

Installation Manual
3D Sonar Visualizer F3D-S
(Option for FSV-25/FSV-25S)

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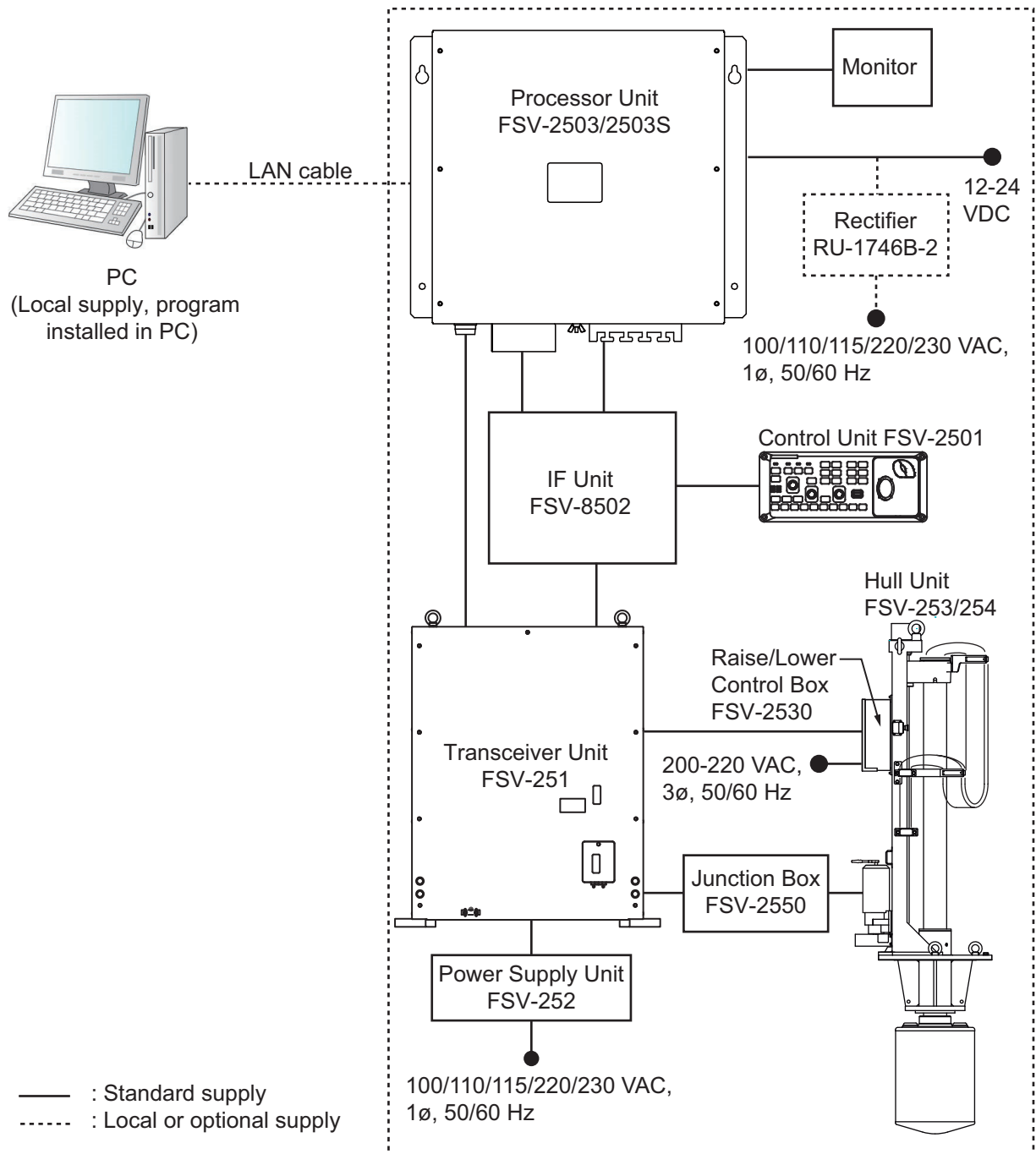
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IMPORTANT NOTICES

- This manual has been authored with simplified grammar, to meet the needs of international users.
- The operator of this equipment must read and follow the instructions in this manual. Wrong operation or maintenance can void the warranty or cause injury.
- Do not copy any part of this manual without written permission from FURUNO.
- If this manual is lost or worn, contact your dealer about replacement.
- The contents of this manual and the equipment specifications can change without notice.
- The example screens (or illustrations) shown in this manual can be different from the screens you see on your display. The screens you see depend on your system configuration and equipment settings.
- Save this manual for future reference.
- Any modification of the equipment (including software) by persons not authorized by FURUNO will void the warranty.
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SYSTEM CONFIGURATION



Color Scanning Sonar FSV-25/FSV-25S

1. PREPARATION

1.1 Necessary Parts

Standard Supply

The 3D Sonar Visualizer contains the following items.

3D Sonar visualizer F3D-S (Code No.: 001-546-350)

Name	Type	Code No.	Qty	Remarks
CD-ROM	CDR700S.WP. S1P10S	000-177-025-10	1	For details, see "Folder structure of the CD-ROM".
USB Protection Key	942-000058-001 KQAKA	000-197-077-10	1	
Installation Manual	IMC-13442-x	000-196-806-1x	1	

Folder structure of the CD-ROM

Folder	File	Remarks
F3D-S_setup	3DSonarVisualizer.msi	F3D-S intallation file; includes Operator's Manual (See section 1.6.)
	setup.exe*	.NET Framework installation file
OSS	OSS.txt	OSS declaration
Sentinel_LDK_Run-time_setup	HASPUserSetup.exe	Sentinel LDK driver installation file (See section 1.5.)
	readme.html	Instructions

*: For Microsoft® Windows® 10 users, this file is usually unnecessary because this file is already installed as part of the operating system.

PC requirements

OS	Microsoft® Windows® 10 Pro / Home (English or Japanese)
DirectX version	11.0 or later
CPU	Intel® Core™ i5 or better
GPU	NVIDIA GeForce® GTX1060 or better
Memory	Min. 4 GB
SSD / HDD	Min. 250 GB
I / O	Ethernet 100Base-T, USB 2.0 or better (for USB protect key)

Correct operation of the PC cannot be guaranteed unless the following are observed.

- Do not install any software other than F3D-S.
- Do not connect to the Internet.
- Do not perform windows update. This software is compatible with updates up to version 1809.

1.2 Requirements for FSV-25

The following updates of programs and printed circuit boards are required to use the F3D-S. If your FSV-25 does not meet the following requirements, contact your dealer.

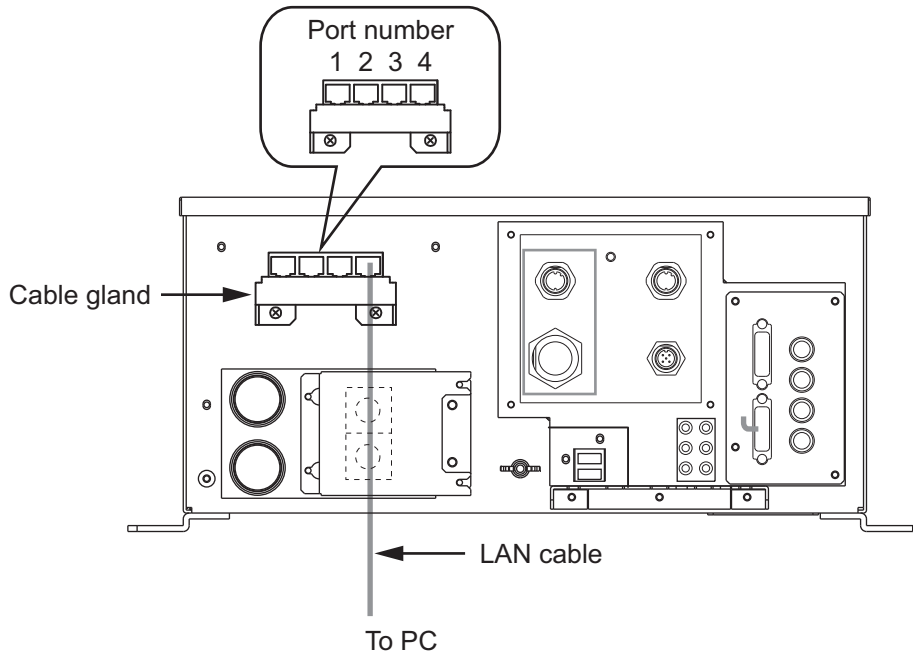
Program version requirements for FSV-25

Unit	Name of operation test	Program version
Processor Unit FSV-2503	FSV-2503	105-0896-02.07 or higher 105-0897-02.07 or higher 105-0926-01.01 or higher 105-0927-01.01 or higher
Transceiver Unit FSV-251	TRCPU	105-0894-02.04 or higher
	TRX	105-0890-01.08 or higher

1.3 How to Connect the LAN Cable

Note: Before connecting the cable, post a notice indicating that the power should not be applied while doing this procedure.

1. Connect the LAN cable at the back of the processor unit, to Port 3 or Port 4.
Note: Do not connect the cable to Port 1 or Port 2, because the system will automatically shut down after boot up.
2. Use a cable tie to fasten the cable to the cable clamp on the processor unit.
3. Connect the other end of the cable to the LAN port on the PC.



1.4 How to Setup the PC

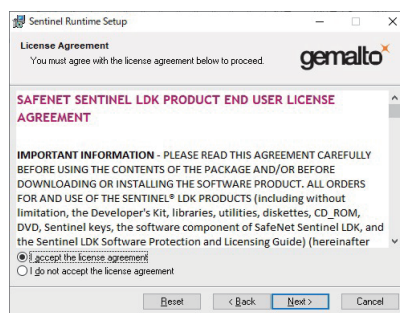
1. Turn the PC on.
2. Set the IP address and subnet mask in [Internet Protocol Version 4 (TCP/IPv4) Properties].
 - IP address: 172.31.10.10
 - Subnet mask: 255.255.0.0
3. Access the power and sleep settings then set [Sleep] and [Screen] to [Never].
4. Select [Disable] in [Personalization] - [Lock screen] - [Screen saver settings].

1.5 How to Install the Driver Install File

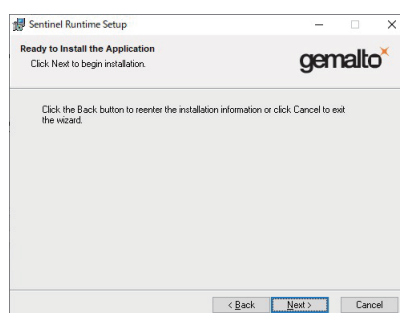
1. Turn the PC on.
2. Login as a user with administration rights.
3. Set the supplied CD-ROM in the CD drive.
4. Double-click [Sentinel_LDK_Run-time_setup] to open the folder.
5. Double-click [HASPUserSetup.exe].



6. Click [Next].

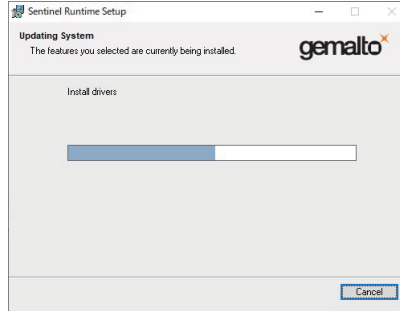


7. Confirm the contents and click [Next] with [I accept the license agreement] selected.

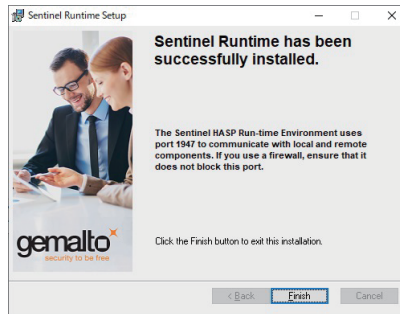


1. PREPARATION

8. Click [Next] to start the installation.



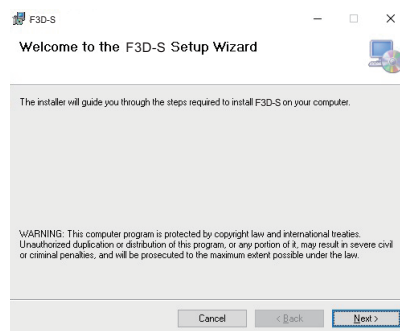
When the installation is complete, the dialog box shown below appears.



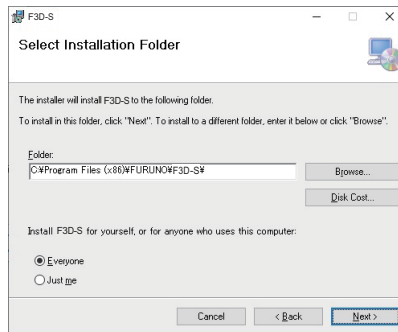
9. Click [Finish] to finish.

1.6 How to Install the F3D-S Software

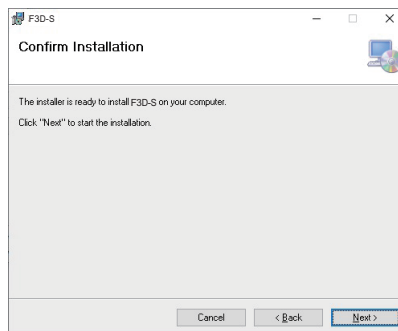
1. Turn the PC on.
2. Login as a user with administration rights.
3. Set the supplied CD-ROM in the CD drive.
4. Double-click [F3D-S_setup] to open the folder.
5. Double-click [3DSonarVisualizer.msi].



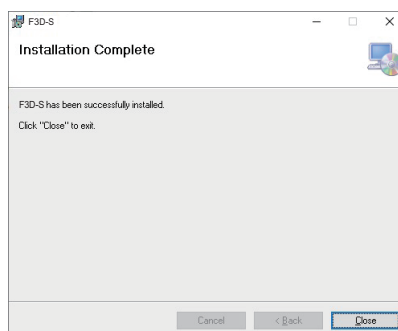
6. Click [Next].



7. Click [Next]. To change the installation folder, click [Browse] and select the folder before clicking [Next].



8. Click [Next] to start the installation.
When the installation is complete, the dialog box shown below appears.



9. Click [Close] to finish.

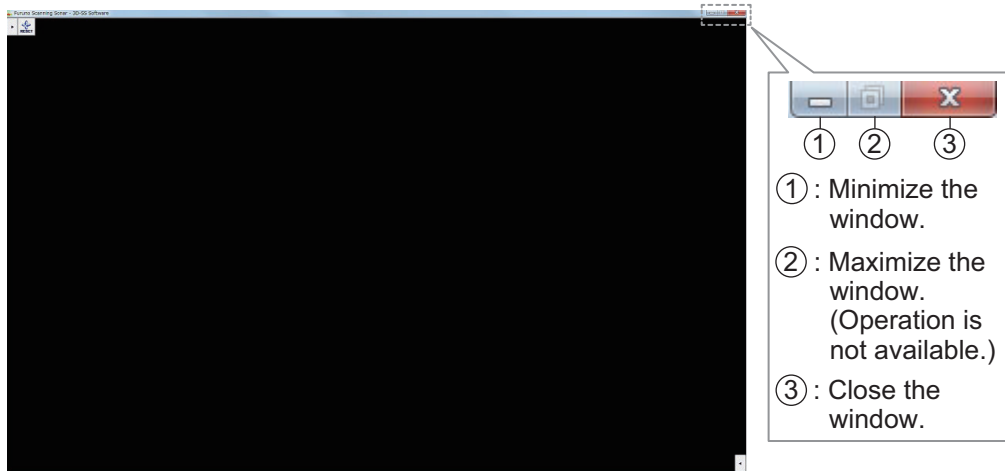
Create a shortcut icon for “3DSonarVisualizer.exe” on the desktop.



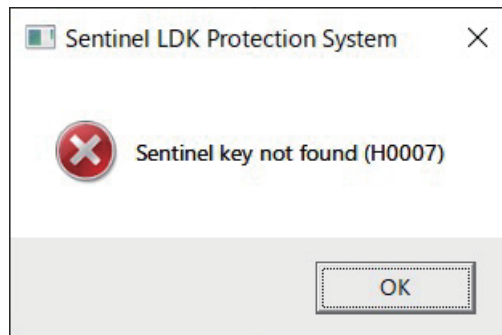
A shortcut icon for the operator’s manual is automatically generated in the startup folder.

1.7 How to Start and Quit the Software

1. Turn the FSV-25 on.
2. Turn the PC on.
3. Login as a user with administration rights.
4. Insert the USB dongle into a USB port on the PC. The LED in the dongle lights red. The USB dongle is required to use this software. Take care not to lose it.
5. Double-click the “3D” shortcut icon on the desktop to start the software. After the start up is completed, the following screen appears.



Note: If the following message appears, re-insert the USB dongle, or re-install the USB dongle. See section 1.6.

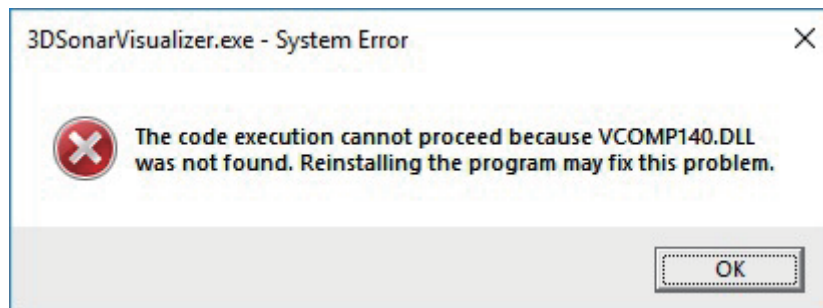


6. To quit the software, click the close button (x) at the upper right-hand corner of the screen. All setting information is saved to the folder “C: \ Users \ User name \ Documents \ FURUNO \ F3D-S”.

Note: If the information has not been saved, open the properties of the above-mentioned files and check that they are not “read only”.

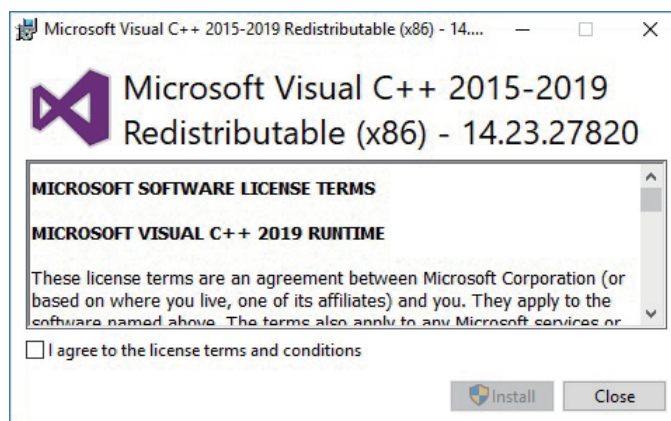
How to deal with DLL error

If your Windows® OS version is other than the required version, the following message may appear when you try to start the software.

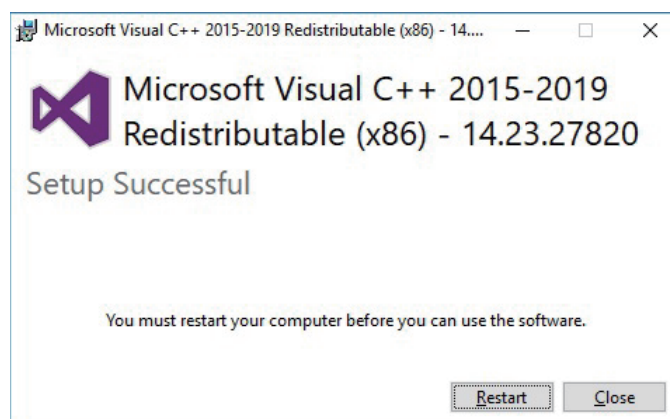


Install the VCOMP140.DLL as follows:

1. Access the following URL.
<https://support.microsoft.com/en-us/help/2977003/the-latest-supported-visual-c-downloads>
2. Run “vc_redist.x86.exe” of “Visual Studio 2015, 2017 and 2019”.



3. Check the box for “I agree to the license terms and conditions” and click [Install] to start the installation. When the installation is completed, the dialog box shown below appears.





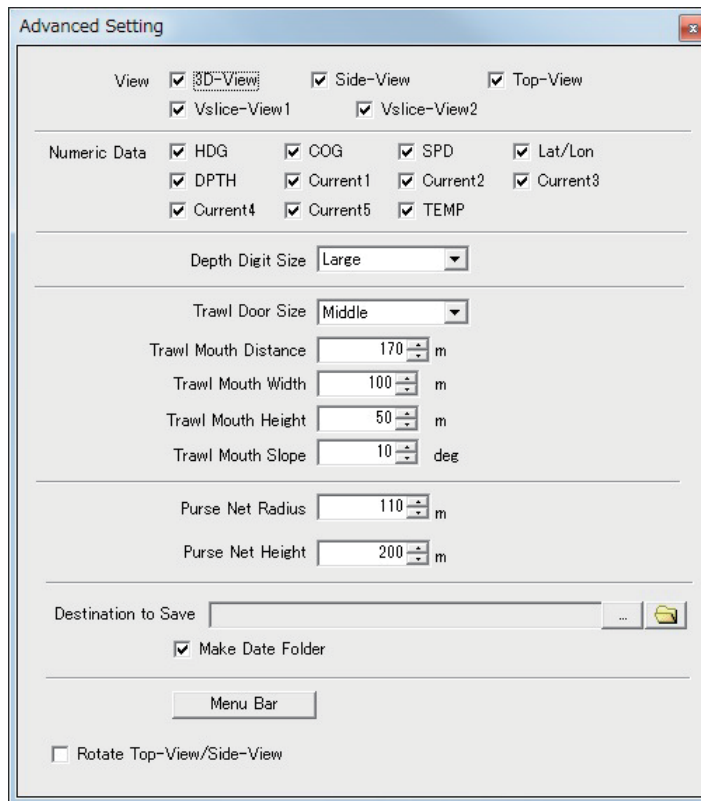
4. Click [Restart] to restart the PC and complete the installation.

1.8 Initial Settings

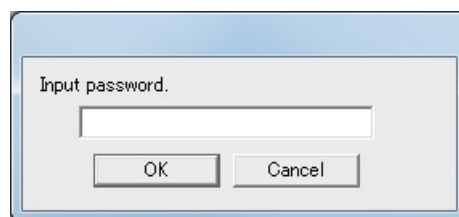
You can set the display of the marks from the technician menus.

1.8.1 How to access the technician menus

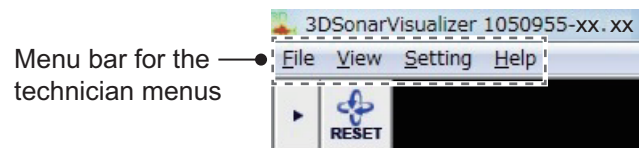
1. Click  on the lower InstantAccess bar™ to open the lower user menu.
2. Click  to open the [Advanced Setting] dialog box.



3. Click [Menu Bar] to show the dialog box for the password.



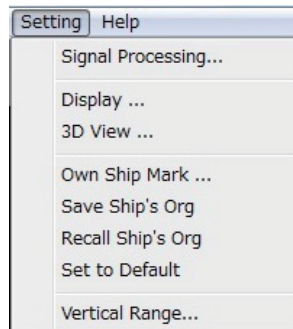
4. Enter the password "menuf1f3f5" and click [OK]. The menu bar for the technician menus appears on the top left of the screen.



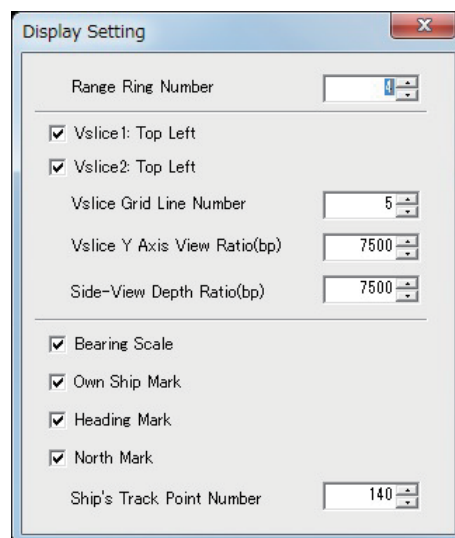
1.8.2 [Display Setting] menu

The [Display Setting] menu sets the display of the marks.

1. Click [Setting] on the menu bar.



2. Click [Display ...] to open the [Display Setting] dialog box.



3. Referring to the table below, set each menu item.

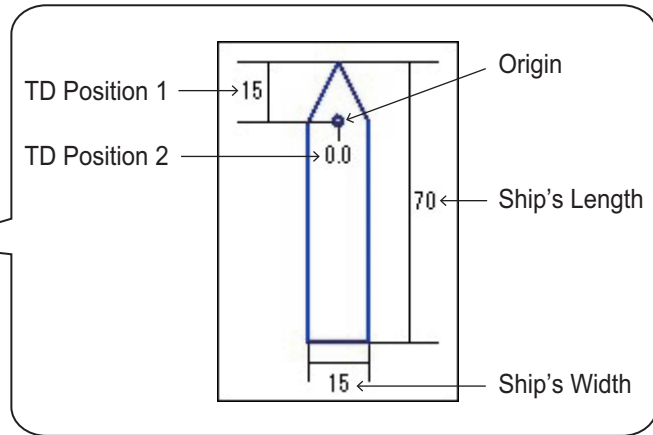
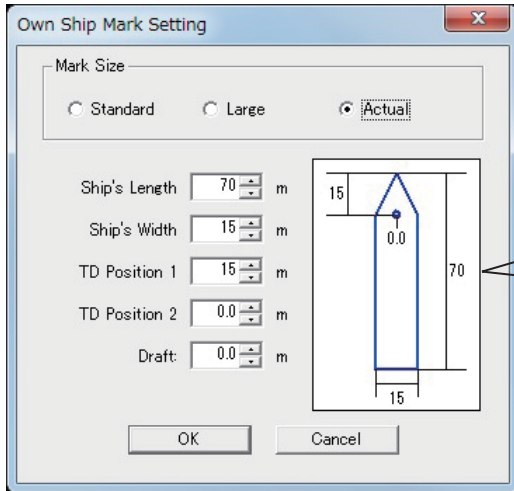
Menu item	Description
[Range Ring Number]	Set the number of range rings to display (setting range: 2 to 64).
[Vslice1: Top Left]	Check the box to display the origin for Vslice-View1 at the upper-left corner of the view.
[Vslice2: Top Left]	Check the box to display the origin for Vslice-View2 at the upper-left corner of the view.
[Vslice Grid Line Number]	Set the number of grid lines to display on Vslice-View (setting range: 2 to 64).
[Vslice Y Axis View Ratio(bp)]	Set the aspect ratio of Vslice-View (setting range: 10 to 10000, unit: 0.01%).
[Side-View Depth Ratio(bp)]	Set the depth ratio (vertical length vs range) on Side-View (setting range: 10 to 10000, unit: 0.01%).
[Bearing Scale]	Check the box to display the bearing scale.
[Own Ship Mark]	Check the box to display the own ship mark.
[Heading Mark]	Check the box to display the heading line.
[North Mark]	Check the box to display the north mark.
[Ship's Track Point Number]	Set the maximum number of own ship position data to be reflected in the track (setting range: 0 to 1000).

1. PREPARATION

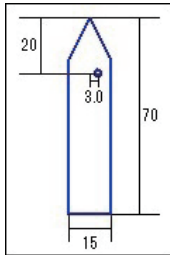
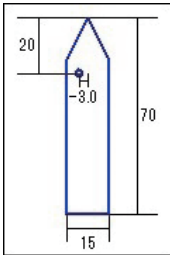
1.8.3 [Own Ship Mark Setting] menu

The [Own Ship Mark Setting] menu sets the size of the own ship mark, based on your ship's actual dimensions and transducer location.

1. Click [Setting] on the menu bar.
2. Click [Own Ship Mark ...] to open the [Own Ship Mark Setting] dialog box.



3. Referring to the table below, set each menu item.

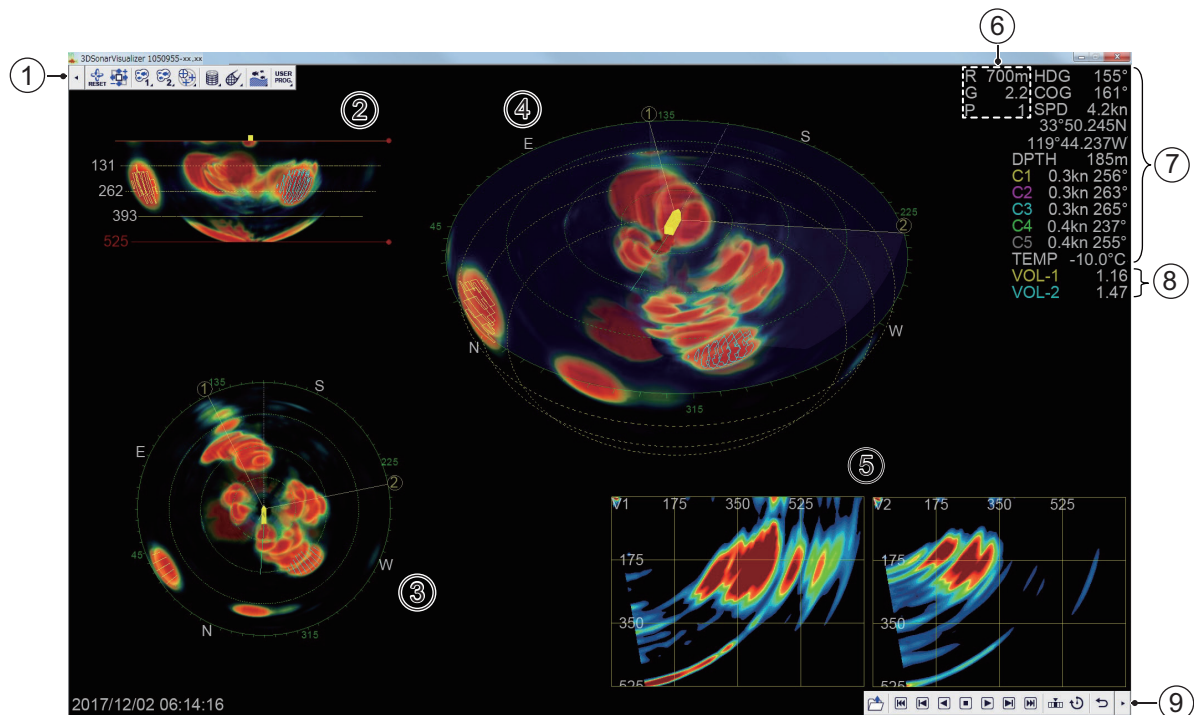
Menu item	Description
[Mark Size]* ¹	Select the size of the own ship mark among [Standard], [Large] or [Actual].
[Ship's Length]* ²	Set the length of your ship (setting range: 15 to 150 m).
[Ship's Width]* ²	Set the width of your ship (setting range: 5 to 30 m).
[TD Position 1]* ²	Set the horizontal distance from the bow to the transducer (setting range: 5 to 50 m).
[TD Position 2]* ²	Set the horizontal distance from the center of the ship to the transducer (setting range: -10.0 to 10.0 m). <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  TD Position 1: 20 TD Position 2: 3.0 </div> <div style="text-align: center;">  TD Position 1: 20 TD Position 2: -3.0 </div> </div>
[Draft]	Set the vertical distance from the keel to the transducer (setting range: 0.0 to 10.0 m).





*¹: The ship mark is appears on the screen in the following manner:
 [Standard] / [Large]: fixed size, does not change when the range is changed.
 [Actual]: displayed in direct proportion to the selected range.

*²: These settings are required in order to prevent the transducer from protruding excessively.

2. DISPLAY SCREEN, OPERATIONAL OVERVIEW






This section describes the display and operational overviews.




No.	Name	Description
1	Upper InstantAccess bar™	<ul style="list-style-type: none"> Click  to show the upper user menu. Click  to hide the upper user menu.
2	“Side-View” echo	<ul style="list-style-type: none"> Shows a horizontal view from stern side. This is the default setting. When [Rotate Top-View/Side-View] is turned on, shows a horizontal view from foreside of the screen. (See the operator’s manual.)
3	“Top-View” echo	Shows a “bird’s-eye-view” of the echoes around the ship.
4	“3D-View” echo	Shows a diagonal 3D view of the echoes.
5	“Vslice-View” echo	Shows vertical “slices” of echoes at the same orientation as the vertical settings on the FSV-25.
6	Settings of sonar	Shows the range, gain and user program number.
7	External input data	Shows the data output from external equipment connected to the FSV-25.
8	Echo volume	Shows the volume calculated from the echo region mark function.
9	Lower InstantAccess bar™	<ul style="list-style-type: none"> Click  to show the lower user menu. Click  to hide the lower user menu.

2. DISPLAY SCREEN, OPERATIONAL OVERVIEW

How to operate the menu

1. Click  or  on the upper or lower InstantAccess bar™ to open the user menu.
2. Click an icon to execute the menu function. The selected icon is displayed in cyan. The icons that have a  at the bottom right have additional menus.
3. To deactivate a function, click the icon again. The color for the icon changes from cyan to gray.
4. To hide the user menu, click  or  on the upper or lower InstantAccess bar™.

How to connect/disconnect the FSV-25/25S

1. Click  on the lower InstantAccess bar™ to show the lower user menu.
2. Click  to start communication with the FSV-25.
3. To stop communication, click .



Operator's manual

















The supplied CD-ROM contains the operator's manual. When installing the software, the shortcut icon for the operator's manual is generated in the startup folder.





APPENDIX 1 MENU TREE

Upper User Menu



The upper InstantAccess bar™ is on the top left side of the screen. Click  to show the upper user menu. Click  to hide the upper user menu.

First level		Second level		User*	Cont.**
	Reset Viewpoint	–		No	No
	Move/Zoom	–		No	No
	Echo Region Mark 1	–		No	No
			Delete	No	No
	Echo Region Mark 2	–		No	No
			Delete	No	No
	Event Mark	–		No	No
			Delete	No	No
		Right***	Delete	No	No
	Purse Net Mark	–		No	No
			Delete	No	No
		Right***	Move	No	No
			Delete	No	No
	Trawl Mark	–		No	No
			Trawl Filter	Yes	Yes
			Delete	No	No
		Right***	Reset	No	No
			Move	No	No
			Delete	No	No
	Seabed Color	–		No	No
			Reset	No	No
			Auto Depth	No	Yes

First level		Second level		User*	Cont.**
	User Program	-		No	No
			Save	No	No
			User Program Number	No	Yes
			Return	No	No



*: This item can be registered as a user program (shortcut).




















** : This item keeps the setting from when the software was last used.





***: This item appears when the appropriate mark is right-clicked.

Lower User Menu



The lower InstantAccess bar™ is on the bottom right side of the screen. Click  to show the lower user menu. Click  to hide the lower user menu.

First level		Second level		User*	Cont.**
	View Setting	-		No	No
			Save	No	No
			Reset	No	No
			View Setting Number	No	No
			Return	No	No
	Connect	-		No	No
	Disconnect	-		No	No
	Replay	-		No	No
			Open	No	No
			First	No	No
			Previous	No	No
			Reverse	No	No
			Stop	No	No
			Play	No	No
			Next	No	No
			Last	No	No
			Jump	No	No
			Replay Interval	No	Yes
			Return	No	No

First level		Second level		User*	Cont.**
	Start Recording	-		No	No
			Capture	No	No
	Stop Recording	-		No	No
	Advanced Setting	-		No	No
		View	3D-View	Yes	Yes
			Side-View	Yes	Yes
			Top-View	Yes	Yes
			Vslice-View1	Yes	Yes
			Vslice-View2	Yes	Yes
		Numeric Data	HDG	Yes	Yes
			COG	Yes	Yes
			SPD	Yes	Yes
			Lat/Lon	Yes	Yes
			DPTH	Yes	Yes
			Current1	Yes	Yes
			Current2	Yes	Yes
			Current3	Yes	Yes
			Current4	Yes	Yes
			Current5	Yes	Yes
			TEMP	Yes	Yes
		Depth Digit Size (Large , Middle, Small)		Yes	Yes
		Trawl Door Size (Large, Middle , Small)		Yes	Yes
		Trawl Mouth Distance (10 to 2000 m; 170 m)		Yes	Yes
		Trawl Mouth Width (10 to 400 m; 100 m)		Yes	Yes
		Trawl Mouth Height (10 to 400 m; 50 m)		Yes	Yes
		Trawl Mouth Slope (0 to 45 deg; 10 degrees)		Yes	Yes
		Purse Net Radius (10 to 1000 m; 110 m)		Yes	Yes
		Purse Net Height (10 to 1000 m; 200 m)		Yes	Yes
		Destination to Save		No	Yes
		Make Date Folder		No	Yes
Menu Bar (For serviceman.)		No	No		
Rotate Top-View/Side-View		No	Yes		

Bold: Default

*: This item can be registered as a user program (shortcut).

**: This item keeps the setting from when the software was last used.

ECF

(Elemental Chlorine Free)

The paper used in this manual
is elemental chlorine free.

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