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• MISSION CONSOLE

WARNING

CAREFULLY READ THIS INSTRUCTION MANUAL BEFORE USE, AND KEEP IT FOR FUTURE REFERENCE.

INTRODUCTION

Congratulations for having chosen a Mares console. Your console has been constructed using advanced manufacturing methods and materials, and is the result of extensive research and development. Correctly carry out the instructions and maintenance procedures described in this manual to ensure safe and enjoyable diving.

MISSION LINE

Mission is a completely new line of consoles characterised by a unique design and new instruments with superior technical features. What's more, for increased legibility, all the instruments are equipped with fluorescent dials. Special attention has been devoted to the ergonomics of these consoles, as can be seen from their shape and the material used which, in addition to being highly shock resistant, affords a secure grip in every situation and with any type of glove.

MISSION 1

Instruments: submersible pressure gauge diam. 50 mm.

Boot: shock-resistant elastomer.

Hose: 7/16" UNF length 90 cm.

Dimensions: 145 x 66 x 25 mm.

Weight: 295 g.

MISSION 2C

Instruments: submersible pressure gauge + compass.

Boot: shock-resistant elastomer.

Hose: 7/16" UNF length 90 cm.

Dimensions: 218 x 72 x 29 mm.

Weight: 320 g.

MISSION PUCK 2

Instruments: gauge + PUCK Dive computer.

Boot: shock-resistant elastomer.

Hose: 7/16" UNF length 90 cm.

Dimensions: 218 x 72 x 29 mm.

Weight: 400 g.

MISSION 2

Instruments: submersible pressure gauge + depth gauge.

Boot: shock-resistant elastomer.

Hose: 7/16" UNF length 90 cm.

Dimensions: 218 x 72 x 29 mm.

Weight: 410 g.

MISSION PUCK 3

Instruments: gauge + PUCK Dive computer + compass.

Boot: shock-resistant elastomer.

Hose: 7/16" UNF length 90 cm.

Dimensions: 250 x 72 x 44 mm.

Weight: 450 g.

MISSION 3

Instruments: submersible pressure gauge + depth gauge + compass.

Boot: shock-resistant elastomer.

Hose: 7/16" UNF length 90 cm.

Dimensions: 250 x 72 x 44 mm.

Weight: 460 g.

	GAUGE	PUCK	DEPTH GAUGE	COMPASS
MISSION 1				
MISSION 2C				
MISSION PUCK 2				
MISSION 2				
MISSION PUCK 3				
MISSION 3				

• TECHNICAL CHARACTERISTICS OF THE INSTRUMENTS

DIVE COMPUTER

See PUCK manual.

PRESSURE GAUGE WITH HOSE

The instruments described in this instruction manual have been tested and CE certified by Registered Test Center #0426 - ITALCERT, V.le Sarca, 336 - 20126 Milan - Italy for use with air, and by INPP - Entrée n°3 - Port de la Pointe Rouge BP 157 -13267- Marseille - France - for use with Nitrox.

Ø50 Submersible pressure gauge with brass single-cast case; fluorescent dial with reserve indicator; chip-resistant dial with gasket; standard 7/16" UNF threaded fitting compliant with the ISO 263 standard for connection with demand controls (regulators).

CHARACTERISTICS

The pressure gauge is a Category III device as defined under European Directive 89/686/CEE, and complies with the specifications set out in the harmonized European Standard EN 250/2000 for use with air. The pressure gauge is compliant with the specifications set forth in the harmonized European Standard EN 13949:2003 for use with oxygen-rich mixtures (Nitrox).

USE

The submersible pressure gauge is a safety device for monitoring residual air pressure in the tank, designed to be used as part of a SCUBA set (open-circuit, self-contained underwater breathing apparatus).

The pressure gauge must be assembled on the regulator first stage by means of the high pressure hose connected to the gauge.

The pressure gauge can be used at temperatures below 10°C.

ASSEMBLY

- 1) Locate the high pressure ports on the regulator first stage (refer to the instruction manual of the regulator; the high pressure ports on the first stage may be marked with the letters "HP" or with the maximum pressure rating) and, following the instructions, remove the plug from the chosen port.
- 2) Remove the thread protection cap before connecting the hose to the regulator first stage.
- 3) Screw the hose fully into the high pressure port of the regulator first stage. Tighten firmly but carefully, using a 14-mm hex

wrench; if you have a dynamometric wrench available, apply a closing force of 8 N/m.

The pressure gauge is ready for use.

WARNINGS

Before using, the user must carefully ensure that the pressure gauge is compatible with the maximum working nominal pressure values of the regulators on which the device will be mounted. The nominal working pressure for the pressure gauge is shown on the back of the case.

After assembling the SCUBA set, slowly open the tank control valve to avoid the "water hammer" effect resulting from the high pressure entering the hose. Never look directly at the instrument dial when opening the tank valve.

In models designed for use with Nitrox, always open the valve(s) on the tank(s) very slowly to reduce the risk of the mixture combusting.

Once the tank valve is open and the system is pressurized, reclose the valve and make sure there are no leaks, checking that the pressure indicated by the needle on the pressure gauge is stable and does not drop. If a drop in pressure is detected, do not dive and double check the entire system.

During the dive, remember to check the residual air pressure frequently.

The pressure gauge features a reserve supply indicator (area between 50 and 0 bar marked in red), designed to tell the diver when the tanks are nearly empty. If the gauge pointer reaches the low-air sector during the dive, it is necessary to start the ascent.

The pressure gauge is equipped with a hose long enough to avoid hindering the diver during use. It is in any case recommended to secure the instrument using the special fasteners provided on the harness or BC.

Protect the instrument from knocks.

The pressure gauge must only be used with CE-marked SCUBA components.

RESTRICTIONS ON USE

This tool has been tested and certified to guarantee a minimum level of functional safety at a maximum depth of 50 meters, in conformity with the 89/686/EEC directive from 21

December 1989 and with EN 250 and EN 13949 standards: Never exceed 50 meters in depth.

The pressure gauge must not be used in conditions that preclude its use (e.g.: low or no visibility that makes it impossible to read the gauge) and under which it is necessary to use appropriate safety devices.

WARNING

The pressure gauge is designed for use with only one gas mixture. At the time of purchase, the purchaser must choose the mix to be used: breathable air or oxygen-enriched breathable air (Nitrox).

Preselected mixture - air: The pressure gauge is designed for use with air. The air used in the tank must comply with the EN 12021 European standard. For safety reasons, mixtures other than that indicated may not be used.

Preselected mixture - Nitrox: The pressure gauge is designed for use exclusively with Nitrox, maximum 50% oxygen. For safety reasons, the use of air (EN 12021) is strictly forbidden, as is the use of mixtures other than Nitrox or oxygen, which could contaminate the equipment.

⚠ WARNING

it is strictly forbidden to switch from using air to Nitrox and vice versa

It must be kept in mind that the depth and duration of the dive are strictly dependent on the percentage of oxygen in the breathable mixture.

⚠ WARNING

Training is compulsory before the device described in these instructions may be used. The user must have received adequate prior training on the use of SCUBA diving equipment, both for use with air and for use with Nitrox.

MARKING

The instrument markings are located on the back of the case, and consist of the following:

- manufacturer's logo
- names of the models: PG 2K2 – PG 2K3 – PG 2K4
- full scale: 360 bar / 5,000 psi
- working pressure rating: 300 bar / 4,350 psi
- reference standard: EN 250/2000
- reference marking: CE 0426.

The conformity marking indicates compliance with the essential health and safety requirements as per annex II D. and 89/686/CEE. The number after EC identifies Registered Test Centre #0426 - ITALCERT V.le Sarca, 336 - 20126 Milan - Italy, authorised to inspect the finished product under art. 11 B D.e. 89/686/CEE.

NOTE

The marking is not immediately visible since the pressure gauge is equipped with a protection cap. To see the markings it is necessary to remove the protective covering.

PG 2K2 & PG 2K3 & PG 2K4: made by Mares SPA - Salita Bonsen, 4 - 16035 Rapallo, Italy.

CHARACTERISTICS

Accuracy: The guaranteed accuracy of the pressure measurement is:

at 725 psi	±	72 psi
at 1450 psi	±	145 psi
at 2900 psi	±	145 psi
at 4350 psi	±	217 psi

Connecting port airflow: <100 liters/min. at a pressure of 100 bar.

STORAGE

After use, it is recommended that you rinse the instrument in fresh water while it is still assembled on the regulator, to prevent water from penetrating inside the hose.

Allow to dry in air, and then put the instrument away, taking care to replace the special thread protection cap on the hose.

The instrument should be stored in a dry place, protected from heat sources and direct light, without bending the hose too tightly (minimum bend radius 20 cm).

MAINTENANCE

- Avoid exposing the instrument to direct sunlight or sources of heat.
- Treat the gauge like a precision instrument and avoid bumps or knocks.
- Rinse in fresh water after every dive.

It is recommended that the 108 O-ring Vitron gasket, located on the threads of hose coupling which connects to the pressure reducer, be replaced periodically.

Any maintenance or repairs must obligatorily be performed by Mares or its authorized personnel.

⚠ WARNING

Gaskets for the Nitrox pressure gauge must be lubricated exclusively with oxygen-compatible grease; in the presence of oxygen-rich mixtures, the use of other types of lubricants may spark an explosion.

⚠ WARNING

In the event of use with mixtures contaminated with oil, the entire system must be cleaned by trained personnel

⚠ WARNING

If Nitrox mixtures are used, the HP hose should be replaced every two years.

⚠ WARNING

Under no circumstances replace the hose fitted on the pressure gauge with one of a different type; consult your dealer or Mares for information about the type of hose to be used.

LIABILITY

Mares refuses any responsibility for damages caused by any use / maintenance / storage that is improper or not compliant with these instructions. The manufacturer declines all liability if the instrument is used with SCUBA components that are not CE marked.

DEPTH GAUGE

TECHNICAL CHARACTERISTICS

- Scale 0 - 70 m.
- Maximum depth pointer.

DIAL

Diameter: 42 mm.

CASE MATERIALS

- High strength technopolymers.
- Polycarbonate.

PRECISION

Depth (m)	Tolerance (kPa)
3	+8/-4
6	+8/-4
9	±8
15	+10/-12
30	+10/-12
45	+10/-15
60	+10/-15

MAINTENANCE

- Avoid exposing the instrument to direct sunlight or sources of heat.
- Never test the instrument in contact with air, always test it in the water.
- Using the instrument beyond 70 m may cause irreparable damage.
- Treat the depth gauge like a precision instrument and avoid bumps or knocks.
- Rinse in fresh water after every dive.

COMPASS

TECHNICAL CHARACTERISTICS

- Front and side reading.
- Oil bath system with temperature compensation.
- Maximum working tilt of 20°.
- Dual magnet for faster response.

DIAL

Diameter: 50 mm.

Scale: Bezel ring with numbering at 10° intervals.

CASE MATERIALS

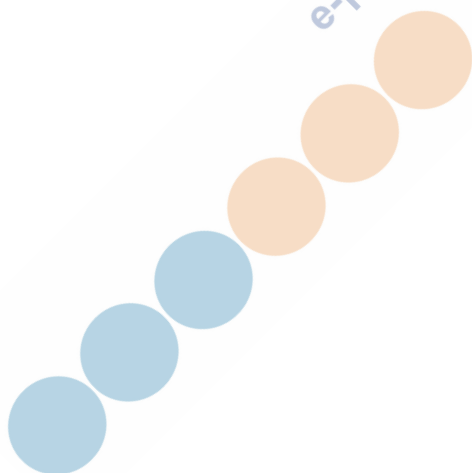
- High strength technopolymers.
- Polycarbonate.

MAINTENANCE

- Avoid exposing the instrument to direct sunlight or sources of heat.
- Treat the compass like a precision instrument, and protect it against knocks.
- Rinse in fresh water after every dive.

⚠ WARNING

Mares reserves the right to refuse to provide service under the warranty if the maintenance instructions for the aforementioned products are not followed.



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