

User Instructions

CAPR® HELMETS 2081-03, 2083-03, 2084-04

TOTAL CALL

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.)





P/N

2081-03

03531001 Helmet, 03531021 Liner, 01031406 Cage, 2590-05 Power Cord





P/N

2084-04

03531001 Helmet, 03531021 Liner, 01031406 Cage, 2590-05 Power Cord





P/N

2083-03

03531001 Helmet, 03531148 Liner, 01031406 Cage, 2590-05 Power Cord

Symbol Definitions



Warning, Caution, or Note



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 NIOSH approved respirator configurations.

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.

Each Helmet consists of a Motor, Blower (Fan), micro-computer motor-airflow Controller, Headband-Liner, Helmet-Battery Power Cord, and a Cage for motor-blower protection during shipping and for Hood and Bonnet configurations.

The 2081-03 Helmet includes a standard pad Headband-Liner.

The 2084-04 is the same as the 2081-03 with special mounting adapters, plus it ships with an unassembled ChinBar that is optional.

The 2083-03 Helmet includes a large pad Headband-Liner, and is the CAPR Helmet exclusively used for Hard Hat configurations.

Specifications

Listings are approximate and may vary between units due to tolerances and fluctuations.

PROPERTY	SPECIFICATIONS
Complete Device Classification	PAPR, Loose Fitting
89/686/EEC Complete Device Category	III
93/42/EEC Complete Device Class	I
EMC Classification (IEC 60601-1-2: 2007; EN 60601-1-2:2007)	Class B for Emissions; Immunity for Not Life-Supporting Equipment
Recommended System Temperatue 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	Lithium-lon
Noise Level	75 dBA limit (typically ≤ 62)
Total Mass/ Total Mass on Head	1.25 kg/ 0.75Kg

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





1. Front Helmet Adapter

6. Front Liner Pads

7. Side Adapters

Side Tabs

10. Rear Liner Pads

12. Rear snaps for Liner

13. TurnLock Power Cord Connecto 14. Liner Power Cord Slot 15. Airflow Controller 16. Comfort Pad —— 17. Power Cord 18. Headband Ratchet Knob

2. Clean Air Flow Distribution Hole

3. LED Safety Status Indicators

5. Front Headband Comfort Strip

Side Adjustment Straps with Snap

User Instructions

CAPR® HELMETS 2081-03, 2083-03, 2084-04

Common Helmet and Headband-Liner Characteristics

FRONT

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, 0% to 50%	√			✓	

/				
Air Flow Switch Position				
Low	Med	High		
Air Flow in Liters Per Minute				
190	215	240		

REAR



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

Assemble and Disassemble

No assembly/disassembly is required for MAXAIR Helmets. Assembly/disassembly of items for use with MAXAIR Helmets is covered in those items' User instructions.

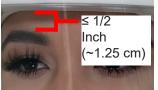
Don



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 evebrows 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 steps 1-2 in the Don procedure).



Donning and Doffing the Helmet with attached items including options and Face/Head/Body covers are covered in those items' User Instructions.





User Instructions

CAPR® HELMETS 2081-03, 2083-03, 2084-04

LINERS

2081-03, 2084-04

2083-03

LENS MOUNT ADAPTERS, FRONT AND SIDES 2081-03, 2083-03 2084-04















Front

Sides



Refer to the Helmet Liner User Instructions for Dis-assembly and Assembly of the Liner from/to the Helmet.

Front

Air Flow

- Air Diffusers Assist in Low Noise Oprearion, ≤ 62dB
- Evenly dispersed air for Comfort and Anti-Lens-Fogging

Front Comfort Strip (Disposable)

User Selectable Air Flow Level

- Set Air-Flow Range to meet activity, comfort level
- Computer controlled constancy



Rear Comfort Pad (Cleanable)

Easy grasp-and-turn Ratchet Knob to adjust head circumference and secure helmet-to-head



Turnlock Safety Power Cord Connector

- · Provides safe connection
- · Easy connect/disconnect
- Allows Helmet to be removed if in standby



Assemble Power Cord to Helmet

Match the cord connector notch to the extended portion of the helmet turn lock connector (A). When aligned, simply push the cord connector fully into the helmet connector (A). Then, turn the cord connector approximately one hundred eighty degrees (B), so the cord is exiting out from under and backward of the helmet.

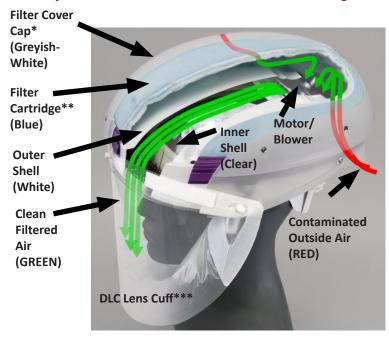
Dis-Assemble Power Cord from Helmet

Turn the power cord connector so the cord is pointing in the eleven o'clock position (A). The cord connector notch should be realigned with the extended portion of the helmet turn lock connector. When aligned, simply pull the cord connector straight up and out of the helmet turn lock connector.



Key Operational Features

Air Flow Pathway - 2081-03, 2083-03 Cuff and Shroud Configurations



- * For Hard Hat configurations, the Hard Hat would replace the Filter Cover Cap as shown.
- ** For Hood configurations, the Hood Filter, the HLF (Heavy Loading Filter), and optionally the HFR-FCC (High Fluid Resistance Filter Cover Cap) would replace the Filter Cover Cap and Filter Cartridge as shown.
- *** The DLC Lens Cuff is integral to Shroud and non-PR Style Single Hood configurations; the Cuff is not used in Double Hood Confgurations.

Air Flow Pathway - 2081-03 and 2084-04 with Hood Configurations

