

RESPIRATORY PROTECTION

Technical Data

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
CA201LA	Compact Air 200 with nylon belt. Includes additional power cord number ECA I (AS 3112-1964, NZS 198) and ECA C (CEE7 XVI(2) Europlug, CEE7 XVII).
CA201DLA	Compact Air 200 with PVC belt and comfort pad for easy decontamination (decon). Includes additional power cord number ECA I (AS 3112-1964, NZS 198) and ECA C (CEE7 XVI(2) Europlug, CEE7 XVII).

Additional Components Required:

Breathing tube, tight fitting facepiece or Primair® Series hood/hoodgear assemblies; and filters/cartridges.

Certification:

CA201, CA201D, CA201LA & CA201DLA are NIOSH approved for use with North Primair® Series hood/hoodgear assemblies; North 5500, 7700, 5400 and 7600 Series tight fitting facepieces.

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.

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 are 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 it is the filter that needs changing

Battery and Flow Alarms:

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

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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

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, CA201D, CA201LA & CA201DLA:

Compact Air 200 Series for use with North Primair loose fitting head covers.

Primair Loose Fitting Facepiece	25
Primair Plus Hood	1,000

CA201, CA201D, CA201LA & CA201DLA:

Compact Air 200 Series for use with North tight fitting facepieces.

5500 & 7700 Series Half Masks	50
5400 & 7600 Series Full Facepieces	1,000

CA201, CA201D, CA201LA & CA201DLA:

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 APF of 1,000. This level of performance can best be demonstrated by performing a WPF or 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

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CARTRIDGES AND FILTERS:

North Compact Air 200 Series is approved for use with the following cartridges, HEPA filter 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 Fluoride, Chlorine Dioxide, Hydrogen Sulfide
4004	Ammonia/Methylamine

Chemical Cartridge/Filter Combination:

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

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	
	• Working Temp	32° - 122°F (0 - 50°C)
	• Working Humidity	10% - 95% RH non-condensing
	• 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 face-piece	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 & CA201LA	Nylon
	Belt, Decon for CA201D & CA201DLA	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.

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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

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

	Rated Current	3A
	Current Range	0 - 3A
	Rated Power	25.2W
	Charging Voltage Range**	7.7 - 8.6V

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

Environment		
	Working Temp	32° - 122°F (0 - 50°C)
	Working Humidity	20% - 90% RH non-condensing
	Storage Temp, Humidity	-4 - 176°F (-20 - +80°C)
Protection		Short circuit / Overload / Over voltage / Over temperature

LATIN AMERICA CHARGER:

Includes the following additional power cords:

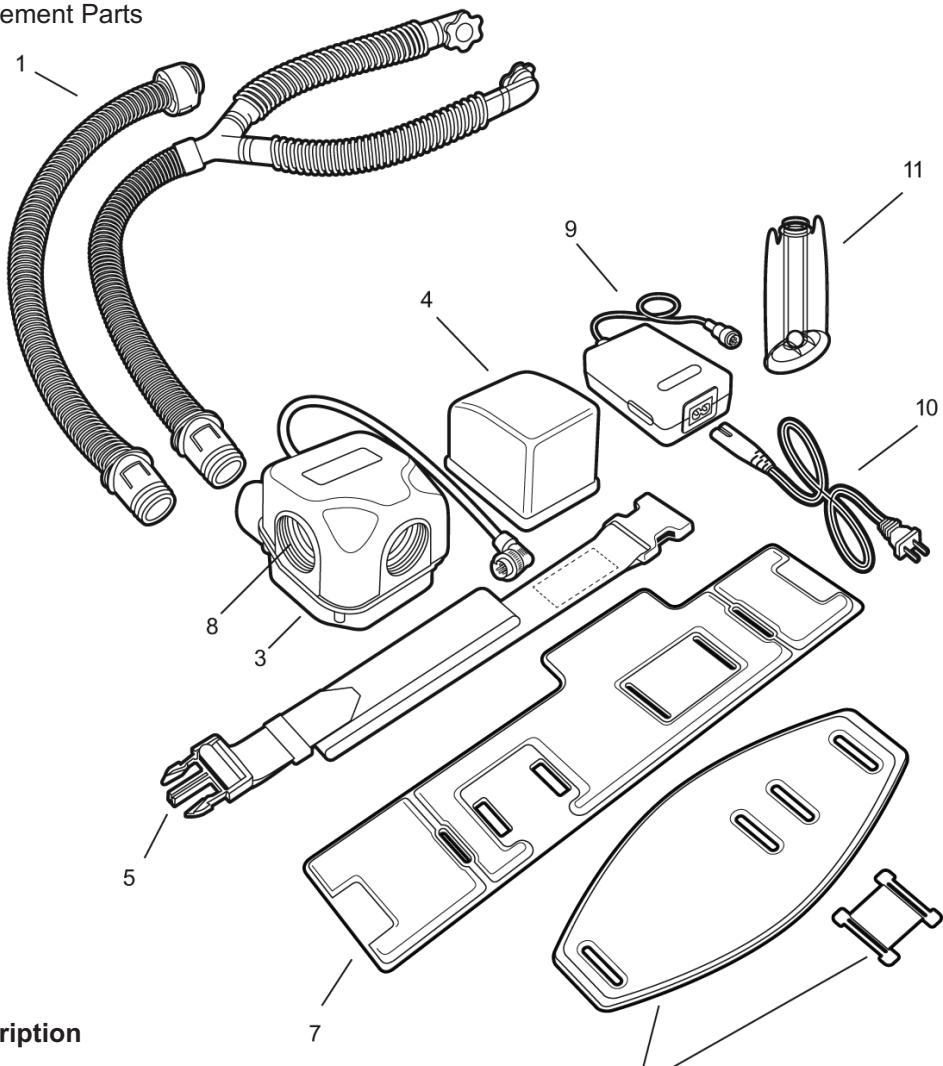
ECA I (AS 3112-1964, NZS 198) and ECA C (CEE7 XVI(2) Europlug, CEE7 XVII)

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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
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
	CA113	Cover for CA127 and CA127L breathing tube (optional)
	CA114	Cover for CA229 and CA229L breathing tube (optional)



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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
CA201LA	Compact Air 200 Assembly Standard belt. For Latin American Market	15.5 X 5.5 X 13.5	7.0	1	4	20 X 14 X 24	29
CA201DLA	Compact Air 200 Assembly Decon belt. For Latin American Market	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 X15 X11.5	10
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" (86 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.	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	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	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 1/4 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 1/4 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	12X 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

Country of Origin:

Blower and Battery Assembly	United States
Cartridges and Filters	The Netherlands
Straight Breathing Tube	The Netherlands
Y Breathing Tube	The Netherlands
Charger	Taiwan



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

WARRANTY

Honeywell Safety Products warrants the North Compact Air 200 PAPR to the original owner to be free from defects in materials and workmanship for a period of one (1) year from the date of original shipment from North's factory. North's obligation under this warranty will be, at North's option, to repair or replace without charge the North Compact Air 200 PAPR or any of its components found by North to have been defective during the warranty period, under the following terms:

1. The warranty claim is made (i) by the owner who purchased the North Compact Air 200 PAPR new from North or an authorized North Distributor, and (ii) not more than three (3) months after the end of the warranty period.
2. The North Compact Air 200 PAPR or component is found by North to have been defective in normal use and service during the warranty period of one (1) year from the date of purchase by the owner.
3. The North Compact Air 200 PAPR or component is returned freight prepaid to North, either to its factory in Cranston, Rhode Island, or to a North authorized service center, and is thereafter returned to the owner freight collect.
4. This warranty does not apply (i) to any North Compact Air 200 PAPR or component found by North to have become defective as a result of any accident, alteration, misuse, abuse, or servicing with parts not approved by North; (ii) to deterioration or aging of any component made of rubber or other elastomer since such components can be adversely affected by undue exposure to heat, sun, water, chemicals, ozone or other deteriorating elements; or (iii) facepiece lens, compressed-air cylinders and parts that become defective through normal use. The decision as to what constitutes normal use shall be made solely by HONEYWELL SAFETY PRODUCTS.
5. To maintain this warranty, the purchaser must perform maintenance and inspections as prescribed in the User's Instructions which shall include prompt replacement or repair of defective parts, and replacement of parts per the maintenance schedule as prescribed in the User's Instructions.

THE OWNER ASSUMES ALL OTHER RISKS, IF ANY, SUCH AS THE RISK OF ANY DIRECT, INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE ARISING OUT OF THE USE OF, OR INABILITY TO USE, THE PRODUCT. SERVICING NORTH RESPIRATORS WITH PARTS NOT APPROVED BY NORTH WILL VOID THIS WARRANTY AND NIOSH APPROVAL FOR THE RESPIRATOR UNIT. THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED AND MAY NOT BE VARIED OR EXTENDED EXCEPT IN WRITING BY AN AUTHORIZED OFFICIAL OF NORTH SAFETY PRODUCTS.ca127

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