CleanSpace WORK respirators use an internal Lithium-ion Battery. This battery is fully rechargeable and contained within the Power Unit. Lithium-ion batteries are widely used in portable electronic devices across many different industries including mobile phones.

CleanSpace batteries can go from flat to fully charged in just over 2 hours and can tolerate short top-up charges with minimal impact on battery longevity. This allows for long operating times on one power unit.

BATTERY CAPACITY

CleanSpace Battery Capacity: 20.54Wh (11.1V, 1850mAh)

The optimal performance for a Lithium-ion rechargeable battery is dependent on use and storage conditions.*

Adhering to CleanSpace battery management guidelines ensures that CleanSpace batteries deliver peak performance for a duration of up to 5 years. After this, operating times may reduce over time and more frequent charging may be required.
See below for optimal use and storage conditions.

BATTERY CHARGE

A Battery Charge Indicator is located on the keypad of all CleanSpace respirators.

The table below shows the expected battery charge for the CleanSpace WORK as a percentage and as approximate run time remaining.

BATTERY CHARGE INDICATION		BATTERY CHARGE (%)	APPROXIMATE USEFUL TIME REMAINING[1] (HRS)
	3 Green Solid Lights	80 – 100 %	> 6 hrs
	2 Green Solid Lights	50 – 80 %	3 - 6 hrs
	1 Green Solid Light	20 – 50 %	1 - 3 hrs
	1 Green Flashing Light	5 – 20 %	< 30 minutes
	1 Green Flashing Light and Low Battery Alarm	< 5 %	< 15 minutes
	Unpowered (no lights)	0 %	0 minutes

1. Battery operating time is affected by mask fit, filter type, work rate and environmental conditions. Actual operating times may vary. Operating times quoted in the table above are average durations at moderate work rates.

LOW BATTERY ALARM

All CleanSpace respirators incorporate an audible alarm to alert the user when the battery is approaching low charge.

The low battery alarm volume is approximately 75dB(A) at ear and consists of 3 beeps repeated once per second. The low battery alarm will sound when the battery reaches approximately 5% of useful battery life remaining.

If the low battery alarm sounds, leave the contaminated area immediately and re-charge the battery.

RECOMMENDED USE CONDITIONS

- Temperature: -10˚ C to 45˚ C (14˚ F to 113˚ F)
- The CleanSpace Respirator will shut down when battery temperature is greater than 60˚C or less than -10˚C.

STEPS TO CHARGE THE BATTERY

1. Locate the charging port on underside of Power Unit.
2. Insert the charger cable connector into the charging port.
3. Ensure the charger is plugged into a power socket.
4. Charging is indicated by a minimum of one flashing green light on the Battery Charge Indicator.
5. When fully charged 3 solid green lights will display on the Battery Charge Indicator.
6. Once charged, disconnect the charger cable from the charging port before use.

Please refer to User Instructions for detailed information.

BATTERY CHARGING CONSIDERATIONS

The acceptable temperature range for charging is from 0 to 35 degrees C. The battery will not accept charge outside of this temperature range.

The respirator should not be worn whilst being charged.

Only CleanSpace-specified chargers are to be used to charge CleanSpace respirators. Use of other chargers may void the warranty.

CleanSpace batteries may also receive short (top up) charges.

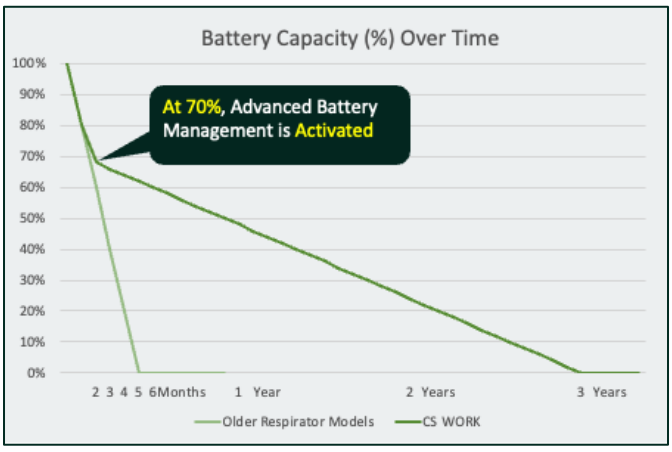
There is no requirement to fully discharge the battery before re-charging.

For precise battery charge status, connect the respirator to its charger and ensure the charger is plugged into a power source. Wait for all three (3) Battery Charge Indicators to illuminate steadily without any flashing. If the third Battery Charge Indicator is flashing rapidly, the battery is 95% charged.

CLEANSPACE WORK ADVANCED BATTERY MANAGEMENT

CleanSpace CS WORK Advanced Battery Management utilizes an intelligent chip which manages the battery consumption when the unit is in power off mode. When the battery reaches 70% (or below) in power off mode, the chip is activated to cut off almost all power sources which drain the battery – taking the battery into storage mode.

Long term battery storage technology enables the **CleanSpace WORK** to maintain significant battery charge whilst in storage for up to 1 year.



RECOMMENDED BATTERY RECHARGE FREQUENCY

CLEANSPACE WORK: Charge at least once per year.

RECOMMENDED STORAGE CONDITIONS

- Dry environment (Relative Humidity 0% to 75%).
- Temperature: 10°C to 30°C (50°F to 86°F).
- Away from direct sunlight, in a clean, dry environment.

Battery life is dependent on use (number of cycles) and the storage temperature.
High temperatures (over 35°C / 95°F) accelerate battery aging.

If the Power Unit is left continually on charge, there is minimal battery degradation.

BATTERY PRECAUTIONS:

Please adhere to the following precautions to ensure the best battery performance, life, reliability, and safety.

- Avoid mechanical shocks or impacts to the Power Unit; this includes penetration of sharp or hard objects.
- Do not use or place the respirator in extreme heat, such as in direct sunlight or near heat sources. The battery will be damaged if its temperature rises above 70°C.
- CleanSpace respirators will not function at internal temperatures above 60°C (140°F) or below -10°C (14°F).
- Do not dispose of the Power Unit in fire.
- Do not use the respirator in heavy rain, allow it to get wet or immerse in liquid.
- Do not disassemble the Power Unit case. There are no user serviceable parts inside. Dissembling the Power Unit case will void the manufacturer's warranty.
- Do not use the CleanSpace Respirator if there are any visible signs of severe mechanical damage in the Power Unit.

THE CleanSpace WORK is water tolerant (IP66 rating). The Cleaning and Storage plug MUST be inserted before the CleanSpace WORK is placed under running water for cleaning.