

North[®] Compact Air[®] 200 Series Powered Air-Purifying Respirator

Product Description:

The North Compact Air[®] 200 Series is a belt mounted Powered Air-Purifying Respirator (PAPR) approved by the National Institute of Occupational Safety and Health (NIOSH). The Compact Air PAPR uses a blower unit to force ambient air through cartridges/filters to remove contaminants and provide clean air to the user. This respirator is ideally suited for applications where non-powered air-purifying respirators are not practical or a higher protection factor is required, yet where the atmospheres are not immediately dangerous to life and health (IDLH). Used in conjunction with North filters and cartridges, and North facepieces or head covers, the Compact Air 200 Series PAPR provides respiratory protection against most gases, vapors and particulates.

Assembly Contents:

Blower, battery, backpad, and belt (standard or decon), single unit charger, flow meter, and carrying case

Assembly Part Numbers:

CA201	Compact Air 200 Series Assembly, standard back pad, with nylon belt
CA201D	Compact Air 200 Series Assembly, with PVC belt and comfort pad for easy decontamination

Additional Components Required:

Breathing tube; tight fitting full facepiece respirator or Primair[®] Series hood/headgear assemblies; and filter/cartridges.



Certification:

The CA201 and CA201D are NIOSH approved for use with the North Primair Series hood/headgear assemblies; and the North 5500, 7700, 5400 and 7600 Series tight fitting full facepiece respirators. For detailed product information on hood/headgear assemblies and tight fitting full facepiece respirators, see user manuals for those products.

The North Compact Air 200 Series is approved for use with chemical cartridges, HEPA filter, and chemical cartridge, HEPA filter combinations. Complete listing is noted below.

Refer to the NIOSH Approval Labels provided with the Compact Air 200 Series Blower Battery Assembly and the Compact Air cartridges and filters for specific NIOSH approval numbers.



North Compact Air 200 Series Components:

Alarm System

A system of three different alarms (audible, visual and vibration), will alert the user at 10% remaining battery life, increase to a continuous audible alarm at 5% of remaining battery life, plus alarm when filters are blocked or clogged. The audible alarm is located near the breathing tube so sound will travel to the worker's zone of hearing. An additional vibratory alarm also goes off, assuring that even those workers who are hearing impaired or in extremely noisy environments will be alerted to the low battery or clogged filter. The third alarm is a LED light that will let the worker know if the battery is low or if the filter needs changing.

Battery and Flow Alarms

The Compact Air 200 Series PAPR is equipped with "CHECK BATTERY" and "CHECK FILTER" alarms.

Battery Alarm:

- 1) At 10% of battery charge: There will be three alarms, an audible, a vibratory and a visual signal when the battery has 10% charge remaining. There will be a series of 4 beeps along with 4 seconds of vibration at an interval of 30 seconds. The "CHECK BATTERY" LED on top of the blower unit will change from "green" to "red".
- 2) At 5% of battery charge: The audible beep will change from intermittent to continuous. The LED will remain "red".



Filter Alarm:




- 1) Blocked or clogged filters: You will hear a continuous beep along with a vibration for 3 seconds at an interval of 10 seconds. The "CHECK FILTER" LED on top of the blower unit will glow "red" and remain this way.
- 2) End of service for gas and vapor cartridges: No alarm will sound when gas and vapor cartridges reach the end of their service life. A cartridge change schedule based on the contaminant concentration(s), worksite temperature and relative humidity must be implemented.

	AUDIBLE	VIBRATORY	VISUAL
10% Battery Life Remaining	Four (4) Beeps	Vibration for four (4) seconds at 30 second intervals	CHECK BATTERY LED light will change from green to red
5% Battery Life Remaining	Continuous beep until battery expires	--	CHECK BATTERY LED light remains red
Blocked or Clogged Filters	Continuous beep	Vibration for three (3) seconds at 10 second intervals	CHECK FILTER LED light will change from green to red

Cartridges & Filters

North Compact Air 200 Series is approved for use with the following HEPA filter, cartridges, and cartridge/filter combinations. Sets of three like cartridges and/or filters are required.

FILTER		
40HE	High Efficiency Particulate Air-Purifying (HEPA) Filters	
CHEMICAL CARTRIDGE		
4001	Organic Vapor	
4003	Organic Vapor, Chlorine, Hydrogen Chloride, Sulfur Dioxide, Hydrogen Sulfide	
4004	Ammonia/Methylamine	

CARTRIDGE/FILTER COMBINATION		
4001HE	Organic Vapor with HEPA filter	
4003HE	Organic Vapor, Chlorine, Hydrogen Chloride, Sulfur Dioxide, Hydrogen Sulfide with HEPA filter	
4004HE	Ammonia/Methylamine with HEPA filter	

CA200 Series - Material Composition:

Blower:		
	Blower Casing	Acrylonitrile-butadiene-styrene (ABS)
	Blower Gasket	Nitrile (Buna-N) (NBR)
Single Unit Battery:		
	Battery	Lithium-Ion
	Battery Service	8+ hours service under most conditions ¹ ; 250 discharge/charge cycles
	Charging Time	8 hours or less
	Environment	
	<ul style="list-style-type: none"> Working Temp 	32° - 122°F (0 - 50°C)
	<ul style="list-style-type: none"> Working Humidity 	10% - 95% RH non-condensing
	<ul style="list-style-type: none"> Storage Temp, Humidity 	14°F - 140°F (-10°C - 60°C)
	Protection	Short circuit / Overload / Over voltage / Over temperature
	Charging Current	9600 mAh: 7.2 volts; provides a minimum of 4 CFM to facepiece; provides a minimum of 6 CFM to hood
Breathing Tube:		
	Breathing Tube for loose fitting hood	High Density Polyethylene (HPDE)
	Breathing Tube for tight fitting facepiece	High Density Polyethylene (HPDE): from blower to "Y" fitting; Ethylene Propylene Diene Monomer (EPDM): hose from "Y" fitting to swivel connectors; High Density Polyethylene (HPDE): "Y" fitting
	O-Ring	Silicone
Backpad & Belt:		
	Belt, Standard, for CA201	Nylon
	Belt, Decon for CA201D	Polyvinyl Chloride (PVC)
Filters & Cartridges:		
	Filter/Cartridge Shell	Aluminum
	Particulate Filter Media	Hydrophobic, High Efficiency Particulate media >99.97% efficient
	Chemical Sorbents	Meets NIOSH criteria for cartridges under 42 CFR Part 84

¹ Many factors will affect actual battery service life including high concentrations of contaminant that will cause the filters to clog quickly, the age of the battery, number of recharges, and environmental conditions.

CA200 Series – Charger Electrical Specifications:

Many factors will affect actual battery service life including high concentrations of contaminant that will cause the filters to clog quickly, the age of the battery, number of recharges, and environmental conditions.

Single Unit Battery Charger:

Approvals: UL / CUL / TUV / CB / FCC / CE

Input:		
	Voltage Range	90 - 264VAC 127 - 370VDC
	Frequency Range	47 – 63 Hz
	AC Current	1A / 100VAC
	Inrush Current (max)	40A / 230VAC
	Leakage Current (max)	0.25mA / 240VAC

Output:		
	DC Voltage Set At*	8.4V
	Rated Current	3A
	Current Range	0 – 3A
	Rated Power	25.2W
	Charging Voltage Range**	7.7 – 8.6V
Environment:		
	Working Temp	32° - 122°F (0 - 50°C)
	Breathing Tube for tight fitting full facepiece respirators	20% - 90% RH non-condensing
	O-Ring	-4 - 176°F (-20 - +80°C)
Protection	Short circuit / Overload / Over voltage / Over temperature	

*The output voltage set at point measure by plug terminal & 0% load.

**Output charging voltage range is measured from 0% to 100% rated load.

CA200 Series – Protection Type:

For use in atmospheres NOT Immediately Dangerous to Life or Health (non-IDLH), and where there is an oxygen content of at least 19.5%.

Assigned Protection Factors:

- CA201 and CA201D: Compact Air 200 Series for use with North Primair loose fitting head covers.
 - Primair Loose Fitting Facepiece 25
 - Primair Plus Hood 1,000
- CA201 and CA201D: Compact Air 200 Series for use with North tight fitting full facepiece respirators.
 - 5500 & 7700 Series Half Masks 50
 - 5400 & 7600 Series Full Facepiece Respirators 1,000
- CA201 and CA201D: Compact Air 200 Series for use with North Primair FM™ 200 Series head covers.
 - PA201E01 & PA201P01 FM 200 Assembly 1,000
 - PA231E01 & PA231P01 FM 200 Assembly 1,000
 - PA301 & PA331 FM300 Assembly 1,000

Note: Because of the positive pressure created by the flow of air, PAPRs have a higher protection factor. The respirator manufacturer must have evidence that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an Assigned Protection Factor (APF) of 1,000. This level of performance can best be demonstrated by performing a Workplace Protection Factor (WPF) or Simulated Workplace Protection Factor (SWPF) study or equivalent testing. Absent such testing, all other PAPRs with helmets/hoods are to be treated as loose-fitting facepiece respirators, and receive an APF of 25.

Accessories:

CA113

Optional cover for CA127 and CA127L breathing tube

CA114

Optional cover for CA229 and CA229L breathing tube

CA200MCNA

Approvals: UL / CUL / CE

Multi-Charging station for up to 5 batteries, CA200 Series, US/Canada



The CA200MCNA Multi-Battery Charger is a complete 5-station power supply for the North Compact Air CA200 Series Powered Air-Purifying Respirator (PAPR). It can accommodate one to five battery chargers (included with the Compact Air CA200 Series and also sold separately) to create a multiple-station battery charger.

The CA200MCNA charger is a “smart” charger that includes a trickle charge that will allow you to leave the batteries in the tray after charging.

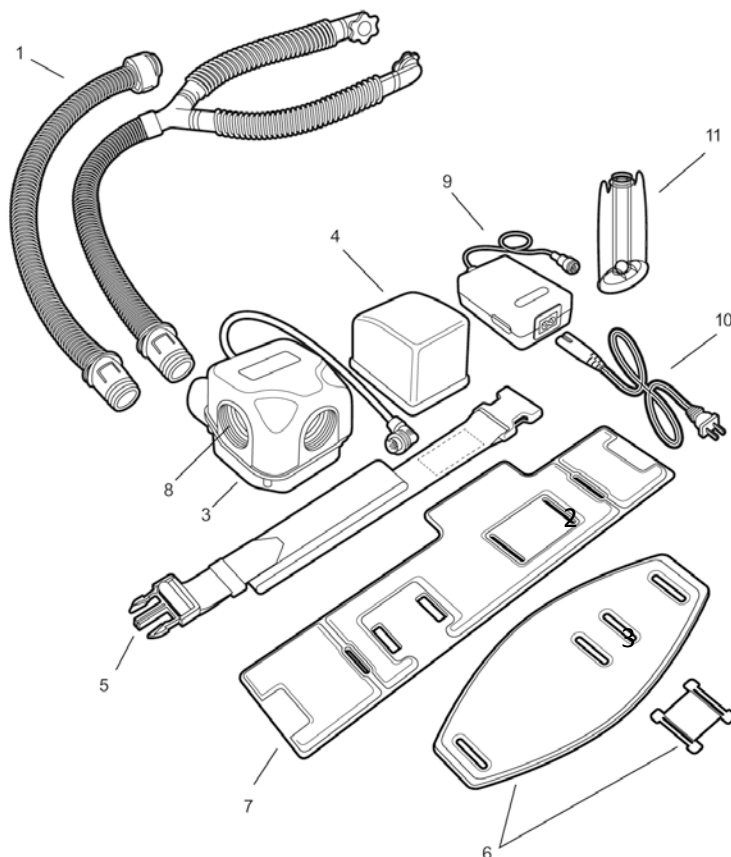
The CA200MCNA Multi-Battery Charger requires input voltages of 100 VAC to 240 VAC at 50/60hz max. 4 Amps.

Product Pack Weights and Dimensions:

Product	Description	Product Weights and Dimensions/Each				Shipping Weights and Dimensions/Case	
		Dimensions LxWxH (inches)	Weight (lbs)	Pcs / Pkg	Pkg / Case	Pack Dimensions LxWxH (inches)	Weight (lbs)
CA201	Compact Air 200 Assembly Standard belt	15.5 X 5.5 X 13.5	7.0	1	4	20 X 14 X 24	29
CA201D	Compact Air 200 Assembly Decon belt	15.5 X 5.5 X 13.5	7.0	1	4	20 X 14 X 24	29
CA229	Breathing Tube, "Y" configuration, 34" (86 cm) length	2 X 10 X 15 7/8 OD	0.9	1	10	14 X 15 X 11.5	10
CA229L	Breathing Tube, "Y" configuration, 40" (102 cm) length	2 X 10 X 15 7/8 OD	1	1	10	14 X 15 X 11.5	11
CA127	Breathing Tube, straight, 34" (86 cm) length	2 X 10 X 15 7/8 OD	0.3	1	10	19 X 9.5 X 9.5	3.5
CA127L	Breathing Tube, straight, 40" (102 cm) length	2 X 10 X 15 7/8 OD	0.35	1	10	19 X 9.5 X 9.5	4.0
40HE	HEPA Filter	4.5 X 4.5 X 2	0.2 each	3	4	13.5 X 10 X 9.0	4.2
4001	OV Cartridge	4.5 X 4.5 X 4	0.5 each	3	4	13.5 X 10 X 9.0	6.9
4003	OV/AG Cartridge	4.5 X 4.5 X 4	0.5 each	3	4	13.5 X 10 X 9.0	9.3
4004	AM/ME Cartridge	4.5 X 4.5 X 4	0.5 each	3	4	13.5 X 10 X 9.0	8.2
4001HE	OV/HE Cartridge/Filter Combination	4.5 X 4.5 X 4	0.7 each	3	4	13.5 X 10 X 9.0	8.2
4003HE	OV/AG/HE Cartridge/Filter Combination	4.5 X 4.5 X 4	0.7 each	3	4	13.5 X 10 X 9.0	10.4
4004HE	AM/ME/HE Cartridge/Filter Combination	4.5 X 4.5 X 4	0.7 each	3	4	13.5 X 10 X 9.0	9.3
CA221	Blower	4.5 X 4.5 X 7	1.0	1	10	13.5 X 15 X 11	11
CA222	Battery	3.1 X 4.2 X 3.2	1.8	1	10	13.5 X 15 X 11	19
CA125	Backpad & Belt, Standard	14 X 8 ¼ Belt length: 54	0.3	1	10	19 X 9.5 X 9.5	3.5
CA126	Backpad & Belt, Decon	21.5 X 6.8 X ¼ Belt length: 54	0.5	1	10	19 X 16 X 11	6.7
CA231	Charger	5 X 6 X 3	0.7	1	10	12 X 9 X 6.5	7.5
CA231LA	Charger, and power cord number ECA A (NEMA WD-1 1-15P), ECA I (AS 3112-1964, NZS 198) and ECA C (CEE7 XVI(2) Europlug, CEE7 XVII)	5 X 6 X 3	0.8	1	10	12 X 9 X 6.5	8.5
CA124	Gasket for CA221 Blower	5 X 5	.10	1	10	7.3 X 4.8 X 4.3	1.0
CA132	Air Flow Indicator	7.3 X 4.8 X 4.3	.20	1	10	12 X 9 X 6.5	2.5
CA133	Carrying Case	15 X 5.5 X 13.5	2.05	1	8	16 X 24 X 28	28

Replacement Parts:

Compact Air 200 Series PAPR Replacement Parts



Components	Prod. #	Description
1	CA127	Breathing Tube, straight, 34" (86 cm) length
	CA127L	Breathing Tube, straight, 40" (101.1 cm) length
2	CA229	Breathing Tube, "Y" configuration, 34" (86 cm) length
	CA229L	Breathing Tube, "Y" configuration, 40" (101.1 cm) length
3	CA221	Blower with power cable and housing for CA201 and CA201D
4	CA222	Lithium Ion battery pack and housing for CA201 and CA201D
5 & 6	CA125	Belt and Comfort Pad, nylon
5 & 7	CA126	Belt and Comfort Pad, PVC for easy decontamination (decon)
8	CA124	Gasket for CA221 blower, 10 per pack
9 & 10	CA231	Charger, includes a charger and power cord for CA201 and CA201D
11	CA132	Flow Indicator for Compact Air Series PAPR
--	CA133	Carrying case for CA201 and CA201D
--	CA200MCNAP	Replacement cord and plug for Multi-Battery Charger CA200 Series, US/Canada electrical outlets

Country of Origin for CA200 Series PAPR and replacement parts used for CA200 PAPR:

Blower and Battery Assembly	United States
Cartridges and Filters	The Netherlands
Straight Breathing Tube	The Netherlands
“Y” Breathing Tube	The Netherlands
Individual Charger	Taiwan
Multi-Battery Charger	Taiwan

For more information or any technical data not included with this Tech Data Sheet, please email us at hsptechsupport@honeywell.com or call 800.873.5242

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