MAXAIR® User Instructions CAPR® HELMETS 2085-03, 2086-03

CAUTION

CAPR Base System User Instructions, P/N 03521015, must be thouroughly read and understood before using any MAXAIR CAPR System. (Included with each shipped Helmet and at maxair-systems.com, Resources, User Instructions.)

REF 2085-03

P/N 038310010

REF 2086-03

P/N 03831011

Symbol Definitions

Warning, Caution, or Note

REF Catalog Number

P/N NIOSH Number

WARNING

Read and understand the User's Instructions Manual (UIM, P/N 03521015. Failure to follow the User's Instructions Manual may be hazardous to the user's health.

Use only if package is received unopened and contents are undamaged. If damage is noted, contact the shipper for replacement or repair.

Prior to using any MAXAIR® System or component, be sure to be familiar with the system's NIOSH approved configuration.

The institution using this product in any application is responsible for determining the appropriateness of this equipment relative to regulatory requirements. Bio-Medical Devices Intl, Inc. does not recommend the appropriate systems for a particular institution or facility.

DO NOT use if any component is damaged. If any components are damaged or contaminated and therefore unfit for safe and effective use, they should be replaced immediately.

Use only MAXAIR Systems/ NIOSH approved compatible components.

NOT for use in atmospheres immediately dangerous to life or health (IDLH), and atmospheres containing less than 19.5% oxygen.

Follow current local regulations governing biohazard waste to safely dispose of used shrouds.

If you need more information, contact your BMDI Sales Representative, or call MAXAIR Systems customer service at 1-800-443-3842.

Intended Use

MAXAIR CAPR Helmets provide the primary re-usable component of all CAPR System Configurations.

Each Helmet provides the structure for attaching the different MAXAIR face and head covers.

2085-03 (CAPR IR) and 2086-03 (CAPR IH) Helmets consist of a Motor, Blower (Fan), micro-computer motor-airflow Controller, Headband, Helmet-Battery, and a SnapOn-SnapOff Cage for motor-blower protection during shipping and for identified configurations.

The 2086-03 Helmet includes standard mounting adapters.

The 2085-03 is the same as the 2086-03; however, with "PR" style mounting adapters.

Alternates and options include:

- Charger option: 2600-03 for out-of-helmet charging
- Charger option: 2600-04 for in-the-helmet charging.
- Alternate to Side Tabs: 2099-21 ChinBar

Specifications

Listings are approximate and may vary between units.

PROPERTY	SPECIFICATIONS
Complete Device Classification	PAPR100, Loose Fitting Filter Series PAPR100-N
Recommended System Temperature Limits: Storage Use/Handling Charging	 -20 to 40°C, 80% max Rel. Humidity 0°C to 54°C, 80% max Rel. Humidity 0°C to 45°C, 80% max. Rel. Humidity
Minimum Airflow	170 LPM
Battery	Type: Lithium-Ion, 18650 (2x) Cells Typical run time, hours: 1 battery: 3-5; 2 batteries 6-10 Typical charge time, hours: On Helmet: 1 battery: 2.6-3.5 2 batteries: 5.2-7.0 Off Helmet: 1 or 2 batteries: 5.2-7.0
Noise Level	80 dBA limit (typically ≤ 62)
Total Mass/ Total Mass on Head	With 2 Batteries: 1.3 lbs. / 0.59 Kg. With 1 Battery: 1.1 lbs. / 0.498 Kg.

Materials

The primary component makeup of CAPR Helmets consists of -

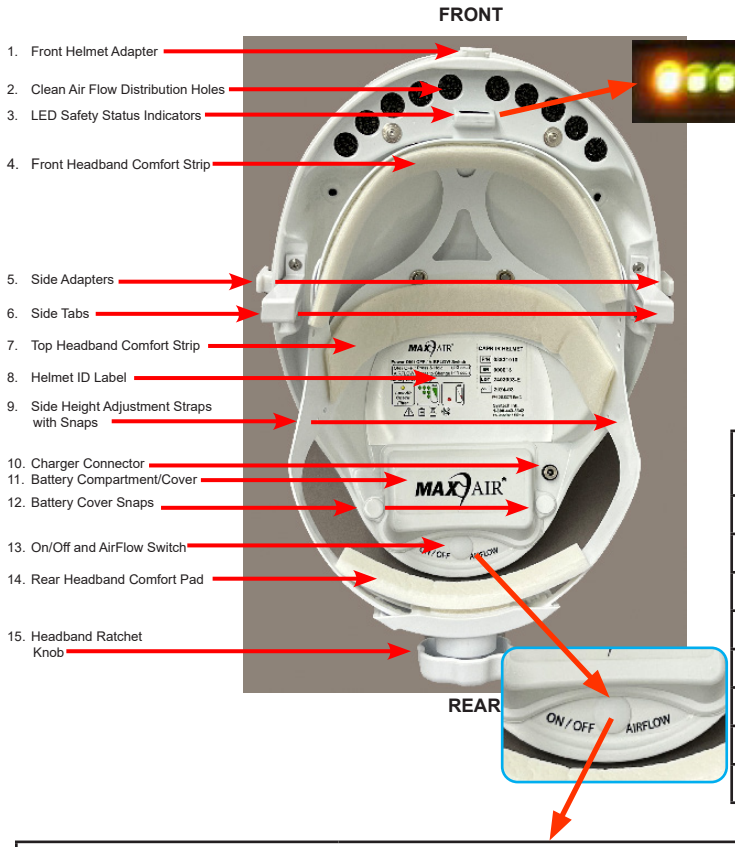
polycarbonate	nylon	polyurethane
polyester	polyethelene	PVC
Nickle	Nickle plated Brass	Nickle/Iron alloy

Lead-free electronic components

Regulatory

NIOSH PAPR100

Common Helmet Characteristics



LED SAFETY STATUS INDICATORS

- Five LED Safety Status IndicatorVs located at Helmet underside front are always visible in the user's peripheral vision to alert the user of safe air-flow and battery charge remaining operating conditions. They provide early warning to the user when the Helmet is no longer able to maintain adequate airflow and/ or Battery charge to provide adequate or continuing protection for the user.
- There is one yellow, three green, and one red LED. On start-up, all LED's come on briefly (LED test) before proceeding to normal operation. During normal operation, the LEDs continuously indicate the status of the Airflow and Battery charge level.
- Airflow is proper if the Yellow LED is off. A continuously lit or flickering Yellow LED indicates low or marginal airflow. If the Yellow LED is lit, check the Filter Cartridge for excess particulate/dirt build-up and damage, and replace if necessary.
- The Battery charge level is indicated by the three Green and one Red LEDs. The approximate charge level is continuously indicated by the changing LEDs.

STATE	DESCRIPTION	YELLOW	GREEN 3	GREEN 2	GREEN 1	RED
1	Charge OK, 75% to 100%; Airflow OK		✓	✓	✓	
2	Charge OK, 50% to 75%; Airflow OK			✓	✓	
3	Charge OK, 25% to 50%; Airflow OK				✓	
4	Charge LOW, 0% to 25%; Airflow OK					✓
5	Airflow LOW; Charge LOW	✓				✓
6	Airflow LOW; Charge OK, 75% to 100%	✓	✓	✓	✓	
7	Airflow LOW; Charge OK,50% to 75%	✓		✓	✓	
8	Airflow LOW; Charge OK, 25% to 50%	✓			✓	

Power On/Off and Airflow (Speed) Control Button				
Sequential Long-Time Depresses (2-3 seconds)	Will turn Power On, then will turn Power Off, etc.			
Sequential Short-Time Depresses (< 1 second)	Will set AirFlow to one of five difference speeds, sequentially, and continue to cycle through the selections			
Sequential Air Flow Selections in Liters Per Minute				
190	**203**	**215**	**228**	**240**

NOTE

The flow levels, in liters per minute, are only approximate.

LENS MOUNT ADAPTERS, FRONT AND SIDES

2085-03

Front

Sides

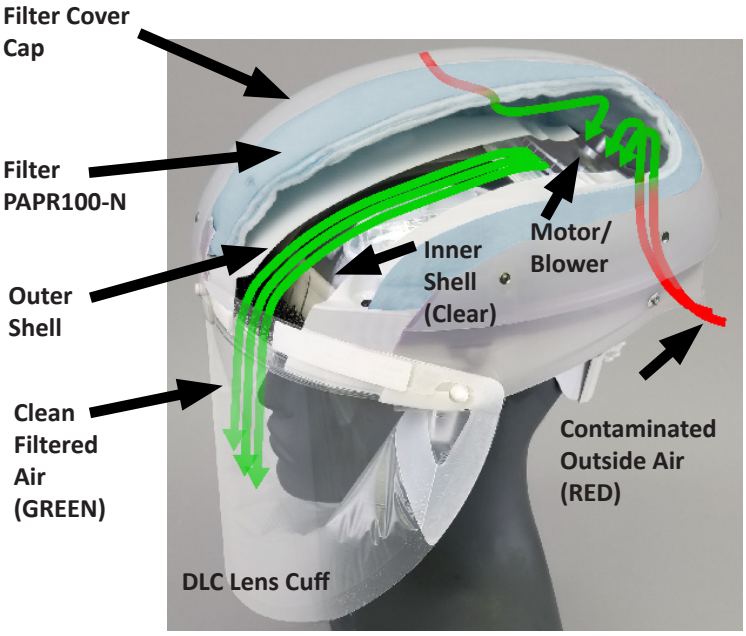
2086-03

Front

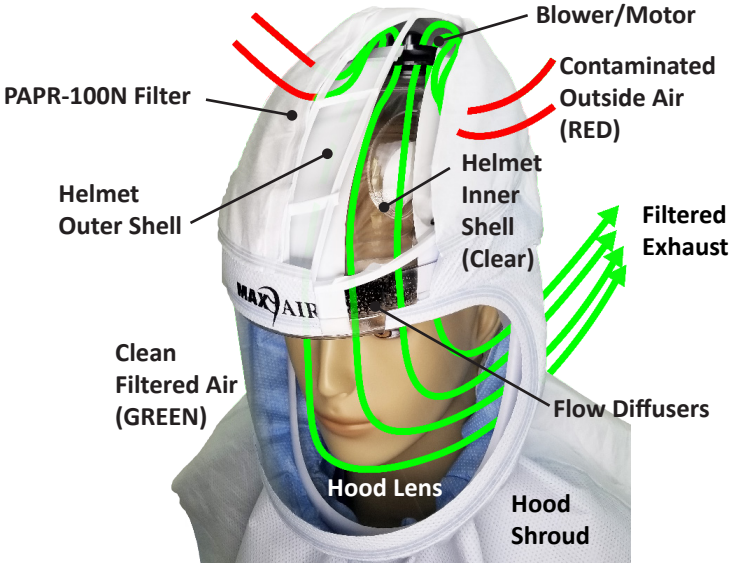
Sides

Key Operational Features

Air Flow Pathway - Cuff, Gaiter, Shroud Configurations (DLC Lens-Cuff Shown)



Air Flow Pathway - Bonnet and Hood Configurations (PR Hood Shown)

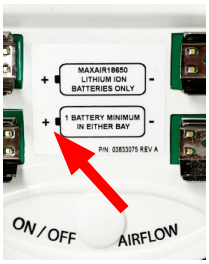


NOTE

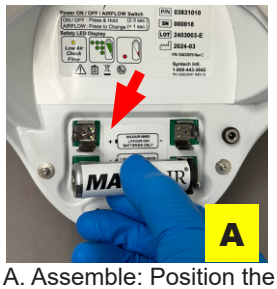
Graphics on this page are only to generally describe the airflow pathway; details of components shown may vary from actual components.

Assemble / Disassemble Batteries

1. Grasp the Battery Cover by its top and bottom, squeeze slightly, and pull it off its side snaps.



2. Note the polarity is positive to the left.



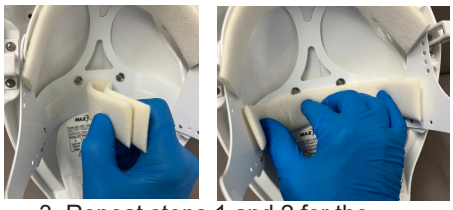
3. A. Assemble: Position the positive end of each battery to the left and press each fully down into a Battery connector.
B. Disassemble: Lift each battery out of its connector by pulling up one end then the entire battery up and out.

4. Position the Battery Cover over each side Snap and press firmly until each Snap audibly clicks.

Assemble / Disassemble Comfort Strips

1. To replace a front Comfort Strip, grasp one end and pull it away from the Headband until it is free.

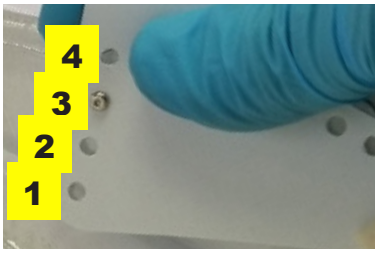
2. Test which side of a new Comfort Strip sticks to the Headband Velcro, center the strip on the Headband, and press down firmly on the strip, all along its length.



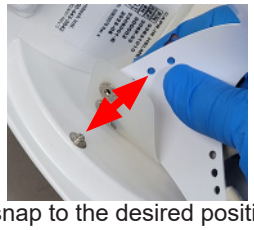
3. Repeat steps 1 and 2 for the top Headband Comfort Strip.

Adjust Height Adjustment

1. In addition to tightening the Ratched Knob (Next Section, “Don”) to ensure the Helmet is secure and comfortable on the head, and also so the Safety LEDs are clearly visible, it may be necessary to change the Height Adjustment. The Height Adjustment raises and lowers the Helmet position on the Head.



2. Unsnap each side Height Adjustment Tab by pulling it off the Helmet snap.

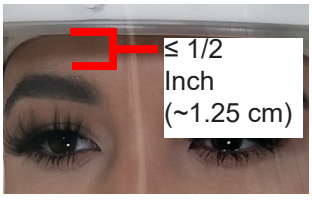


3. Resnap to the desired position. The higher the snap hole position (Number in Step 1) the lower the Helmet will sit on the Head.

Don

1. Before donning, always loosen the ratchet knob counterclockwise for ease in placing over the head.

2. Place the Helmet down on the head and tighten the ratchet knob clockwise as tight as comfortable to secure it for all activities.



3. Ensure the Helmet front Headband bottom is about 1/2 inch above the eyebrows so that the Safety LEDs are always clearly visible.

Doff

3. To doff a MAXAIR Helmet, loosen the ratchet knob counterclockwise and lift the Helmet up and off the head (reverse of steps 1-2 in the Don procedure).

NOTE

Specific Donning and Doffing instructions for different Complete Systems are covered in the User Instructions included with each box of Face/Head/Body covers, and at maxair-systems.com, Resources, User Instructions.