



# OXYTIME Q5 Oxygen Concentrator User Guide

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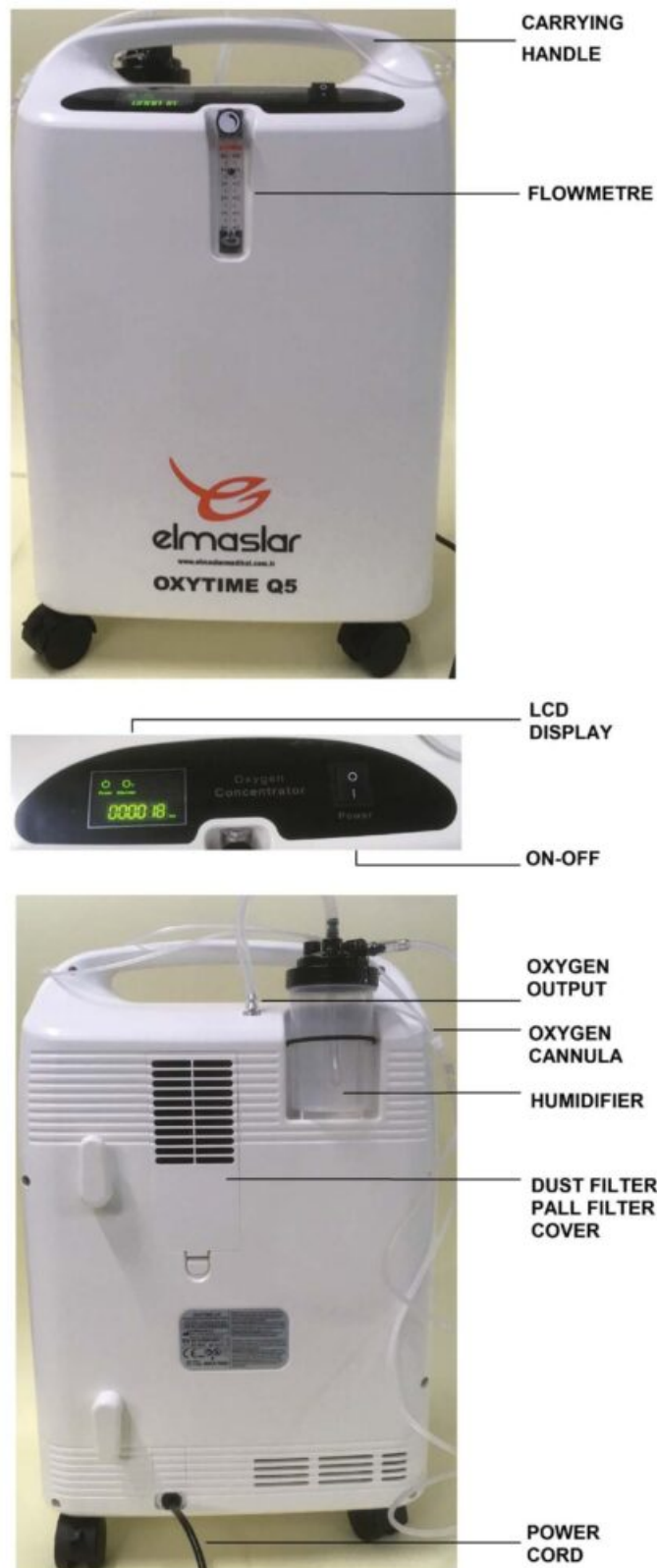
**OXYTIME Q5 Oxygen Concentrator**



## GLOSSARY OF SYMBOLS

|    |  |      |   |  |                              |  |   |
|----|--|------|---|--|------------------------------|--|---|
|    | CAUTION CONSULT<br>ACCOMPANYING<br>DOCUMENTS |      | CLASS II<br>EQUIPMENT                             |  | CONFORMITE<br>EUROPE         |  | NOT MOVED WITH<br>HOOK                                |
|    | DATE OF<br>MANUFACTURE                       | IPX1 | PROTECTION AGAINST<br>VERTICALLY FALLING<br>DROPS |  | THIS SIDE UP                 |  | SHOULD BE DISPOSED<br>ACCORDING TO WEEE<br>DIRECTIVES |
|    | MANUFACTURE                                  |      | TYPE B  |  | FRAGILE, HANDLE<br>WITH CARE |  | KEEP AWAY FROM<br>FIRE                                |
| SN | SERIAL NUMBER                                |      | TYPE BF   |  | KEEP DRY                     |  | NO SMOKING  |

## Overview



## GENERAL INFORMATION

Before operating the device, make sure that you have carefully read and understood all the topics written in this manual.

### Intended Use of the Device:

It is used to provide oxygen therapy to the patients that oxygen therapy is required (such as heart, lung and other respiratory diseases) whom determined and recommended by the doctor.

### Working Principle:

This oxygen concentrator is designed for personal use at home by providing the separated oxygen from the air in the room. This device obtains 90% pure oxygen from the environment at the rate of 21% oxygen by using PSA technology. Thanks to the cannula attached to the nose, it allows the patient to receive highly concentrated oxygen directly.

**Side Effects:**

As with any treatment, oxygen therapy has risks and unwanted side effects. The most important risks in oxygen treatment are accidents and fires related to the transportation, filling and use of oxygen devices. Since oxygen is a flammable and explosive substance, the oxygen source should be placed away from heat generating systems and the patient should never smoke during oxygen therapy. Side effects of exposure to high concentrations of oxygen are changes in normal physiological functions, oxygen-related tissue damage accumulation is mostly seen as a result of using high levels of oxygen, and it is usually manifested by drowsiness in patients. Potential oxygen toxicity, and carbon dioxide accumulation. Carbon dioxide

**Patients Need Oxygen Therapy:**

Patients with Chronic Obstructive Pulmonary, Pulmonary Hypertension, Congestive Heart Failure, Cystic fibrosis, Lung cancer, Alpha 1 and similar patients.

**Patient Population:**

As of 2015, COPD affects 174.5 million people in the world and this number corresponds to 2.4% of the world population. It occurs especially in people over the age of 40. It is seen at almost the same rates in men and women. COPD, which killed 2.4 million people in 1990, was the cause of death for 3.2 million people in 2015.

**General Features**

- It has a Safety and Solid body
- LCD display showing the total usage time and fault notifications
- Electrical cut-off warning for safety against high pressure,
- Low pressure & high temperature.
- Thermo-protected compressor,
- Light and easy to carry.

**Contraindications:**

Untreated pneumothorax patients, patients using chemotherapeutics cannot use without a specialist doctor's advice. The time and dosage given by the specialist doctor cannot be used. It cannot be used with other devices unless recommended by a specialist. The oxygen concentrator is not used as a life support unit.

**SAFETY GUIDELINES**

- The device must only be used for purposes mentioned in this manual!
- Do not use this device as Life Supporting or Life Sustaining unit. Use your device according to your doctor's prescription and advice only, otherwise, it may present a risk to the health of you (patient).
- Use of highly concentrated oxygen could be dangerous if not prescribed by an authorized person. Please keep spare oxygen sources such as oxygen tubing malfunctioning of the device may occur anytime. Keep the device upright position during transportation to avoid damage in the cabinet. Switch off the device when not used by the patient.
- Working Conditions: Temperature 10- 40 °C, Relative Humidity %20 -%60 RH, Altitude max 3000 m
- Storage Conditions Temperature 10- 60 °C, Relative Humidity %10- %95 RH, Altitude max 4000 m
- During transportation or when not in use unplug the power supply cord. Do not allow an unauthorized person to open the cabinet of the device. If the electric supply line suffers from frequent voltage fluctuation, we suggest

using a Voltage Regulator for the device to avoid unwanted damage in the sensitive electronic parts of the device.

- Do not unplug the power cable by hanging it on the device or by pulling the cable.
- Do not leak water on the device or immerse the device into water. If you think there is a chance of water may come in contact
- With the device, please unplug the power cable and inform the technical service
- Do not open the cabinet of the device when the power cable is connected. Only authorized technical service personnel is permitted to open the device. There are no parts inside the device which you can repair.
- Do not put the nasal cannula under heavy material like bed or cushion.
- Keep the device under surveillance when used by aged, child or disabled patients who may not be able to inform any malfunctioning of the device may take place during the treatment.
- Call your doctor immediately in case of the slightest disturbance seen in the patient during treatment.
- HEALTH TIME device produces highly concentrated oxygen which is not flammable but accelerates the combustion of the material.
- To avoid all risks of fire do not smoke nearby the device and other accessories. HEALTH TIME should be kept away from all flames, incandescent sources and sources of heat, as well as combustible products like oil, grease, solvents, aerosols, etc.
- The manufacturer or the seller of the device is not responsible for the problems that may occur due to wrong, unnecessary or unintended use of the device or use of wrong electrical voltage which does not comply with electrical safety rules.
- Calibration requirement in the device during use of the device: During use of the device every 2000 hours or once in a year following calibration controls to be done by manufacturers. Oxygen Concentrator percentage b. Oxygen Flow rate c. Oxygen outlet pressure.
- Flow Cut-off Valve Against Fire: This feature available as standard in our device has double protection facility. The thermostat located in the compressor detects the increase in Motor temperature and shut down the motor when the temperature reaches to a deadline and a second thermostat located inside the device continuously measures the temperature inside the device and if any fire risk is detected immediately stop the device and gives an alarm.
- Children, Lactating Women and Pregnant must use the oxygen concentrator under the control of the specialist doctor. Oxygen Concentrator use requires a physician's prescription and are not intended for life support use. Although oxygen therapy can be prescribed for patients of all ages, the typical oxygen therapy patient is older than 65 years of age and suffers from chronic obstructive pulmonary disease (COPD). Patients typically have good cognitive abilities and must be able to communicate easily.

If the user is unable to communicate discomfort or unable to read and understand the concentrator labeling and instructions for use, then use is recommended only under the supervision of one who can. If any discomfort is felt while using the concentrator, patients are advised to contact their doctors. Patients are also advised to have backup oxygen available in the event of a power Outage or concentrator failure. The device's lifetime is 5 years. Should be disposed of according to WEEE (Waste Electrical and Electronic Equipment) Directive.

Brand of water-based lotions or ointments that are compatible with oxygen before and during oxygen therapy. Do not use petroleum or oil lotions or ointments for fire or burn vaccination. To avoid the risk of fire and burns, do not lubricate the oxygen concentrator fittings, fittings, pipes or other accessories. Use of this device at a relative humidity higher than the maximum declaration height or outside the temperature range of the statement temperature or at a relative humidity higher than the maximum statement relative humidity; it is expected to affect the flow rate and oxygen percentage and consequently adversely affect the quality of treatment. From children

against choking risks caused by the cable and hose of the device, keep away from unconscious patients. The device contains small and swallowable parts. Against the risk of swallowing keep away from children and unconscious patients.

If the device and its additional parts are used outside of their use purpose the manufacturer is not responsible for the faults that may occur. After the use of spare parts other than the parts specified by the manufacturer is not responsible for the faults that may occur. Disassemble or replacement of product parts not described in the user manual, from product safety damaged in case of combining with different products and the manufacturer is not responsible for any faults that may occur. Keep the device away from children and pets. The device is not suitable for use by more than one patient using the same parts. It should be used with new single-use components in different patients.

## **INSTALLATION /USE**

Please control the packing and the device on arrival. If there is any deformation or damage in the packing or in the inside materials, please inform the courier or the seller of the goods immediately. Take out from the package all components carefully controlling crash, breakage or any other damages.

### **NOTE:**

If the Oxygen concentrator will not be used immediately, we suggest to keep the components inside the package until use.

### **Let stand four (4) hours in the user environment before starting using the device.**

Fill the water bowl with boiled and cooled water and close the lid. Take care of not overfilling the water bowl out of its maximum mark. The water bowl must be cleaned with soap & water and rinsed properly once in a week. The water level of the bowl should be controlled frequently and do not permit to go down to its minimum mark by adding water regularly.



Connect the intermediate cannula between the device and the patient unit ( flowmeter unit ). Place the water bowl in its position in the patient unit as shown in the picture. Plug in the electrical cable. Start the device by pushing the OFF-ON switch to ON position. Adjust the flow rate of concentrate oxygen with the help of an inbuilt flow meter within the range of 0-5 lt/min. as per the doctor's prescription. The ball located inside the flow meter will indicate the adjusted flow rate of oxygen. There is no matter that requires your intervention on the LCD screen of the device.

The total operating time and malfunctions of the device are directly displayed on this LCD screen. Please consult the “Troubleshooting” section of this manual if the device is not running properly. To use a new device for the first time it is recommended to run the device for 30 min. without patient. This period is necessary to achieve 90% oxygen concentration level at the initiation. Repeat the same procedure if the device is not used for a time period of 15 days or more. For daily use there is no need of following this instruction.



Please place the device at the most suitable place in the room or near to the patient. The device can be moved easily with the help of a wheel fitted with the cabinet. Do not cover the concentrator with any covering material. There should be at least 30 cm. distances between the device & the furniture in the room and the walls to avoid blocking in environmental air inlet to the device. Do not block the air inlet to the oxygen concentrator by any means. Do not place the device on soft floors like beds, sofas etc. it may block air flow to the device. Keep the device always vertical position and do not use the device during bath. Do not smoke near the device when running. Keep the device away from sources of fire and heat. It is dangerous to use a device with a dirty filter or without a filter. Never run the device with wet filter. Control the nasal cannula in a regular interval against twisting, leaking or bursting. Replace the damaged cannula with new one.

Like most other electronic devices too is very sensitive to radiofrequency waves (parasites), please be aware of using mobile phones when running the device. To get best efficiency from the device we suggest not shutting down and opening the device frequently in a short interval which may cause a loss in life period of the device too.

## **PREVENTIVE MAINTENANCE**

Please switch off the device and unplug the power supply cable before the maintenance operation start. Do not use any liquid cleaning agent directly on the device. Petroleum-based solvent & cleaner not to be used. Wipe the outer face of the cabinet with a wet sponge and dry properly once in 30 days.

## **CLEANING OF DUST FILTER**

Take out the dust filter placed at rear side of the device once in every 7 days. The black color dust filter may clean from dust by simply shaking it and then wash with water only. Put in place after drying properly. Replace the filter when it is torn or every 90 days.



### **CHANGING OF PALL FILTER**

Replace the Pall filter with a new one every 60 days.



### **CHANGING OF NASAL CANNULA**

Replace the Nasal Cannula with a new one every 30 days.





### **CLEANING AND CHANGING OF HUMIDIFIER**

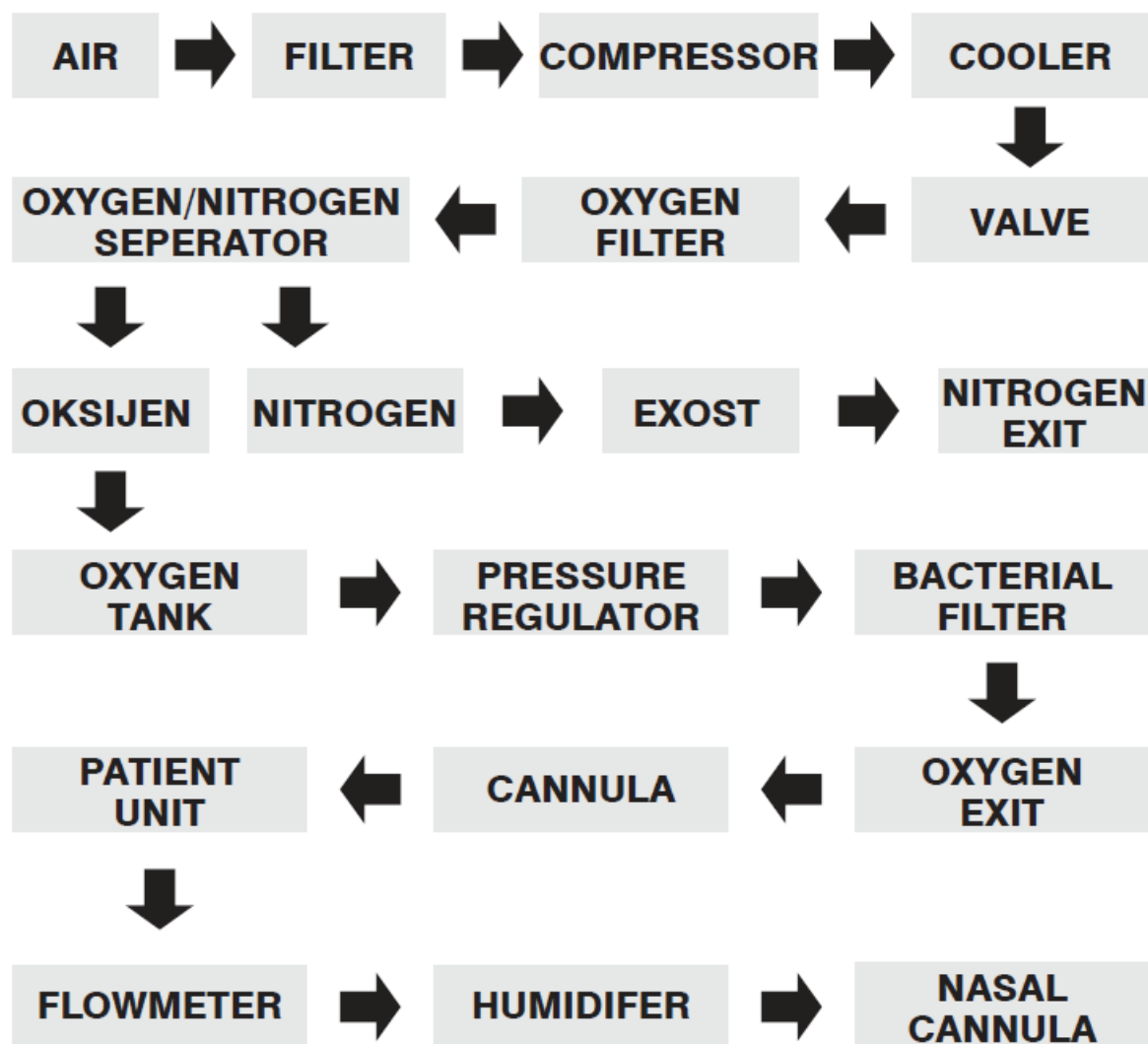
In every 7 days clean with soap and water, rinse properly and also Replace with a new one every 90 days




### **TROUBLESHOOTING**

| OBSERVATION   | ALARM SOUND | SCREENSHOT       | PROBABLE REASON/CAUSES  | SOLUTION   |
|---|-------------|------------------|---|--|
| On opening there is no alarm and de-vice is not running.  | OK          | NO IMAGE         | Electrical power supply cord is not properly connected either with device or in plug.<br><br>There is no electricity in the plug, fuse burnt out. | Connect the electrical cord prop- erly both ends. Test if there is electric in the plug or put the cord in another plug.<br><br>Change the fuse.   |
| Alarm due to high tem- perature.  | OK          | HIGH TEMPERATURE | System may be turned to high temperature pro- tecting mode.   | Clean the black filter located at the rear side of the device.<br><br>Check whether the ventilation is sufficient all around the device. Cooling fan may not working. Call authorized technical service.<br><br>Keeps the device waiting for 40-50 mins. in switched off position then reopen, if problem continue call technical service. |
| High pressure alarm.  | OK          | HIGH PRESSURE    | System may turn to high pressure protecting mode.   | Control the Nasal Cannula against possible breaking, twisting. Control the water bowel against clog- ging. Check whether flow meter is open or closed. If the situations still continue please call Author- ized Technical Service.  |
| Low Pressure Alarm.   | OK          | LOW PRESSURE     | System may turn to low pressure protecting. mode.   | Control the dust filter, if require clean it. Flow meter may setted at 5 lt./min. reset it to a lower value.<br><br>Please check, intermediate con- necting hose may not be connect- ed. If the problems still continue call technical service.  |
| Low Oxygen Alarm  | OK          | LOW OXYGEN       | A low oxygen condition may have occurred in the system.   | Control the dust filter , pall filter , nazal cannula and flowmeter. If the problems still continue call technical service.  |
| Call technical service if the suggested troubleshooters are not helpful for solution of problems. For problems net mentioned in this table, please consult with author- ized technical service. |             |                  |   |  |

## AIRFLOW DIAGRAM



#### TECHNICAL CHARACTERISTICS

|                      |   |
|----------------------|---|
| OXYGEN FLOW RATE     | 0 - 5 liter / dakika  |
| OXYGEN CONCENTRATION | % 90 $\pm$ 3 ( 5 lt/dk ) , % 93 $\pm$ 3 ( 2 lt/dk )   |
| OUTLET PRESSURE      | 8 $\pm$ 1 PASI  |
| NOISE LEVEL          | < 55 dBA  |
| VOLTAGE / CURRENT    | 230 VAC / 50 - 60 Hz / 1,60 A $\pm$ %10   |
| POWER                | 360 Watt $\pm$ %10  |
| WEIGHT               | 14 kg   |
| BOX DIMENTIONS       | 38 * 49 * 61 cm   |
| WORKING CONDITIONS   | 10 - 40 ° C , % 20 - % 60 RH, 100kPa – 80 kPa   |
| STORAGE CONDITIONS   | 10 - 60 ° C , % 10 - % 95 RH  |
| ELECTRICAL SAFETY    | TYPE B , CLASS II   |
| FUSE                 | 3.15 A ( glass cartridge fuse )   |
| CERTIFICATE          | ISO 9001, ISO 13485,  1984 |

DO NOT STORE OR OPERATE THE DEVICE OUTSIDE THE SPECIFIED TEMPERATURE AND HUMIDITY CONDITIONS.

## ACCESSORIES PACKAGE INCLUDED

### Package Included:

- 1 pc Oxygen Concentrator
- 1 pc Oxygen Cannula
- 1 pc Humidifier
- 1 pc Power Cord

### Accessories:

Cannula and Water container (humidifier) Contact the authorized technical services for procurement. Unsuitable parts or accessories may cause poor performance or malfunction of the device.

## ELECTROMAGNETIC COMPATIBILITY (EMC) DECLARATION

This equipment generates, uses, and can radiate radio frequency (RF) energy. This equipment may cause electromagnetic interference if it is not installed and used in accordance with the manual. This device has been tested for Medical Products in accordance with EN-60601-1-2:2015 and has been determined to comply with acceptable limits. These limits indicate that the device provides an acceptable level of protection against electromagnetic interference (EMC) if the device is used as specified in the manual. This device may be affected by portable and mobile RF communication devices. This equipment must not be stored together with other equipment. See the following tables for more information about this device and EMC.


### GUIDANCE AND MANUFACTURER'S DECLARATION- ELECTROMAGNETIC EMISSIONS

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.

| Emisyon testi   | Uyumluluk | Elektromanyetik ortam – kılavuz   |
|---|-----------|---|
| Emissions RF C SP<br>R 11   | Group 1   | The device uses RF energy only for its internal function. Therefore, its RF emissions<br><br>are very low and are not likely to cause any interference in nearby electronic equipment.                  |
| Emissions RF C SP<br>R 11   | Class B   | The device is suitable for use in all establishments including domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes. |
| harmonic emissions<br>used for domestic purposes.<br>EC 61000-3-2 | Class A   |   |
| Voltage fluctuations/<br>flicker emissions<br>EC 61000-3-3        | Complies  |   |

## GUIDANCE AND MANUFACTURER'S DECLARATION- ELECTROMAGNETIC EMISSIONS

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.

| Immunity test   | IEC 60601 Testlevel  | Compliancelevel  | Electromagnetic environment – guidance  |
|---|--|--|---|
| Electrostatic discharges<br>IEC 61000-4-2                                 | ± 8 kV contact<br>±2 kV, ±4 kV,<br>±8 kV,±15 kV air  | ± 8 kV contact<br>±2 kV, ±4 kV,<br>±8 kV,±15 kV air  | Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30   |
| Electrical fast transient/burst<br>IEC 61000-4-4                          | Power supplylines: ±2 kV<br>Input/output lines:±1 kV<br>100 kHz repetitionfrequency  | Power supplylines: ±2 kV<br>Input/output lines:±1 kV<br>100 kHz repetitionfrequency  | Mains power quality should be that of a typical commercial or hospital environment.   |
| Surges<br>Line-to-line<br>IEC 61000-4-5                                   | ± 0,5 kV, ± 1 kV   | ± 0,5 kV, ± 1 kV   | Mains power quality should be that of a typical commercial or hospital environment.   |
| Surges<br>Line-to-ground<br>IEC 61000-4-5                                 | ± 0,5 kV, ± 1 kV,<br>± 2 kV  | ± 0,5 kV, ± 1 kV,<br>± 2 kV  |   |
| Voltage dips<br>IEC 61000-4-11  | 0% UT;0.5 cycle<br>0°, 45°, 90°, 135°,<br>180°,225°, 270° and 315°<br>0% UT; 1 cycle and 70%<br>UT;25/30 cycle<br>Single phase: 0° | 0% UT;0.5 cycle<br>0°, 45°, 90°, 135°,<br>180°,225°, 270° and 315°<br>0% UT; 1 cycle and 70%<br>UT;25/30 cycle<br>Single phase: 0° | Mains power quality should be that of a typical commercial or hospital environment.   |
| Voltage interruptions<br>IEC 61000-4-11                                   | 0% UT;250/300 cycle  | 0% UT;250/300 cycle  |   |
| Power frequency<br>(50/60Hz) magnetic field<br>IEC 61000-4-8              | 30 A/m<br>50Hz/60Hz  | 30 A/m<br>50Hz/60Hz  | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.   |
| Not: UT is the a.c. mains voltage prior to application of the test level. |  |  |   |
| Conducted RF<br>IEC 61000-4-6   | 150kHz to<br>80MHz:<br>3Vrms<br>6 Vrms (in<br>ISM and amateur<br>radio bands)<br>80% Am at 1kHz                                    | 150kHz to<br>80MHz:<br>3Vrms<br>6 Vrms (in<br>ISM and amateur<br>radio bands)<br>80% Am at 1kHz                                    | Portable and mobile RF communications equipments should be used no closer to any part of the device including cables, than the recommended separation distance calculated from the equation applicable to the frequency the transmitter. Recommended separation distance:<br>$d = 0.35\sqrt{P}$<br>$d = 1.2\sqrt{P}$ 80 MHz ile 800 MHz<br>$d = 1.2\sqrt{P}$ 800 MHz ile 2.7 GHz<br>$d = 2.3\sqrt{P}$<br>Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol:<br> |
| Radiated RF<br>IEC 61000-4-3  | 10V/m<br>80% Am at 1kHz  | 10V/m<br>80% Am at 1kHz  |   |

Note 1: 80 MHz and 800 MHz, the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

- a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcasts and TV broadcasts cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the device.
- b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.
- c. Calibration for current injection clamps shall be performed in a 150 0 system.
- d. If the frequency stepping skips over an ISM or amateur band, as applicable, an additional test frequency shall be used in the ISM or amateur radio band. This applies to each ISM and amateur radio band within the specified frequency range.
- e. Applicable to ME EQUIPMENT and ME SYSTEMS with RATED input current less than or equal to 16 A / phase and ME EQUIPMENT and ME SYSTEMS  
with RATED input current greater than 16 A / phase.

Recommended separation distances between portable and mobile RF communications equipment and the device

The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device as recommended below, according to the maximum output power of the communications equipment.

| Rated maximum output power of transmitter (W) | Separation distance according to frequency of transmitter(m)             |  |   |  |
|---|--|--|---|--|
|   | 150 kHz to 80 MHz (out SM and amateur radio bands)<br>$d = 1.2 \sqrt{P}$ | 150 kHz to 80 MHz (out SM and amateur radio bands)<br>$d = 0.6 \sqrt{P}$ | 80 MHz to 800 MHz<br>$d = 1.2 \sqrt{P}$ | 800 MHz to 2.7 GHz<br>$d = 2.3 \sqrt{P}$ |
| 0,01  | 0,12   | 0,06   | 0,12                                    | 0,23                                     |
| 0,1   | 0,38   | 0,19   | 0,38                                    | 0,73                                     |
| 1   | 1,2  | 0,6  | 1,2                                     | 2,3                                      |
| 10  | 3,8  | 1,9  | 3,8                                     | 7,3                                      |
| 100   | 12   | 6  | 12                                      | 23                                       |

For transmitters rated at a maximum output power not listed above, the recommended separation distance in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. Note 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

Note 2: The ISM (industrial, scientific and medical) bands between 0,15 MHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to

5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17

MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.

Note 3: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

| Radiated RF   | Test Frequency (MHz) | Band a) (MHz) | Service a)   | Modulation b)                          | Modulation b) (N) | Distance (m) | mm unit y Test Level (V/m) |
|---|----------------------|---------------|--|--|-------------------|--------------|----------------------------|
| EC610<br>00-4-3<br><br>(Test specifications for ENCLOSURE PORT<br><br>COMMUNITY to RF<br><br>wireless communications equipment) | 385                  | 380-390       | TETRA 400  | Pulse modulation b) 18 Hz              | 1,8               | 0,3          | 27                         |
|   | 450                  | 380-390       | GMRS 460, FRS 460  | FM c) $\pm 5$ kHz deviation 1 kHz sine | 2                 | 0,3          | 28                         |
|   | 710<br>745<br>780    | 704-787       | LTE BANDI 13, 17   | Pulse modulation b) 217 Hz             | 0,2               | 0,3          | 9                          |
|   | 810<br>870<br>930    | 800-960       | GSM 800/900, TETRA 800, iDEN 820, LTE Band 5                 | Pulse modulation b) 18 Hz              | 2                 | 0,3          | 28                         |
|   | 1720<br>1845<br>1970 | 1700-1990     | GSM 1800, CDMA 1900, GSM 1900, DECT, LTE Band 1,3,4,25, UMTS | Pulse modulation b) 217 Hz             | 2                 | 0,3          | 28                         |
|   | 2450                 | 2400-2570     | Bluetooth, WLAN 802.11b/g/n, RFID 2450, LTE Band 7           | Pulse modulation b) 217 Hz             | 2                 | 0,3          | 28                         |

|      |      |                |                            |     |     |   |
|------|------|----------------|----------------------------|-----|-----|---|
| 5240 | 5100 | WLAN 802.11a/n | Pulse modulation b) 217 Hz | 0,2 | 0,3 | 9 |
| 5240 | -580 |                |                            |     |     |   |
| 5785 | 0    |                |                            |     |     |   |

Note: If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.

a. For some services, only the uplink frequencies are included.

b. The carrier shall be modulated using a 50 % duty cycle square wave signal.

c. As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.

The MANUFACTURER should consider reducing the minimum separation distance, based on RISK MANAGEMENT, and using higher IMMUNITY TEST LEVELS that are appropriate for the reduced minimum separation distance. Minimum separation distances for higher IMMUNITY TEST LEVELS shall be calculated using the following equation:

$$E= 6 / d \sqrt{P}$$

Where P is the maximum power in W, d is the minimum separation distance in m, and E is the IMMUNITY TEST LEVEL in V/m.

## GUARANTEE (TERMS & CONDITIONS)


1. The guarantee period commences from the date of delivery of the product to the client.
2. In case of malfunctioning within the warranty period, repair time is added to the warranty period. The maximum repairing period is 30 (Thirty) working days
3. If you have any objection regarding the device, please return the device to the company from where you bought the device or to the manufacturer by prepaid cargo along with the sales certificate and the guarantee certificate.
4. Problems that appeared due to wrong or misuse of the device is not covered under warranty.
5. Opening of the device by an unauthorized person will cause the device to remain outside of the scope of the warranty.
6. The guarantee for the device will only be valid once the consumer accepts after reading all terms and conditions mentioned here.
7. Consumable parts are not covered under warranty.

## MANUFACTURER AUTHORIZED TECHNICAL SERVICES

- ELMASLAR A.Ş.
- ASO 1.0SB BABÜRSAH CD NO: 17 SINCAN ANKARA/TURKEY
- Tel:+90 312 394 8001 Faks: +90 312 394 80 04
- [info@elmaslarmedikal.com.tr](mailto:info@elmaslarmedikal.com.tr).
- [www.elmaslarmedikal.com.tr](http://www.elmaslarmedikal.com.tr).



## Documents / Resources

|   |  |
|---|--|
|  | <p><a href="#">OXYTIME Q5 Oxygen Concentrator</a> [pdf] User Guide<br/>Q5, Oxygen Concentrator, Q5 Oxygen Concentrator, Concentrator</p> |
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## References

- [Elmaslar Medikal A.Ş. - Hayat Sağlık ile Başlar Sevdiklerinizle Devam Eder](#)

[Manuals+](#).