

SAMYUNG ENC

F430

USER MANUAL



www.samyungenc.com

SAFETY INSTRUCTIONS

Please read through this manual before the first operation. If you have any questions, please contact the customer service or your local dealer or distributor

Extensive exposure to heat may result in damage to the chart plotter.

Connection to the power source with reversed polarity will damage the chart plotter severely. This damage is not covered by the warranty.

Do not disassemble. The chart plotter contains dangerous high voltage circuits which only experienced technicians must handle

Exposure of the display to UV rays may shorten the life of the liquid crystals used in you plotter. This limitation is due to the current technology of the LCD display.

Avoid overheating which may cause loss of contrast and, in extreme case, a darkening of the screen. Problems which occur from over heating are reversible when temperature decreases.

Screen Cleaning Precautions

Cleaning your chart plotter screen is a very important operation and must be done carefully. The following is the cleaning procedure.

You use a tissue or lens tissue and a cleaning spray containing Isopropanol (a normal spray cleaner sold for PC screens. Fold the tissue or lens tissue into a triangular shape, moisten the tip and use the index finger behind a corner to move the tissue across the surface, in overlapping side to side strokes. If the tissue is too wet, a noticeable wet film will be left in its path and you will need to repeat the process. If too dry, the tissue won't glide easily, and may damage the surface.

If you require technical advice or assistance, contact your nearest samyung enc office or visit our website, www.samyungenc.com.

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1 Introduction

1-1 General Information

Some functions require optional units and sensors installed on your boat. Fishfinder can be connected to external devices and display information.

Following are the examples.

- NAVTEX
- AIS receiver
- DSC VHF radio
- Transducer & sensors
- Autopilot

1-2 Specification

[F430]

GENERAL	
Category	Detail
Size	192.1 mm(H) x 108 mm(W) x 98.8 mm(D)
Display	4.3 "Diagonal, TFT color, 272 x 480 pixels
Supply Voltage	10 ~ 35 V DC
Supply Current	F 430 13.8 V 270 mA – LCD no Backlighting 400 mA – LCD full backlighting
Operating temperature	-10° ~ 50°C
ALARMS	
User setting: Fish, Deep, Shallow, Temperature, Temperature rate, Low battery, AIS	
Fishfinder	
COMMUNICATIONS	
NMEA	NMEA 0183 baud : 4800, 9600, 38400
NMEA 0183 Inputs	DBK, DBS, DBT, DPT, GGA, GLL, GNS, GGA, GSV, HDG, HDT, MDA, MTA, MTW, MWD, M V, RMC, RPM, VHW, VTG, VWT, ZDA
NMEA 0183 Outputs	APA, APB, BWR, GGA, GLL, GSA, GSV, RMB, RMC, VTG, XTE, XDR, ZDA, PLT

1-3 Packing List

Item List	Part number
	F430
Display	F430-E
Bracket	F430-DB
Power Cable	Z8-2M-05
Bracket mounting screw	F430-BP
Protection Cover	F430-CB
User's Manual(E)	F430-ME
Fuse	527-2002-1Q
Transducer	NTB52-200-10L

1-4 Optional Accessories

Model	Part number	Item List
Flush mount Kit (Including screw)	N430-TK	O (OPTION)

2 Getting Started

2-1 Installation

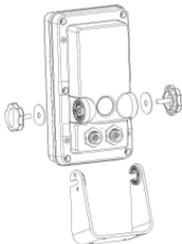
Fish finder is supplied with bracket and flush mounting kit. You can choose a method of installation according to your preference.

2-1-1 Bracket Mounting

Before installing ensure the area the bracket is mounted to is strong enough to support the weight of the Fish finder. After the location is found, attach the mounting base to the area using the supplied hardware.

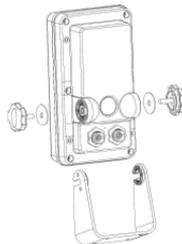
Mounting the display Unit:

- 1 Find grooves on the both side of display unit.
- 2 Align groove of bracket to the display groove.
- 3 Turn the knob to lock.



Removing the display unit:

- 1 Find grooves on the both side of display unit.
- 2 Align groove of bracket to the display groove.
- 3 Turn the knob to lock.



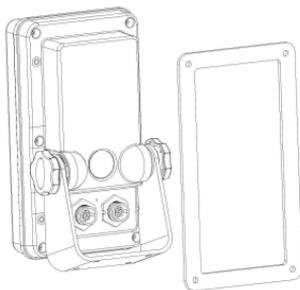
2-1-2 Flush Mounting

- 1 Find a location for flush mounting.
- 2 Drill a hole in the area of the cutout area for the blade of jig saw.
- 3 insert and cut out the area on the panel using the jig saw
- 4 Drill four holes for mounting studs.
- 5 Install the mounting studs on the chart plotter and insert them into the mounting hole.
- 6 Attach the chart plotter to the mounting location by attaching the supplied hardware to the mounting studs.

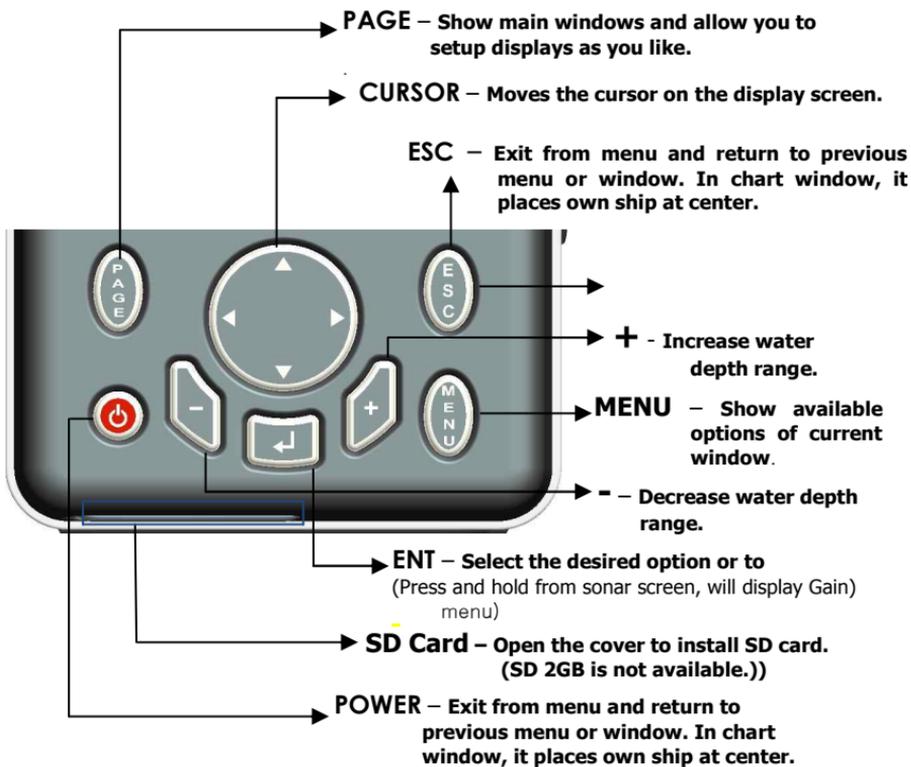


Note

- 1 If you flush mount, you need the optional external GPS antenna.
- 2 Before Drilling holes make sure there is enough space to mount the chart plotter there is no obstructions.



2-2 Keys



2-3 SD Card

How to insert and remove SD card is as below.

Inserting the SD Card

- 1 Hold a SD card so that label is NOT visible.
- 2 Open the door, gently push the SD card into the slot; push the SD card in as far as you hear click sound, then close door.



Removing the SD Card

- 1 Turn off the unit.
- 2 Open the door and push in on the SD card until it is released.
- 3 Close the door.

	<p>Insert NAVIONICS SD card correctly. (DO NOT FORCE) Close SD card door firmly all the times. Do not remove SD card during reading and writing.</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

2-4 Simulate Mode

Simulation mode is for practicing use of product, and when sensors and internal alarm are not available. In the simulate mode, the unit turns the GPS receiver off and ignores data from all optional devices.

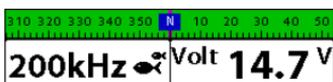
Simulation can be done by following steps.

- 1 Press and hold **MENU**.
- 2 Select Advanced settings.
- 3 Check at Simulation.



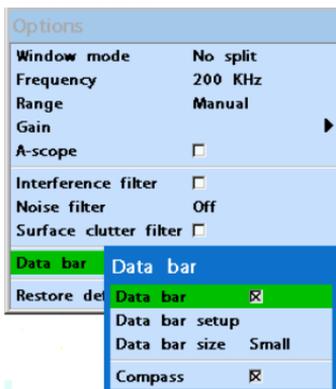
2-5 Data Bar

Data bar displays useful navigation information at the top of the display.



Displaying Data bar

- 1 Press **MENU** and select **Data bar**.
- 2 Select **Data bar**.



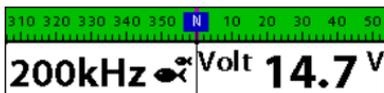
Setting the data displayed in data bar

- 1 Press **MENU** and select **Data bar**.
- 2 Select **Data bar** then **Data bar setup**.
- 3 Move the cursor key to highlight the data field you want to change then press **↓**.
- 4 Select **Data type**.
- 5 Select a desired data you want to display in the field then press **↓**.
- 6 After selection, press **ESC**.
- 7 Repeat above steps if necessary.

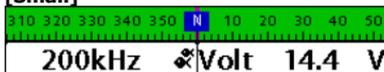
Selecting the Data bar size

- 1 Press **MENU** and select **Data bar**.
- 2 Select **Data bar** then **Data bar size**.
- 3 Select the desired size of data bar.

[Large]



[Small]



 **Tip:** If you select None for all data fields, the data bar will disappear to save space for the chart.

 **Tip:** Even though you setup a data bar for specific window, the data bar is not apply to all other window.

2-6 Compass

It computes direction from satellite data of other devices, For the GPS chart plotter to compute direction the vessel must be moving through the water.



For easy reading and recognition, there is a compass needle at top right side.

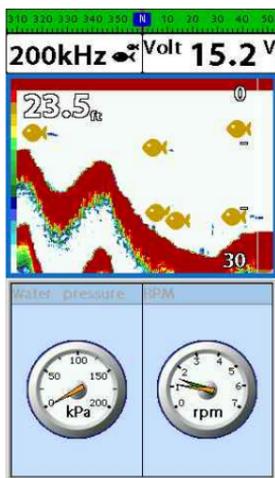
To turn the compass off or on:

- 1 Press **MENU** and select **Data bar**.
- 2 Select **Compass**.



2-7 Multi Window Display

Fish finder can display up to two windows at the same time.



+ Adding a window

- 1 Press **PAGE** and use **←**, **→** select **Add** icon.
- 2 At fish finder screen, you may select data screen, and vice versa.

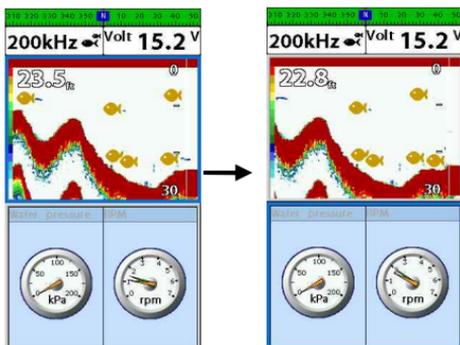


Changing window size

- 1 Press **PAGE** and select **Split** icon on bottom.
- 2 Press **▲** or **▼** to change the height of the windows if there is only two windows.

Active Window

When the screen is divided into two windows, a blue border indicates the active window. To change the active window to the next window, press and hold



It is important to notice which screen is on due to the multi screens which can be used each screen's function.



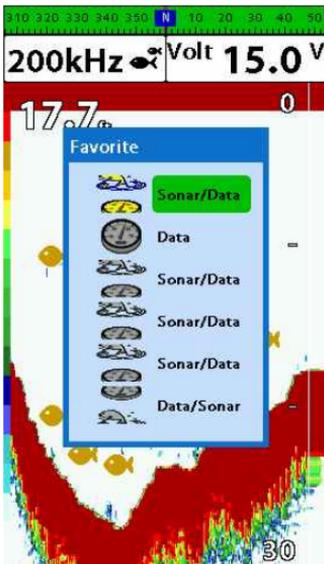
Deleting a window

- 1 Select the window you wish to delete.
- 2 Press **PAGE** and select Remove icon with **←**, **→**.



Favorite displays

The most commonly used windows are called favorite displays and up to six favorite windows can be saved. Also each favorite display can have data bar and compass.



Displaying a favorite display

- 1 Press **PAGE** twice.
- 2 when above window pops up select a desire display you want.



Adding a favorite display

- 1 Organize a window as you want.
- 2 Press **PAGE** to show the main window.
- 3 Select **Save** icon at the bottom



- 4 Select an icon where you want to add your favorite display. If you add the new favorite display on existing favorite display new display will overwrite the old display.

3 General Operation

3-1 Power on and off

Manual power on

Press down to button until the display is on.

Manual power off

Press and hold for 5 seconds. A counter timer appears on the screen, if you release the button before the countdown timer reaches zero, the chart plotter will remain On.

3-2 Brightness, night mode and Background

You can change the screen setting for the display. To change settings, shortly press .



Brightness

To change the brightness, select **Brightness**, and press to dim or to brighten.

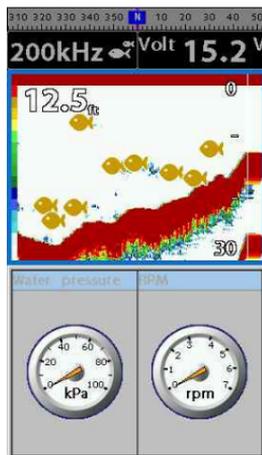
Press to return to the previous screen.

Night mode

Fishfinder has preprogrammed settings allowing you to customize the look of the **Chart** window. The default is daytime view. Select **Night mood** depending on what mode the display is in at the time of selection.

To change mode:

- 1 Highlight **Night mode**.
- 2 Press or .



Tip: The screen will be difficult to read if the fish finder is in **night mood** when the sun is too bright

Background

You can Change the background color if necessary. This selection is a personal preference. Select the option that gives you the clearest viewing in your weather conditions and viewing angle.

3-3 The page window

Press **PAGE** to show the page window and select a function icon you want to display.

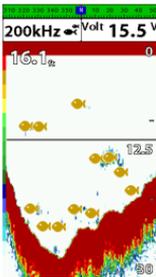


Note

1 Some function icons require optional units and connected sensors.



Sonar



Data



AIS

Dist (nm)	SOG(kn)	BRG (T)
CPA(nm)	T CPA	



DSC

Date	Time	Latitude	Longitude	M	%



Navtex

Time	ID	Freq



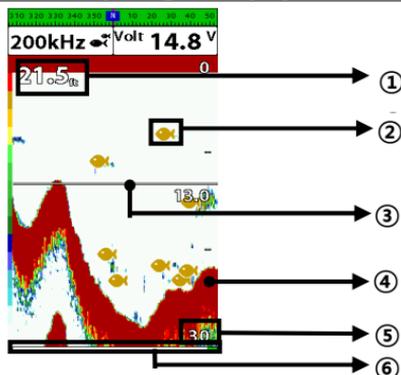
Engine Faults

Engine	Status

3-4 Sonar

It is available to use a sonar function when this equipment is connected to an depth transducer.

3-4-1 Interpreting the display



- ① Depth
- ② Single fish : Fish symbols with depth.
- ③ Depth line
- ④ Bottom : Hard bottoms such as rock and coral shown as wide bands. Soft bottoms such as mud, weed and sand show as narrow bands.
- ⑤ Range of display
- ⑥ Data from right to left.

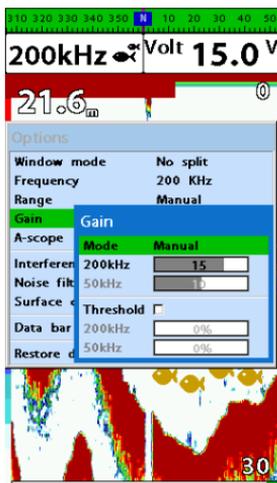
3-4-2 Mode

There are two options you can select.

- Auto-mode: This is the most commonly used option. In this mode, settings are automatically adjusted for the best display of fish and bottom according to environment.
- Manual Mode: Use this option for manual setting. The option might bring you best result for your purpose.

To change a mode;

- 1 Press **MENU** then select Gain.
- 2 Select Mode then choose Manual or Auto mode.
- 3 Press **ESC** to exit until returning to the chart window.



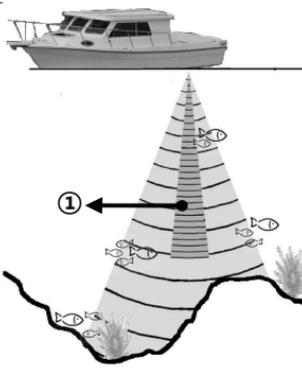
3-4-3 frequency fish finding

Sonar frequencies

This unit has single frequency of 200kHz to check the status of under the sea.

High frequency (200kHz)

The higher ultrasonic signal, the better is the resolution. For this reason the 200 kHz frequency is ideal for detailed observation of fish schools.



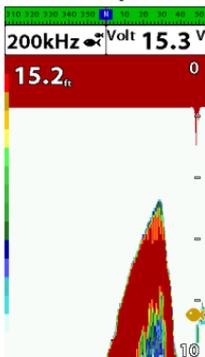
3-4-4 Range

Range is the depth of water displayed on the sonar window. The basic range may be chosen in Auto or manual mode.

Auto: When the mode is set to **Auto**, the unit adjusts the depth automatically for the best performance. This option is recommended for normal operation.

Manual: When the mode is set to **Manual**, the unit only displays the depth of water at a given range. That means the sea bottom might not be displayed in the sonar window or it might display half of display in white because range is more important than sea bottom depth. As shown in below images.

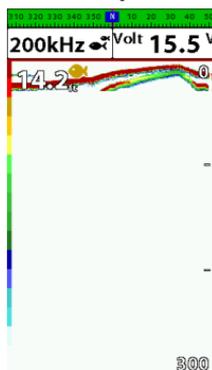
[When the set depth is too low]



To set the manual mode in the sonar window:

- 1 Press **MENU**, select **Range**.
- 2 Select a mode you want and press **↓**.
- 3 If you select the manual mode, press **+** or **-** to change value of max displayed depth.

[When the set depth is too high]

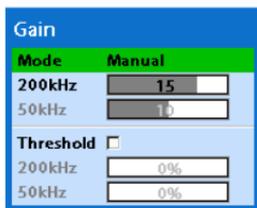


3-4-5 Gain

The gain menu

The gain is a signal strength received from the transducer and the threshold is the level of ultrasonic that is ignored by a set value. When you use the manual mode and threshold, the values of gain and threshold need to be set very carefully.

In the **Gain** window, you can set for a gain mode and threshold.



3-4-6 Sonar window display

Five sonar display windows are available and each display window has unique characteristics. Select a display window depending on your needs. The default display is single frequency display.

To change a Sonar display window in the sonar window:

- 1 Press **MENU**, select Window mode.
- 2 Select the sonar display you want.

No split: Display Sonar history at a given frequency (see section 3-4-7)

Split zoom: This mode expands chosen area of the normal picture in full vertical size on the left-half part of the window.

Full screen zoom: Display a zoomed section on full screen (see section 3-4-8)

Split bottom: Display Sonar history and a bottom trace focus in a zoomed section (see section 3-4-9)

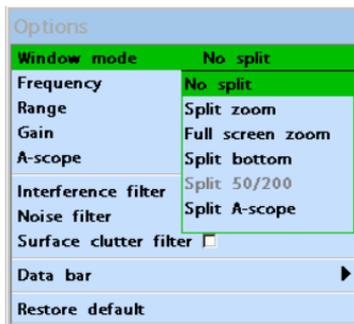
To change a mode,

- 1 Press **MENU**, select **Gain**.
- 2 Select a mode.
- 3 If you select a **Manual** mode, adjust each frequency gain value by pressing **←** or **→**. Even though you select the **Auto** mode, it will be changed to manual mode if you change the values of frequency.

Split A-Scope: Display Sonar history and echo strength (see section 3-5-11)

Partial enlargement, lower ground enlargement, A-Scope display may change the split ratio of display.

- 1 Press **MENU** and select **Window split**.
- 2 Press **←** or **→** to adjust the ratio.
- 3 Press **↓**.



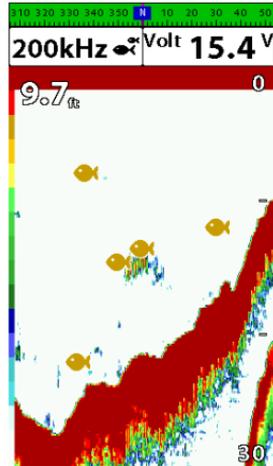
3-4-7 No split

Single frequency display shows the fish finder record of 200kHz frequency.

High Frequency (200 kHz)

The 200 kHz frequency is ideal provide a better resolution which means it is ideal for the observation of fish or fish schools.

You can also review old sonar records, press ◀ and ▶ to review the history. To return to current scanning, press ESC.



3-4-8 Split zoom and Full Screen zoom

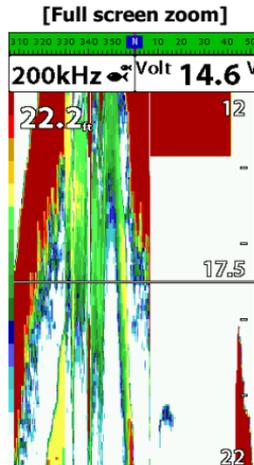
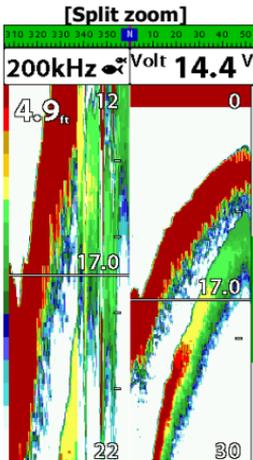
Split zoom

Split zoom mode expands selected area of the single frequency by VRM(Variable Range Mark). The left side displays zoomed section of current sonar record. The VRM of right side indicates the zoom section area.

- Press ▲ or ▼ to change the zoom range.
- Press + or - to change the depth range.

Full Screen zoom

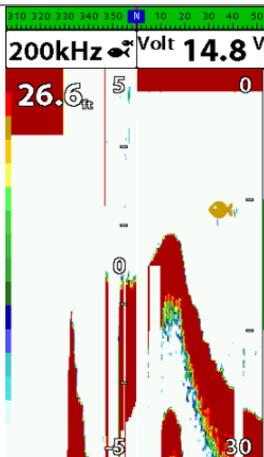
Full screen zoom displays only the zoom section of split zoom.



3-4-9 Split bottom

Split bottom display provides a normal picture on the right half and a selectable range over and below the bottom line is expanded onto the left half of the screen. This mode is useful for detecting bottom fishes.

- Use the **◀** or **▶** keys to adjust the zoom range.
- Press **+** or **-** to change the range
- The VRM moves up and down to calculate the bottom depth automatically.

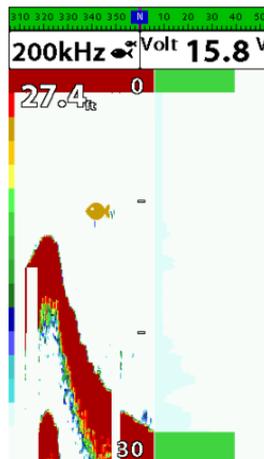


3-4-10 Split A-Scope

This display shows echoes at each transmission with amplitudes and colors proportional to their intensities; on the right of the screen it is useful for estimating the kind of fish schools and bottom nature.

Echo strength color code varies from weakest (blue) to strongest (red).

- ① Echoes from fish and the bottom
- ② Unwanted noise echoes.
- ③ The strongest echo, usually from the bottom.





3-5 Gauges

The **Gauges** window displays all the information you need during navigation such as water, engine, fuel related information, etc.

To select the **Gauges** window, press **PAGE** and select **Data** icon.



Selecting a Gauges layout

Data bar may show one of the 6 gauge layouts.

- To select a layout from the **Gauges** window:
- 1 Press **MENU** and select **Gauge Layout**.
 - 2 Select one layout.

Changing a gauge in one selected

To change a gauge displayed in a layout in Data display.

- 1 Press **MENU** and select **Gauge Setup** then the upper left side gauge will be highlighted.
- 2 Select a gauge you want to change and select Gauge type.
- 3 Select a data type you want to display.



3-6 AIS

AIS is an Automatic Identification System for identification and localization of boat. AIS provide a means for boats to exchange and share boat data including identification, position, course, etc. This information can be displayed on the screen of you unit. AIS is intended to assist you to monitor other boats movements to improve safety and prevent collision.

AIS functions require an optional AIS unit to be installed.

To activate AIS function:

- 1 Press and hold **MENU** and select **System Configuration** icon..
2. Press **ESC** and press display from the top page and select AIS.

3-6-1 AIS Windows

To display the AIS windows:

- 1 Press display, and select **AIS** icon.
- 2 Press and hold display to select one of the two tabs: **Vessels** or **Messages** tab.
 - **Vessel:** show you all the AIS equipped vessel around you. (up to 200 vessels)
 - **Message:** show you all the messages related to safety from other AIS equipped vessels.

Caution : The display can show information for 250 vessels as maximum.

Sorting Vessels

- 1 Press **MENU**, select **Sort by**.
- 2 Select one of the options

Displaying an AIS vessel on the chart

To overlay AIS equipped vessel on the chart window:

- 1 Press **▲** or **▼** to select a vessel you want to display in **AIS** window.
- 2 Press **MENU** and select **Display**

Displaying AIS equipped vessel Details

- 1 Press **▲** or **▼** to select a vessel you want to display full AIS detail in the **AIS** window.
- 2 Press **◀** or press **MENU** and select **More Info**.
- 3 Press **◀** or **▶** to see more detail.

[AIS Vessel Information -1]

Vessel info:PLASTIMO-C	
DST(1mi) CPA(1mi)	SO T
0.56	
Position 047° 42.325'N 003° 22.702'W	
1.07	Heading 0°
1.28	ROT 0°/min
1.70	COG 45.0°
1.70	SOG 5.6kn
2.45	BRG 314.2°
	DST 0.56nm
	To select
	1/4

AIS Vessel List]

AIS			
Vessels		Messages	
DST(1mi) CPA(1mi)	SOG(kt) TCPA	BRG (°)	MMSI NAME
0.52	5.6	307	333333333
---	_h_m_s	---	PLASTIMO-C
1.11	1.2	239	111111111
---	_h_m_s	---	PLASTIMO-A
1.22	12.3	40	666666666
---	_h_m_s	---	LORENT-B
1.62	7.8	7	444444444
---	_h_m_s	---	PLASTIMO-D
1.72	15.6	119	888888888
---	_h_m_s	---	LORENT-D
2.48	3.4	255	222222222
---	_h_m_s	---	PLASTIMO-B

DSC 3-7 DSC

This feature requires connection to optional DSC VHF radio. DSC window shows the distress and poll information received from other vessel through DSC VHF radio.

- 1 Press and Hold Menu, then select the system configuration.
- 2 Select the optional components and select DSC
- 3 Press ESC and press DISPLAY from the top page then select DSC.

3-7-1 distress

During a distress situation, a vessel that is equipped with a DSC VHF radio and connected to GPS has the capability to transmit a DSC distress call with GPS position. When a compatible VHF radio receives a distress call, the distress call location is displayed on the screen and it is logged into **DSC Distress** window.

Date Time	Latitude Longitude	MMSI Name

Displaying a distressed vessel in the chart window

- 1 Highlight a received distress call you want to display.
- 2 Press **MENU** and select **Display**.

Going to the distress position

- 1 Highlight a received distress call you want to navigate to.
- 2 Press **MENU** and select **Goto**.

Editing a distress waypoint

- 1 Highlight a received distress call you want to edit.
- 2 Press **MENU** and select **Edit Waypoint**.
- 3 Change data field and select **Save**.

Tip: When receiving a Distress call from other vessel, it creates a distress waypoint automatically. However, the waypoint you edit in option menu is a different waypoint from the distress waypoint

Deleting a Distress Call

- 1 Highlight a received distress call you want to delete.
- 2 Press **MENU** and select **Delete**.

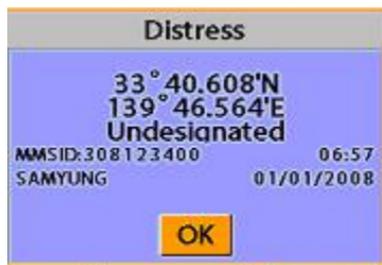
Deleting all Distress Call

- 1 Press **MENU** and select **Delete all**.

Tip: Even though you delete a DSC call, the DSC waypoints still exist.

Distress Message

When the distress message is received, the distress message will be popped up as below



3-7-2 Poll

Poll

A compatible radio with the unit can request the position of other DSC VHF radio equipped vessels around its position. When the position of a vessel is received, the location is displayed on the screen and it is logged into Poll window

To display the **Poll** tab, press and hold **PAGE**.

Displaying an poll vessel in the chart window

- 1 Highlight a poll you want to display.
- 2 Press **MENU** and select **Display**.

Going to the poll vessel position

- 1 Highlight a poll you want to go.
- 2 Press **MENU** and select **Goto**.

Edit a distress waypoint

- 1 Highlight a poll you want to edit.
- 2 Press **MENU** and select **Edit Waypoint**.
- 3 Change data field and select **Save**

 **Tip:** When receiving a poll from other vessel, it does not create a waypoint as a distress call

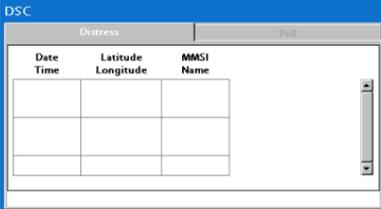
Deleting a poll

- 1 Highlight a received distress call you want to delete.
- 2 Press **MENU** and select **Delete**.

Deleting all poll

- 1 Press **MENU** and select **Delete all**.

 **Tip:** Even though you delete a DSC call, the DSC waypoints still exist.



Date Time	Latitude Longitude	MMSI Name

4 Settings

The system menu mainly consists of settings which do not require frequent adjustment. To go to system menu, press and hold **MENU** then select the icon you want.



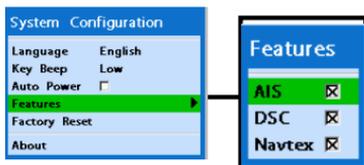
- ① System Configuration.
- ② Fishfinder
- ③ Memory.
- ④ AIS.
- ⑤ Alarms
- ⑥ Others.



4-1 System Configuration Settings

To go to **System configuration**:

- 1 Press and hold **MENU**.
- 2 Select the **system configuration** icon.



4-1-1 Language

Change the language for menus and data screens.

4-1-2 Beep volume

Select the level of beep sound.

4-1-3 Auto power

See section 3-1.

4-1-4 Features

When external devices are connected to the unit, the corresponding options need to be set.

4-1-5 Factory reset

When this option is selected. All settings of this unit returns to default factory settings.

4-1-6 Unit information

The unit information window shows:

- 1 Software version and release date.
- 2 NAVIONICS version.
- 3 Stored waypoints, routes and tracks count
- 4 Wiring information of connector.





4-2 Sonar Settings

As an option, you may change the settings of sonar by following the steps below.

- 1 Press and hold **MENU**.
- 2 Select the Sonar icon.



4-2-1 Frequency

Sonar frequency is fixed at 200kHz frequency of 200KHZ

4-2-2 Color display

You may choose from Color-1, Color-2, Color-3, Color-4, Color-5, to change your color display.

4-2-3 Palette

You may change the background color to black, blue and white.

4-2-4 Scroll speed

You may set the scroll speed. It determines how quickly the vertical scan lines run across the screen.

The fastest speed may enlarge the size of the fish on display, and slow speed shows the opposite.

You may choose from Very fast, Fast, Medium, Slow and Pause. Faster options are recommended to see more details for slow boats, and Slower options are recommended for both slow and fast speed boats.

4-2-5 Digit size

You may change the digit size of the range. Three options are available Small, Medium or Large.

4-2-6 Fish

Fish symbols

You may turn the fish symbol on or off.

Fish depth labels

You may show the fish depth value or hide it.

Fish filter

Select the minimum fish size to be used as a fish symbol

Fish sensitivity

You may select the minimum strength of fish echo that will be displayed as a fish symbol.

4-2-7 Advance Settings

Interference filter

Interference from other equipment operating nearby or on your boat may occur on the display. Use this function to remove interference.

Noise filter

The transducer signal may be unstable when there is a noise. This function removes the noise and averages the echo signal. However this may remove the fish echoes.

Surface clutter filter.

This function removes the surface noise. However this function does not remove the fish echoes.

Pulse length.

User may select the specific pulse length of transducer. A short pulse shows more detailed information but can't show deeply into the water because of the less power. The Auto setting therefore is recommended.

Pulse power

You may select the specific pulse power of the transducer. Low power allows a clear display but can't show deeply into the water. The Auto setting is therefore recommended.

4-2-8 Restore default.

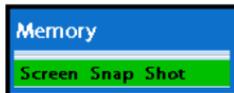
This setting returns every sonar settings to default.



4-3 Memory Settings

To go to the memory settings:

- 1 Press and hold **MENU**.
- 2 Select the **Memory** icon.



A user card is an option SD card which you need to purchase additionally. Before you use a user card it must be formatted. Note that formatting a user card erases all saved data.

4-3-1 Screen Snap Shot

To take the snap shot of current screen, press **⓪** twice. To save the captured image, press **MENU** and select **Save** or **Save all** to save the captured images on the user card.

Name	Size	Time
080101A	383KB	00:01 2009.01.01
080101B	383KB	00:01 2009.01.01
080101C	383KB	00:01 2009.01.01
080101D	383KB	00:01 2009.01.01
080101E	383KB	00:01 2009.01.01
080101F	383KB	00:01 2009.01.01
080101G	383KB	00:01 2009.01.01
080101H	383KB	00:01 2009.01.01
080101I	383KB	00:01 2009.01.01
080101J	383KB	00:01 2009.01.01
080101K	383KB	00:01 2009.01.01
080101L	383KB	00:01 2009.01.01
080101M	383KB	00:01 2009.01.01
080101N	383KB	00:01 2009.01.01



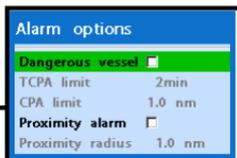
4-4 AIS Settings

Note

AIS feature require an optional AIS receiver.

To go to the AIS settings:

- 1 Press and hold **MENU**.
- 2 Select the AIS Icon.



4-4-1 Alarm Option

Dangerous Vessel Alarm : When this option is selected an alarm will activate. Even this option is not selected; dangerous vessels will still be on the chart.

TCPA Limit : Set the Time of Closet Point of Approach limit.

CPA Limit : Set the Closet Point of Approach limit.

Proximity alarm : Trigger an alarm when any AIS equipped vessel is within a set proximity radius.

Proximity radius : Set a radius for proximity alarm.

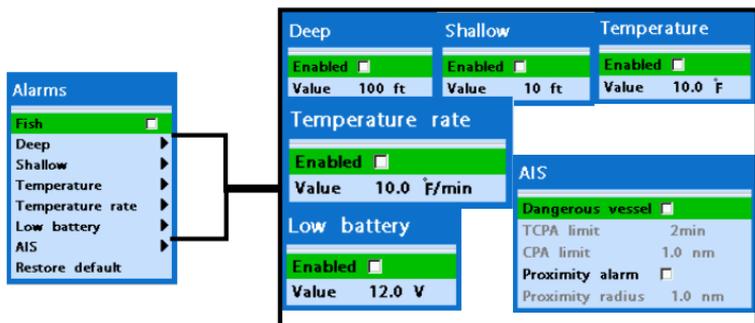
4-4-2 Restore Default

Returns every AIS setting to default.



4-5 Alarm Settings

Press long **MENU** then select **Alarms**



A warning message with beep sound is displayed when an alarm condition is met by user setting. Press **ESC** to clear the alarm. However, the alarm will be displayed again when the alarm condition occurs again. The unit provides alarms for various functions.

4-5-1 Deep

Trigger an alarm when the depth value received from the transducer is deeper than a set value.

4-5-2 Shallow

Trigger an alarm when the depth value received from the transducer is shallower than a set value.

4-5-3 Temperature

Trigger an alarm when the reported temperature from the transducer is same as a set value.

4-5-4 Temperature rate

Trigger an alarm when the rate of temperature change from the transducer is same as a set value.

4-5-5 Low battery

Trigger an alarm when battery voltage is lower than a set value.

4-5-6 AIS

See the Alarm option of 4-4 (AIS Settings).

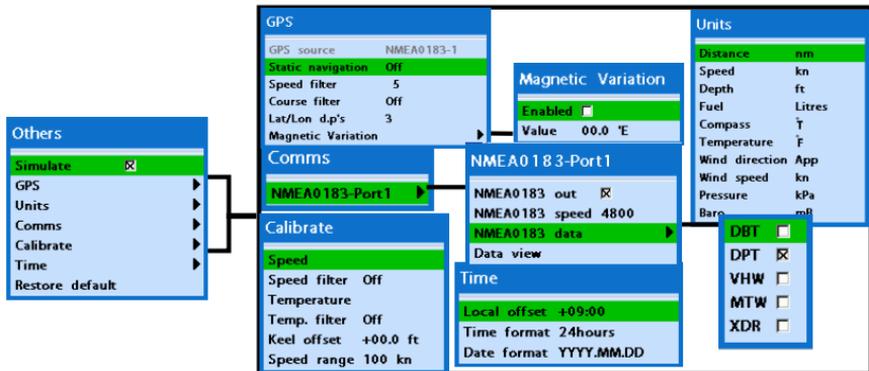
4-5-7 Restore default

Returns every alarm settings to default.



4-6 Others

Press long **MENU** then select **Others**:



4-6-1 Simulate

Turn the simulate mode on or off.

4-6-2 GPS

GPS source
Fixed as NMEA0183.

Static navigation

This option is useful when boat is stopped or moves slowly. This option allows you to set a minimum speed when movement is the minimum. The speed range is from 0.00 to 9.99.

Speed filter

Occasional waves and wind at sea may affect the boat speed. In order to have stable boat speed, this unit calculates factors to give the value of stable speed information.

Course filter

Occasional waves and wind at sea may affect the boat course. In order to have stable boat course, this unit calculates factors to give the value of stable course information.

Lat/Lon d.p's

You may select number of last digit of Lat/Lon to be set when you are connecting to the other marine electronics.

Magnetic Variation

This option compensates the difference between true north and magnetic north. It is recommended to leave this setting untouched if you are not familiar with this option.

4-6-3 Units

Select a unit of each measure.

Tip: Requires an optional VHF receiver with barometer connected: InHg or mB.

4-6-4 Comms.

Use this feature when the unit is connected to other marine electronics through any compatible NMEA instrument.

NMEA0183/NMEA2000: This option to transmit NMEA sentences to other marine electronics. NMEA0183 and NMEA2000 interfaces are generally used with third party marine electronics. Select a port (NMEA2000, NMEA0183-Port 1 or NMEA0183-Port 2), a communication speed and select a desired output data.

4-6-5 Time

Local offset : The time information supplied by the GPS satellites is in UTC (Universal Time Coordinates). To read the correct time, change the time of GPS chart plotter for daylight saving time start and end.

Time format : Select the format of time.

Date format : Select the format of date.

4-6-6 Restore default

Returns every other setting to default.

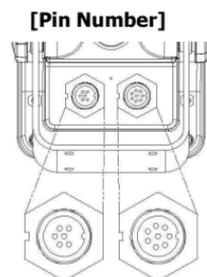
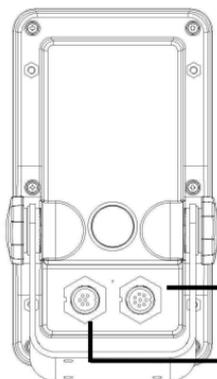
5 INSTALLATION

Correct installation is important to the performance of the unit. It is vital to read the entire installation section of this manual and the documentation that comes with the antenna and any other units before starting installation. For further information, please contact Samyung ENC.

5-1 Options and Accessories

Optional sensors and instruments Connections

- DSC VHF Radio
- Other instruments: The chart plotter can receive data from other instruments and send data to other instruments by NMEA..



[Power & Data]

Pin Number	Colour	Functions
1	Black	Ground: - Power in, NMEA ground
2		No use
3	White	NMEA 1 Out
4	Green	NMEA 1 In
5	Red	+ power in, 10 to 35 V DC
6		No use
7		No use
8		No use

[Sonar]

Pin Number	Functions
1	Sonar +
2	Temp, GND
3	Not Use
4	Temp
5	Sonar -
6	Sonar - GND

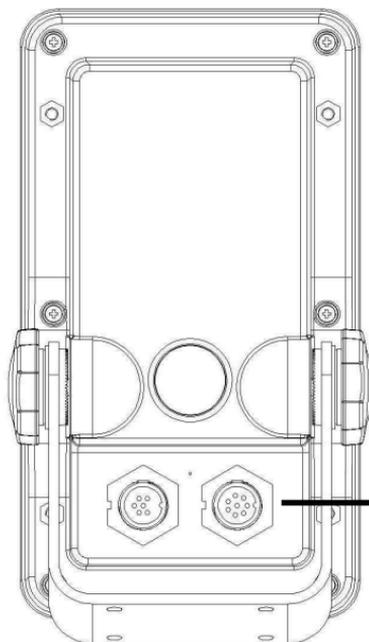
5-2 Connections

Fishfinder has connectors that are used to connect to the power supply and to NMEA devices such as AIS receivers, Autopilots and digital equipment.

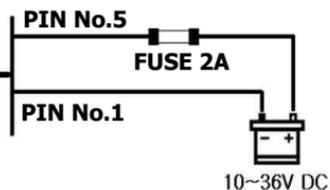
5-3 Power / Data Cable

Power

- Connect each equipment as the below picture for Power.



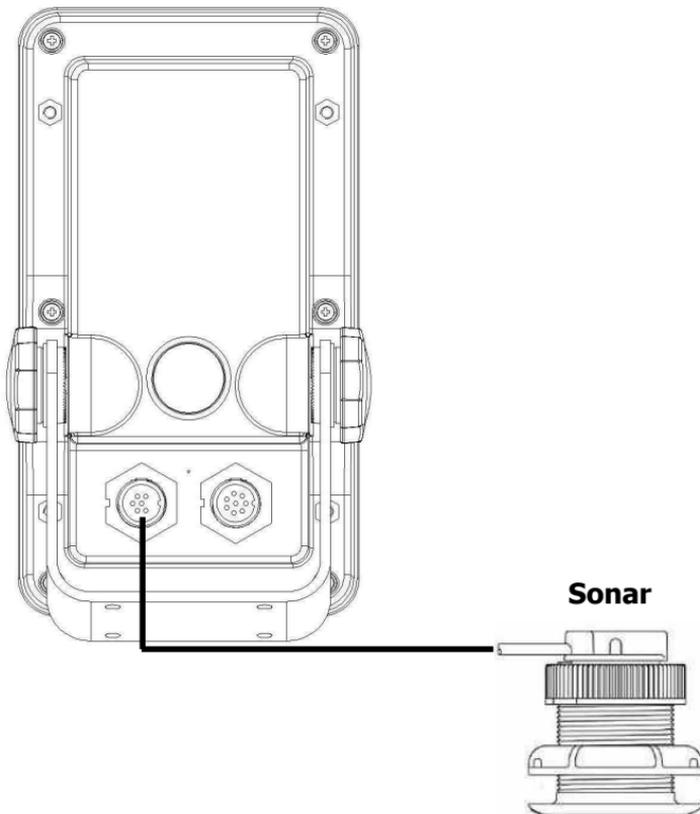
Power / Data Cable



5-4 Sonar

Sonar

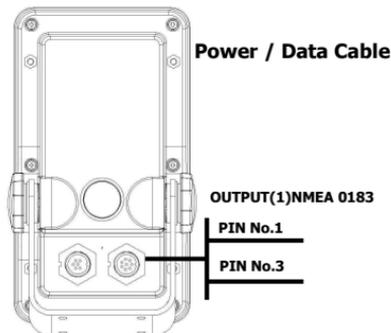
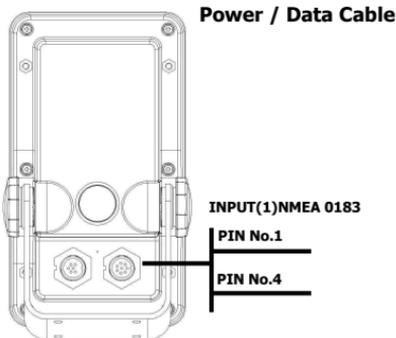
- Connect each equipment as the below picture for Sonar power.



5-5 NMEA 0183

Fishfinder can be connected to external devices with NMEA0183 and display information such as followings.

- DSC VHF Radio
- GPS antenna(NMEA 0183)
 - Navtex
 - AIS receiver



DSC VHF radio

Fit and set up the optional DSC VHF radio as above Pictures: NMEA 0183(1) IN and NMEA 0183(2) IN.

Other NMEA instruments

NMEA is an industry standard for interconnecting instruments. The chart plotter can be connected to other NMEA instruments. Set up the optional NMEA instruments as above pictures.

- The chart plotter can receive and display depth, paddlewheel boat speed and water temperature from an optional compatible instrument.
- The chart plotter can receive data from an optional compatible GPS or GPS/DGPS source.

- The chart plotter can send GPS position and other navigation data to an autopilot or other instrument. An autopilot requires APB, APA and VTG sentences
- For information on sending NMEA data to the instrument, contact Samyung ENC.

During setup to send NMEA data to other instruments, set NMEA out and specify the NMEA data to send.

5-6 Setup and Test

- 1 Put a blanking cap on any unused connector on the back of the display unit. Ensure all connectors are plugged in and the display unit is in place.
- 2 If the display unit is bracket mounted, adjust tilt and rotation for best viewing and hand tighten the knob.
- 3 Insert any required NAVIONICS chart card.
- 4 Enter setup data to set up the chart plotter to your requirements and to set up any optional sensors or instruments.

 **SAMYUNG ENC 1 YEAR WARRANTY**

Thank you for purchasing an SAMYUNG ENC product. This product has been thoroughly checked and is covered by the **Samyung ENC's warranty** for defects in materials and workmanship under normal use from the date of purchase.

This warranty provides for the free repair or replacement of defective parts from our Samyung ENC authorized dealer.

In the event that your SAMYUNG ENC product needs service, please return your SAMYUNG ENC product at your expense (shipping and insurance) to your Samyung ENC distributor or SAMYUNG ENC authorized Service Centres. SAMYUNG ENC will, at its discretion, repair or replace any defective products or its components at no cost to you. This is your exclusive remedy for defective products

Followings are not under Warranty .

1. Consumable items, including, but not limited to: fuses, impellers, impeller bearings, impeller shafts are specifically excluded from this warranty
2. All costs associated with transducer replacement, other than the cost of the transducer itself
3. As a result of incorrect installation, misuse, accident, water damage, abuse or other external causes
4. By modification or service other than by SAMYUNG ENC or authorized distributors, authorized Service Centres
5. If the serial number label on the unit has been removed, altered or mutilated

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