

# | INSTRUCTION MANUAL |

## Logosease Surface Station

LGS-SS001-SDF



YAMAGATA CASIO CO., LTD.

Thank you very much for buying Surface Station [LGS-SS001-SDF].

Please read 1. Warning and Caution carefully before use.

Please keep this Instruction Manual at hand. It will help you when you have questions or problems.

We recommend our customers user registration.

Go to "My Page" from below URL. You will get useful information of the product.

<http://logosease.yamagata-casio.co.jp>

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## 1 Warning and Caution

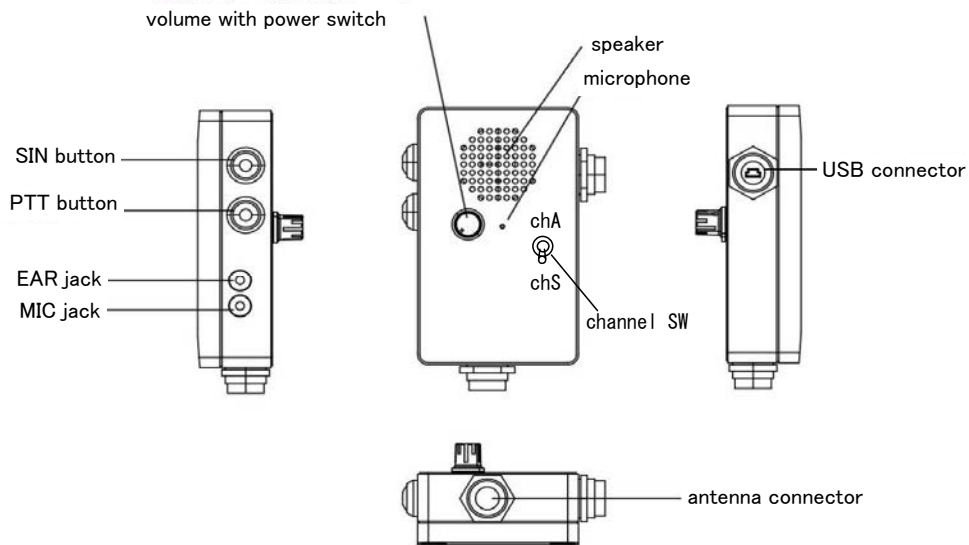
- This unit does not guarantee the safety underwater.
- Do not use the unit in the condition which will cause immediate danger if conversation is stopped. Also, do not use this unit if it is mainly used for emergency.
- Do not disassemble or modify this unit.
- Do not use this unit in the abnormal conditions. If you keep using it in heated, smoked, or with unusual odor, it will cause fire or electrification.
- Do not leave this unit in the places as in a car where temperature will get very high under the direct sunlight.
- Wipe the water off the unit properly when recharging. Water drop attached to the USB connector may cause damage to PC connected to USB cable.
- Do not put the unit near heaters when the unit's power is ON. Temperature inside the unit may rise and may cause fire, burn or unit damage.
- Do not pull cable antenna hard. It may cut the cable, or damage the connector of the unit.
- This unit is practical waterproof. Do not put the unit into water or pour water on it. It will cause malfunction.
- Do not drop or have impact on the unit. It will cause malfunction.

## 2 Features

- Put the antenna of the unit into the water. You can converse to underwater divers with Logosease from on surface.
- This unit is used as walkie-talkie. Transmitting mode is ON while pushing PTT button, and receiving mode is ON when you release the button. You can not have both mode together as telephone.
- All Logoseases underwater can receive what the unit transmits if they have the same channel. When more than one Logosease underwater transmit together, mixed voices will be heard from the unit.
- Pushing sine wave transmitting button can alert divers underwater and/or can give specific signals decided beforehand.
- Ultrasonic wave is used for communication. This unit has almost no directivity, on the other hand, Logosease has directivity. When antennas of both Logosease and the unit are facing each other, the both voices sound biggest. Closer they are located, bigger the voices are heard. When speaking person is closer to the microphone of the unit, the voice hears bigger. Also, bigger voices travel further.
- This unit is practical waterproof. \*\* You need to insert the specialized cap to the end of the EAR jack and MIC jack to make the unit practical waterproof.

### 3 Features

#### ■Appearance/Names of each part/Bundled items



- **SIN button**

Sine wave is released in the water while pushing this button. You can also hear the sine wave sound from the speaker of the unit.

- **PTT button**

Voices from the microphone of the unit is transmitted in the water while pushing this button.

- **EAR jack**

This is a terminal to an external speaker. The volume level of the external speaker can not be adjusted. Please prepare the one you can adjust the volume level. Specialized cap is inserted in advance for practical waterproof. Please make sure to insert the cap to the end when jack is not used.

- **MIC jack**

This is a terminal to an external microphone. Specialized cap is inserted in advance for practical waterproof. Please make sure to insert the cap to the end when jack is not used.

- **Volume with power switch**

Turn right to power ON. You can adjust the volume level of the built-in speaker, but can not for the external speaker.

- **channel Switch**

Move the switch up to use channel A, and down to use channel S. If changing the channel while the power is ON, power will be OFF. Please turn ON again. Then unit will be activated with the selected channel.

- **Speaker**

It is built-in.

- **Microphone**

It is built-in.

- **USB connector**

It is min-B type USB connector. Recharging with USB connector is available.

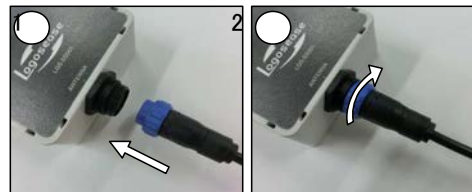
Tighten the cap to keep the unit practical waterproof.

- **Antenna connector**

To connect the antenna of the unit. Set connector to keep the unit practical waterproof.

■ **Bundled items**

- Antenna of the Surface Station. (cable L: 10m)
- USB cable x 1
- Specialized cap x 2 (to put in the jacks of the unit)



**4 How to set the antenna**

- Connect the antenna connector to the one on the Surface Station, and turn the blue periphery of the connector to lock it.

**5 Power ON/OFF**

Turn the volume with power switch clockwise to turn the power ON. The LED will be ON.

Turn it to adjust the volume level. The battery level is shown for 2 second after power is ON.

- gree ○ ... Enough battery remains
- blue △ ... Battery is getting low
- red × ... No battery left. Please recharge.

Turn the volume with power switch anti-clockwise to turn the power OFF. LED will be OFF in 2 sec. Power will be OFF before you hear the click, but please turn the volume until you hear the click.

## 6 Receiving

Battery level is shown for 2 sec. after power is ON. 1 sec. after that, the unit mode becomes receiving mode automatically. In receiving mode, until anyone speaks, no sound will be heard. When anyone transmits, the voice will be heard from the speaker. In receiving mode, LED will be blinking in yellow in 1se. cycle.

## 7 Transmitting

Push PTT button. You will hear "pi, bo" sound from the speaker and the unit mode will be in transmitting mode. LED will be ON in pink. Keep pushing the button when you speak to the microphone. When you release the PTT button, you will hear "pi, bo, bo, bo" sound to change the mode to receiving mode.

## 8 Transmitting and receiving of sine wave

"Piiii" sound is released while pushing SIN button. You can alert divers or give them specific signals decided beforehand as "pi, pi, pi". You can hear the same sound from the speaker of this unit while transmitting.

## 9 Maintenance after use

After use, wash the antenna with pure water and dry it. Antenna connector of the unit should be locked to keep the unit practical waterproof. Do not make the water go inside the connector. Squeeze the clean wet cloth tightly and wipe the dirt off of the unit with it. Do not put the unit into water or pour water on it. Pay extra attention on EAR jack and MIC jack sections.

## 10 Recharging

Lithium ion battery is built-in in the unit. Recharging by USB is possible. Turn the power OFF and insert the USB cable to the USB connector, and recharge the unit with PC or USB charger sold in stores. (output current: 500mA or more) Red LED is ON while charging. When charging is completed, red LED will be OFF. To keep the unit practical waterproof, make sure to tighten the USB connector cap after charging.

## 11 How to handle built-in battery

To keep the battery life longer, recharge the unit with correct way.

- If this is your first time using the unit or you have not used the unit for long time, recharge the unit before use for sure.
- Do not recharge so often since it will make the battery life span short. Recharge it when the battery level becomes low.
- Recharge the unit in the temperature between 0C to 40C, otherwise recharging time may gets longer or full recharging may not be available. Recharging in the unsuitable temperature degrades quality of the unit and/or causes malfunction.
- Using in low temperature lowers the battery capacity and makes working hours short.
- If you are not going to use the unit for some time in the future, do not keep the unit with full-charge or no battery. If not recharging for so long, battery may be discharged completely

and no recharging may be possible. Please try to recharge the unit at least once per 6 months.

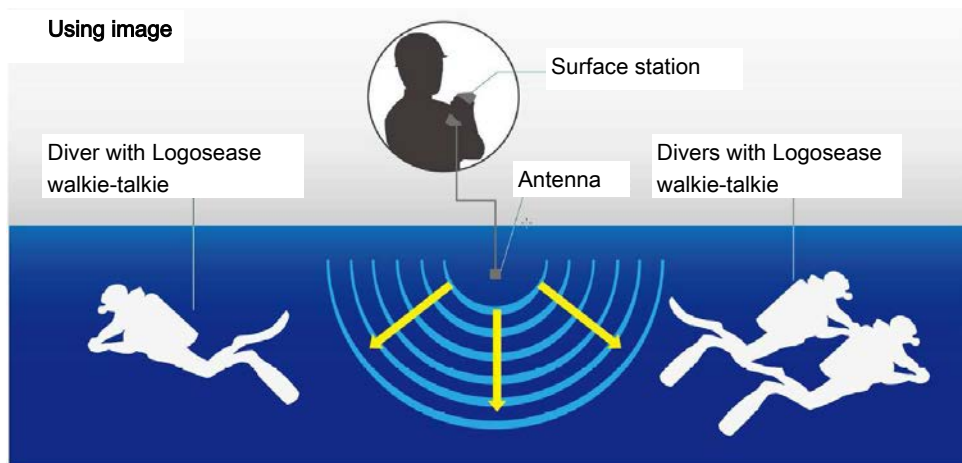
- Built-in battery will get degraded in time passing, especially keeping (or using) the unit in high temperature with full-charged may degrade the unit for short time.
- If no functions available even after recharging, it is the time to exchange the battery. Please contact the shop you bought. (Exchanging battery is charged)
- The built-in battery can be recycled. When you are discarding the unit, contact Marine System Sec. Yamagata Casio Co., Ltd. for removing the battery. We will bear the cost.

## 12 Troubleshooting

- **No power is ON or power gets OFF soon even after recharging:**
  - > Contact the shop you bought. Battery may have to be exchanged if you used the unit for so long. The battery should be exchanged by the manufacturer.
- **No transmitting available from the unit:**
  - > Is any other thing except specialized cap inserted in MIC jack? If so, MIC jack may not work.
- **Voices from the unit cannot be heard properly underwater**
  - > If the antenna of the unit is behind rocks or sea plants, has lots of bubbles around because of near a boat or shallow water where waves hit, or in the fast current, ultra sonic wave may not be reached properly. This is not malfunction. Also, if sensitivity of the microphone is low, output power is low. In this case, speak closer to the microphone.
- **Voices from underwater cannot be heard properly.**
  - > Adjust the volume level. Turn the volume clockwise, voice sound bigger. The output of the antenna of the unit is larger than Logosease, even you may hear the voice from the unit very well underwater, you may not hear the voice with the unit on the surface from Logosease underwater. In this case, divers underwater need speak closer to the antenna of the unit. Logosease has directivity. Speak to the antenna of the unit makes the voice heard with the unit bigger.

### 13 Specifications

Outer package	Size	75mm×125mm×35mm
	Weight	Approx. 285g
	Waterproof	Practical waterproof
	Temperature	0 ~ 40°C
Audio section	Microphone	Capacitor microphone
	Speaker	Dynamic type speaker
Communication section	Channels	2 channels
	Frequency	[ultra sonic wave] 32KH z SSB-AM chA : USB、chS : LSB [band range] 4KH z * There is no law regulation for ultrasonic wave use underwater in Japan.
	Antenna	Cylindrical ceramic piezoelectric element * cable length 10m.
	Max. transmission range	Max. 150m * Under the condition of antenna of Logosease on the diver facing to the antenna of Surface Station in the clear quiet sea.
	Directivity	No directivity around the cylinder of the antenna, but has to the vertical direction
Indicator	LED	In charging, red is ON. When charging is completed, LED will be OFF. Changes colors/ LED patterns in each mode.
Operation section	Power	Volume with power switch
	PTT	Button to push (PTT button)
	Sine wave	Button to push (SIN button)
	External terminal	MIC jack (dia. 3.5mm jack impedance matching 2.2 ohm or less) EAR jack (dia. 3.5mm jack /stereo impedance matching 16/32 ohm)
USB	Battery charging	Approx. 6 hours at 500mAh
Battery	Rating	Li-ion battery 2210mA
	How to charge	By USB
	Working hours	Approx. 12 hours assuming 10% of the time is used for transmitting.
	Maintenance	Li-ion battery should be exchanged by the manufacturer
Accessories	USB cable	





## 14 Warranty

### ■Yamagata CASIO Limited Warranty■

THIS WARRANTY CARD IS VALID ONLY ON PRODUCTS IN THE COUNTRY OF PURCHASE.

This product, except consumables or articles with limited resistance (e.g. battery, case), is warranted by Yamagata CASIO and its distributors to be free from defects of quality at the time of delivery for a period of one year from the date of purchase ("warranty period"). During the warranty period, and upon proof of purchase, the product will be repaired by using Yamagata CASIO replacement or reconditioned parts or the product will be replaced with the same or a similar replacement or reconditioned model. To obtain these warranty services, please take or send the product, postage paid, with a copy of your sales receipt or other proof of purchase that shows the date of purchase, to a Marine System Sec. in Yamagata CASIO or the store where purchased. There will be no parts or labor charge to you for valid warranty services. Due to the possibility of damage or loss during shipping, it is recommended when sending the product for service that you package the product securely and send it insured, return receipt requested.

The customer shall NOT have any claim under this warranty for repair or adjustment expenses if:

- (1) The problem is caused by improper, rough or careless treatment;
- (2) The problem is caused by a fire or other natural calamity;
- (3) The problem is caused by improper repair or adjustment made by anyone other than Marine System Sec. in Yamagata CASIO.
- (4) The problem is caused by battery leakage, bending of the unit, broken display or key;
- (5) The case or battery is damaged or worn;
- (6) Maintenance requested consists of repair or replacement of options, accessories, software, or consumables (AC adaptor, cable, battery, etc.);
- (7) The proof of purchase is not presented when requesting service;
- (8) The warranty period has expired.

NEITHER THIS WARRANTY NOR ANY OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, SHALL EXTEND BEYOND THE WARRANTY PERIOD. NO RESPONSIBILITY IS ASSUMED FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, DAMAGES RESULTING FROM INACCURACY OR MATHEMATICAL INACCURACY OF THE PRODUCT OR LOSS OF STORED DATA. SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR THE EXCLUSION OR LIMITATION BY A PARTY OF LIABILITY FOR DEATH OR PERSONAL INJURY CAUSED BY THAT PARTY'S NEGLIGENCE, SO THE ABOVE LIMITATIONS OR EXCLUSIONS

SHALL NOT IN SUCH CASES APPLY. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE, JURISDICTION TO JURISDICTION, OR COUNTRY TO COUNTRY. NOTHING IN THIS WARRANTY AFFECTS YOUR STATUTORY RIGHTS.

THANK YOU FOR CHOOSING YAMAGATA CASIO PRODUCT.

- If you have any problems with this product, please contact Marine System Sec. in Yamagata Casio or the store where purchased.
- For more information about Marine System Sec. in Yamagata Casio, please visit the following URL: <http://logosease.yamagata-casio.co.jp/en/> or send E mail to [msinfo@yamagata.casio.co.jp](mailto:msinfo@yamagata.casio.co.jp)

## WARRANTY CARD

MODEL:	Surface Station SDF (LGS-SS001-SDF)
DATE OF PURCHASE: (dd/mm/yy)	/                    /                    /
WARRANTY PERIOD	ONE YEAR
CUSTOMER'S NAME:	
OFFICIAL DEALER STAMP:	
Serial No. Paste the sticker here ->	

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