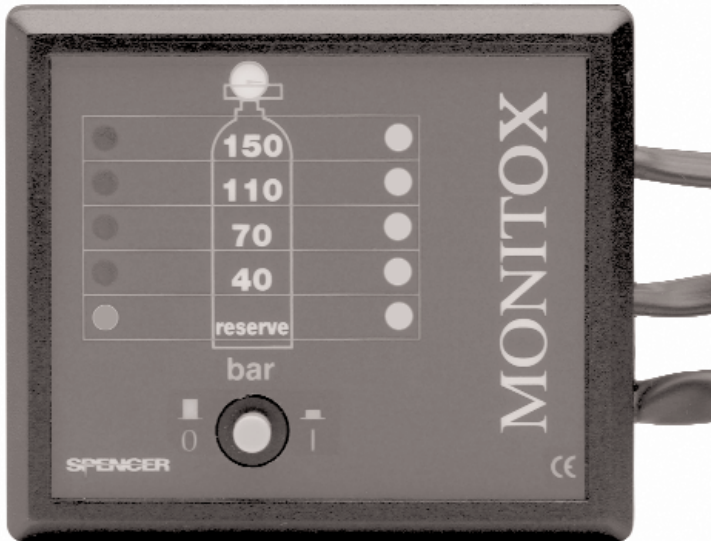


**User's Manual**

**MONITOX with visual illuminated alarm  
Manometer / sensor / board Kit**



This appliance conforms with the directive 93/42/CEE "Medical Devices"

Guarantee of Quality system for the production and the final control of the products certified by the notifying body TÜV SÜD Product Service GMBH

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# Thank you for choosing a Spencer product.

## 1 GENERAL INFORMATION



### 1.1 AIM AND CONTENTS

The aim of this manual is to supply all the information necessary so that the client, apart from attaining an adequate use of the appliance, will also be capable of using the instrument in the most autonomous and secure way possible. This includes information regarding technical aspects, functioning, maintenance, spare parts and safety.

### 1.2 CONSERVATION OF THE INSTRUCTION MANUAL

The instruction and maintenance manual must be kept with the product, inside the specially provided container and above all, away from any substances or liquids which could compromise perfect legibility.

### 1.3 SYMBOLS USED

SYMBOL	MEANING
	See instructions for use.
	Information to the users in compliance with comma 13 of the Italian Legislative Decree n. 151 of 25 July 2005, "Fulfillment of the Directives 2002/95/CE, 2002/96/CE and 2003/108/CE, regarding Reduction of the use of dangerous substances in electric and electronic equipments and the disposal of their wastes.

### 1.4 SERVICING REQUESTS

For any information regarding the use, maintenance and installation, please contact the Spencer Customer Care Service on 0039 0521 541111 - Fax 0039 0521 541222 e-mail: info@spencer.it or write to Spencer Italia S.r.l. - Strada Cavi, 7 - 43044 Collecchio (Parma) - ITALY.

### 1.5 DEMOLITION



Informazione agli utenti ai sensi dell'art. 13 del D.lgs 25 luglio 2005, n. 151 "Attuazione delle Direttive 2002/95/CE, 2002/96/CE e 2003/108/CE, Information for users in compliance with comma 13 of the Italian Legislative Decree n. 151 of 25 July 2005, "Fulfillment of the Directives 2002/95/CE, 2002/96/CE and 2003/108/CE, regarding Reduction of the use of dangerous substances in electric and electronic equipments and the disposal of their wastes. The crossed dustbin symbol applied on the product or on it's packaging indicates that the item should be disposed of separately. The correct disposal of the item when use has terminated, is defined and organised by the manufacturer. The end user who has to proceed with disposal, must therefore contact the manufacturer and follow the system and procedures the manufacturer has organised for the separate collection, treatment and disposal at end-of-life.

The correct separate collection of the out of use device which will permit recycling, treatment and destruction in an ecologically friendly manner and will contribute to avoiding possible negative effects on the environment and for health while privileging the reuse and/or recycling of the collected waste components.

Please note that the owner will be subject to administrative sanctions in case of unauthorised disposal of the item.

### 1.6 LABELLING

The serial number as indicated below can be found on each appliance and must not be removed or covered. In order to facilitate assistance please indicate or communicate the serial number (SN) or lot number (LOT) on the label.

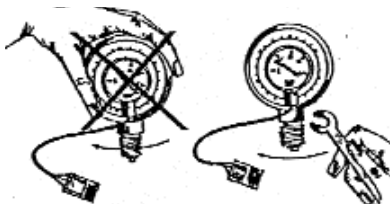
## 2 WARNINGS

### 2.1 GENERAL WARNINGS

- Before carrying out any kind of operation on the appliance, the operator must carefully read the enclosed instructions, paying particular attention to the correct safety precautions and to the procedures to be followed for installation and for correct use.
- In the case of any doubts as to the correct interpretation of the instructions, please contact Spencer Italia Srl, for any necessary clarifications.
- Regularly check the appliance. Carry out the prescribed maintenance in order to keep the appliance in good condition and to guarantee correct functioning and a long life.
- In the case of any abnormalities or damage to the appliance, which could jeopardize the functioning, and the safety, the appliance must be immediately removed from service.
- Do not alter or modify in any way the appliance; any such interference could cause malfunctions and injury to the patient and/or rescuer.
- The appliance must not in any way be tampered with, in such cases all responsibility will be denied for any malfunctions or eventual injuries caused by the appliance itself.
- Who modifies or has modified, prepares or has prepared medical appliances in such a way that they no longer serve the purpose for which they were intended, or no longer supply the intended service, must satisfy the valid conditions for the introduction onto the market.
- Ensure that all the necessary precautions are taken in order to avoid hazards that can arise as the result of contact with blood or body fluids.
- Handle with care.

### 2.2 SPECIFIC WARNINGS

- **To screw on the manometer, do not force the main body part; only the connection should be forced with a 14 mm key.**
- **So not test or use the manometer in direct sun; the infrared rays of the sun could falsify the results.**
- **Be careful not to spill liquids.**
- **The product may be only used by trained personnel.**



## 2.3 CONTRAINDICATIONS AND SIDE EFFECTS

The use of this device, if used as described in this manual, does not present any contra-indications or collateral effects.

## 3 DESCRIPTION OF PRODUCT

### 3.1 INTENDED USE

Monitox with LED alarm is a luminous display unit showing the percentage of oxygen in a cylinder.

### 3.2 MAIN COMPONENTS

Monitox with visual illuminated alarm is composed of:

- illuminated board with silk screen printing
- two electrical manometers
- connecting cables between board and manometers
- power cable

The manometer/sensor/board kit with visual illuminated alarm is composed of:

- two electrical manometers + connecting cable
- two 7 m cables for the sensor
- two electronic boards
- two power cables for the electronic boards

Essential for checking the content of oxygen in cylinders when the cylinders are stored in a position which is not visible to the operator (for example in the driver cabin when the gas cylinder is being used in the sanitary cabin) so that the operator at all times knows how much oxygen is left in the cylinder.

### 3.3 TECHNICAL DATA

DIMENSIONS / STRUCTURE AND FUNCTION	MONITOX (OX07110)	KIT (OX07113)
Length	85 cm	60 cm
Width	74 cm	38 cm
Height	24 cm	23 cm
Power cable length	1 m	1 m
Length of sensor cable	2,5 m	7 m
Oxygen Manometer	0-400 bar - 1,6 precision class	0-400 bar - 1,6 precision class
Diameter of outer shell	50 mm	50 mm
Manometer attachment	Attacco 1/4"G rear cylindrical	Attacco 1/4"G rear cylindrical
Power tension	12 V cc	12 V cc
Power consumption	0,5 A	0,5 A

### 3.4 MODELS

OX07110A	MONITOX
OX07113A	KIT TWO MONITOX with two manometers and two 7 m cables

### 3.5 ENVIRONMENTAL CONDITIONS

Both in functioning mode and storage mode: -40 °C +60 °C

## 4 OPERATING INSTRUCTIONS

### 4.1 TRANSPORT AND STORAGE

Before transporting the appliance, make sure that it is correctly packaged ensuring also that there are no risks of shocks or falls during the transport itself.

Keep the original packaging for any eventual further transport. Damage to the appliance caused during transport and handling is not covered by the guarantee. Repairs or replacement of the damaged parts are the responsibility of the Client. The appliance must be stored in a dry place free from humidity.



To fix the Monitox box with the electronic boards inside, use the adhesive velcro supplied with the set.

### 4.2 PREPARING MONITOX AND KIT FOR INITIAL USE

On receiving the Monitox, carefully remove packaging and display all items so as to check that no damage as occurred during transport.

Before using the device for the first time the following points must be checked:

- check that cables are not damaged
- check that the lancet on the manometer indicates zero
- screw the two electronic manometers onto the pressure regulators of the cylinders.



The joints must be sealed only with products compatible with oxygen.

There is no limitation to the capacity of the cylinder but we advise the use of good quality pressure reducers which are regularly subjected to a maintenance programme.

- Check the power tension (12 Vcc)
- wiring up of Monitox should be carried out according to the device type (point 4.3.1) or kit (point 4.3.2)

The functioning of the kit is only guaranteed in the presence of a power source.



For the Monitox it is essential that the ON button has been pushed and the cylinder opened; the contents of the cylinder is visualised by green LEDS on the Monitox panel. If the red LEDS light up, the cylinder is in reserve and the pressure in the cylinder is less than 40 bar)

### 4.3 USE OF THE DEVICE FOLLOWING THE INITIAL INSTALLATION OF MONITOX AND KIT

Before each use the device must be carefully checked for any possible problems, function errors or damage caused during storage including those that could be caused by a lack of or incorrect maintenance.

It is essential to:

- Check that the cables are all in good state
- Check that the cylinder reducer and the manometer of the reducer are correctly connected and screwed together
- Check that the lancet of the manometer marks zero when the gas cylinder is closed
- Check the power tension (12 Vcc)
- wire up the Monitox (point 4.3.1) or kit (point 4.3.2), according to the device being used.

A source of power is essential for functioning.

For the Monitox it is essential that the ON button has been pushed and the cylinder opened; the contents of the cylinder is visualised by green LEDS on the Monitox panel.

If the red LEDS light up, the cylinder is in reserve and the pressure in the cylinder is less than 40 bar)

#### 4.3.1 WIRING MONITOX (MANOMETER/BOARD)

Insert the (14 cm) cable supplied with the manometer in the terminal F of the Monitox manometer.

Connect the cable (7 m) to the board and to the small 14 cm cable of the Monitox manometer.

#### 4.3.2 WIRING KIT (ELECTRICAL WIRING 12 V)

Insert the connector of the power source in the electronic board.

The correct attachment is guaranteed by the presence the guide on both the plug and the green light.

### 4.4 TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
The LED do not light up	Power source is not sufficient/not functioning correctly	Check the electrical source, that the sensor cables are intact, polarity, source and continual feeling of the electrical source
Pressure indicated by te Monitox is diffe rent to the pressure indicated by the manometer	The lighting on the manometer is too strong	Check the position of the manometer with respect to the source of light
Pressure indicated by te Monitox is different to the pressure indicated by the manometer	The manometer is not functioning correctly	Substitute the manometer: If the problem is not resolved, as for assistance with Customer Care

## 5 MAINTENANCE AND CLEANING

### 5.1 CLEANING

Clean device with a dry cloth. Do not use water or any type of detergent.

### 5.2 MAINTENANCE

#### 5.2.1 Precautionary Maintenance

The person who carries out the precautionary maintenance of the appliance (user in person, manufacturer/supplier or a third party) has to guarantee the following basic requirements:

- technical knowledge of the appliance, of the periodic maintenance procedures as described in these instructions;
- use of technical personnel in possession of specific qualifications and training in the maintenance operations of the appliance in question;
- use of components/replacement parts/accessories that are either original or approved by the supplier, in such a way as to carry out every operation without causing alterations or modifications to the appliance;
- possession of the checklist of operations carried out on the appliance; guarantee complete adherence to the instructions of the 93/42/CEE Directive also regarding the obligation towards the manufacturer to allow the aforementioned a post sales care and traceability of the appliance when requested.

**The device does not require any routine servicing by the manufacturer.**

#### 5.2.2 Servicing Maintenance

The person to whom the servicing of the appliance is entrusted must guarantee the following basic requirements:

- adequate knowledge of the appliance, of its technical/construction features, of checks and final tests, of packaging, conservation and handling;
- adequate knowledge of the technology used in the making of the appliance;
- knowledge of the functions of the appliance, of any potential risks and of the probability of possible malfunctions or break-downs;
- to be in possession of all the instruments necessary for carrying out any kind of technical operation regarding servicing;
- to be in possession of original replacement parts or those authorized by the manufacturer;
- specialized technical personnel trained by the manufacturer for the servicing of the appliance in question;
- guarantee complete adherence to the instructions of the 93/42/CEE Directive also regarding the obligation towards the manufacturer to allow the aforementioned a post sales care and traceability of the appliance when requested.

**The device, if used as described in the following instructions, has a life span of 5 years.**

## 6 ACCESSORIES AND SPARE PARTS

### 6.1 ACCESSORIES

PR81024A	Electronic manometer with radial attachment, complete with cable and washers
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### 6.2 SPARE PARTS

PR81049A	Electronic LED board
OX07111A	7 m cable for sensor
OX07011A	Power cable for electronic LED board

### Warning

The information contained in this document can be modified without warning and is not to be intended as a commitment on the part of Spencer Italia S.r.l. Spencer products are exported to many countries in which the same identical regulations do not exist. It is for this reason that there can be many differences between the description and the actual product delivered. Spencer works continuously to reach the perfection of all the models sold. We therefore hope to have your understanding if we reserve the right to modify the shape, equipping, lay-out or technical aspects that are herein described, at any given time.

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