PrecisionMedical

liveACTIVE Five®

Portable Oxygen Concentrator

℞ ONLY

Caution! U.S. Federal law restricts this device to sale by or on the order of a physician.

Contents

Device Overview

About Your Live Active Five Portable Oxygen Concentrator (POC)

The Live Active Five POC uses a molecular sieve and vacuum pressure swing adsorption methodology to produce the oxygen gas output. Ambient air enters the device, is filtered and then compressed. This compressed air is then directed into nitrogen adsorbing sieve beds. Concentrated oxygen exits the opposite end of the sieve bed and is directed into an oxygen reservoir from which it is delivered to the user.

The oxygen purity level of the output gas ranges from 87% to 95.5%. The oxygen is delivered to the user through the use of a nasal cannula. A pulse dose delivery method is used. The device detects the start of user inhalation and delivers a measured pulse of oxygen. No further oxygen is delivered until the next user inhalation is detected. The volume of oxygen delivered each minute is a fixed amount based on the selected pulse flow setting. The volume of each oxygen pulse will vary with the user's breath rate such that the fixed minute volume is maintained.

Intended Use and Indications

The Precision Medical Inc. Live Active Five (POC) (the device) is intended to provide supplemental oxygen to persons requiring oxygen therapy. The device can be used in home, institution, vehicle and for transportable use.

User Profile

The Live Active Five POC is to be used by a trained patient and/or caregiver in or outside the home that requires prescribed supplemental oxygen.

The user should have a visual acuity of 0 on the log Minimum Angle of Resolution (log MAR) scale or 6/6 (20/20), corrected if necessary.

The user should not have a hearing impairment that would prevent them from hearing the device alerts.

The user must be able to read and understand the supplied user manual in the language it is written.

The patient population is for adult use only. The patient should not be a child, newborn, or infant.

The patient must be able to wear an adult size cannula to ensure proper patient usage and oxygen delivery.

Contraindications

This device is not intended to use while sleeping.

This device is not to be used for support or to sustain life.

This device is intended to provide supplemental oxygen only. An alternate source of oxygen shall always be available.

This device is not intended for children, newborn, or infant use.

This device is not appropriate for any user who would experience adverse health consequences as a result of a temporary interruption in oxygen therapy.

This device should only be used when prescribed by a physician. The use of non-prescribed oxygen therapy can be hazardous.

Users who are unable to communicate discomfort while using this device may require additional monitoring.

Users with hearing and/or sight impairment(s) may need assistance while using this device.

Users who breathe from their mouths or through an oxygen mask should not use this device.

Unpacking / Inspection

Remove contents from packaging and inspect for damage. If there is any damage, DO NOT USE and contact your Provider. The POC package includes the following:

- (A) Accessories Carry Bag (508623)
- (B) Live Active Five POC (PM4155)
- (C) Lithium Ion Battery (508561) *Extra Battery with Power Bundle
- (D) POC Carry Bag (508567)
- (E) Adjustable Shoulder Strap (Included with POC Carry Bag)
- (F) DC Car Adapter (508558)
- (G) AC Power Adapter with AC Power Cord (508660)
- (H) Nasal Cannula (504833)

Warnings

⚠WARNING

Precision Medical Inc, and your equipment provider are accountable for ensuring the compatibility of the POC and all of the parts or accessories used.

Use of accessories or replacement parts not listed in this User Manual may cause adverse effects to basic safety or essential performance of the device and will void warranty.

If you are unable to understand the warnings, cautions or instructions, contact a health care provider or technical personnel before attempting to use this device.

If you feel discomfort or are experiencing a medical emergency while undergoing oxygen therapy, seek medical assistance immediately to avoid harm.

In the event of an alert condition or if you are experiencing any signs of discomfort, connect to another oxygen source. Contact your Provider and/or Healthcare Professional immediately.

Users unable to communicate discomfort will require additional monitoring to convey the information about the discomfort and or the medical urgency to the care giver to avoid harm.

A risk of fire is associated with the use of oxygen, and is likely to result in fire or death. Do not use the device or accessories near any type of flame, sparks or flammable/explosive substances.

Smoking during use of oxygen therapy is dangerous and is likely to result in facial burns or death. Do not allow smoking within close proximity of the device. If you intend to smoke, turn the device off, remove the cannula and leave the room where the cannula and the device are located.

Oxygen makes it easier for a fire to start and spread. Do not leave the nasal cannula on combustible materials such as bed coverings, chair cushions, etc. If the device is turned on, but not in use; the oxygen will make the materials flammable. Turn the device off when not in use to prevent oxygen enrichment.

Use of this device at an altitude above 10,000 ft (3048 m) or outside a temperature range of 41°F to 104°F (5°C to 40°C) or a relative humidity above 90% may adversely affect the flow rate and the percentage of oxygen and consequently the quality of the therapy.

The electrical cord and/or tubing could present a tripping or strangulation hazard.

Keep away from children and pets.

The device must be used in dry conditions. Do not submerge, operate under water, bathe or swim while in use.

Wind or strong draught can adversely affect accurate delivery of oxygen therapy. **Examples:** Using this device beside an open window, in front of a fan, or in the back seat of an open convertible car can affect the accuracy of oxygen delivery.

If a prescribing Healthcare Professional has determined that an interruption in the supply of oxygen, for any reason, may have serious consequences to the user, an alternative source of oxygen should be available for immediate use.

⃠ DO NOT operate the POC without the inlet filter or while that filter is wet to prevent damage to the device.

The device, its parts or accessories do not contain known phthalates which are classified as carcinogenic, mutagenic or toxic.

❗ ALWAYS confirm your prescribed flow setting before use and monitor on a frequent basis.

❗ ALWAYS keep some distance from walls, furniture, and especially curtains that could prevent adequate airflow to the device.

❗ ALWAYS use parts recommended by the manufacturer to ensure proper function and to avoid the risk of fire and burns.

⃠ DO NOT lubricate fittings, connections, tubing, or other accessories of the device to avoid the risk of fire and burns. Use only water-based lotions or salves that are oxygen-compatible before and during oxygen therapy. Never use petroleum or oil-based lotions or salves.

⃠ DO NOT cover or obstruct device ventilation. The air inlets and outlets require proper ventilation.

⃠ DO NOT disassemble or attempt to repair. There are no user serviceable parts inside. Contact Precision Medical, Inc. for service.

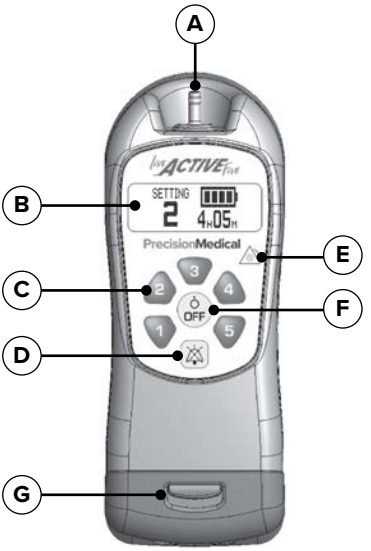
⃠ DO NOT modify this device.

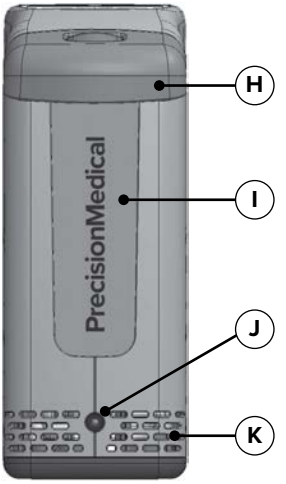
⃠ DO NOT reach for the device if it has fallen into water. Unplug immediately if device has fallen into water.

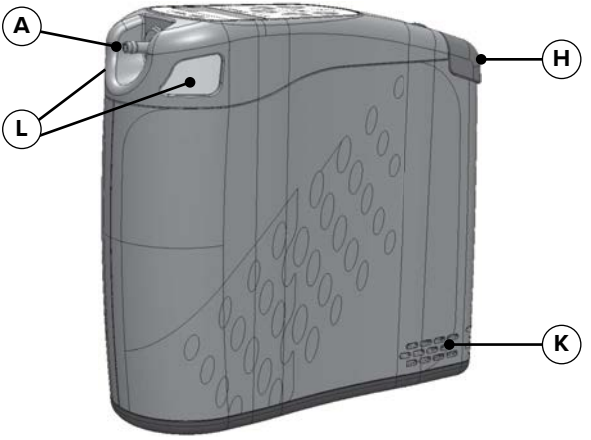
⃠ DO NOT use a humidifier bottle with this device.

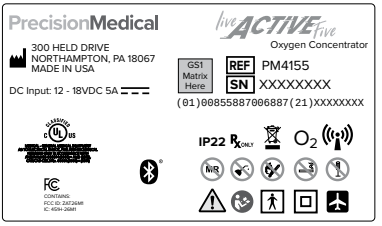
⃠ DO NOT use while sleeping.

Features
Control Panel / Component Descriptions









The Model [REF] and Serial Number [SN] label are located on the bottom of the device.

(A) **Oxygen Outlet Fitting -** Connects the nasal cannula to the device.

(B) **Display Screen -** Displays pulse setting, power and battery status, and alert messages.

(C) **Pulse Selection Buttons (1 - 5)** ***Refer to Adjusting the Pulse Setting in Usage for more details.***

(D) **Paused Alert Button -** Press to mute the audible signal.

(E) **Alert Indicator -** The yellow light indicates abnormal operating conditions. ***Refer to Alert Conditions in Troubleshooting for more details.***

(F) **Off Button -** Press to turn device off.

(G) **Battery Latch -** Slide back to release Battery from device.

(H) **Battery Handle -** Used to lift the Battery out of the device.

(I) **Battery -** Used for portable power.

(J) **External Power Connector -** Used to connect an external power source to the device.

(K) **Air Outlet -** Air Outlet from the device.

(L) **Air Inlet with Filter -** Air inlet to the device, located on left and right sides of Oxygen Outlet Fitting (A)

Power Options

Battery: When fully charged, a single battery supplies power for more than 6 hours. Alert signals occur when the battery is nearing depletion. ***Refer to Technical Alert Conditions in Troubleshooting section and Charging the Battery in Setup section.***

AC Power Adapter: The AC power adapter allows the device to be connected to a wall outlet. Use of the AC power adapter will allow the device to operate and simultaneously charge an installed battery. ***Refer to Charging the Battery in Setup section.***

DC Car Adapter: The DC car adapter allows the device to be connected to 12-volt DC auxiliary outlet. Use of the DC car adapter allows the device to operate and simultaneously charge an installed battery. ***Refer to Charging the Battery in Setup section.***

Note: The DC car adapter requires an 8 amp minimum circuit. Check your vehicles owner's manual to ensure the circuit can provide 8 amps.

Accessories and Replacement Parts

⚠ WARNING
Use of accessories or replacement parts not listed in this User Manual may cause adverse effects to basic safety or essential performance of the device and will void warranty.

Accessories:

Live Active Five Battery Charger with AC Power Adapter – 508649
You can quickly charge additional Live Active Five Lithium Ion Batteries in just 2 hours using the compact and versatile Live Active Five Battery Charger.

Live Active Five Battery Charger Bundle with AC Power Adapter and Battery – 508650
The Live Active Five Battery Charger Bundle comes with one Live Active Five Lithium Ion Battery so you can always have a charged battery ready to go. Additional batteries can be purchased separately.

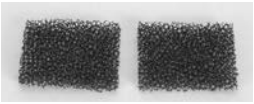
Replacement Parts:

Live Active Five Lithium Ion Battery – 508561
Purchase additional Live Active Five Lithium Ion Batteries. Each battery provides more than 6 hours of duration.

Live Active Five AC Power Adapter with AC Power Cord – 508660
No more moving the power cords from room to room. Purchase an extra set to keep in your bedroom, living room or car.

Live Active Five DC Car Adapter – 508558
The Live Active Five DC Car Adapter is designed for use with your Live Active Five POC. The DC cord allows you to power your concentrator and charge the battery simultaneously from a standard DC car outlet in your car, RV or boat.

Carry Bag with Shoulder Strap and Handle – 508567
The Live Active Five Carry Bag allows you to wear the device over the shoulder or cross body for the most comfortable hands-free experience.



Inlet Filters (x10) - 508587-10
Like all filters, sometimes they just need to be replaced. Keep your Live Active Five POC running at its peak performance with a new set of inlet filters. Also available in packs of 30.

Nasal Cannula – 504833
Nasal cannula should be rated adult high-flow to ensure proper patient usage and oxygen delivery.

Battery Charger AC Power Adapter with AC Power Cord – 508699
The AC power adapter with AC power cord is used to power the Live Active Five battery charger in any electrical wall outlet.

Battery Charger DC Power Adapter – 506750
The optional DC power adapter is used to power the Live Active Five battery charger in a car, RV or boat.

Sieve Bed Replacement – 508697
The sieve bed replacement provides a quick and simple way to service your Live Active Five POC without having to send in for service.

Setup

Follow these instructions to ensure safe operation of the device.

Note: The device, its parts and accessories are intended for use by a single user and should be cleaned / disinfected before use on a new user.

Powering the POC

⚠ CAUTION
Ensure battery is fully charged prior to first use. When the battery is near depletion, replace the battery with a charged battery or connect the POC to an AC or DC power source.

Installing the Battery

The device comes equipped with a single rechargeable lithium ion battery. The battery can be removed and installed while the device is plugged into an external power source.

1. Slowly lower battery straight down into the battery compartment. Press down until a click is heard. An audible beep confirms the battery is installed properly.

Charging the Battery - In Device

The battery must be charged in the device prior using. To charge the battery, perform the following steps:

1. Install the battery.
2. Connect AC power to the device.
3. Monitor the battery charge level and charge until full.
4. Disconnect the AC power adapter from the device. The device is ready for portable use.

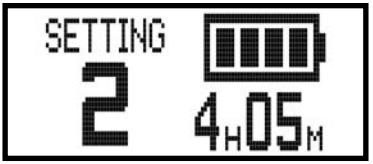
Refer to the Installing Battery, External AC Power, Reading the Battery Gauge sections for more information.

Reading the Battery Gauges

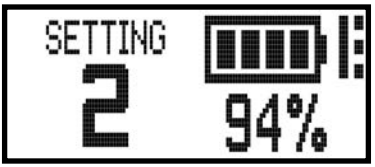
Installed Battery

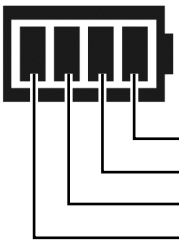
The battery gauge on the display shows the status of the installed battery.

Battery time remaining with the device running without external power (may take up to 3 minutes to display).



Battery charge level with the device running and external power connected. Blinking segment indicates charging level.

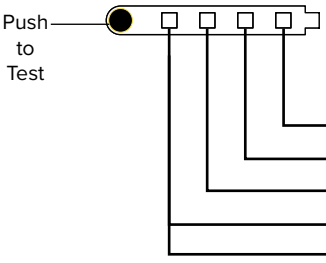




Number of Lit Segments	Charge Level
4	76% - 100%
3	51% - 75%
2	26% - 50%
1	1% - 25%

Uninstalled Battery

The battery gauge located on the battery itself indicates the charge level by the number of illuminated segments when the Test button is pressed.



Number of Lit Segments	Charge Level
4	76% - 100%
3	51% - 75%
2	26% - 50%
1	≤10% - 25%
1 - blinking	below 10%

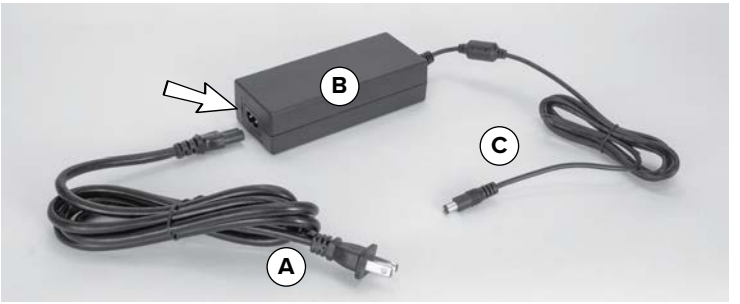
Battery Removal

With an external power source connected, the battery can be removed without affecting the operation of the device. If not connected to an external power source, first power off the device.

To remove the battery, pull latch until the battery disengages. Lift battery out of the device.

Refer to Shut Down Alerts in Troubleshooting section.

External AC Power



- **A** AC Power Cord (Connects to AC Power Adapter and Wall Outlet)
- **B** AC Power Adapter
- **C** Power Output Plug (Plugs into device)

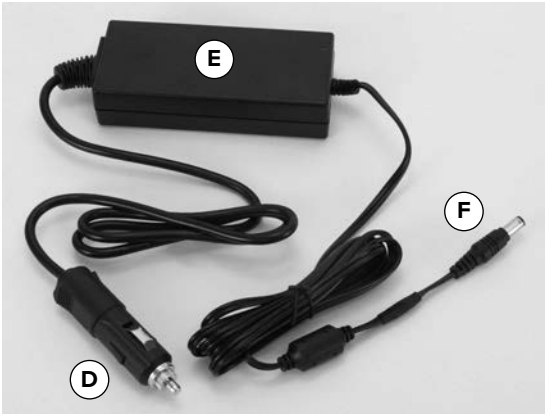
The AC power adapter allows the POC to be connected to an AC wall outlet. Use of the AC power adapter will allow the device to be operated and simultaneously charge the battery. Complete the following steps to connect the AC power adapter to the device:

1. Attach the AC power cord (A) to the AC power adapter (B).
2. Insert the power output plug (C) into the external power connector on the device.
3. Insert plug into an AC wall outlet.

Note: Do not wrap cords around power supply for storage.
Do not drive, drag or place objects over cord.

External DC Power

⚠ CAUTION
Operating the device without the engine running may drain the vehicle's battery. Ensure the 12-volt Accessory Jack is adequately fused for the device power requirements. The accessory jack should have a minimum 8 Amp (96 Watts) fuse.



- (D) DC Power Plug (Plugs into DC outlet in vehicle)
- (E) DC Power Adapter
- (F) Power Output Plug (Plugs into device)

The DC power plug allows the POC to be connected to a 12-volt DC outlet in an automobile, boat, motor home, etc. Use of the DC power adapter allows the device to be operated and simultaneously charge the battery. Complete the following steps to connect the DC power to the device:

1. Insert the power output plug (F) into the external power input connector on the device.
2. Insert the DC power plug (D) into a 12-volt DC outlet after the automobile (boat, motor home, etc.) is running.

Carry Bag Use and Setup

The carry bag allows you to take your device with you as you go about your normal daily activities. It protects the POC and can be used with either the carry handle or shoulder strap when using the device.

⚠ WARNING
If the device is not placed in the carry bag properly, the air inlets and outlets will be blocked causing the device to overheat during operation and shut off. To ensure device is properly ventilated, install into Carry Bag as shown.

A **Retaining Strap**
Used to secure the device in the Carry Bag.

B **Pockets**
Pockets are located on both sides of the Carry Bag to store the Cannula, an extra Battery and the User Manual.

C **Air Outlet**
When the device is correctly placed in the Carry Bag, the Air Outlets will be visible through the mesh screen.

D **Shoulder Strap**
Allows the Carry Bag to be configured as a messenger bag.

E **'W' Rings**
Located at the front and rear of the Carry Bag for easy attachment of the Shoulder Strap.

Correct placement in Carry Bag

Incorrect placement in Carry Bag

Correct positioning of outlets and external power input connector

To Place the POC into its Carry Bag

1. Insert the device into the top of the carry bag and pull the bag up around it. Check to ensure that the air inlets and outlets and external power input connector align with their openings in the carry bag.
2. Place the retaining strap over the device and secure the strap in place.

Removing the Carry Bag

1. Ensure the device is turned off and disconnected from external power.
2. Unsecure the retaining strap.
3. Remove the device from the carry bag.

Installing Carry Handle and/or Shoulder Strap

The carry bag can be configured as a shoulder bag or cross body using the shoulder strap.

1. Attach shoulder strap clips to front and back 'W' rings.
2. Adjust shoulder strap to desired length.
3. Position the strap on your shoulder or cross body with the cannula facing forward.

Cleaning the Carry Bag

⃠ DO NOT machine wash or machine dry the carry bag.

1. Turn off device.
2. Remove the device from the carry bag.
3. Using a damp cloth or sponge, wipe the carry bag with mild detergent and water. Rinse thoroughly using a clean cloth.
4. Allow the carry bag to air dry after cleaning and before using.

Usage

⦸ DO NOT use this device or optional accessories without first completely reading and understanding the instructions.

⦸ DO NOT use this product in any way other than described in the specifications and intended use sections.

Location and Operating Position

The POC is intended to be used in dry locations. Use the device in a well ventilated location free of pollutants and fumes.

Display and visual alerts are best viewed at a distance of 3 feet (1m) or less under the following conditions:

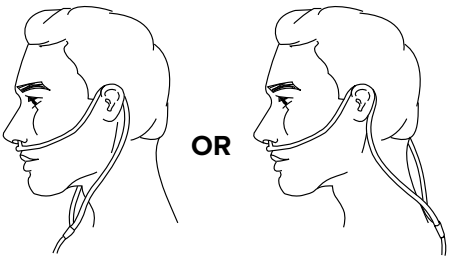
- the user shall be able to see the display screen to view alert screen.
- the device air inlets and outlets shall not be obstructed or blocked.

Connecting / Positioning the Nasal Cannula

❗ Improperly placed cannula may inhibit the device from sensing respiratory efforts of the user and may not trigger the device.

1. Remove the cannula from its packaging.
2. Connect the cannula to the device's oxygen outlet fitting. Ensure the connection is secured.
3. Place the cannula over your ears and position the prongs in your nose as instructed by your health care provider or cannula manufacturer.
4. The user cannula is intended for single user use only.

Note: For best performance, a high flow adult nasal cannula is recommended to ensure proper patient usage and oxygen delivery.



You should be able to hear and feel the pulsed flow of gas with each breath. If you do not feel the gas pulse, check the cannula connection for leaks.

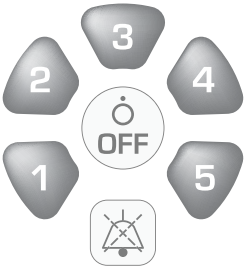
⚠ CAUTION
For proper oxygen flow, be sure that cannula is not kinked or obstructed before or during use. If user is unable to trigger the device, switch to an alternate oxygen source and contact your Provider.

Removing the Cannula from the Outlet

To remove the cannula from the device outlet, firmly hold top of device and pull and twist cannula clockwise.

Powering On the POC

1. To turn on the device, press and release the prescribed pulse setting number (1 - 5).
2. An audible signal will beep and all indicators will light up for approximately two seconds. This sequence ensures all indicators are functioning properly.



Adjusting the Pulse Setting

While the device is running, press the desired button (1-5) to adjust the pulse setting. The selection is made when an audible beep is heard and the pulse setting is displayed on screen.

⚠ WARNING

The oxygen delivery setting has to be determined for each user individually with the configuration of the equipment to be used, including accessories.

- ALWAYS confirm prescribed dose before administering to user and monitor on a frequent basis.

The settings of other models or brands of oxygen therapy equipment may not correspond with the settings of the Live Active Five POC. The settings of the device may not correspond with continuous flow oxygen.

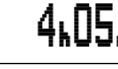
Start-up Period

Note: Ensure battery is fully charged prior to first use.

⚠ CAUTION
Before each use, verify all connections are tight. Inspect the device for visual damage before use, DO NOT USE if damaged. Prior to operation, ensure the air inlet and outlets on the device are clear. Any blockage can inhibit performance.

A visual and audible alarm will display and sound momentarily after the device has been powered on. “PRECISION MEDICAL” followed by device Serial Number and Hours of Operation will appear on the display while the device starts up. The display will then indicate the selected setting and the battery percentage remaining. During a 2 minute start-up, oxygen concentration is building. If stored outside the operating temperature range it may take up to 1 hour to meet operating temperature range.

Reading the Display Screens

	Precision Medical welcome screen shown when the device is first powered on.
	The device serial number and hours of operation.
	Home screen displaying device pulse setting, battery charge level, and external power connected.
	Home screen displaying device pulse setting, battery time remaining (may take up to 3 minutes to display) and no external power connected.
	Home screen displaying device pulse setting, no battery installed, and external power connected.
	Display icon to indicate a pulse delivery of oxygen.
	Display icon to indicate current device pulse setting.
	Display icon to indicate the level of charge on the installed battery.
	Display icon to indicate an external DC power source is connected to the device.
	Display icon to indicate approximate run time remaining in hours “h” and minutes “m”.

Breathing with the POC

As you breathe through the nasal cannula, a pulse of oxygen will be delivered and display each time the unit senses an inhalation.

If no breath is detected for 60 seconds, the NO BREATH DETECTED alert will display and the device will enter into auto pulse delivery. Operating in auto pulse delivery, the device will deliver 20 pulses per minute at the current selected settings.

Once a breath is detected, the device will exit auto pulse delivery.

Operating the POC with the Quiet Option

⚠ WARNING

The Quiet Option setting on the device mutes audible alerts. Should the device encounter an alert condition, only visual alerts and a flashing yellow LED will be displayed.

In the event the device visually alerts for “No Breath Detected” while the Quiet Option is enabled, the device will enter into auto breath delivery.

If an alert condition occurs that requires user action, the device will automatically exit the Quiet Option.

1. Turn on the device.
2. Press and hold the prescribed setting again for 3 seconds, then release. The “Quiet Option” screen QUIET OPTION will alternate between Home Screen.
3. The Quiet Option will exit if one of the following actions are taken:
   - Selecting a different setting.
   - Turning the device off.

Turning the POC Off

1. To turn off the device press the OFF button ⏻ OFF until “Powering Down” POWERING DOWN is shown on the display screen.
2. The power down sequence takes approximately 3 seconds.

Battery Life and Recommended Battery Management

To ensure the battery(s) maintain their optimal charge level, utilize the AC power adapter whenever you have access to a wall outlet. Utilize the DC car adapter whenever you are in a vehicle.

⚠ WARNING

⦸ DO NOT use or leave the device or battery in excessive heat or cold for extended periods of time.

Allow plenty of air to circulate around the device so that the battery is kept as cool as possible when in use and when charging.

⚠ CAUTION

Battery depletion will result in a loss of supplemental oxygen. To ensure proper supplemental oxygen delivery during a power outage:

- Plug your device into an alternate power source.
- Have an alternate source of oxygen available that does not require a power source.

When you receive your POC, fully charge the battery before portable use.

Keep your battery fully charged when using the device on a daily basis.

❗ Always ensure the device battery is charged as soon as possible after it becomes discharged. The battery may be permanently degraded if left fully discharged for an extended length of time.

Battery(s) should be maintained at two illuminated bars worth of charge if not using the device on a daily basis.

Storing a battery with a full charge may degrade its useful life. Recharge or discharge to two bars (50%) if you are going to store your device for longer than one month.

If using multiple batteries, make sure that each battery is labeled (1, 2, 3) and rotate on a regular basis. Batteries should not be left dormant for more than 90 days at a time.

Traveling with the POC

Precision Medical has determined the Live Active Five POC conforms to all applicable Federal Aviation Administration (FAA) acceptance criteria for POC carriage and use on board aircraft.

When making flight arrangements, many U.S. airlines require advanced notice if you plan on using a POC while on board the aircraft.

Prior to the flight, ensure your Live Active Five is clean and in good working condition.

Bring enough charged batteries with you to power your Live Active Five for at least 150% of the expected duration of your flight, including ground time before and after the flight, security screenings, connections and possible delays.

FAA regulations require that all spare batteries be individually wrapped and protected to prevent short circuits. Spare batteries can only be carried on board in carry on baggage.

Recommended Preventative Maintenance

The device is specifically designed to minimize routine preventive maintenance.

Except for tasks described in this manual, only trained personnel should perform preventive maintenance or performance adjustments on the device and its equipment. Users should contact your provider or Precision Medical for service.

Service Life

The expected life for the device is 5 years. The sieve beds and batteries have an expected life of 1 year. The expected service life can vary according to frequency and intensity of use.

Cleaning the Case

⚠ WARNING

Prior to cleaning, ensure the device is turned off, unplug any external power sources and remove battery.

⦸ DO NOT spray or apply any cleaners directly onto the case.

⦸ DO NOT place any liquids on or near the device. If any liquid gets on the device, immediately turn OFF, unplug device from the electrical outlet, remove Battery and connect to another oxygen source.

⦸ DO NOT use harsh and/or flammable chemicals to clean the device.

⦸ DO NOT use the device until it is thoroughly dry.

1. Connect to an alternate oxygen source.
2. Turn off the device.
3. Unplug any external power source before cleaning.
4. Clean exterior surfaces of the device with a cloth dampened with mild detergent.
5. Wipe and allow device to air dry. **Note:** When not in use, store the device in a clean dry area free from grease, oil and other sources of contamination.

Cleaning the Air Inlet Filter and Replacement

1. Remove the filter.
2. Wash filter with mild detergent. Rinse thoroughly with water and allow to dry completely.
3. Once filter is dry, replace the filter into the case.
4. To purchase additional Air Inlet Filters 508587 contact your provider or Precision Medical.

Replacing the Air Outlet Filter

⚠ CAUTION
Replace with Precision Medical Inc Outlet Filter 508583 only.

The outlet filter is intended to protect the user from small particles in the oxygen gas flow. This filter is conveniently located behind the removable cannula outlet fitting. Precision Medical recommends only trained personnel replace the filter between users.

1. Remove cannula.
2. Using a clean hex (Allen) wrench, carefully remove the outlet by unscrewing it counter-clockwise.
3. The filter will be visible in the rear of the outlet once it is removed.
4. Remove the filter, and inspect the outlet to make sure it is free of debris.
5. Install a replacement filter.
6. Carefully screw the outlet fitting back into the recess clockwise. Take care to squarely screw the nozzle fitting into the threads. Do not over tighten.

Cleaning and Disinfection between Users

⚠ WARNING
The POC, its parts, and accessories should be cleaned/disinfected before use on a new user. The nasal cannula cannot be cleaned and should be disposed.

To prevent infection and eliminate possible pathogen exchange between users due to contamination, cleaning and disinfection of the device and its accessories shall be performed by qualified personnel when used between users.

1. Remove battery and disconnect all external power from the device.
2. Dispose of and replace all accessories not suitable for multiple users including cannulas and oxygen tubing.
3. Clean all exterior surfaces using Super Sani-Cloth germicidal disposable wipes or equivalent. Remove all visible contamination from the external surfaces of the device, battery and accessories. Be sure to closely inspect and remove contamination from seams and recesses on the device that may trap contaminants. Wipe with clean paper towel to remove debris.
4. After all visible contamination is removed; use a second germicidal wipe to thoroughly wet the surfaces of the device and accessories. Allow to remain wet for 4 minutes. Use additional wipes if needed to assure surfaces are wetted continuously for 4 minutes.
5. Allow device to air dry completely.
6. Inspect the device for visible contamination. Repeat cleaning/disinfection process if necessary.

After Use

Storage

1. Remove battery prior to storage. ***Refer to Battery Life and Recommended Battery Management section.***
2. Store the POC and battery(s) in a cool, dry area.
   ⓘ ***Refer to storage conditions in Specifications in Technical Data section.***

Disposal

This device may contain substances that could be harmful to the environment and must be disposed of properly.

Follow local governing ordinances and recycling plans regarding disposal of the device and accessories.

⚠WARNING

ISO 80601-2-69 (Standard for Oxygen Concentrators) highly recommends that the user cannula that delivers gas to the user from the oxygen concentrator should include a Fire Stop Check Valve to stop the flow of gas towards the user in the case that the cannula becomes ignited. The Fire Stop Check Valve should be located as close to the user as reasonably practicable.

Fire Stop Check Valve - Precision Medical Part # 507706

2” Tubing Connector - Precision Medical Part # 507707

Technical Alerts

⚠ WARNING
Failure to resolve an alert condition may cause the device to shut down.

Technical Alerts Description

The device monitors various internal components and compares them to acceptable limits. An alert is generated when the acceptable limit has been exceeded.

Alerts are classified as Low Priority Technical Alert Conditions. An alert requires the user to perform an action. The user is notified of an alert condition by an audible beep every 16 seconds and flashing yellow LED light.

When an alert condition occurs, the user may press the Paused Alert button  to silence the alert and switch the LED alert indicator from flashing to continuous for a 5 minute silence period. During this silence period, if the alert condition is corrected, the LED alert indicator will turn off.

If the condition persists, the alert will reoccur and the user can push the Paused Alert button again. This cycle will repeat until the alert condition is corrected.

If an additional alert condition occurs during the silence period, the silence period ends and the alert indicator LED will flash along with an audible beep.

The specific condition that generated the alert is available by viewing the alert fault code in the Display Screen.

If operating outside the “Operating Environment Ranges” ***(Refer to the Specifications section of the manual)***, an alert may occur and the POC may shut down.

⚠ WARNING
⃠ DO NOT disassemble or attempt to repair. There are no user serviceable parts inside. Contact your Provider or Precision Medical, Inc. for service.

If the device fails to operate properly, refer to the following charts for possible causes and solutions. If necessary, contact your Provider or Precision Medical, Inc.

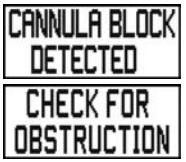
POC Does Not Turn On or Does Not Stay On

Symptom	Probable Cause	Solution(s)
Device begins to operate when powered on, but soon powers back off.	Battery power level is too low.	Check battery power level. If low, replace with charged battery or connect external power source
	Battery not fully seated.	Reseat battery by removing and reinstalling.

Battery Issues

Symptom	Probable Cause	Solution(s)
The external power icon is illuminated, but the battery charge level indicator is not flashing when the device is plugged into an external power source.	Defective battery.	Replace with new battery.
	External power source is faulty, or there is a loose connection.	Check connections on external power sources.
	Battery is not fully seated.	Reseat battery by removing and reinstalling.
	Defective Battery.	Replace with new battery.
	Battery is below the recommended temperature range for safe charging.	Allow battery to warm to room temperature and try again.
	Battery is above the allowed temperature range for safe charging.	Allow battery to cool to room temperature and try again.
	Battery is not a Precision Medical approved battery.	Use only Precision Medical Battery (508561).

POC Pulse Delivery Alerts

Symptom	Probable Cause	Solution(s)
Device does not deliver a pulse of oxygen when the user inhales.	Cannula tubing kinked, blocked or twisted.	Make sure the tubing is connected properly to the oxygen outlet port and that it is free of any obstructions.
	User breathing from mouth.	Inhale through nose.
	Cannula is disconnected.	Connect cannula.
	Cannula tubing kinked, blocked or twisted.	Make sure the tubing is connected properly to the oxygen outlet port and that it is free of any obstructions.
	User breath rate exceeds 40 breaths per minute.	Reduce breath rate.

Oxygen Concentration Output is Low

Symptom	Probable Cause	Solution(s)
	Device is warming up.	Wait 10 minutes for the unit to deliver oxygen at the prescribed concentration.
	Sieve beds are at end of life cycle.	Install new Sieve Bed Replacement (508697)
	Device malfunctioning.	If the condition persists, change to an alternate oxygen source and contact your home care provider or Precision Medical.

Battery is Near Depletion

Symptom	Probable Cause	Solution(s)
Device is producing one of the following visual alerts.  	The installed battery is low and needs to be charged.	Replace installed battery with a fully charged battery. Connect device to an external power source.

Device Overheats

Symptom	Probable Cause	Solution(s)
Device is producing the visual alert:  	Device air inlets or outlets may be blocked.	Move any objects that may be blocking the device. Connect to an alternate oxygen source. Turn off the device and allow it to cool before continuing to use. Check that the device is placed in the carry bag correctly. Clean or replace inlet filters.

Display Not Working

Symptom	Probable Cause	Solution(s)
Blank Display / Device Shuts Down	Electrostatic discharge	Unplug device from external power. Remove battery. Wait minimum of 1 minute. Re-insert battery. Turn device on.

Shut Down Alerts

The device shuts down when the alert conditions in this section occur.

Symptom	Probable Cause	Solution(s)
"SHUT DOWN FAULT CODE XX" appears on screen. One audible beep every 16 seconds YELLOW alert indicator flashing.		If your screen displays a fault code, the device will instruct you to press any button to restart.
"SHUT DOWN FAULT CODE XX" appears on screen.   	Technical Alert	If your screen displays a fault code, follow directions on the screen. You will be instructed to press any setting to restart device or cycle power and restart device. If instructed to cycle power, remove battery and external power. Reinstall battery and external power into device. Press setting to restart.
		If there are 5 unsuccessful restart attempts in less than 5 minutes, service of the device will be required. Connect to an alternative oxygen source and contact your home care provider or Precision Medical.

Specifications

General

When measuring any published tolerance, be sure to consider the uncertainty of the measurement of the measuring equipment.

Gas volume and flow rate specifications for gas delivered to the user are expressed at STPD (standard temperature and pressure, dry).

Electrical Requirements:	AC to DC Power Supply: Input: 100–240 VAC, 50–60 Hz, <2.0A Output: 18Vdc up to 5.56A DC to DC Power Supply: (Automotive) Output: 18Vdc up to 6.67A
Device Battery:	14.8 Vdc, 6.4 Ah, 94.7 Wh
Operating Environmental Conditions:	Operating Temperature: 41°F to 104°F (5°C to 40°C) Relative Humidity: 15–90% non-condensing relative humidity, water vapor pressures up to 1.48 in Hg (50 hPa)
Storage and Transport Temperatures:	-13°F to 158°F (-25°C to 70°C)
Storage and Transport Humidity:	Up to 90% non-condensing relative humidity for temperatures of 41°F to 95°F (5°C to 35°C) Water vapor pressure up to 1.48 in Hg (50 hPa) for temperatures greater than 95°F (35°C)
Operating Altitude:	Up to 10,000 ft (3048 m) above sea level
Operating Atmospheric Pressure:	700–1060 hPa
Breath Rate:	15 - 40 BPM (breaths per minute) without reduction of bolus minute volume.
Delivered Oxygen Pulse Volumes:	Setting 1: 220 mL/min (±15%) Setting 2: 440 mL/min (±15%) Setting 3: 660 mL/min (±15%) Setting 4: 880 mL/min (±15%) Setting 5: 1000 mL/min (±15%)
Oxygen Purity:	87% to 95.5% After initial start-up period, at any flow settings, at standard ambient temperature, humidity and atmospheric pressure.
Start-up Time:	≥ 87% Oxygen Concentration < 2 min*
Trigger Sensitivity:	< -0.45 cmH2O
Maximum Outlet Pressure:	12 psi (83 kPa)
Approximate Battery Duration:	Setting 1 - 6.5 Hours Setting 2 - 4.3 Hours Setting 3 - 2.7 Hours Setting 4 - 2.0 Hours Setting 5 - 1.5 Hours
Charge Time:	Charge time will vary based on the setting.

Sound Pressure Level:	< 40 dBA (Setting 2)
Sound Power Level:	< 48 dBA (Setting 2)
Audible Signal Sound Pressure Level:	> 55 dBA
Dimensions:	8.4 in high x 3.2 in wide x 8.5 in deep (21.4 cm high x 8.3 cm wide x 21.6 cm deep)
Weight:	5.0 lbs (2.2 kg) with single battery and no carry bag
Electrical Classification:	Class II Electrical Shock Protection, Type BF Applied Part, Continuous Operation
Ingress Protection Rating:	IP22
Applied Parts:	Cannula/Oxygen Tubing, Oxygen Outlet Port, Carry Bag
Expected Service Life of the Device:	5 Years

*May vary based on age of device.

Specifications are subject to change without prior notice.

Regulatory Listings

The Live Active Five POC has been designed, tested and certified to the following regulatory standards:

ANSI/AAMI 60601-1; Ed: 3.1

IEC 60601-1-2: 2014

CAN/CSA 22.2 No. 60601–1

ISO 80601–2–69

ISO 80601–2–67

IEC 60601–1–6

IEC 60601–1–8

IEC 60601–1–11

RTCA DO 160G

Volatile Organic Compound (VOC) and Particulate Requirements

The oxygen delivered from the live device meets the following requirements for particulate levels, VOC levels, carbon monoxide levels, carbon dioxide levels and ozone levels.

ISO 18562-2: Particulate Matter

ISO 18562-3: VOC Levels

21 CFR 801.415: Ozone Levels

EPA NAAQS: Carbon Monoxide Levels

OSHA Permissible Exposure Limits: Carbon Dioxide Levels

Standard Test Method for Determination of Volatile Organic Chemicals in Atmospheres (Canister Sampling Methodology)

Electromagnetic Compliance (EMC)

Guidance and manufacturer's declaration - electromagnetic immunity

The Live Active Five POC is intended for use in the electromagnetic environment specified below. The user of the device should make sure it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 Vrms 80 MHz to 2.7GHz	3 Vrms 3 V/m	Portable and mobile RF communications equipment 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 of the transmitter. Recommended separation distance: d=1.2 √P 150 kHz to 80 MHz d=1.2 √P 80 MHz to 800 MHz d=2.3 √P 800 MHz to 2.5 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 meters (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 b. Interference may occur in the vicinity of equipment marked with the following symbol: 
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ± 15 kV air	± 8 kV contact ± 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 EC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/ output lines	± 2 kV for power supply lines ± 1 kV for input/ output lines	Mains power quality should be that of a typical commercial or hospital environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles	<5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles	Mains power quality should be that of a typical commercial or hospital environment. If the user of the [ME EQUIPMENT or ME SYSTEM] requires continued operation during power mains interruptions, it is recommended that the [ME EQUIPMENT or ME SYSTEM] be powered from an uninterrupted power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical hospital or home environment.

At 80 MHz and 800 MHz, the higher frequency range applies.

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

UT is the a.c. main voltage prior to application of the test level.

a: Field strength 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 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, the field strengths should be less than 3V/m.

Recommended Separation Distances between Portable and Mobile RF Communications Equipment and this Device:
This device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and this device as recommended below, according to the maximum output power of the communications equipment.

Rated Maximum Power Output of Transmitter (W)	Separation Distance According to Frequency of Transmitter (M)		
	150 kHz to 80 MHz $d=1.2\sqrt{P}$	80 MHz to 800 MHz $d=1.2\sqrt{P}$	800 MHz to 2.5 GHz $d=2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (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.

> At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
>
> The guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Guidance and Manufacturer's Declaration – Electromagnetic Emissions
The Live Active Five POC is intended for use in the electromagnetic environment specified below. The user of the device should assure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment - Guidance
RF emissions CISPR 11	Group 1	The device uses RF energy only for its internal function. Therefore its RF emissions are very low and not likely to cause any interference in nearby equipment.
RF emissions CISPR 11	Class B	The device 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.
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Symbols

⚠ WARNING

Indicates that personal safety of the patient may be involved. Disregarding a warning could result in significant injury.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

General Warning Sign

Follow Instructions for Use

General Mandatory Action Sign

Symbol for DO NOT

No Smoking

No Oil or Grease

No Open Flame (POC)

Do Not Incinerate (Battery)

MR Unsafe

An item marked unsafe is known to pose hazards in all MR environments.

No Disassembly

General Alert

Pause Alert

Direct Current

Type BF Applied Part

Class II Equipment

Date of Manufacture

Manufacturer

Power Off-Standby

The manufacturer of this device has determined it conforms to all applicable FAA acceptance criteria for POC carriage and use on board aircraft.

This device may contain electrical components that are hazardous to the environment. DO NOT dispose device into standard trash. Contact your local waste management for disposal of electronic equipment.

IP22

Protected from touch by fingers and objects greater than 12 millimeters. Protected from direct sprays of water up to 15° from the vertical.

Recycle

The POC, gas pathways, components and accessories do not contain any natural rubber latex.

Precision Medical Limited Warranty

Precision Medical, Inc. (the "Company") warrants that each new Live Active Five® and the related accessories and replacement parts (each a "Product" and collectively, the "Products"), in each case purchased from the Company or its authorized distributor, shall be free from defects in materials and workmanship under normal use and service and when correctly maintained for the periods shown from the date of shipment ("Original Shipment Date") to the original purchaser ("Purchaser"), except as otherwise set forth herein. Subject to exclusions set forth herein, the applicable warranty coverages are set forth in the table below.

Product Warranty Period

- **Live Active Five® New:** Three (3) years from Original Shipment Date
- **Live Active Five® Sieve Bed Assembly:** One (1) year from Original Shipment Date
- **Standard Accessories (batteries, AC power supply, DC power supply, accessory bag, POC carry bag):** One (1) year from Original Shipment Date
- **Repaired and Replaced Products and Accessories:** Later of ninety (90) days from Original Ship Date or remaining warranty period
- **Disposables (cannulas, filters, tubing):** No warranty

Warranty coverage limited to batteries that fall below 80% of associated rated capacity when fully charged. For all product warranty claims hereunder, purchaser shall contact Precision Medical Inc. authorized distributor or, if the product was purchased directly from Precision Medical Inc., purchaser shall contact Precision Medical Inc. Purchaser's original purchase receipt for the Product is required for the limited warranties hereunder to be effective. For any limited warranty set forth herein to be effective, Purchaser shall inspect each Product within five (5) days of delivery and before such Product is placed into use. Purchaser agrees that the warranties provided by the Company with respect to any Product are subject to use of the Product in accordance with the Company's instructions as provided and that failure to do so shall void the warranties. The Company's sole liability and Purchaser's sole and exclusive remedy arising out of or relating to the Products, including for a breach of warranty, is limited to, at the Company's sole option, repair or replacement of the Product or part thereof which is returned to the Company at Purchaser's expense. This warranty shall apply only if Purchaser notifies the Company in writing, including email transmission, of the defective Product promptly after the discovery of the defect and within the warranty period. Products may be returned only by Purchaser and only when accompanied by an RGA reference number issued by the Company. The Company will not be responsible for any alleged breach of warranty which the Company determines to have arisen from a cause not covered by this warranty including, but not limited to, those exceptions listed below. The Company shall make the final determination as to the existence and/or cause of any alleged defect. For full details of return policy and process, see Return Policy.

Defects and/or damage resulting from the following are expressly and specifically excluded from any warranty coverage hereunder:

- Improper operation, improper storage, misuse, accident, alteration, abuse, neglect and/or physical damage, including, but limited to, exposure to presence of pollutants, smoke or fumes;
- Ingress of liquids, sand, dirt, food, insects, animals or other foreign objects into the Product;
- Exposure to unusual physical, thermal or electrical stress;
- Use in a manner that constitutes abnormal usage or conditions;
- Failure to follow recommended preventative maintenance;
- Unauthorized installation, repair or modification; Use of parts, materials and accessories not provided or authorized by the Company;
- Acts of God and/or other acts or conditions not in the control of the Company.

Moreover, warranty coverage shall not be extended to Products for which (i) the serial number label has been removed, altered or destroyed; (ii) tamper evident seals are broken; or (iii) mismatched serial numbers or revised combinations.

THE LIMITED WARRANTY SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. NO REPRESENTATION OR STATEMENT OF THE COMPANY MAY CHANGE OR ALTER THIS LIMITED WARRANTY, UNLESS AGREED TO AND AUTHORIZED IN WRITING BY THE COMPANY.

The Company shall not be liable for any commercial losses, loss of revenues or profits, loss of goodwill, inconvenience, or exemplary, special, incidental, indirect, consequential or punitive damages whatsoever, or claims of third parties, regardless of the form of any claim, whether in contract or tort, whether from breach of this warranty, or defective equipment, or loss of data or from any other use, even if the Company has been advised or should be aware of the possibility of such damage. The Company's liability for loss or damages shall not exceed the purchase price paid by Purchaser for the particular Product giving rise to such liability.

The Company shall not be responsible for delays or failures in its performance resulting from Acts of God, war, riot, fire, explosion, accident, flood, sabotage, inability to obtain fuel, power, raw material or machinery, governmental laws, regulations, or labor disruption, strike, lockout or injunction, acts or omissions beyond the Company's control, including delays of suppliers or technical failure. If any such delay or failure occurs, the Company may allocate Products among the Company's customers at its sole discretion.

The validity, interpretation, and performance of these terms and conditions shall be governed by and construed under the applicable laws of the State of Pennsylvania as if performed wholly within the state and without giving effect of the principles of conflict laws.

Any additional action to enforce any provisions of the Limited Warranty may be commenced only in state or federal courts of Pennsylvania and exclusive jurisdiction of the Commonwealth of Pennsylvania.

This warranty is not transferable. Retain original receipt or PO number for valid proof of purchase.

For warranty or repair service, contact the Company customer service at support@precisionmedical.com.

Owner's Record

The Model [REF] and Serial Number [SN] label are located on the bottom of the device. Record the Model and Serial Number in the space provided below. This will be helpful if you need to contact Precision Medical about your POC in the future. For the latest information, visit us at www.precisionmedical.com.

Model: _____

Serial No.:_____

Date of Purchase:_____

Provider Contact: _____

For Declaration of Conformity, refer to the Live Active Five product page on our website.

Precision Medical Inc.
300 Held Drive
Northampton Pa 18067 (USA)

PrecisionMedical

300 Held Drive • Northampton, PA 18067 USA
800-272-7285 • precisionmedical.com

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