

# MARINOX

MARINE OXYGEN THERAPY UNIT

MK 2

USER INSTRUCTION MANUAL



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## GENERAL INFORMATION

The information published in this manual relates to the operational use and routine maintenance procedure.

### Precautionary advice !

Oxygen therapy should only be administered by persons trained to do so and under medical supervision.

Emergency administration in a diving context should be carried out in accordance With BSAC / SAA or similar recognised training authorities.

**MARINOX** whilst originally being designed by divers for divers its presence and use in situations requiring a rugged , portable and having an instantly accessible and ready to use facility, is found in numerous fields requiring oxygen therapy back up , fish farming, public pools & lidos , aquariums, dentists , high altitude gliding to name a few.

10 years on from its original concept little has changed other than progressive engineering improvements and refinements. The original star concept of total portability and “ being ready for immediate use without removal from the case “ still remains.

Whilst being simple to use there are a few serious **DO's** and **DON'TS**.

### DO'S

Always check the cylinder pressure in advance of when you intend to use it  
Always clean the demand valve and therapy unit ( if used ) with disinfectant after use.

Always keep the lid on when not in use. If its rough and goes over the side it keeps dry “and floats”.

### DONT'S

Don't use oil or grease on any part of the **MARINOX**

Don't drop cylinders. All gases under pressure are a hazard and should be treated with caution.

Don't try to connect **MARINOX** to a cylinder of incorrect gas type. **MARINOX** is dedicated solely to Oxygen Pin Index cylinder valve configuration.

## OUR WARRANTY

**MARINOX** is covered by a full parts and labour warranty as follows:-

Regulator and Demand valve –3 year warranty from date of purchase.

Transit Case / Cushion Mask / Therapy Mask & probe assy—1 year from date of purchase subject to fair wear & tear.

Regulators returned for service within the 3 year period will only be charged the service fee & carriage. Parts supply will be F.O.C. subject to fair wear & tear.

**SERIAL NUMBER REGISTRATION** Please quote the following numbers when corresponding regarding your purchase.

Regulator/Demand valve

Cylinder number

## PREPARATION OF THE CYLINDER FOR USE.

Before fitting the regulator assembly check that the outlet port of the cylinder valve is free of dust or debris by momentarily partially opening the valve and closing off again hand tight

## FITTING THE REGULATOR TO THE CYLINDER



Fig: 1

Insert the cylinder base into the foam cushion support . ( In subsequent operations this may stretch and remain permanently in the container)

Check that the “O” seal fitted to the regulator is in place , clean, and undamaged.

Place the foam stabilizer strip over the neck of the cylinder with short side opposite to the cylinder valve pin index holes. Fig: 1

With the pressure gauge and therapy unit connector facing upwards, place the regulator over the cylinder valve and locate the indexing pins of the regulator into the indexing holes of the valve.

Carefully tighten the “Tee” clamp screw ensuring it locates in the machined dimple on the back of the pillar valve - hand tight only.

Slowly open the cylinder valve and check the content of the cylinder as indicated on the gauge.

If the contents are noted as being less than the envisaged requirements for patient treatment the cylinder should be changed.

Turn off the cylinder valve and check for pressure drop indicating a gas leak.

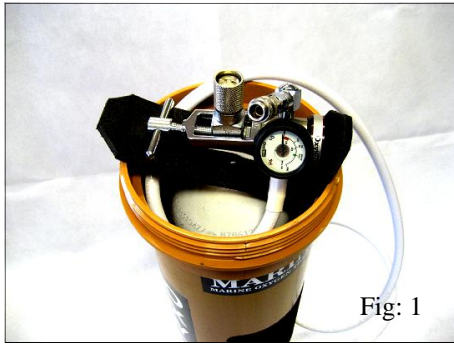
Subject to there being no leaks the system should be decompressed by pressing the central button of the demand valve diaphragm housing. Fig: 2



Fig: 2

The demand valve and cylinder are now in a ready assembled situation for fitting into the transit case where it should remain during its operational period. It is only necessary to remove the unit for cylinder filling or cleaning. **However! Always check the operational function prior to diving or intended use.**

## INSTALLING THE MARINOX UNIT IN ITS CASE



Check that the cylinder base support foam is either fitted to the cylinder or remaining in the container. Slide the cylinder and assembled regulator into the case trapping the stabilizing packer between the regulator body and “Tee” clamp screw. Ensure the swivel therapy connection projects upwards and that the white supply hose forms a downward loop into the container ( Fig: 1 )



Continue to feed the loop of spare hose down the sidewall space taking care not to create any sharp contour bends or kinks. Do not try to coil the hose in the top section of the case as this space is required for storing further items. ( Fig: 2 )



After stowing the bulk of the hose tuck the demand valve adjacent and below the top level of the cylinder valve as illustrated . Follow up with the cushion mask , connector port uppermost. ( Fig: 3 )



Finally follow up with the therapy pocket mask /EAR assembly and probe ( Fig: 4 ) This unit is normally supplied in a protective pack of various styles and should remain in its pack. **DO NOT CONNECT THE THERAPY MASK** until required for use. This ensures that in the event of incomplete closure of the cylinder valve, loss of oxygen is avoided.



Complete the assembly by placing the cover plate in the top of the container housing. This essentially protects the contents from the handle and relief valve fittings when finally fitting the screw top cover.

**DO NOT OVERTIGHTEN**

## PREPARING THE UNIT FOR USE



The normal operating mode for the unit is as detailed with the cylinder and regulator remaining in the container, other than when being recharged. ( Fig:1 )

Holding the container between the knees, ideally in a sitting position grip with knee pressure against the non slip grip panels and unscrew the cap by its carrying handle with a two handed operation, anti clockwise.

Remove the protective cover plate, therapy mask complete with probe and tube assy.



Remove the cushion mask and carefully pull out the demand valve and hose to its full extent and fit the cushion mask to the outlet port of the demand valve.

Open the cylinder valve and check the content with the attached gauge.

Operate the FLUSH button on the front of the demand valve diaphragm housing to check the correct functioning of the unit. ( Fig: 2 )



Should simultaneous dual therapy facility be required, remove the therapy mask and probe from its packing and plug the male probe into the swivelling quick release therapy connection to obtain a constant flow of 10 litres p/min flow. ( Fig: 3 )

It is noted that pocket mask also has the provision of an incorporated E.A.R valve.

## ADMINISTERING OXYGEN

The **MARINOX** demand valve can deliver 100% oxygen, whereas the pocket mask therapy outlet which connects to the therapy port provides diluted oxygen therapy at 10 litres/min ( other flow rates are available to order )

**WARNING** - Oxygen should only be administered by persons trained to do so and when administered in a diving context should only be carried out in accordance with B.S.A.C. / A.N.D.I. / S.A.A. /D.A.N. or other approved Diver Oxygen Therapy Course instructions.

### AFTER USE

When treatment has been completed. Turn off the cylinder and depressurise the system by pressing the FLUSH button situated on demand valve diaphragm housing.

### CLEANING THE DEMAND VALVE



After use cleaner generally only applies to the MARINOX demand valve for which “Dettol” is recommended. Remove the cushion mask and hold the demand valve firmly in one hand and unscrew ( anticlockwise ) the White Rear Cap ( a ) Remove the Main Diaphragm) Unscrew and remove the Dump Valve Cap ( c ) from the top of the demand valve. Thoroughly clean the dismantled items taking

care not to allow cleaning fluid to run into the hose via the tilt valve mechanism. Rinse thoroughly and carefully dry with a lint free cloth. Carefully reassemble then function test and leak test as previously detailed.

### ACIDENTAL FLOODING

In the event of accidental flooding of the unit remove all items and clean with fresh water and dry. Take particular not to allow water entry into the regulator high pressure inlet port and similarly with the cylinder pillar valve. Ensure the foam support pads are completely dry before reassembly.

### SERVICING

It is recommended that the MARINOX regulator and demand valve are returned for service at a maximum 3 year period or earlier if frequency of use indicates.