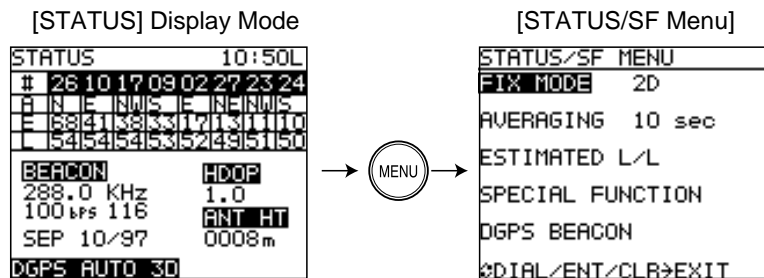


## 4.19 Setting GPS information




**CAUTION** ▶ For information on entry operations given below, see Section 4.6, “Basic menu selection operations.”

### ● Display examples



### 4.19.1 Setting position fix mode and averaging for GPS

#### 1. Setting position fix mode

- (1) Press  in the 「STATUS」 mode display.  
This action displays the 「STATUS/SF MENU」.
- (2) Turn  to select [FIX MODE] and press .
- (3) Enter 2D or Auto (default)
  - **2D**
  - **Auto** (2D or 3D are automatically selected)




**CAUTION** ▶ During GPS position fixing When the correct antenna height is entered, [2D] becomes more accurate than [3D].

- During DGPS position fixing, “auto” is used regardless of selection in [FIX MODE].

#### 2. Setting Averaging Time

This navigator calculates position, ship speed and course using signals sent from GPS satellites. The problem with this data is the dispersion introduced by satellite location and receiving conditions. To average this dispersion, you can set the desired averaging time from 01 to 99 seconds.

Large values reduces dispersion. Small values increases dispersion, but you can more speedily track the conditions of the ship.

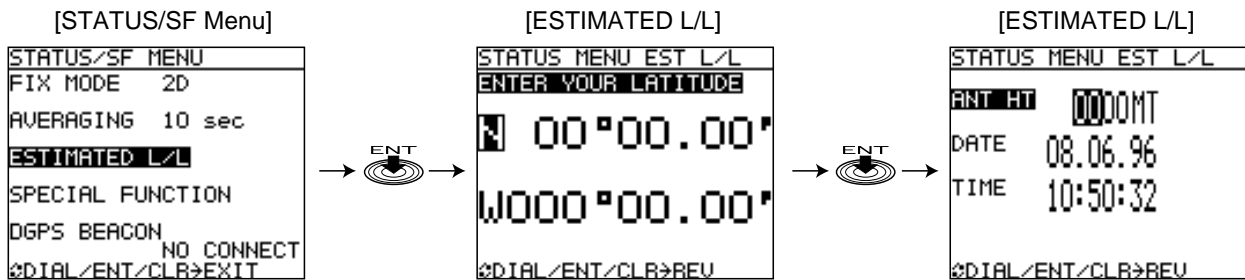
- (1) Press  in the 「STATUS」 mode display.  
This action displays the 「STATUS/SF MENU」.
- (2) Turn  to select [AVERAGING] and press .
- (3) Enter averaging time (**01 to 99** seconds). (default value: **10** seconds)





## 4.19.2 Initializing GPS/DGPS receiver

The following benefits are provided by initializing GPS/DGPS receiver.

- Position fixing the first time the navigator is used or after a master reset takes about 20 minutes. Initializing reduces this time.

### ● Display example



- (1) Press  in the 「STATUS」 display mode.  
This action displays the 「STATUS/SF MENU」.
- (2) Turn  to select [ESTIMATED L/L] and press .
- (3) Enter the estimate a position of the ship. (within a deviation range of 1°).  
[ANT HT] is now highlighted.
- (4) Enter the height of the ship's antenna.  
[DATE] is now highlighted.
- (5) Enter local time (date). (month/day/year)  
[TIME] is now highlighted.
- (6) Enter local time (time). (hour /minute/second)  
Second is no need to enter the value, only press .

## 4.22 Performing Master Reset



- A master reset clears registered date. Use this function with care.
- When resetting the navigator, perform Initializing GPS/DGPS receiver as described in section 4.19.2 when correcting for local time.

There are a soft and hard reset functions. A soft reset clears all data except waypoint and route plan data. Thus items set or selected through operation are all returned to their default values. A hard reset clears all data including waypoints and route plans.

### ● Display example

[STATUS/SF Menu] display mode

```
STATUS/SF MENU
FIX MODE 2D
AVERAGING 10 sec
ESTIMATED L/L
SPECIAL FUNCTION
DGPS BEACON NO CONNECT
DIAL/ENT/CLR→EXIT
```



[SF Menu] display mode

```
SF MENU
DATA OUTPUT
SIMULATOR OFF
MEMORY IN/OUT
MASTER RESET
SOFT HARD
DIAL/ENT/CLR→EXIT
```

- (1) Press  in the 「STATUS」 display mode.

This action displays the 「STATUS/SF MENU」.

- (2) Turn  to select [SPECIAL FUNCTION] and press .

The 「SPECIAL FUNCTION」 display mode appears.

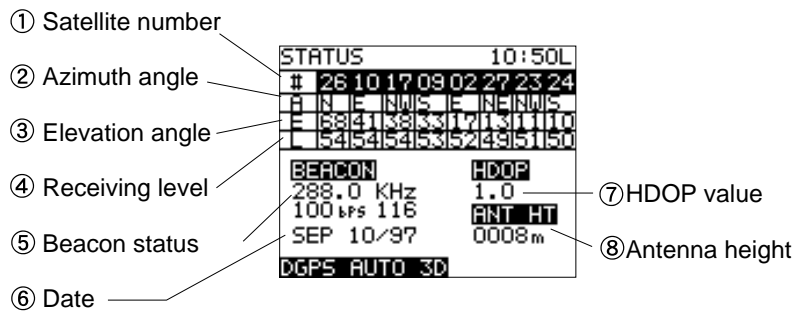
- (3) Turn  to select [MASTER RESET] and press .

- (4) Select soft or hard reset and press .

A **soft** or **hard** reset is performed.

## 4.5.7 STATUS display mode

The 「STATUS」 display mode shows all relevant satellite data.



### ① Satellite number

Displays numbers for the receiving satellites (8 of 01 to 32)

### ② Azimuth angle

Displays the azimuth angle: N, NE, E, SE, S, SW, W, NW

### ③ Elevation angle

Displays the elevation angle to each satellite.

### ④ Receiving level

Displays the receiving level of each satellite. The greater the number, the higher is the level.

### ⑤ Beacon status

Displays the frequency, Baud rate and RSSI of DGPS beacon receiving signal.

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**MEMO** *RSSI: Receiving Signal Strength Indication*  
000000

### ⑥ Date

Displays date derived from position fix. (month/day/year)

### ⑦ HDOP value

Indicates HDOP value. Position becomes more accurate as the HDOP value decreases. When the HDOP value exceeds 4, the HDOP indicator flashes to notify that the positioning accuracy is poor.

### ⑧ Antenna height

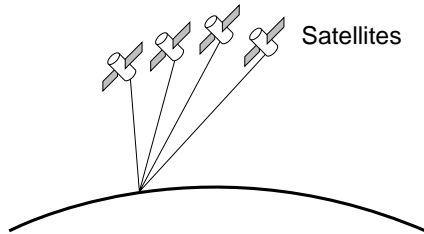
In 3D mode, the height of the GPS/DGPS receiver obtained from position fixing is displayed.

Initial value are displayed when initialization is performed in 2D mode. (For details, see Section 4.19.2, “Initializing GPS/DGPS receiver”). Initial values or the height obtained in previous 3D measurements are displayed in an automatic mode.

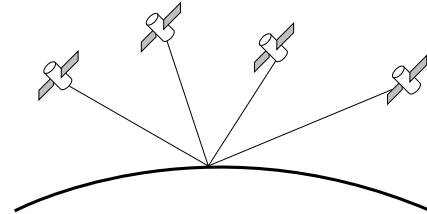


*Tip HDOP level*

*A standard for assessing accuracy of position fixing. HDOP is based on the shape formed by the positions of satellites and the receiver; a good shape yields a low HDOP level and an accurate position fix value. A poor shape produces a high HDOP level and an inaccurate position value.*



A poor geometrical shape produces a high HDOP level



A good geometrical shape produces a low HDOP level