EN DeVilbiss iFill® Personal Oxygen Station Instruction Guide (Model 535D)

CAUTION–*Federal (U.S.A.) law restricts this device to sale by, or on the order of a physician.*

WARNING-*Read and understand this instruction guide before operating this equipment.*

MADE IN THE USA of U.S. and Imported Parts

DANGER–NO SMOKING

ES Estación de Oxígeno Personal DeVilbiss iFill® Guía de Instrucciones (Modelo 535D)

PRECAUCIÓN–*La ley federal de EE. UU. limita la venta de este dispositivo a médicos o a personas que dispongan de la correspondiente orden médica.*

ADVERTENCIA-*Antes de usar este equipo asegúrese de leer y comprender toda la información contenida en esta guía de instrucciones.*

FABRICADO EN EE. UU. de partes nacionales e importadas.

PELIGRO–NO FUMAR

FR Générateur d'oxygène Personnel DeVilbiss iFill® Guide de l'utilisateur (Modèle 535D)

ATTENTION–*En vertu de la loi fédérale américaine, cet appareil ne peut être vendu que par un médecin ou sur ordonnance de ce dernier.*

AVERTISSEMENT-*Veuillez lire et comprendre ce guide avant d'utiliser cet équipement.*

FABRIQUÉ AUX ÉTATS-UNIS avec des pièces des États-Unis et des pièces importées.

DANGER–NE PAS FUMER

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IEC SYMBOLS

	Attention, consult instruction guide	I/O	Start/Stop		Service
	Danger-No Smoking		Standby		Filling
	Electric Shock Hazard. Do Not Open	REF	Catalog Number		Full
	AC Current	SN	Serial Number		Type BF applied part
	Double Insulated		The device contains electrical and/or electronic equipment that must be recycled per EU Directive 2012/19/EU - Waste Electrical and Electronic Equipment (WEEE)		

IMPORTANT SAFEGUARDS

When using electrical products, especially when children are present, basic safety precautions should always be followed. Read all instructions before using. Important information is highlighted by these terms:

DANGER Urgent safety information for hazards that will cause serious injury or death.

WARNING Important safety information for hazards that might cause serious injury.

CAUTION Information for preventing damage to the product.

NOTE Information to which you should pay special attention.

Important safeguards are indicated throughout this guide; pay special attention to all safety information.

READ ALL INSTRUCTIONS BEFORE USING.

SAVE THESE INSTRUCTIONS.

General Dangers & Warnings

In order to ensure the safe installation, assembly, and operation of the personal oxygen station, these instructions MUST be followed:

DANGER-NO SMOKING 

DANGER

- **Electric Shock Hazard. Do not disassemble. The DeVilbiss iFill Personal Oxygen Station contains no user serviceable parts. If service is required, contact your DeVilbiss provider or authorized service center.**
- **Fire Hazard. Do not lubricate. Do not allow grease or oil from your hands or other source to come into contact with the regulator or cylinder valve connection. These contaminants may be flammable and cause injury.**
- **Keep the personal oxygen station at least 5 feet (1.6 m) from hot, sparking objects or naked sources of flame. Position your unit at least 6 inches (15 cm) from walls, draperies, or any other object that might prevent the proper flow of air in and out of your oxygen station. The oxygen station should be located so as to avoid pollutants or fumes.**
- **Oxygen causes rapid burning. Do not smoke while your personal oxygen station is operating, or when you are near a person utilizing oxygen therapy. Keep the oxygen station at least 5 feet (1.6 m) from hot, sparking objects or naked sources of flame.**
- **Do not lay the cannula down while the cylinder is delivering oxygen. High concentrations of oxygen can cause rapid burning.**

WARNING

- **Do not install, assemble, or operate this equipment without first reading and understanding this instruction manual and the oxygen cylinder warning label. If you are unable to understand the warnings, cautions and instructions, contact your provider or technical personnel if applicable before attempting to install or use this equipment - otherwise, injury or damage may occur.**
- **The use of this device is limited to an oxygen patient. Cylinders MUST be used ONLY by an oxygen patient and are not to be distributed to any other individual for any purpose.**
- **Do not use parts, accessories, or adapters other than those authorized by DeVilbiss.**
- **NEVER block the air openings of the product or place it on a soft surface, such as a bed or couch, where the air opening may be blocked. Keep the openings free from lint, hair and the like.**
- **If the oxygen station has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or if it has been submersed in water, do not use and call a qualified technician for examination and repair.**
- **If any leakage of the oxygen cylinder is detected, do not attempt to use the cylinder. Turn the rotary selector on the regulator to "OFF." If leakage persists, place the cylinder outdoors and notify your Home Health Care Provider or Service Representative of this condition.**
- **The personal oxygen station is equipped with a High Pressure Relief Valve to ensure the user's safety. When activated, this safety feature will make an extremely loud noise. If this noise occurs, turn the unit off and contact your Home Health Care Provider or Service Representative.**
- **Before moving or repositioning the personal oxygen station, always disconnect the AC power cord. Failure to do so may result in damage to the unit or personal injury.**
- **Children should always be supervised around the personal oxygen station. Failure to do so may result in damage to the unit or personal injury.**
- **Improper use of the power cord and plugs can cause a burn, fire, or other electric shock hazards. Do not use the unit if the power cord is damaged.**
- **For your safety, the oxygen cylinder must be used according to the prescription determined by your physician.**
- **Under certain circumstances, oxygen therapy can be hazardous. Seeking medical advice before using oxygen is advisable.**

WARNING - HANDLING WARNINGS

- **Use extreme care when handling and filling an oxygen cylinder. Full oxygen cylinders are under pressure and can become a projectile if dropped or mishandled.**
- **Never transport the oxygen station with a cylinder connected to it. Injury or damage can occur.**

Cautions & Notes

CAUTION–*Federal (U.S.A.) law restricts this device to sale by, or on order of a physician.*

CAUTION– *Do not place this unit near other equipment or devices that create or attract electromagnetic fields. Placing the unit in electromagnetic fields greater than 10V/m can affect its operation. Examples of such equipment are defibrillators, diathermy equipment, cellular telephones, CB radios, radio-controlled toys, microwave ovens, etc.*

NOTE– *Do not connect to an electrical outlet controlled by a wall switch. No other appliances should be plugged into the wall outlet.*

NOTE– *The plug on the DeVilbiss iFill Personal Oxygen Station has one blade wider than the other. To reduce the risk of electric shock, this plug is intended to fit in a wall outlet only one way. Do not attempt to defeat this safety feature.*

NOTE– *DeVilbiss recommends leaving a full cylinder of oxygen with the patient AFTER setting up the personal oxygen station.*

Provider Checklist

Before leaving a DeVilbiss iFill Personal Oxygen Station with a user, the following checklist MUST be completed:

1. Check all parts for shipping damage. In case of damage, do not use. Contact DeVilbiss for further instructions.
2. Make sure the hydrostatic test on the oxygen cylinder has not expired.
3. Instruct the user on the safe operation of the personal oxygen station and review ALL warnings.
4. Leave a copy of this instruction guide with the user.

NOTE– *DeVilbiss recommends leaving a full cylinder of oxygen with the patient AFTER setting up the personal oxygen station, and instructing the patient to always keep a filled cylinder on hand.*

INTRODUCTION

This instruction guide will acquaint you with the DeVilbiss iFill Personal Oxygen Station. Make sure that you read and understand this guide before operating your oxygen station. Important safeguards are indicated throughout this guide; pay special attention to all safety information. Contact your DeVilbiss equipment provider should you have any questions. **NOTE**– *All references to cylinder throughout the guide represent an oxygen cylinder.*

INDICATIONS FOR USE

The Model 535D Oxygen Cylinder Filling System is intended for use in supplying pressurized oxygen to fill oxygen cylinders for patients' ambulatory use. The device is intended to provide 93% (±3%) oxygen. This device can be used in homes, nursing homes, patient care facilities, etc.

IMPORTANT PARTS

DeVilbiss iFill Personal Oxygen Station (Figures A & B)

1. Oxygen Fill Connector (referred to as Fill Connector throughout guide)
2. Oxygen Fill Connector Cover/Cylinder Adapter (referred to as Fill Connector Cover and/or Cylinder Adapter throughout guide)
3. Oxygen Fill Port Collar (referred to as Fill Port Collar throughout guide)
4. Instruction Label (Figure C)
5. Indicator Panel Label (Figure C)
6. Start/Stop Switch
7. Cradle
8. Fused Mains Inlet
9. Front Handle
10. Rear Handle
11. Carry Handle Recess
12. Air Filter(s) (2 - one on each side)
13. Hour Meter - behind filter on Indicator Panel label side (right side)

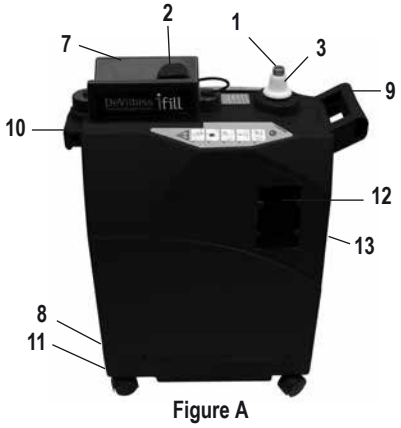

Figure A

Figure B

iFill Instruction and Indicator Panel Labels (Figure C)

Instruction Label

1. Set cylinder regulator to "Off"
2. Remove cap from iFill unit
3. Dock oxygen cylinder into oxygen fill connector, click in place
4. Push Start/Stop button
5. Depress port collar, lift cylinder. Replace cap

Indicator Panel Label

6. Service Required (Red) LED
7. Standby (Green) light
8. Full (Green) light
9. Filling (Green) LED

Figure C

iFill Oxygen Cylinder & Regulator (Figure D)

1. Rotary Selector
2. Nipple Connector
3. Hydrostatic Test Date - Contact your homecare provider or the cylinder manufacturer for details.
4. Cannula Fitting

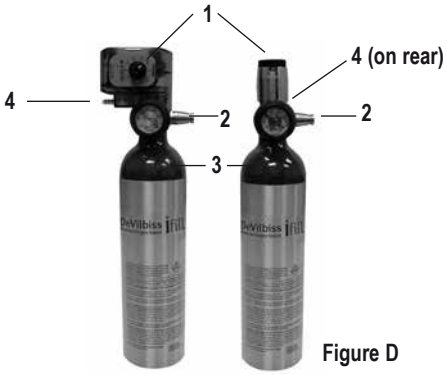

Figure D

PD1000A series iFill Cylinder w/Integrated PulseDose Regulator

535-CF series iFill Cylinder w/Continuous Flow Regulator

Accessory/Replacement Parts

Intake Filter(s) . . . . . .535D-605 (6 filters)

iFill Oxygen Cylinder w/Integrated PulseDose Regulator (US)

PD1000A-M4	PD1000A-M6	PD1000A-ML6
PD1000A-C	PD1000A-D	PD1000A-E

iFill Oxygen Cylinder w/Integrated PulseDose Regulator (CAN)

PD1000A-CAN-M4	PD1000A-CAN-M6	PD1000A-CAN-ML6
PD1000A-CAN-C	PD1000A-CAN-D	PD1000A-CAN-E

iFill Oxygen Cylinder w/Continuous Flow Regulator (US)

535D-M6-CF	535D-ML6-CF	535D-C-CF
535D-D-CF	535D-E-CF	

iFill Oxygen Cylinder w/Continuous Flow Regulator (CAN)

535C-M6-CF	535C-ML6-CF	535C-C-CF
535C-D-CF	535C-E-CF	

SET-UP

NOTE– *Before operating the DeVilbiss iFill Personal Oxygen Station for the first time, locate the device where desired.*

Choosing A Location

WARNING

The personal oxygen station should be at least 6 inches (15 cm) away from walls, draperies, or furniture to ensure sufficient airflow.

Avoid placing the oxygen station next to heaters, radiators, or hot air registers. It should be kept at least 5 feet (1.6m) away from hot, sparking objects or naked sources of flame.

Do not use in a closet.

Do not use in an area where the air may be contaminated with carbon monoxide as this may shorten the life of the unit (i.e. near running gasoline engines, furnace, or heater).

Transporting The DeVilbiss iFill Personal Oxygen Station

WARNING

NEVER transport the Personal Oxygen Station with a cylinder connected to or stored on it, otherwise injury or damage can occur.

CAUTION– *When transporting the DeVilbiss iFill Personal Oxygen Station, be careful not to bump the unit or the connectors into obstacles. Otherwise damage to the oxygen station may occur.*

There are three (3) methods to safely transport the DeVilbiss iFill Personal Oxygen Station (Figure 1):

1. Pull or push the unit on its casters using the front handle. Travel in a line oriented front to back to avoid tipping. Stop the unit to change direction.
2. Carry the unit using the front and rear handles simultaneously.
3. Carry the unit using the front handle and the recess located under the rear of the base.

Figure 1

DeVilbiss iFill Personal Oxygen Station Operation Checklist

NOTE– *Each time the Oxygen Station is used to fill a cylinder, complete the following steps:*

1. Check the Hydrostatic Test Date Figure D, 3 - Aluminum cylinders must undergo testing every five (5) years. Contact your homecare provider or the cylinder manufacturer for details.

NOTE– *Do not fill oxygen cylinders that have not been tested in the past five (5) years. Contact your DeVilbiss provider for replacement.*

2. Perform the prefill inspection on the cylinder by following iFill Oxygen Cylinder External Examination below.

WARNING

ONLY use cylinders that have the DeVilbiss iFill Personal Oxygen Station fill connection.

All cylinders must be inspected before attempting to fill - otherwise, injury or damage may occur.

iFill Oxygen Cylinder External Examination

1. Examine the outside of the cylinder for the following conditions, and replace the cylinder if they exist:
   a. Dents or dings
   b. Arc Burns
   c. Oil or Grease
   d. Any other signs of damage that might cause a cylinder to be unacceptable or unsafe for use.
2. Examine the cylinder for evidence of fire or thermal damage. Evidence includes charring or blistering of the paint, or other protective coating or heat sensitive indicator. If fire or thermal damage is found, replace the cylinder.
3. Inspect the oxygen fill connector for the following:
   a. Debris, oil or grease
   b. Noticeable signs of damage
   c. Signs of corrosion inside the valve
   d. Signs of excessive heat or fire damage

Do not use oxygen cylinder if found, call your homecare provider.

OPERATION

Connecting The iFill Oxygen Cylinder To The DeVilbiss iFill Personal Oxygen Station

DANGER

Fire Hazard. Do not lubricate. Do not allow grease or oil from your hands or other source to come into contact with the regulator or cylinder valve connection. These contaminants may be flammable and cause injury.

WARNING

Do not modify ANY connections on the personal oxygen station. NEVER use tools of any kind to connect/ disconnect the cylinder and the oxygen station. Severe injury and/or damage may occur.

Do not drop oxygen cylinders. Use two (2) hands when handling/transporting oxygen cylinders. Otherwise, injury or damage may occur.

NOTE– *Refer to the General Dangers & Warnings and the Handling Warnings in this manual.*

1. Plug the power cord into the wall outlet.
2. Set the rotary selector on the cylinder to "OFF."
3. Remove the oxygen fill connector cover from the fill connector.
4. Position the cylinder over the cradle while aligning the nipple connector on the oxygen cylinder with the fill connector. Press until cylinder "Clicks" into place (Figure 2).

Figure 2

NOTE–*When using the smaller M4 or M6 size cylinders, it is necessary to place the oxygen fill connector cover/cylinder adapter in the cradle to help support the cylinder. When using the larger ML6, C, D, or E cylinders, the oxygen fill connector cover/cylinder adapter is not necessary and can be allowed to hang over the side.*

Filling The iFill Oxygen Cylinder

NOTE– *Do not use cylinder while filling.*

NOTE– *Refer to the General Dangers & Warnings and the Handling Warnings in this manual.*

1. Make sure the personal oxygen station is plugged in.
2. Make sure the cylinder is securely connected to the oxygen station. Refer to *Connecting The iFill Oxygen Cylinder To The DeVilbiss iFill Personal Oxygen Station.*
3. Push the start/stop switch on the control panel (Figure 3).
4. The following sequence of events should occur:
   a. The FILLING (green) light will illuminate while the cylinder is filling (refer to *iFill Oxygen Cylinder Fill Times).*
   b. The FULL (green) light will illuminate when the cylinder is full. Proceed to Removing the iFill Oxygen Cylinder.

NOTE– *If the Service (RED) light and audible alert are on, proceed to Troubleshooting in this instruction manual.*

Figure 3

Indicator Light Explanation

INDICATOR LIGHT COLOR	OXYGEN STATION STATUS	EFFECT
None	Oxygen station is unplugged.	None
Standby (green)	Oxygen station is ready to begin filling cylinders.	Cylinder filling not started.
Filling (green)	Oxygen station is on and cylinder is filling.	Cylinder is filling.
Full (green)	Cylinder is full.	Remove cylinder.
Service (red) and Audible Alert	Oxygen station is on but cylinder is not filling due to internal failure.	Contact your DeVilbiss provider.

Removing The iFill Oxygen Cylinder

WARNING

Do not modify any connections on the personal oxygen station. Never lubricate the connections. Never use tools of any kind to connect/disconnect the oxygen cylinder and the oxygen station. Otherwise, severe injury and/or damage may occur.

Use extreme care when handling and filling an oxygen cylinder. Full oxygen cylinders are under pressure and can become a projectile if dropped or mishandled.

NOTE– *Refer to the General Dangers & Warnings and the Handling Warnings in this manual.*

1. Remove the full oxygen cylinder by pushing down on the fill port collar located under the cylinder nipple connector while using your other hand to steady the cylinder (Figure 4).
2. Lift up on the cylinder to remove from the oxygen fill connector. The green Standby light will turn on after a short delay.
3. Oxygen will escape from the fill connector for a short time after the cylinder has been removed. This may be accompanied by a “pop” with a rush of air. This is normal.
4. Perform one (1) of the following steps:
   a. If desired, fill another oxygen cylinder. Refer to the *DeVilbiss iFill Personal Oxygen Station Operation Checklist.*
   b. Place the oxygen fill connector cover onto the fill connector.

NOTE– *The oxygen fill connector cover should always be used whenever cylinders are not being filled.*

Figure 4

Setting The iFill Oxygen Cylinder Rotary Selector To The Prescribed Setting

1. Attach the nasal cannula to the cannula fitting of the iFill oxygen cylinder.
2. Turn the rotary selector to the L/min. setting prescribed by your physician.

WARNING

Changing the L/min. setting on the rotary selector will affect the dose of oxygen delivered, DO NOT readjust the L/min. setting unless directed by your physician.

3. To turn the flow of oxygen off, turn the rotary selector counterclockwise to the “OFF” position.

TROUBLESHOOTING

The following troubleshooting chart will help you analyze and correct minor system malfunctions. If the suggested procedures do not help, call your DeVilbiss homecare provider. Do not attempt any other maintenance.

WARNING

To avoid electric shock hazard, do not remove the cabinet. The cabinet should only be removed by a qualified DeVilbiss homecare technician.

DeVilbiss iFill Personal Oxygen Station

PROBLEM	SOLUTION
No indicator lights on.	1. Check that the personal oxygen station power cord is properly plugged into the wall outlet. 2. Ensure the fuse in the Mains Power Entry Module is not open. 3. If there are still no indicator lights, contact your DeVilbiss provider.
Red light on.	1. Ensure the iFill oxygen cylinder is connected correctly. 2. Press the start/stop switch. If the Red light remains on, contact your DeVilbiss provider for service. 3. If the Red light turns on during the filling process, check that the cylinder is connected properly. Remove the cylinder and reinstall. Ensure the cylinder rotary selector is in the OFF position. Press the start/stop switch to turn off the Red light and then again to restart the cylinder filling process. If the Red light turns on again during the filling process, contact your DeVilbiss provider for service.
Excessive fill times OR Green filling light stays on.	1. Ensure the iFill oxygen cylinder rotary selector is set to OFF. 2. Check the fill times shown in Typical Oxygen Cylinder Fill Times chart. 3. Check that the cylinder is connected properly: Press the start/stop switch to return to Standby. Remove the cylinder and reinstall. Press the start/stop switch to begin filling the cylinder. 4. If problem persists, contact your DeVilbiss provider for service.

iFill Oxygen Cylinder/Regulator

PROBLEM	SOLUTION
Hissing sound from iFill oxygen cylinder	1. Turn rotary selector OFF. 2. If hissing sound continues, call your DeVilbiss provider.
iFill oxygen cylinder is on but oxygen is not being delivered.	1. Refill cylinder. 2. Check that cannula tubing is straight and not pinched. If damaged, replace. 3. Call your DeVilbiss provider for service.

TYPICAL QUESTIONS AND ANSWERS

Q. Why does my iFill make a "pop" sound when I remove the cylinder?

A. The "pop" sound is pressure being released from the system to make the next cylinder easier to install.

Q. Why is the coupler only to be cleaned with a clean, dry, lint-free cloth and only when necessary?

A. Cleaning solutions may be flammable and/or may contaminate the cylinder.

Q. Why can't I use my old cylinders with the iFill?

A. The iFill has a proprietary connection as required by the Food and Drug Administration (FDA) and, therefore, other cylinders are not compatible.

CLEANING/MAINTENANCE

DeVilbiss iFill Personal Oxygen Station Filter

CAUTION – *Do not operate the personal oxygen station without the filters installed.*

NOTE– *The DeVilbiss iFill Personal Oxygen Station has two (2) filters, one on each side of the cabinet (FIGURE A).*

NOTE– *Perform this procedure at least ONCE A WEEK.*

1. Unplug the personal oxygen station from the wall outlet.
2. Remove the filters.
3. Clean the filters with a vacuum cleaner or wash in warm soapy water and rinse thoroughly.
4. Dry the filters thoroughly before reinstallation.

Exterior Cabinet

WARNING

Electric Shock Hazard: Unplug the DeVilbiss iFill Personal Oxygen Station when cleaning. Do not remove the oxygen station cabinet. The cabinet should only be removed by a qualified DeVilbiss technician. Do not apply liquid directly to the cabinet nor utilize any petroleum-based solvents or cleaning agents.

1. Clean the exterior cabinet by using a damp cloth or sponge with a mild household cleaner and wipe it dry.
2. Only if necessary, wipe the coupler with a clean, dry, lint-free cloth.

SPECIFICATIONS

DeVilbiss iFill Personal Oxygen Station

Operating Temperature: ..... 41º to 95ºF (5º to 35ºC)
Operating Humidity Range: ..... 15 to 95% R.H. non-condensing
Operating Altitude: ..... 0 to 6,562 Feet (0 to 2,000 Meters)
Storage Temperature Range: ..... -40ºF to +140ºF (-40ºC to +60ºC)
Storage Humidity Range: ..... 10 to 95% non-condensing
Electrical Rating: ..... 115V~, 60Hz, 4.1 Amps
Operating Voltage Range: ..... 187 – 264V~ 50/60Hz
Power Range: ..... 400 Watts Average
Oxygen Purity: ..... 93% O2 ± 3%
Dimensions: (including casters) w/o cylinder ..... 12.25"W x 28.5"H x 22.5"D (31.1 cm x 72.4 cm x 57.4 cm)
Weight: ..... 66 lbs. (30 kg)
Shipping Weight: ..... 76 lbs. (34.5 kg)
This unit is classified as nonprotected per EN60601-1 ..... (Ordinary Equipment) IPX0
Approvals UL60601-1 & CAN/CSA C22.2 No. 601.1-M90 ..... CSA

C US
156855

iFill Oxygen Cylinder Typical Fill Times

NOTE– *All filling times are approximate and may vary depending on altitude and environmental conditions.*

Typical cylinder fill time from empty to 2,000 ± 200 psig (138 ± 13.8 bar) are as follows:

M4 (0.7L) .....60 Minutes	C (1.8L).....130 Minutes
M6 (1.0L) .....75 Minutes	D (2.9L).....215 Minutes
ML6 (1.2L) .....90 Minutes	E (4.7L).....350 Minutes

NOTE- *Degradation of performance may occur if unit is operated outside of specified operating parameters.*

DEVILBISS GUIDANCE AND MANUFACTURER'S DECLARATION

WARNING

Medical Electrical Equipment needs special precautions regarding EMC and needs to be installed and put into service according to the Electromagnetic Compatibility [EMC] information provided in the accompanying documents.

Portable and Mobile RF Communications Equipment can affect Medical Electrical Equipment.

The equipment or system should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, the equipment or system should be observed to verify normal operation in the configuration in which it will be used.

NOTE– *The EMC tables and other guidelines provide information to the customer or user that is essential in determining the suitability of the Equipment or System for the Electromagnetic Environment of use, and in managing the Electromagnetic Environment of use to permit the Equipment or System to perform its intended use without disturbing other Equipment and Systems or non-medical electrical equipment.*

Guidance and Manufacturer's Declaration – Electromagnetic Emissions		
This device is intended for use in the electromagnetic environment specified below. The customer or the user of this device should assure that it is used in such an environment.		
Emissions Test	**Compliance**	**Electromagnetic Environment – Guidance**
RF Emissions CISPR 11	Group 1	This device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class B	This 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 IEC 61000-3-2	Class B	
Voltage fluctuations / flicker emissions	Complies	

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
This device is intended for use in the electromagnetic environment specified below. The customer or the user of this device should assure that it is used in such an environment.			
Immunity Test	**IEC 60601 Test Level**	**Compliance Level**	**Electromagnetic Environment - Guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	±6kV contact ±8kV air	Complies	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Radiated RF IEC 61000-4-3	3 V/m 80MHz to 2.5GHz	Complies	Field strengths outside the shielded location from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than 3 V/m. Interference may occur in the vicinity of equipment marked with the following symbol: 
Conducted RF IEC 61000-4-6	3 Vrms 150kHz to 80MHz	Complies	
Electrical fast transient IEC 61000-4-4	±2kV power line ±1kV I/O lines	Complies	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1kV differential ±2kV common	Complies	
Power frequency magnetic field IEC 61000-4-8	3 A/m	Complies	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Voltage dips, short interrupts and voltage variations on power supply input lines IEC 61000-4-11	>95% dip 0.5 cycle 60% dip 5 cycles 70% dip 25 cycles 95% dip 5 secs.	Complies	Mains power quality should be that of a typical commercial or hospital environment. If the user of this device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or battery.