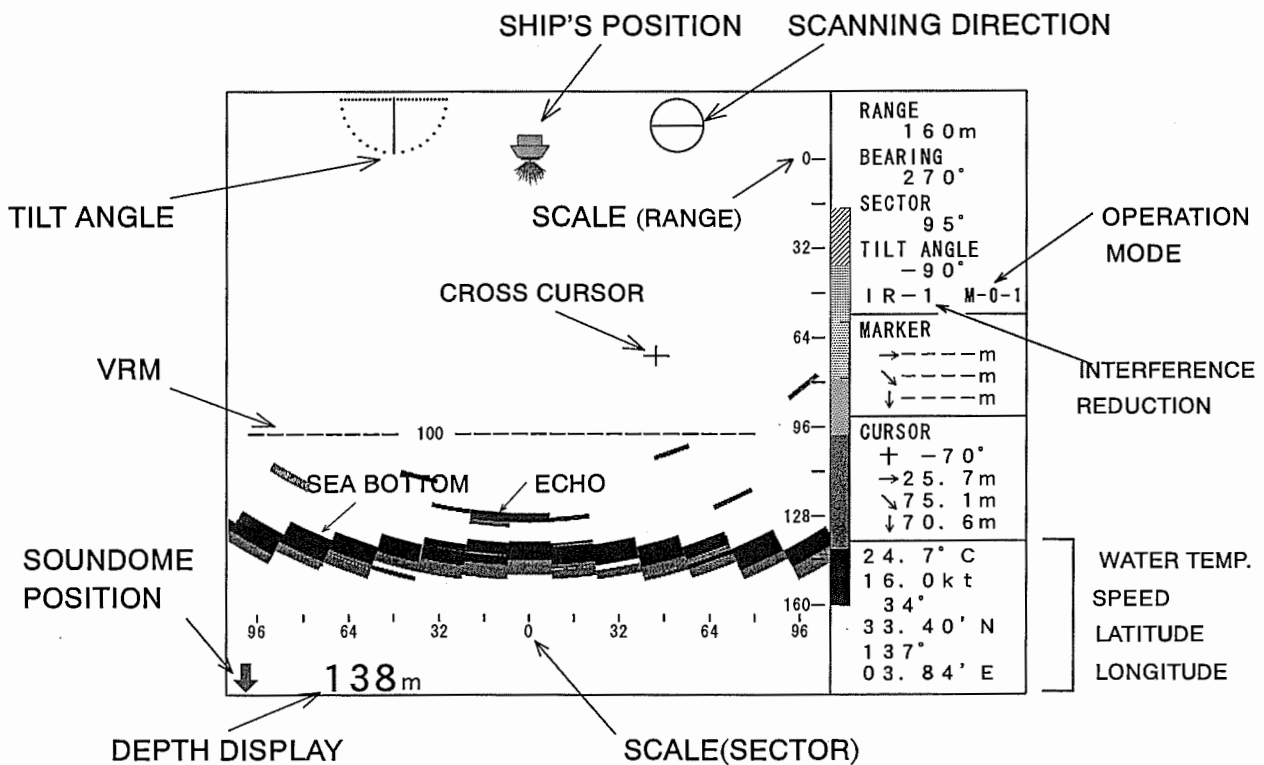## OPERATION PANEL

1	SENSOR LAMP	When the Sensor Light is on, it indicates that the soundome is in the down position.
2	POWER ON KEY	Turns on the power, and the soundome lowers automatically.
3	POWER OFF KEY	To turns off the power, press this key for a while. When power is turned off, the soundome raises automatically.
4	BRIGHTNESS DIAL	Adjusts the screen brightness.
5	GAIN DIAL	Adjusts the receiver sensitivity.
6	FAR GAIN DIAL	Adjusts the receiver sensitivity for the long ranges.
7	OPERATION MODE	Calls up the user-defined setting or changes the settings.
8	NOMAL KEY	Sonar Mode.
9	OFF CENTER KEY	Off-Center Mode.
10	SIDE SCAN KEY	Bottom Scan Mode.
11	THRESHOLD KEY	Reduces the unnecessary weak echoes accordingly.
12	CURSOR SHIFT KEYS	Moves cursor or selects to display Marker or Cursor. Use these keys to change the settings.
13	ENTER KEY	Press this key to set the function setting.
14	HOIST KEYS	Uploads/downloads the soundome.
15	SECTOR KEYS	Adjusts the sector angle.
16	RANGE KEYS	Selects a desired range scale.
17	BEARING KEYS	Moves cursor center right or left.
18	TILT KEYS	Adjust tilt angle.
19	TARGET LOCK KEY	Turns on or off the target lock mode.
20	CURSOR SELECTION KEY	Selects Ring Marker or Cross Marker.
21	MENU KEY	Displays the function setting menu.

SONAR MODE DISPLAY

COMPASS DISP.

CROSS CURSOR

SHIP'S POSITION

MARKER

SOUNDOME POSITION

COLOR SCALE

SEA BOTTOM

ECHO

RANGE	160m
BEARING	0°
SECTOR	360°
TILT ANGLE	-30°
IR-1	M-0-1

MARKER
→86. 0m
↘99. 3m
↓49. 7m

CURSOR
+ 305°
→65. 2m
↘75. 3m
↓37. 7m

24. 7° C
16. 0k t
34°
33. 40' N
137°
03. 84' E

OPERATION MODE

INTERFERENCE REDUCTION

WATER TEMP.
SPEED
LATITUDE
LONGITUDE

SCALE
TILT ANGLE

COMPASS DISP.
BEARING LINE

BOTTOM SCAN MODE DISPLAY

SHIP'S POSITION   SCANNING DIRECTION

TILT ANGLE

SCALE (RANGE)

CROSS CURSOR

VRM

SEA BOTTOM   ECHO

SOUNDOME POSITION

RANGE	160m
BEARING	270°
SECTOR	95°
TILT ANGLE	-90°
IR-1	M-0-1

MARKER
→----m
↘----m
↓----m

CURSOR
+ -70°
→25. 7m
↘75. 1m
↓70. 6m

24. 7° C
16. 0k t
34°
33. 40' N
137°
03. 84' E

0—
—
32—
—
64—
—
96—
—
128—
—
160—

OPERATION MODE

INTERFERENCE REDUCTION

WATER TEMP.
SPEED
LATITUDE
LONGITUDE

96   64   32   0   32   64   96

138m

DEPTH DISPLAY   SCALE(SECTOR)

※ "IR" will not be displayed when INTER FERENCE RED. function "OFF" is selected.
※ "M-" will not be displayed if OPERATION MODE is not used.
※ To present WATER TEMP./SPEED/LAT/LON/COMPASS DISP. info will require S-1400 is connected to an external equipment.
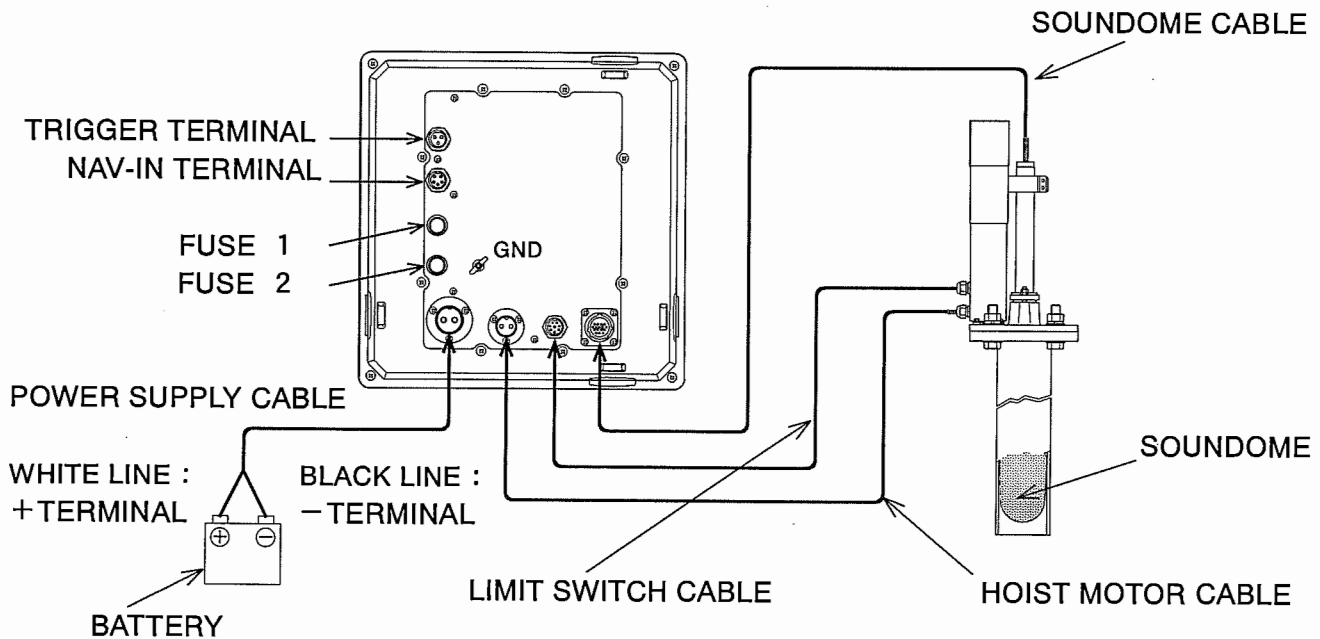
MENU

◎ Press MENU KEY to display "MAIN MENU".
Use the cursor shift keys 「↑ · ↓」 to select the item.
By pressing the cursor shift keys 「← · →」 the function set menu is displayed.

◎ FUNCTION SET MENU

1. FUNCTION SET	
GAIN UP	This function makes it possible to display a clearer picture of the full range and control the sensitivity at various depths. When the menu gain adjust setting is changed from OFF to +10dB, the gain dial volume increases 3 points on the scale. * The diagram below the menu shows a GAIN UP you selected.
TVG CURVE	TVG offsets the effects of propagation loss of sound as it passes through the water. OFF: STC function. The TVG is inactive. 10 - 40LOG: The TVG curve is adjusted to counter the loss. * The diagram below the menu shows a CURVE you selected.
DYNAMIC RANGE	By shifting the dynamic range, the display to reflect the received echo more precisely or the display to discriminate their density is selected. * The COLOR SCALE shows the comparative signal threshold levels for the dynamic ranges.
PULSE WIDTH	The transmitted pulse width can be set. NORMAL: Setting NORMAL changes automatically according to the range. NARROW: When the searching range is short and high more resolution is required, the pulse width should be set NARROW. WIDE: The longer range gives less resolution. CONSTANT: The initial value of the pulse width is 0.3 msec. The pulse width is to be set every 0.1 msec unit from 0.1 to 5.4 msec.
TX POWER	The output power of the ultrasonic sound wave may be selected.

2. REDUCTION	
INTERFERENCE REDUCTION	This function may be used to eliminate noise from other boats. Setting 3 eliminates noise rather than setting 1.
NOISE REDUCTION	This function may be used to eliminate small noise.

3. DISPLAY ITEM SELECTION	
STEP (SONAR)	The step angle (scanning angle) in the Sonar mode may be selected. Narrower step: The image density is increased but the rotational speed is reduced. Wider step: The image density is reduced but the rotational speed is increased.
STEP (BOTTOM SCAN)	The step angle (scanning angle) in the Bottom Scan mode may be selected. Narrower step: The image density is increased but the scanning speed is reduced. Wider step: The image density is reduced but the scanning speed is increased.
SCALE DISPLAY	The scale dots display under SONAR mode can be turned on/off.
COMPASS DISPLAY	The points of the compass can be shown on the screen in the Sonar mode.

4. OTHERS	
TARGET LOCK	This function changes the rotary direction or tracks the target automatically.
OPERATION MODE	Use these keys to select one of the operation modes you have created. By switching the settings, it is possible to memorize 2 kinds of operation mode in each operation mode key.

4. OTHERS <Continued from previous page>

DEPTH UNIT	The user may select the displayed depth unit to be one of the following: meters (m), braccia (br), fathoms (fm), or feet (ft)
TEMPERATURE UNIT	Temperature unit can be set to Centigrade or Fahrenheit.
SPEED UNIT	It can be shown in knots (kt) or kilometers/hour (km/h).
HOIST AUTO UP	To avoid the soundome get damaged, the soundome can be retracted automatically when the ship speed is over a specified speed. ＊We recommend the ship speed below 15kt (27km/h) while the sonar scanning.
TRAIN CORRECT	To adjust the deviation of the bow direction (0°). 1. In the Sonar mode use BEARING KEYS to set the Bearing toward Bow direction. 2. Select this item, and use 「← • →」 keys to change the degree of Train Correct. 3. Press ENTER KEY to escape.
COLOR SELECTION	COLOR SCALE and the display background color may be selected from four set options (A-1, A-2, B-1, B-2). The tone range may be specified freely on C-1 and C-2 in Color Palette function.

CONNECTIONS

※ S-1400 operate a universal power supply of voltage between 20 and 30.
※ Use the specified fuse 6A.