GP2611
Pressure Gauge
OPERATING MANUAL

Introduction

Thank you for purchase of our product.

This manual is the guidebook to provide instructions on how to use your pressure gauge, GP2611, for recreational diving.

We believe this manual is useful in mastering technology of a pressure gauge for people who have learned the right usage of a pressure gauge and obtained a C-card through proper training at a diving instruction organization as well as people who use it at C-card training. Please carefully read and digest the contents of this manual before use. We also suggest that you take this manual with you to refer to before diving.

Keep this manual in a safe place. Should you lose it, contact your original dealer or authorized distributor of our company. A replacement manual will be reissued later.

The main contents consist of the check before use, usage, care after use, storage and a periodic inspection.

This pressure gauge is diving gear to use in combination with regulator for recreational diving. Therefore, the knowledge of the right handling of regulator is also necessary. Please use the operating manual of the regulator which you use as well as this manual for the pressure gauge. In addition, depending on the model of regulator, it is considered not being suitable for the use by the combination with this product. We recommend you use the regulator made by Bism.

We are constantly researching and improving our pressure gauge, and so the product you purchased may differ in certain details from the one described in this manual. If you have any queries regarding your pressure gauge or the information contained in this manual, please feel free to contact our company at the address below.

CONTENTS

Key to Symbols Used in this Manual

⚠ Danger	"Danger" is used to indicate the presence of a hazard which highly causes severe personal injury and death if the warning is ignored.
⚠ Warning	"Warning" is used to indicate the presence of a hazard which can probably cause severe personal injury and death if the warning is ignored.
⚠ Caution	"Caution" is used to indicate the presence of a hazard which can possibly cause personal injury and property damage if the caution is ignored.
【Note】	Useful Information to know.

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IMPORTANT INFORMATION

Purpose of Use

This pressure gauge is diving gear for recreational diving use.

The connection with the regulator allows the use and is a backup purpose measuring instrument which provides “general display of the air pressure in a tank” at the time of recreational diving.

Pressure measuring precision at 50～200 bars is ±20 bars.

We recommend you combined use with more exact pressure gauge.

Before Use

It is vital to safety that you use and maintain your pressure gauge correctly and have it inspected periodically. Carefully read and understand the advice on safety given in the manuals of this product and also the regulator which you use before diving.

■ Use only for recreational diving.

⚠ Warning

● Do not use this product for any purpose other than recreational diving.

■ Obtain C-card before use.

⚠ Warning

● Use this product after having obtained a C-card and completing a proper training program at a recognized diving school, or under the instruction of the diving school. Otherwise it may cause an accident resulting in injury or death.

■ Please follow instructions about safety.

⚠ Warning

● When you use this product, please follow all the instructions about the safety directed in this operating manual.

■ Do not use if functioning abnormally.

⚠ Warning

● Do not use the pressure gauge if it is not functioning normally.

● If the product starts to function abnormally, contact your original dealer or authorized distributor of our company. Using a faulty pressure gauge may cause an accident resulting in injury or death.

FEATURES

The Features of the Product

GP2611 incorporates various functions so that you can use it safely and pleasantly.

■ Tank Pressure Measuring Function for Backup Purpose. (Page 6)

GP2611 displays tank pressure in general on land and during diving in analog.

■ The residual pressure in general of a tank can be checked with the feel of a hand.

The residual tank pressure in general can be checked by touching an indication button and a scale button with a finger at the time of night diving or low visibility

PRECAUTIONS

☐ Follow the safety rules.

Only use under the direction of a recognized diving school or after obtaining a C-card having completing a proper training program at a recognized diving school and thoroughly familiarizing yourself with the correct use of a pressure gauge.

Have your buddy double check everything.

Avoid diving deeper than 30m/98ft. which is the maximum safe depth for normal recreational diving.

☐ Please use the Bism made hose guard.

Please do not attach hose guards and hose protectors other than our products to a high pressure hose. It may cause hose breakage.

☐ Do not modify the product.

Since the modification may become a safety problem, please do not modify the product. Responsibility cannot be taken about the trouble after modification.

☐ Avoid contact with chemicals.

Gasoline

If mercury and chemicals (thinner, gasoline and various solvents or those cleaner, adhesives, paint, medicine and cosmetics which are containing them) adhere, discoloration and breakage may be occurred on the main body and hoses.

☐ Avoid shocks.

Though the product can withstand the shock in the usual use, drops and hard knocks may damage it.

☐ Do not fold or pull a hose.

Warning

- Please do not fold or pull a hose. It not only breaks, but it may cause an accident resulting in injury or death.

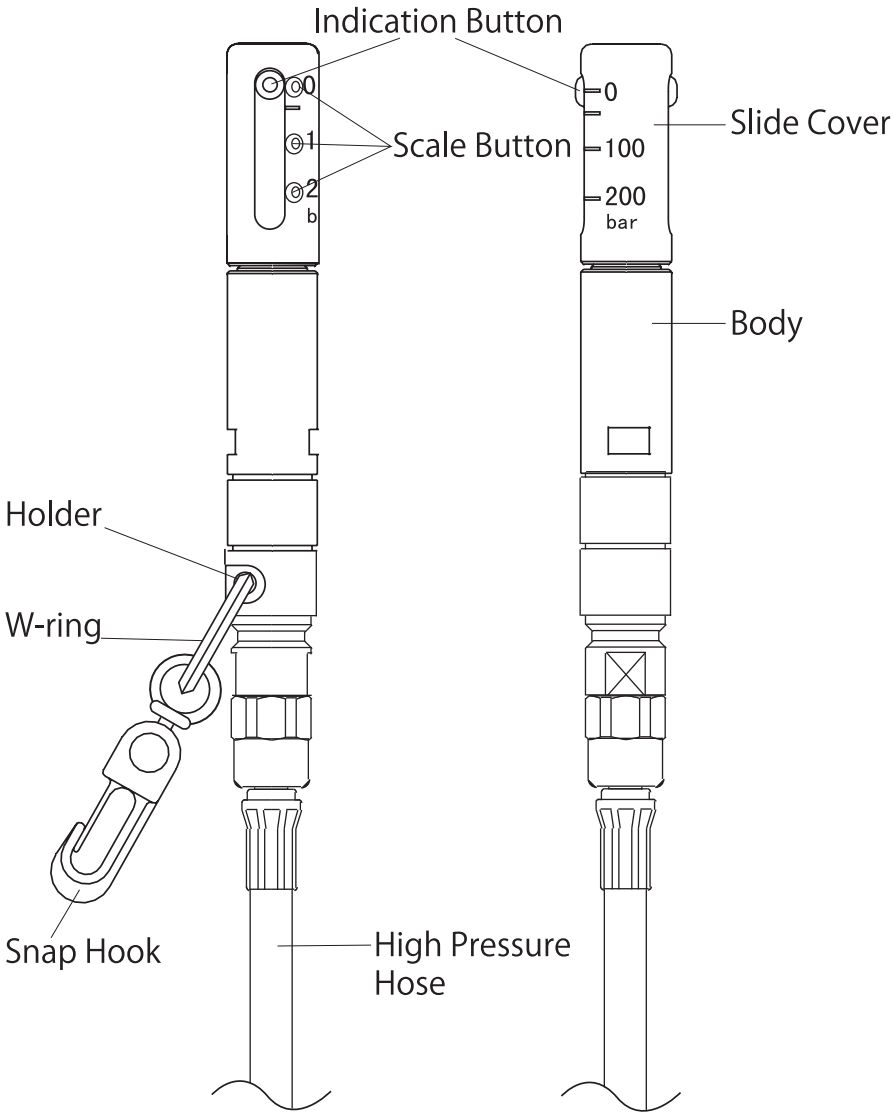
☐ Do not use if functioning abnormally.

Warning

- Do not use the pressure gauge if it is not functioning normally.
- If the product starts to function abnormally, contact your original dealer or authorized distributor of our company. Using a faulty pressure gauge may cause an accident resulting in injury or death.

NAMES OF PARTS & SPECIFICATIONS

Body



Specifications

Body

Weight ……290 g (Including Hose)
Pressure Measuring Range…… 0 ～ 200 bar
Pressure Measuring Precision…… 0 ～ 50 bar ±10 bar
50 ～ 200 bar ±20 bar
Working Temperature Range…… 0 ～ ＋ 50 ℃
Pressure Gauge…… Piston Method
Material …… Copper Alloy

Hose Portion

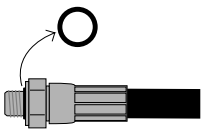
Hose Length …… 750 mm
Outer Diameter …… 8 mm
Material of Inner Tube …… Nylon
Material of Outer Cover …… Polyurethane
Nominal Size of H. P. Hose Coupling Threads …… 7/16-20UNF
Hose Working Pressure …… 250 bar
Minimum Bending Radius (Inside of Hose) … 15 mm
Hose Guard …… Regular Equipment for First Stage End
Material of Hose Guard …… Synthetic Rubber

PREPARATIONS BEFORE USE

Install High Pressure Hoses to a Regulator

⚠ Warning

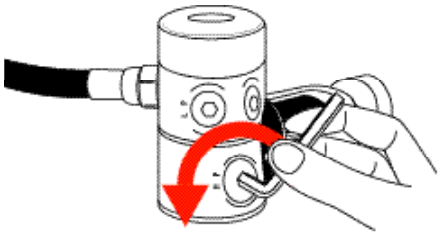
- Please attach a hose in the state that the first stage of a regulator is not connected to a tank. If the first stage is pressurized during work, a plug in the port flies and it is dangerous.
- Please use the regulator with the coupling thread size of 7/16-20UNF of an “H.P.” port. Otherwise, not only it causes the damage of equipment, but also a hose comes off and it may cause an accident resulting in injury or death.
- Please be sure there is O-ring at the end of the threads portion of a high pressure hose. When there is no O-ring, it causes the air leakage.



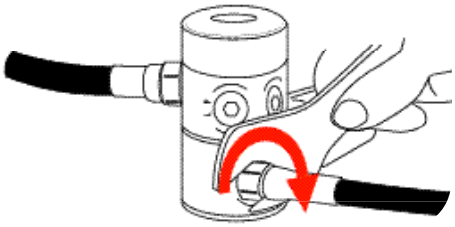
⚠ Caution

- Please ask your original dealer or authorized distributor of our company for installation work of a high pressure hose to a regulator.
- When you tighten high pressure hose couplings with a spanner, please keep the tightening torque of 9.8N・m (100kgf・cm or 1/36 rotation from the start of tightening.). Otherwise it may cause to damage the threads portion.
- Please do not attach the hose guard made in other company.

1 Please remove the plug from the H.P. (high pressure) port of the first stage of a regulator.



2 Please screw in the coupling of a high pressure hose to H.P. port and turn it clockwise with a spanner to tighten it. Tightening torque is 9.8 N・m (100kgf・cm).



CHECK BEFORE USE & SETTING

⚠ Warning

- If you find an abnormality in your gauge by the following various checks, you must not use it.
- When there is an abnormality, contact your original dealer or authorized distributor of our company. Use of the gauge which is not normal may cause an accident resulting in injury or death.
- Because of its structure, there is a possibility of causing a sand jam, so please be sure to perform operation check. When foreign substances, such as sand, are jammed, it does not show a standard of tank pressure.

1 Check of the high pressure hose.

Check whether the hose is damaged or has broken.

2 Check of “0” display on the pressure gauge.

Check if the indication button of the pressure gauge indicates “0”.

3 Setting to a tank.

⚠ Warning

- When you open a tank valve, keep away the slide cover of a gauge from a person and your face, and open the valve slowly. When it goes off accidentally by a certain reason, it may cause an accident resulting in injury or death.

According to the operating manuals for a regulator and a tank for scuba diving, install a regulator first stage to a tank valve, and open the tank valve.

4 Operation check.

Please push the end of a slide cover with a thumb or a palm, and check that a slide cover moves smoothly.

5 Check of the air leakage.

⚠ Warning

- When the air leakage is found in check, please stop use and remove a regulator first stage from a tank.

Check whether air is leaked at the connecting portion of a regulator first stage, a gauge and a hose.

READING AND USAGE

Pressure Gauge Reading

⚠ Warning

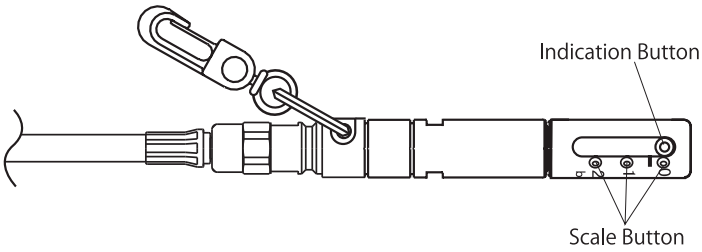
- Please perform operation check before start of pressure gauge reading. (Page 5) Use of the gauge which is not normal may cause an accident resulting in injury or death.
- Before reading a scale, please push a slide cover with a finger and confirm if it moves. When not moving, even if there are indications, residual pressure has the possibility of zero because of sand jam etc. If this confirmation is not carried out, it may become the accident of drowning caused by the running out of air.

⚠ Caution

- At the end of a diving, please be sure to leave 50bars or more of air in a tank. If water goes into a tank, there is a possibility that water may go into the inside of pressure gauge at the next time of use.

Please push a slide cover with a finger and confirm if it moves.
(It is normal that it does not move when the residual pressure is zero.)
The scale which the indication button pointed out is a residual pressure in general.

【Note】
○ The residual pressure can be known by the stroke when a slide cover is pushed. Standard is 100bar par 1 cm.



【Note】
○ The residual pressure can be known by the positional relationship of the indication button and the scale button.

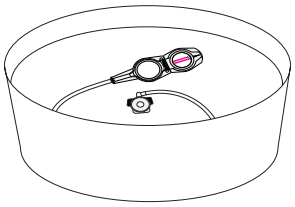
CARE AFTER USE

Wash.

⚠ Caution

- Equipment may be damaged if soaked in hot water of 50℃ or more.
- Please do not wash a pressure gauge with water in the state that it is not connected with a regulator. Water comes in a hose and a gauge, and may cause the trouble.
- Please be sure to put the dust cap of the regulator first stage firmly. Otherwise water comes in the hose and the gauge, and it causes failure.

Soak the whole equipment to fresh water for about 15 minutes in the state of being set with the regulator. Then, rinse the whole in water to wash away foreign objects such as the salt and sand.



Drying-Out

■ Avoid direct rays, dry a pressure gauge fully in the shade with the dry, cool and sufficient ventilation.

The Way of Storage

⚠ Caution

- Please keep the hose in a natural form. Forced bending causes kinking of a hose and shorten a hose life remarkably.
- Please do not leave a pressure gauge in the state of high temperature, such as in a car or on a beach.

■ Wash and dry a pressure gauge fully.

■ Avoid direct rays, and store a pressure gauge in the state being set with a regulator in the place with the dry, cool and sufficient ventilation.

PERIODIC INSPECTION・SERVICE AFTER THE SALES

Periodic Inspection

⚠ Warning

- Regardless whether or not you use it, a pressure gauge may not function normally when you ignore a periodic inspection.
- Also when it passes with unused condition more than one year, please use it after taking out to a periodic inspection.

【Note】

- Some parts carry out natural deterioration. Exchange of such parts is also performed by periodic check.

■ Regardless of frequency and the number of times in use, please ask your original dealer or authorized distributor of our company for a periodic inspection per once in a year. (Pay Service)

Service after the Sales

☐ When your pressure gauge is out of condition, check it first

Please refer to the clause of "Troubleshooting" and check whether it is failure.

When it is still out of order;

Please contact your original dealer or authorized distributor of our company.

☐ Reserving period of parts.

Our company reserves the performance parts (the parts required to maintain the function of the product) for repairing a pressure gauge for at least 8 years after the production is discontinued. Since repair may be possible depending on a problem even after this reserving period passes, please consult with your original dealer or authorized distributor of our company.

TROUBLESHOOTING

Please check it once again before sending it to repair. When still not operating normally, please consult with your original dealer or authorized distributor of our company for repair.

Trouble	Major Cause	Measure	Page
A pressure gauge does not operate.	○ A tank is empty.	○ Change to the tank with full of air.	5
	○ A tank valve is closed.	○ Open the tank valve.	5
Air leaks from the connecting portion of a first stage.	○ Connecting portion of the first stage loosen.	○ Tighten the connecting portion with a spanner.	5
	○ There is a foreign object in the connecting portion of the first stage.	○ Remove the first stage once, take off the foreign object, and then install the first stage again.	5

Memo

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