Patient Manual

FreeStyle™ 5 Portable Oxygen Concentrator
Smoking while using oxygen is the number one cause of fire injuries and related deaths. You must follow these safety warnings:

Do not allow smoking, candles, or open flames in the same room with the device or within 5 feet (1.52 meters) of the oxygen-carrying accessories.

Smoking while wearing an oxygen cannula may cause facial burns and possibly death.

Removing the cannula and putting it on bedding, sofas, or other cushion material will cause a flash fire when exposed to a cigarette, heat source, or flame.

If you smoke, these 3 steps may save your life: turn off the oxygen concentrator, take off the cannula, and leave the room where this device is located.

“No Smoking – Oxygen in Use” signs must be prominently displayed in the home, or where the oxygen concentrator is in use. Patients and their caregivers must be informed about the dangers of smoking in the presence of, or while using, medical oxygen.

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**AirSep’s FreeStyle™ 5 Portable Oxygen Concentrator**

This Patient Manual will acquaint you with AirSep’s FreeStyle™ 5 Portable Oxygen Concentrator (POC). Make sure you read and understand all of the information contained in this manual before you operate your FreeStyle 5 unit. Should you have any questions, your Equipment Provider will be happy to answer them for you.

**Symbols**

Symbols are frequently used on equipment and/or the manual in preference to words with the intention of decreasing the possibility of misunderstanding caused by language differences. Symbols can also permit easier comprehension of a concept within a restricted space.

The following table is a list of symbols and definitions used with the FreeStyle 5 Portable Oxygen Concentrator.

<table>
<thead>
<tr>
<th>Symbol</th>
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<tbody>
<tr>
<td>![WARNING]</td>
<td><strong>Warning</strong> – Describes a hazard or unsafe practice that if not avoided can result in severe bodily injury, death, or property damage</td>
<td>![Class II Equipment, double insulated]</td>
<td>Class II Equipment, double insulated</td>
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<tr>
<td>![CAUTION]</td>
<td><strong>Caution</strong> – Describes a hazard or unsafe practice that if not avoided can result in minor bodily injury or property damage</td>
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<td><strong>Note</strong> – Provides information important enough to emphasize or repeat</td>
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<td>![Consult the accompanying documents]</td>
<td><strong>Consult the accompanying documents</strong></td>
<td>![Keep unit and accessories dry]</td>
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<tr>
<td>![Use no oil or grease]</td>
<td><strong>Use no oil or grease</strong></td>
<td>![Proper disposal of waste of electrical and electronic equipment required]</td>
<td>Proper disposal of waste of electrical and electronic equipment required</td>
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<td>Icon</td>
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<td>Do not disassemble</td>
<td>Do not disassemble</td>
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<td>Type BF Equipment</td>
<td>Type BF Equipment</td>
<td>Consult instructions for use</td>
<td>Consult instructions for use</td>
</tr>
<tr>
<td>This side up</td>
<td>This side up</td>
<td>Fragile – handle with care</td>
<td>Fragile – handle with care</td>
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<tr>
<td>Do not expose to open flames</td>
<td>Do not expose to open flames</td>
<td>FAA – Approved POC</td>
<td>FAA – Approved POC</td>
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<tr>
<td>RTCA DO160 Section 21 Category M Compliant</td>
<td>RTCA DO160 Section 21 Category M Compliant</td>
<td>FAA SFAR 106 requirement</td>
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<td>See Instructions</td>
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</table>

**Method of disposing of waste:** All waste from AirSep’s FreeStyle 5 Oxygen Concentrator must be disposed of using the appropriate methods specified by local authorities.

**Method for disposing of the device:** In order to preserve the environment, the concentrator must be disposed of using the appropriate methods specified by local authorities.

**Why Your Physician Prescribed Oxygen**

Many people suffer from a variety of heart, lung, and other respiratory diseases. A significant number of these patients can benefit from supplemental oxygen therapy at home, when traveling, or while participating in daily activities away from home.

Oxygen is a gas that makes up 21% of the room air we breathe. Our bodies depend on a steady supply to function properly. Your physician prescribed a flow or setting to address your particular respiratory condition.

Although oxygen is a non-addictive drug, unauthorized oxygen therapy can be dangerous. You must seek medical advice before you use this oxygen concentrator. The Equipment Provider who supplies your oxygen equipment will demonstrate how to operate the FreeStyle 5 Portable Oxygen Concentrator.
What is the FreeStyle 5 Portable Oxygen Concentrator?

Oxygen concentrators were introduced in the mid-1970’s and have become the most convenient, reliable source of supplemental oxygen available today. Oxygen concentrators are the most cost-effective, efficient, and safest alternative to using high-pressure oxygen cylinders or liquid oxygen. An oxygen concentrator provides all the oxygen you need with no cylinder or bottle deliveries required.

The air we breathe contains approximately 21% oxygen, 78% nitrogen, and 1% other gases. In the FreeStyle 5 unit, room air passes through a regenerative, adsorbent material called “molecular sieve.” This material separates the oxygen from the nitrogen. The result is a flow of high-concentration oxygen delivered to the patient.

FreeStyle 5 combines advanced oxygen concentrator technology along with oxygen conserving technology for a lightweight, high capacity portable oxygen concentrator at just 6.2 lb (2.8kg). The FreeStyle 5 efficiently produces its own oxygen, and quickly delivers it as a pulse of oxygen at the very beginning of your inhalation. This eliminates the waste associated with a continuous flow oxygen device that even flows oxygen while you are exhaling. This pulsing of the oxygen is equivalent to continuous flow. FreeStyle 5 produces the equivalent of up to 5 LPM (liters per minute) in a lightweight package that can be easily carried and used away from the home.

FreeStyle 5 operates from four different power sources. (Refer to the Power Supplies section of this manual.)

Operator Profile:

AirSep’s Concentrators are intended to supply supplemental Oxygen to users suffering from discomfort due to ailments which effect the efficiency of ones lungs to transfer the oxygen in air to their bloodstream. POC’s provide the convenience of using a non-delivery POC system rather than delivery system (O2 tank) which makes the user relatively self-sufficient in terms of in-home use, ambulation (both within and outside of the home) mobility and overall lifestyle. Oxygen Concentrator use requires a physician’s prescription, and is 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 Disorder (COPD). Patients typically have good cognitive abilities and must be able to communicate discomfort. 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 healthcare provider. Patients are also advised to have back-up oxygen available (i.e. cylinder oxygen) in the event of a power outage or concentrator failure. There are no other unique skills or user abilities required for concentrator use.
FreeStyle 5 for Airline Travel – FAA-Approved

FreeStyle has received the US Federal Aviation Administration’s (FAA) acceptance for onboard in-flight use by oxygen passengers on commercial airlines via a 2012 amendment to SFAR 106.

In addition, as of May 13, 2009, a new Department of Transporation (DOT)/FAA ruling has determined that US-based carriers, as well as international flights with origination or destination in the US, must allow passengers with FAA-approved portable oxygen concentrators to use them on board, and in flight, as medically necessary. Check directly with the individual airlines with which you would like to travel for up-to-date information on their specific POC policies.

---- [Read the Important Safety Rules section before operating this equipment.] ----

Important Safety Rules

Carefully review and familiarize yourself with the following important safety information about the portable FreeStyle 5 Oxygen Concentrator.

---

**WARNING**

This device supplies high-concentration oxygen that promotes rapid burning. Do not allow smoking or open flames within the same room of (1) this device, or (2) any oxygen-carrying accessory. Failure to observe this warning can result in severe fire, property damage, and/or cause physical injury or death.

**WARNING**

If you feel discomfort or are experiencing a medical emergency, seek medical assistance immediately.

**WARNING**

Do not heat above 140°F (60°C)

**WARNING**

This unit is not to be used for life support. Geriatric, pediatric, or any other patients unable to communicate discomfort while using this unit may require additional monitoring. Patients with hearing and/or sight impairment(s) may need assistance with monitoring alarms

**WARNING**

Use no oil, grease, or petroleum-based or other flammable products with the oxygen-carrying accessories or the FreeStyle 5 unit. Only water based, oxygen compatible lotions or salves should be used. Oxygen accelerates the combustion of flammable substances.
The incorrect use of the FreeStyle 5 battery can cause the battery to get hot, ignite, and may cause serious injury. Be sure not to pierce, strike, step on, or drop the battery, or otherwise subject the battery to strong impacts or shocks.

While using the FreeStyle 5 outdoors with the AC power supply, connect the power supply into a Ground Fault Interrupted (GFI) outlet only.

Electrical shock hazard. Disconnect the power cord from the electrical outlet before you clean the unit to prevent accidental electrical shock hazard. Only your Equipment Provider or a qualified service technician should remove the covers or service the unit.

Care should be taken to prevent FreeStyle 5 from getting wet or allowing water to enter the unit. This can cause the unit to malfunction or shut down.

Use of cables and adapters other than those specified, with the exception of cables and adapters sold by the manufacturer of the medical electrical equipment as replacement parts for internal components, may result in increased emissions of decreased immunity of the FreeStyle 5.

No modification of this equipment is allowed.

The FreeStyle 5 should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is unavoidable, the device should be observed to verify normal operation.

Federal (USA) law restricts this device to sale or rental by order of a physician or other licensed health care provider.

In the event of an alarm or you observe that FreeStyle 5 is not working properly; consult the Troubleshooting section in this manual. If you cannot resolve the problem, consult your Equipment Provider.
The FreeStyle 5 Portable Oxygen Concentrator may be used during sleep under the recommendation of a qualified clinician.

Operating the FreeStyle 5 unit outside of its normal operating temperature range can affect performance and decrease battery run time and/or increase battery charge time. (Refer to the Specifications section in this manual.)

Do not allow either the air intake or the air outlet vents to become blocked. This can cause the FreeStyle 5 unit to overheat and affect performance.

Do not operate unit in a restricted or confined space (i.e., a small case or handbag) where ventilation can be limited. This can cause the FreeStyle 5 unit to overheat and affect performance.

When using FreeStyle 5 in an automobile, boat, or on other DC sources with the DC power supply, make sure that the vehicle is started and running before connecting the FreeStyle 5 unit. If the DC power supply does not illuminate and requires resetting, disconnect the DC power supply from the DC outlet, restart your vehicle, and then reconnect your DC power supply into the DC outlet. Failure to follow these instructions can result in the power supply not supplying power to FreeStyle 5.

When the automobile in which you are using the FreeStyle 5 unit is turned off, disconnect and remove the unit from the automobile with you. Do not store FreeStyle 5 in a very hot automobile or in other similar, high-or low-temperature environments. Operating or storing the unit outside the normal temperature range can affect the performance of the FreeStyle 5. (Refer to the Specifications section in this manual.)

If the FreeStyle 5 has been stored for an extended period of time outside its normal operating temperature range, the unit should be allowed to return to normal operating temperature before being turned on. (Refer to the Specifications section in this manual.)

It is very important to select only the prescribed level of oxygen. Change the pulse flow selection only under the guidance of your physician.
Replace the disposable cannula as recommended by the manufacturer or your equipment provider. Additional supplies are available from your Equipment Provider.

Do not position the Concentrator so that it is difficult to access the power cord.

The concentrator should be located as to avoid pollutants or fumes.

Cannula tubing must be non-kinking, which can be used for a total length of up to 25 ft (7.6 m) maximum.

Ensure the cannula is fully inserted and secure. This ensures that the FreeStyle 5 unit can properly detect inspiration for oxygen delivery.

Storing your FreeStyle 5 for extended periods of time at high temperatures or with a fully charged or completely discharged battery can degrade its overall battery life.

Depending upon the temperature of the FreeStyle 5 battery, it can take several minutes for the charging cycle to start after connecting to power. This is a normal condition and is intended for safe charging.

The FreeStyle 5 battery does not need to be fully discharged before recharging. It is recommended to charge the FreeStyle 5 battery after each use.

Charging may take several minutes after connecting the power to initiate, depending on the battery’s internal operating temperature. This is a normal condition and is intended for safe battery charging. This circumstance is more likely when the battery has been fully discharged.
When connected to AC or DC power, the unit’s battery charges until it reaches full capacity, either while the unit is operating or turned off.

If the internal battery fully depletes and the FreeStyle 5 unit shuts down, the unit cannot be restarted with the AirBelt. Should this occur, connect your FreeStyle 5 to its AC or DC power supply for a short period of time in order to provide sufficient internal battery power to start the unit. AirBelt can then be connected to provide additional run time.

If the FreeStyle 5 power supply remains connected when the battery is fully charged, the four LEDs will turn off within 2 ½ hours.

It may be necessary to initially connect the AC or DC FreeStyle 5 power supply to the FreeStyle 5 unit before the unit will operate for the first time on battery power. Your Equipment Provider may have already performed this step for you.

Use only AirSep Part No. FI194-1 for air intake filter for this unit.

Do not operate FreeStyle 5 without the air intake filter in place. If a second filter is provided, insert the “replacement” filter before you clean the dirty filter.

AirSep does not recommend the sterilization of this equipment.

Do not attempt any maintenance other than the possible solutions listed within this manual.

Portable and mobile RF communications equipment can effect medical electrical equipment.
The lithium ion rechargeable battery that is used in the FreeStyle 5 unit does not need to be fully depleted before recharging. It is recommended to charge the battery regardless of the battery’s capacity level after use. The battery will charge when the unit is off as well as while the unit is running off the AC or DC power supply.

Lithium batteries may permanently lose capacity when exposed to extremely hot temperatures with the batteries fully charged or completely depleted. For extended storage, it is recommended that batteries be charged 25 to 50% and remain within a temperature range of 73°F (23°C) ± 2°C.

“No Smoking – Oxygen in Use” signs must be prominently displayed in the home, or where the oxygen concentrator is in use. Patients and their caregivers must be informed about the dangers of smoking in the presence of, or while using, medical oxygen.

**Important Safety Rules for Optional AirBelt**

**WARNING**
The incorrect use of AirBelt can cause the battery to get hot, ignite, and can cause serious injury. Be sure not to pierce, strike, step on, or drop the battery, or otherwise subject the battery to strong impacts or shocks.

**WARNING**
Replace safety cap on AirBelt cord when not in use.

**CAUTION**
Do not attempt to charge the optional AirBelt with the FreeStyle 5 power supply, or AirBelt can be damaged. Use only the AirBelt power supply provided to charge AirBelt.

**NOTE**
Depending upon the temperature of the AirBelt, it can take several minutes for the charging cycle to start after connecting to power. This is a normal condition and is intended for safe charging.
AirBelt does not need to be fully discharged before recharging. It is recommended to charge AirBelt after each use.

Lithium batteries may permanently lose capacity when exposed to extremely hot temperatures with the batteries fully charged or completely depleted. For extended storage, it is recommended that batteries be charged 25 to 50% and remain within a temperature range of 73°F (23°C) +/- 2°C.
[Read the Important Safety Rules section before operating this equipment.]

Getting Started with Your FreeStyle 5 Portable Oxygen Concentrator

The FreeStyle 5 packaging contains the following items, as shown in Figures 1-3. If any are missing, contact your Equipment Provider.

- FreeStyle 5 Portable Oxygen Concentrator with carrying case.
- Patient manual (not shown)
- AC power supply (100-240 volts, 50/60 Hz) with power cord.
- Automobile DC power supply

![Figure 1: FreeStyle 5 Unit](image1)
![Figure 2: FreeStyle 5 AC Power Supply/Power Cord](image2)
![Figure 3: FreeStyle 5 DC Power Supply](image3)

Optionally, you may also have an AirBelt for extended battery duration. That packaging contains the following, as shown in Figure 4:

- AirBelt battery belt
- AC power supply (100-240 Volt, 50/60 Hz) with power cord

![WARNING]
The incorrect use of the FreeStyle 5 AirBelt can cause the battery to get hot, ignite, and may cause serious injury. Be sure not to pierce, strike, step on, or drop the battery, or otherwise subject the battery to strong impacts or shocks.
All AirBelt Warnings, Cautions and Notes should be read first before proceeding with your equipment. See pg 9, "Important Safety Rules for Optional AirBelt".

Other optional accessories include a harness to easily convert the FreeStyle 5 carrying bag to a backpack (part number MI284-1), as shown in Figure 5. The FreeStyle 5 can also be worn on the waist if desired by feeding the AirBelt or other belt you are wearing through the loops on the FreeStyle 5 carrying case. (See Figure 6.) The optional accessories bag (part number MI286-1), enables even more convenient travel when transporting all power accessories and optional AirBelts and/or the harness for use at your intended destination.

![Figure 4: AirBelt and AC Power Supply/Power Cord](image1)

![Figure 5: FreeStyle 5 unit worn backpack style](image2)

![Figure 6: FreeStyle 5 unit worn on the waist.](image3)

**WARNING**

Replace safety cap on AirBelt cord when not in use.

Before operating FreeStyle 5 for the first time, familiarize yourself with the major components. These are illustrated in the figures on the following pages and discussed later in the manual.
Battery Charging
Check to make sure your unit’s battery is fully charged before venturing out with FreeStyle 5 for the first time or upon subsequent use. To check the level of charge of the internal battery, press the BATT button on FreeStyle 5’s keypad. The battery gauge/indicator(s) LEDs above the BATT button illuminate to indicate the level of internal battery charge (25-100%). Note: The internal battery is charging whenever the unit is operating on AC or DC power. To charge FreeStyle 5’s internal battery, simply connect its AC power supply or DC power supply into the unit’s power connection inlet (as shown in Figure 7). Be certain to first properly align the power cord to this inlet. To do this, take note of the “D”-shaped plug of both the power cord connector and the FreeStyle 5’s inlet connection. These must be properly aligned and when removing the power cord, the release button must be pressed to remove it from the FreeStyle 5 unit. This ensures that neither the unit nor the power accessories are damaged.

Optional AirBelt
Optionally, you may also have an AirBelt for extended use of FreeStyle 5. The optional AirBelt (Figure 9), can power the FreeStyle 5 unit for up to 7 hours. Before using AirBelt, check that it is sufficiently charged. It requires approximately 3 hours to completely charge. AirBelt is equipped with a battery gauge/indicator to indicate the level of battery charge (25-100%). To check the level of charge, press the button on the AirBelt keypad. The battery gauge/indicator(s) illuminate to indicate the level of battery charge (25-100%).
Charging the Optional AirBelt

To charge the AirBelt battery for extended use:
1) Release safety cap from end of the AirBelt cord (see figure 4).
2) Connect the AC/DC power supply (included with AirBelt Accessory kit) to the end of AirBelt’s power cord, as shown in Figure 9.
3) Connect the AirBelt power supply to an AC electrical outlet to recharge.

- The FreeStyle 5 AirBelt will completely recharge from its fully depleted state in approximately 3 hours.
- While charging a fully discharged battery, the LED will continue to blink until 25% capacity is reached. The LED will then turn solid.
- Each of the four LEDs, 25% -100%, will blink as stated above, then turn solid when the battery reaches it’s capacity.
- When all LEDs illuminate solid, the battery is fully charged and the LEDs will remain solid for a period of time, then all four LEDs will turn off.

Lithium batteries may permanently lose capacity when exposed to extremely hot temperatures with the batteries fully charged or completely depleted. For extended storage, it is recommended that batteries be charged 25 to 50% and remain within a temperature range of 73° F (23° C) +/- 2°C.
Depending upon the temperature of the AirBelt, it can take several minutes for the charging cycle to start after connecting to power. This is a normal condition and is intended for safe charging.

AirBelt does not need to be fully discharged before recharging. It is recommended to charge it after each use.
Nasal Cannula

A nasal cannula and tubing are used to deliver oxygen from the FreeStyle 5 unit to the user. The tubing is connected to the unit’s oxygen outlet (See Figure 10).

![Figure 10: Connecting Cannula to FreeStyle 5’s Oxygen Outlet](image)

AirSep recommends a nasal cannula with 7 ft (2.1 m) of tubing, AirSep Part No. CU002-1. Other lengths of tubing up to 25 ft (7.6 m) maximum, including nasal cannula, may be used.

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**CAUTION**

Replace the disposable cannula periodically following normal usage. Additional supplies are available from your Equipment Provider.

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**NOTE**

Cannula tubing must be non-kinking, which can be used for a total length of up to 25 ft (7.6 m) maximum.

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**NOTE**

Always follow the cannula manufacturer’s instructions for proper use. Consult your licensed health care provider to determine how often the cannula should be replaced.

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**NOTE**

Make sure the cannula is fully inserted and secure. This ensures that the FreeStyle 5 unit can properly detect inspiration for oxygen delivery.
Now that you are familiar with FreeStyle 5’s components, review the instructions on the following pages to operate the Freestyle 5 unit.
Operating Instructions

1. Locate and position the FreeStyle 5 so that the air inlets and air outlets are not obstructed.

2. Power the unit from (a) the internal battery; (b) AirBelt; (c) DC outlet (i.e. automobile or motor boat); or (d) an AC outlet (i.e. normal household electric). (Refer to the Power Supplies section of this Patient Manual.)

   Use no oil, grease, or petroleum-based or other flammable products with the oxygen-carrying accessories or the FreeStyle 5 unit. Only water based, oxygen compatible lotions or salves should be used. Oxygen accelerates the combustion of flammable substances.

   Do not heat above 140°F (60°C)

   It may be necessary to initially connect the AC or DC FreeStyle 5 power supply to the FreeStyle 5 unit before the unit will operate for the first time on battery power. Your Equipment Provider may have already performed this step for you.

1. Connect your cannula to the oxygen outlet.
2. Lift the dust cover on the unit.
3. Turn the FreeStyle 5 unit on by pressing the 1, 2, 3, 4 or 5 button on the unit’s keypad for the liter flow prescribed by your physician. The green LED above the button selected illuminates. Each time you turn on the FreeStyle 5 unit, a brief alarm sounds. This indicates that FreeStyle 5 is powered for use.
4. To change the pulse flow setting, press the appropriate button. It is normal to hear a difference in sound as you change the settings.
5. To turn FreeStyle 5 off, press the button corresponding to the pulse flow setting light that is illuminated.

   When FreeStyle 5 senses inhalation, oxygen is supplied to you through your cannula.

   The time required to reach minimum oxygen concentration after turning on the FreeStyle 5 unit is approximately two minutes.
Power Supplies

FreeStyle 5 can be powered in four different ways – the internal battery, an AC power supply, DC power supply, and an optional AirBelt battery belt in combination with the unit’s internal battery.

1. **Internal Battery**: A rechargeable internal battery is located within each FreeStyle 5 unit. When it is fully charged, it supplies power to the FreeStyle 5 unit for up to 3 hours. An audible alarm sounds when the battery power is getting low. The alarm is discussed in the Alarm/Light Indicators section of this manual.

   **Battery Charging**: To charge the internal battery, connect FreeStyle 5 to either the AC power supply and a 100-240 volt, 50/60 Hz AC power outlet, or connect it to a DC power outlet in an automobile (boat, motor home, etc.). A discharged battery requires approximately 3 hours and 15 minutes to fully charge. It is recommended to recharge the battery, even if only partially depleted, as often as possible.

2. **AC Power Supply**: An AC power supply allows FreeStyle 5 to be connected to a 100-240 volt, 50/60 Hz outlet. The power supply converts 100-240 volt AC to a DC voltage for the FreeStyle 5 unit. When FreeStyle 5 is operated with the AC power supply, power from the AC outlet powers the unit and recharges FreeStyle 5’s battery simultaneously.

3. **DC Power Supply**: A DC power supply can be connected from the FreeStyle 5 unit to an automobile’s (boat, motor home, etc.) 12 volt DC outlet. When FreeStyle 5 is connected to the automobile’s DC outlet, power from the automobile battery powers the FreeStyle 5 unit and recharges the FreeStyle 5 battery simultaneously.

4. **Optional AirBelt (External Battery Belt)**: FreeStyle 5 can also be powered by an external battery belt. This belt can be worn around the waist, and when used in combination with a fully charged internal battery, supplies power to FreeStyle 5 for up to 7 hours. The belt pack connects to the FreeStyle 5 unit’s power inlet, and it can be recharged by connecting it to the battery belt’s own AC power supply.

   When using the AirBelt with a fully charged internal battery, the FreeStyle 5’s internal battery will deplete before the AirBelt. The AirBelt must be connected to the FreeStyle 5 unit before the FreeStyle 5’s internal battery is depleted. Observe and connect the AirBelt to the FreeStyle 5 unit before its internal battery discharges to 25% or less.

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**NOTE**

If the internal battery fully depletes and the FreeStyle 5 unit shuts down, the unit cannot be restarted with the AirBelt. Should this occur, connect your FreeStyle 5 to its AC or DC power supply for a short period of time in order to provide sufficient internal battery power to start the unit. AirBelt can then be connected to provide additional run time.
Filters

Air enters FreeStyle 5 through an air intake filter located under the cover on the lower front of the oxygen concentrator. (See Figures 14 and 15.) This filter prevents dust and other large particles in the air from entering the unit. Before you operate FreeStyle, make sure this filter is clean and positioned correctly. (see the Cleaning, Care, and Proper Maintenance / Filters / Air Intake Filter section of this manual)

Do not operate FreeStyle 5 without the air intake filter in place. If a second filter is provided, insert the “replacement” filter before you clean the dirty filter.

Use only AirSep Part No. FI194-1 for air intake filter for this unit.
Setting of the Flow Selector

The FreeStyle 5 unit has five pulse flow settings: 1, 2, 3, 4, and 5, providing flows equivalent to 1-5 LPM oxygen. Lift the dust cover on the unit’s keypad, and press the 1, 2, 3, 4, or 5 button, which corresponds to the oxygen pulse flow that your physician has prescribed. (See Figures 16 and 17.)

![Figure 16: Lifting Dust Cover on Keypad Display](image1)
![Figure 17: Pressing Flow Selection Button](image2)

It is very important to select only the prescribed level of oxygen. Change the pulse flow selection only under the guidance of your physician.

Alarm/Light Indicators

When the FreeStyle unit senses inhalation, a pulse of oxygen is delivered through the nasal cannula. The green light on the unit’s control panel blinks each time a breath is detected.

Additionally, when the unit is operating and simultaneously being charged through the AC or DC power supply, the FreeStyle 5 unit’s battery gauge/indicator(s) display the charge level of the battery (25% to 100% state of charge) and remain on for approximately 2 ½ hours after reaching a full charge.
An audible alarm sounds if FreeStyle 5 has a low battery, if the cannula is disconnected, or if performance of the unit is outside specifications. The light and audible alarm conditions are explained in detail below and summarized on the chart later in this section of the manual.

**WARNING**
In the event of an alarm or you observe FreeStyle 5 is not working properly; consult the Troubleshooting section in this manual. If you cannot resolve the problem, consult your Equipment Provider.

**WARNING**
If you feel discomfort or are experiencing a medical emergency, seek medical assistance immediately.

- **Start-Up**
  A brief alarm sounds at start-up. FreeStyle 5 begins to operate when the alarm stops.

- **Low Battery**
  As the battery power approaches a low level, a brief alarm sounds intermittently, and the yellow 25% Battery gauge / indicator (Figure 12) light also illuminates intermittently. When this occurs, connect FreeStyle 5 to a DC power outlet or to an AC power outlet, or change to another source of oxygen within two minutes. When FreeStyle 5 is connected to DC power outlet or AC power outlet, the unit operates while recharging FreeStyle 5’s battery simultaneously. The level of battery charge is indicated by the battery gauge/indicator(s).

- **Cannula disconnected**
  When FreeStyle 5 is operating but does not sense breathing, a constant alarm sounds, and the yellow alarm light illuminates after 15 minutes. If this occurs, check the connection from the cannula to the FreeStyle 5 unit, make sure that the nasal cannula is positioned properly on your face, and ensure that you are breathing through your nose. (Your physician may recommend the use of a chin strap if needed.) If the alarm continues to sound, change to another source of oxygen as available, and contact your Equipment Provider.

- **FreeStyle’s capacity is exceeded**
  If your breathing rate causes the capacity of FreeStyle 5 to be exceeded, a rapid alarm sounds every ½ second, and the alarm light illuminates yellow intermittently. When this occurs, the breathing rate of the FreeStyle 5 is outside of the unit specifications. You should reduce any physical activity, reset alarm by turning unit off and back on, and then if necessary change to another source of oxygen as available, and contact your Equipment Provider.

- **General malfunction**
  If FreeStyle 5 has a general malfunction, a rapid alarm sounds every ½ second, and the alarm light illuminates red continuously. When this occurs, the concentration of oxygen that FreeStyle 5 is supplying is below unit specifications. You should change to another source of oxygen as available, and contact your Equipment Provider.
This unit is not to be used for life support. Geriatric, pediatric, or any other patients unable to communicate discomfort while using this unit may require additional monitoring. Patients with hearing and/or sight impairment(s) may need assistance with monitoring alarms.

### How to Respond to FreeStyle 5’s Alarm/Light Indicators

<table>
<thead>
<tr>
<th>Status</th>
<th>Audible Alarm</th>
<th>Light</th>
<th>Indicates</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator</td>
<td>Brief, continuous at start-up</td>
<td>(Green) pulse; continuous light</td>
<td>FreeStyle 5 has been turned on</td>
<td>You may begin to operate your FreeStyle 5 unit.</td>
</tr>
<tr>
<td>Indicator</td>
<td>No</td>
<td>(Green) pulse; intermittent light</td>
<td>FreeStyle 5 is delivering oxygen as a pulse flow.</td>
<td>Continue using FreeStyle 5 normally.</td>
</tr>
<tr>
<td>Indicator</td>
<td>No</td>
<td>Level indicator</td>
<td>Battery charge level.</td>
<td>Charge as indicated.</td>
</tr>
<tr>
<td>Alarm</td>
<td>Continuous: Beep</td>
<td>(Yellow) alarm; continuous light</td>
<td>No breath detected by the unit for a predetermined time period.</td>
<td>Check the cannula connection. Ensure that you are breathing through your nose. If the alarm persists, contact your Equipment provider.</td>
</tr>
<tr>
<td>Alarm</td>
<td>Intermittent: Beep</td>
<td>25% (Yellow) alarm BATT; battery indicator intermittent light</td>
<td>Battery voltage is too low to operate FreeStyle.</td>
<td>Connect the FreeStyle 5 unit into a DC outlet or an AC outlet immediately.</td>
</tr>
<tr>
<td>Alarm</td>
<td>Intermittent: Beep, beep</td>
<td>25% (Yellow) alarm BATT; battery indicator intermittent light</td>
<td>Battery shutdown due to low voltage.</td>
<td>Connect the FreeStyle 5 unit into a DC outlet or an AC outlet immediately.</td>
</tr>
<tr>
<td>Alarm</td>
<td>Rapid intermittent: Beep, beep, beep…</td>
<td>(Yellow) alarm; intermittent light</td>
<td>Breathing rate is exceeding the capacity of the FreeStyle 5 unit.</td>
<td>Reduce activity, then if necessary use another source of oxygen as available. Contact your Equipment Provider.</td>
</tr>
<tr>
<td>Alarm</td>
<td>Rapid intermittent: Beep, beep, beep…</td>
<td>(Red) alarm; continuous light</td>
<td>General malfunction of the FreeStyle unit has occurred.</td>
<td>Turn off the unit. Change to another source of oxygen, and contact your Equipment Provider.</td>
</tr>
</tbody>
</table>
Cleaning, Care, and Proper Maintenance

Cabinet

WARNING

Turn off the FreeStyle 5 unit, and disconnect the power cord from FreeStyle 5 before you clean the cabinet.

CAUTION

Do not use liquid directly on the FreeStyle 5 unit to clean it. A list of undesirable chemical agents includes but is not limited to, the following, according to the plastics manufacturer: alcohol and alcohol-based products, concentrated chlorine-based products (ethylene chloride), and oil-based products (Pine-Sol, Lestoil). These are NOT to be used to clean the plastic housing on FreeStyle 5, as they can damage the unit's plastic.

CAUTION

Replace the disposable cannula as recommended by the manufacturer or your equipment provider. Additional supplies are available from your Equipment Provider.

NOTE

Keep the FreeStyle 5 unit clean and free from moisture and dust. Clean the plastic housing periodically by wiping with a lint-free cloth or with a mild household cleaner applied with a damp cloth or sponge. Pay special attention to the oxygen outlet for the cannula connection to make sure it remains free of dust, water, and particles.
Filter

Air Intake Filter

At least one time each week, remove the cover on the lower front of the unit, and wash the air intake filter, which is positioned on the inside of the cover. (refer to filter section of this manual) Your Equipment Provider may advise you to clean it more often, depending upon your operating conditions. Follow these steps to properly clean the air intake filter:

1. Remove the filter from the air intake filter cover, and wash it in a warm solution of soap and water.
2. Rinse the filter thoroughly, and remove excess water with a soft, absorbent towel. Ensure that the filter is dry before replacing it.
3. Replace the dry filter.

Do not operate FreeStyle 5 without the air intake filter in place. If a second filter is provided, insert the “replacement” filter before you clean the dirty filter.

AirSep does not recommend the sterilization of this equipment.

Carrying Bag

To clean the carrying bag and strap, brush only with warm soapy water (do not saturate the bag), then allow to air dry. Do not machine wash or dry the bag.
FreeStyle 5 Accessories

In addition to the nasal cannula, AirSep recommends that you do not use accessories with FreeStyle 5 other than those listed below as supplied by AirSep through your Equipment Provider. Use of accessories not listed below could adversely affect the performance and/or safety of the FreeStyle 5 Portable Oxygen Concentrator.

**Part Number / Description**

- PW021-1 AC Power Supply (PW021 cord length 4 ft-6 in / 1.4m) w/ CD023-1 Power Cord 120VAC (8 ft / 2.4m)
- PW021-2 AC Power Supply w/ CD017-2 Euro Power Cord (8 ft-2 in / 2.5m)
- PW021-3 AC Power Supply w/ CD025-1 Australian Power Cord 250 VAC (6 ft-6 in / 2.6m)
- PW021-4 AC Power Supply w/ CD017-4 UK Power Cord (8 ft-2 in / 2.5m)

- PW024-1 DC Power Supply including power cord adapter
  (cord length car adapter side 3 ft-5 in / 1m; cord length power supply side 3 ft-1 in / .9m)

- BT017-1 AirBelt with power supply (BT017 extended cord length 4 ft / 1.2m) w/ CD023-1 Power Cord 120VAC (8 ft / 2.4m)
- BT017-2 AirBelt with power supply w/ CD017-2 Euro Power Cord (8 ft-2 in / 2.5m)
- BT017-3 AirBelt with power supply w/ CD025-1 Australian Power Cord 250 VAC (6 ft-6 in / 2.6m)
- BT017-4 AirBelt with power supply w/ CD017-4 UK Power Cord (8 ft-2 in / 2.5m)

- MI194-1 Air Intake Filter
- MI 371-1 Carrying Bag
- MI284-1 Shoulder Harness option enables converting the supplied FreeStyle 5 carrying bag to a backpack
- MI240-2 AirBelt Extender
- MI372-1 Carry-All Accessory Bag
- MI378-1 Carrying cart

**WARNING**

Use of cables and adapters other than those specified, with the exception of cables and adapters sold by the manufacturer of the medical electrical equipment as replacement parts for internal components, may result in increased emissions of decreased immunity of the FreeStyle 5.
Materials in direct or indirect contact with the patient

- Concentrator casing ......................... Valtra/ABS/Polystyrene
- Concentrator Control Panel ..................... Polyester EBG7 or equivalent
- Control Panel Door .............................. Polycarbonate
- Concentrator Handle ............................ Polycarbonate
- Gas Outlet, Nozzle ............................. Polycarbonate
- Air intake filter ................................. Foam, Polyester
- Unit Label ....................................... Lexan
- Unit feet ........................................ Polyurethane
- Cord connectors ............................... Polycarbonate/Vinyl chloride
- Power Cord(s) .................................. PVC, Metal
- Power Supply ................................. Lexan 940(Polycarbonate)
- Concentrator carrying case ................. 100% Polyester microfiber w/ PVC backing
- Battery carrying case, Belt and Strap .... 100% Polyester microfiber w/ PVC backing
- Carry cart ...................................... Polypropylene plastic, steel & aluminum
- Packaging ............................... Double reinforced corrugated cardboard

Reserve Oxygen Supply
Your Equipment Provider may recommend another source of supplemental oxygen therapy in case there is a mechanical failure or a power outage.

Troubleshooting
The FreeStyle 5 product is designed for years of trouble-free use.

If your FreeStyle 5 Portable Oxygen Concentrator fails to operate properly, refer to the chart on the following pages for possible causes and solutions and, if needed, consult your Equipment Provider.

NOTE
Do not attempt any maintenance other than the possible solutions listed within this manual.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Probable Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>FreeStyle 5 does not operate when a pulse flow selection button is pressed.</td>
<td>Battery is discharged. Malfunction.</td>
<td>Power the unit through the DC outlet, or an AC outlet. Contact your Equipment Provider, and change to another source of oxygen as necessary.</td>
</tr>
<tr>
<td>A continuous alarm sounds and the (yellow) alarm light illuminates intermittently.</td>
<td>FreeStyle 5 has not detected a breath for 15 minutes.</td>
<td>Check the cannula connection. Ensure that cannula tubing is not kinked. Make sure that the cannula is positioned properly and that you are breathing through your nose. For mouth-breathing your clinician may recommend a chin strap.</td>
</tr>
<tr>
<td>Intermittent alarm condition, and the (yellow) light illuminates intermittently.</td>
<td>Battery requires charging.</td>
<td>Connect to a DC or an AC outlet within 2 minutes, or connect to the optional AirBelt.</td>
</tr>
<tr>
<td>Intermittent alarm condition, and the (yellow) light illuminates intermittently and FreeStyle 5 shuts down.</td>
<td>Battery voltage is too low to operate the FreeStyle 5 unit.</td>
<td>Connect to DC or an AC outlet immediately.</td>
</tr>
<tr>
<td>Problem</td>
<td>Probable Cause</td>
<td>Solution</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Intermittent alarm condition, and the (yellow) alarm light illuminates</td>
<td>Breathing rate has exceeded the capacity of the</td>
<td>Reduce activity, and then turn unit off and back on again to reset unit.</td>
</tr>
<tr>
<td>intermittently.</td>
<td>FreeStyle 5 unit.</td>
<td>If necessary, change to another source of oxygen as available and contact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>your Equipment Provider.</td>
</tr>
<tr>
<td>Rapid intermittent alarm condition, and the (red) alarm light</td>
<td>A general malfunction has occurred.</td>
<td>Change to another source of oxygen as available, and contact your</td>
</tr>
<tr>
<td>illuminates continuously.</td>
<td></td>
<td>Equipment Provider.</td>
</tr>
<tr>
<td>Unit does not start on battery power.</td>
<td>Unit may be hot or cold if left outdoors such as</td>
<td>Allow the unit to reach normal operating temperature, which may take</td>
</tr>
<tr>
<td></td>
<td>in an automobile.</td>
<td>several minutes if exposed to temperature extremes. Temporarily connect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>your AC or DC power supply to the unit’s power inlet and power source,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>as needed, to reset the unit’s internal battery.</td>
</tr>
<tr>
<td>Delay in recharging internal battery.</td>
<td>Internal battery exceeds charging temperature.</td>
<td>Unit may be operated; however, charging may not resume until battery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>temperature is reduced.  (See Battery Charger notes.)</td>
</tr>
<tr>
<td>Unit alarms while in automobile and connected to the DC outlet.</td>
<td>No power to the unit if battery depleted and DC</td>
<td>Disconnect the DC power supply from the automobile outlet, restart the</td>
</tr>
<tr>
<td></td>
<td>outlet not charging.</td>
<td>automobile, and then reconnect the DC power supply into the automobile</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DC outlet to reset the breaker within DC power supply.</td>
</tr>
<tr>
<td>All other problems.</td>
<td></td>
<td>Change to another source of oxygen as available, and contact your</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equipment Provider.</td>
</tr>
</tbody>
</table>
## FreeStyle 5 Specifications

### Oxygen Concentration:*
1-5 pulse settings; equivalent to a continuous flow of 90% oxygen +5.5 / -3%

| Pulse Dose:               | Setting 1: 8.75ml ± 15%  
|                         | Setting 2: 17.5ml ± 10%   
|                         | Setting 3: 26.5ml ± 10%   
|                         | Setting 4: 35.0ml ± 10%   
|                         | Setting 5: 43.75ml ± 10%  |

### Dimensions:
10.7 in. high x 6.6 in. wide x 4.4 in. deep (27.2 cm high x 16.8 cm wide x 11.2 cm deep)

### Weight:
6.2 lb (2.8 kg); 1.8 lb (.8 kg) optional AirBelt

### Power:
**AC Power Supply:** Input: 100-240VAC, 50-60Hz, 2A | Output: 15V  
**DC Power Supply:** Input: 12-24VDC, 15A max | Output: 15VDC, 8A max

### Battery duration
(Rechargeable lithium Battery)
- 5 LPM – 1 hour; 4 LPM – 1 hour, 15 minutes; 3 LPM – 1 hour, 30 minutes; 2 LPM – 2 hours; 1 LPM – 3 hours

Optional AirBelt when combined with the internal battery:
- 5 LPM – 2 hours, 30 minutes; 4 LPM – 3 hours; 3 LPM – 3 hours, 30 minutes; 2 LPM – 4 hours, 30 minutes; 1 LPM – 7 hours

### Battery recharge time:
3 hours, 15 minutes; optional AirBelt: 3 hours

### Initial startup time
2 minutes

### Battery cycle life:
Approximately 300 cycles, then 80% capacity or below.

### Audible alarms and pulse visual indicators:
- **Start-up** – audible and visual (GREEN indicator light)
- **Pulse flow** – visual (GREEN indicator light)
- **Battery condition** – battery level (GREEN indicator lights)
- **Battery Low** – audible and visual (YELLOW alarm light)
- **Battery shutdown** – audible and visual (YELLOW alarm light)
- **Cannula disconnect** – audible and visual (YELLOW alarm light)
- **System overdraw** – audible and visual (YELLOW alarm light)
- **General malfunction** – audible and visual (RED alarm light)

### **Temperature range:**
- **Operational temperature:** 41°F to 104°F (5°C to 40°C)  
  (Up to 95% RH (non-condensing))
- **Storage temperature:** -4°F to 140°F (-20°C to 60°C)

### **Max Operational Altitude:**
up to 12,000 ft (3,657.6 m) (483mmHg) Higher altitudes may affect performance

* Based on an atmospheric pressure of 14.7 psi (101 kPa) at 70°F (21°C)

**Operating outside of these specifications can limit the concentrators ability to meet Oxygen Concentration specifications at higher liter flow rates.
“Specifications continued”

Medical equipment needs special precautions regarding EMC and need to be installed and put into service according to the EMC information provided in this section.

### Guidance and manufacturer's declaration ± electromagnetic immunity

The FreeStyle 5 is intended for use in the electromagnetic environment specified below. The customer or the user of the FreeStyle 5 should assure that it is used in such an environment.

<table>
<thead>
<tr>
<th>IMMUNITY test</th>
<th>IEC 60601 test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrostatic discharge (ESD) IEC 61000-4-2</td>
<td>± 6 kV contact ± 8 kV air</td>
<td>± 6 kV contact ± 8 kV air</td>
<td>Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.</td>
</tr>
<tr>
<td>Electrical fast transient/burst IEC 61000-4-4</td>
<td>± 2 kV for power supply lines ± 1 kV for input/output lines</td>
<td>± 2 kV for power supply lines Not Applicable</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>Surge IEC 61000-4-5</td>
<td>± 1 kV line to line ± 2 kV line to earth</td>
<td>± 1 kV line to line ± 2 kV line to earth</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>Voltage dips, short interruptions and voltage variations on power. IEC 61000-4-11</td>
<td>&lt;5 % ( U_T ) (&gt;95 % dip in ( U_T )) for 0.5 cycle 40 % ( U_T ) (60 % dip in ( U_T )) for 5 cycles 70 % ( U_T ) (30 % dip in ( U_T )) for 25 cycles &lt;5 % ( U_T ) (&gt;95 % dip in ( U_T )) for 5s</td>
<td>&lt;5 % ( U_T ) (&gt;95 % dip in ( U_T )) for 0.5 cycle 40 % ( U_T ) (60 % dip in ( U_T )) for 5 cycles 70 % ( U_T ) (30 % dip in ( U_T )) for 25 cycles &lt;5 % ( U_T ) (&gt;95 % dip in ( U_T )) for 5s</td>
<td>Mains power quality should be that of a typical commercial or hospital environment. If the user of the FreeStyle 5 requires continued operation during power mains interruptions, it is recommended that the FreeStyle 5 be powered from an uninterruptible power supply (UPS) or a battery.</td>
</tr>
<tr>
<td>Power frequency magnetic field IEC 61000-4-8</td>
<td>3 A/m</td>
<td>3 A/m</td>
<td>Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.</td>
</tr>
</tbody>
</table>

NOTE \( U_T \) is the a.c. mains voltage prior to application of the test level.
### Guidance and manufacturer's declaration ± electromagnetic immunity

The FreeStyle 5 is intended for use in the electromagnetic environment specified below. The customer or the user of the FreeStyle 5 should assure that it is used in such an electromagnetic environment.

<table>
<thead>
<tr>
<th>Immunity test</th>
<th>IEC 60601 Test Level</th>
<th>Compliance level</th>
<th>Electromagnetic environment ± guidance</th>
</tr>
</thead>
</table>
| Conducted RF  | IEC 61000-4-6        | 3 Vrms           | Portable and mobile RF communications equipment should be used no closer to any part of the FreeStyle 5 including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.  
Recommended separation distance  
\[ D = 1.2 \times \sqrt{P} \]  
\[ D = 2.3 \times \sqrt{P} \text{ from } 800\text{MHz to } 2.5\text{GHz} \]  
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\(^a\) should be less than the compliance level in each frequency range.  
Interference may occur in the vicinity of equipment marked with the following symbol:  
\[ \text{Symbol} \]  
| Radiated RF   | IEC 61000-4-3        | 3 V/m            |  
\[ D = 1.2 \times \sqrt{P} \text{ from } 80\text{MHz to } 800\text{MHz} \]  
\[ D = 2.3 \times \sqrt{P} \text{ from } 800\text{MHz to } 2.5\text{GHz} \]  
\[ \text{NOTE 1 At } 80\text{MHz and } 800\text{MHz, the higher frequency range applies.} \]  
\[ \text{NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.} \]  
\[ \text{a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the FreeStyle 5 is used exceeds the applicable RF compliance level above, the FreeStyle 5 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the FreeStyle 5.} \]  

\[ \text{b. Over the frequency range } 150 \text{kHz to } 80\text{ MHz, field strengths should be less than } 3 \text{ V/m.} \]  

\[ \text{b. Over the frequency range } 150 \text{kHz to } 80\text{ MHz, field strengths should be less than } 3 \text{ V/m.} \]
The FreeStyle 5 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the FreeStyle 5 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the FreeStyle 5 as recommended below, according to the maximum output power of the communications equipment.

<table>
<thead>
<tr>
<th>Rated maximum output power of transmitter W</th>
<th>Separation distance according to frequency of transmitter (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>from 150kHz to 80MHz</td>
</tr>
<tr>
<td></td>
<td>( d = 1.2 \times \sqrt{P} )</td>
</tr>
<tr>
<td></td>
<td>from 80MHz to 800MHz</td>
</tr>
<tr>
<td></td>
<td>( d = 1.2 \times \sqrt{P} )</td>
</tr>
<tr>
<td></td>
<td>from 800MHz to 2.5GHz</td>
</tr>
<tr>
<td></td>
<td>( d = 2.3 \times \sqrt{P} )</td>
</tr>
<tr>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>0.1</td>
<td>0.38</td>
</tr>
<tr>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>10</td>
<td>3.8</td>
</tr>
<tr>
<td>100</td>
<td>12</td>
</tr>
<tr>
<td>100</td>
<td>12</td>
</tr>
<tr>
<td>100</td>
<td>23</td>
</tr>
</tbody>
</table>

For transmitters rated at a maximum output power not listed above, the recommended separation distance \( d \) 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** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

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### Guidance and manufacturer’s declaration - electromagnetic emissions

The FreeStyle 5 is intended for use in the electromagnetic environment specified below. The customer or the user of the FreeStyle 5 should assure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Emissions test</th>
<th>Compliance</th>
<th>Electromagnetic Environment guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF emissions CISPR 11</td>
<td>Group 1</td>
<td>The FreeStyle 5 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.</td>
</tr>
<tr>
<td>RF emissions CISPR 11</td>
<td>Class B</td>
<td>The Freestyle 5 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.</td>
</tr>
<tr>
<td>Harmonic emissions IEC 61000-3-2</td>
<td>Class A</td>
<td></td>
</tr>
<tr>
<td>Voltage fluctuations/ flicker emissions IEC 61000-3-3</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>
Classification

Type of protection against electric shock:
  **Class II** Protection from electric shock is achieved by double insulation.

Degree of protection against electric shock:
  **Type BF** Equipment providing a particular degree of protection against electric shock regarding
  1) allowable leakage current;
  2) reliability of protective earth connection (if present).
  Not intended for direct cardiac application.

Independent testing for Medical Electrical Equipment Standard:
  Tested to be in compliance with
  IEC 60601-1 Medical Electrical Equipment – Part 1: General Requirements for Safety

  Tested to be in compliance with applicable requirements of the Standard,
  CAN/CSA C22.2 No. 60601-1-08  M90 Medical Electrical Equipment – Part 1: General Requirements for Safety

Protection against potential electromagnetic or other interference between the equipment and other devices.
  Tested to be in compliance with:
  EN 60601-1-2  Medical Electrical Equipment, Part 1: General Requirements for Safety-Collateral Standard:
  Electrical Compatibility - Requirements and Tests
  RTCA-DO160 Airborne Equipment, Sec. 21, Emission of Radio Frequency Energy
  CISPR 11 / EN 55011  Class B Group 1, “Industrial, Scientific, and Medical (ISM) Equipment”
  FCC Part 15, Subpart B – Class B Unintentional Radiators

Method of cleaning and infection control allowed:
  Please refer to “Cleaning, Care, and Proper Maintenance” section of this FreeStyle 5 Patient Manual.

Degree of safety of application in the presence of flammable anesthetic gases:
  Equipment not suited for such application.

Mode of operation:
  Continuous duty.
Limited Warranty

AirSep Corporation warrants the FreeStyle 5 Oxygen Concentrator to be free from defect in parts for three years (as specified on the original invoice provided) from the date of delivery to the original purchaser, under normal use and operation. The battery is warranted for one year. AirSep Corporation’s obligations under this warranty are limited to the repair or replacement of any such item of equipment (or part thereof) shown to be defective or, at AirSep Corporation’s option, to refund the purchase price of any such defective item of equipment.

Each item of equipment for which a warranty claim is asserted shall, at the request of AirSep Corporation, be returned on a prepaid basis with proof of purchase date to the AirSep factory at the expense of the purchaser. The purchaser will be responsible for return freight charges. Replacement parts shall be warranted as stated above for the unexpired portion of the original three-year parts warranty (as specified on the original invoice provided). This warranty does not extend to any item or part subjected to misuse, accident, improper maintenance, or application, or which has been repaired or altered outside of the AirSep Corporation factory without the express prior written authorization of AirSep Corporation.

THE FOREGOING WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IN FACT OR IN LAW, INCLUDING WITHOUT LIMITATION THE WARRANTY OF MERCHANTABILITY OR THE WARRANTY OF FITNESS FOR PARTICULAR PURPOSE. IT IS EXPRESSLY UNDERSTOOD THAT PURCHASER’S SOLE AND EXCLUSIVE REMEDY FOR DEFECT IN PARTS IS LIMITED TO ENFORCEMENT OF AIRSEP CORPORATION’S OBLIGATION AS SET FORTH ABOVE, AND AIRSEP CORPORATION SHALL NOT BE LIABLE TO PURCHASER OR OTHERS FOR LOSS OF USE OF THE EQUIPMENT OR FOR OTHER SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.
For European representative:

Gavin Ayling
9 Bungham Lane
Penkridge Stafford
Staffordshire ST19 5NH England

E-mail: eurorepcontact@airsep.com

For service on your FreeStyle 5 Portable Oxygen Concentrator, please contact your local Equipment Provider at:

Manufactured by:
AirSep Corporation
Buffalo, NY 14228-2085 USA

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