Honeywell North® PA700 Series Powered Air Purifying Respirator (PAPR)

The Honeywell North PA700 Series is a belt mounted PAPR approved by the National Institute of Occupational Safety and Health (NIOSH). It is an all-new, integrated respiratory system that has been engineered to be easy to assemble, operate and maintain.

Protection Type

This respirator is ideally suited for applications in which non-powered air purifying respirators are not practical or in which a higher protection factor is required, yet where the atmosphere is not immediately dangerous to life and health (IDLH) and where there is an oxygen content of at least 19.5%. When used together with Honeywell North filter cartridges and Honeywell North facepieces or head covers, the PA700 Series PAPR provides respiratory protection against most dusts, fumes, mists, particulate radionuclides and radon progeny attached to dusts, fumes and mists.

Certifications

The PA700 series PAPR meets the requirements of NIOSH CFR 84 when assembled from components listed on the NIOSH approval label included with the product.

For detailed information on hood/headgear assemblies, see the user manuals for those products. Refer to the NIOSH approval labels provided with the PA700 Series blower assembly and filter cartridges for specific NIOSH approval numbers.

Assigned Protection Factors

The PA700 Series PAPR is for protection from particulates where (i) the concentration does not exceed the Permissible Exposure Limit (PEL) as determined by the Assigned Protection Factor (APF) of the headpiece, (ii) the concentration is below the contaminant's Immediately Dangerous to Life or Health (IDLH) level, and (iii) there is sufficient oxygen in the work environment according to the OSHA Regulation 29 CFR Section 1910.134 or CSA Standard Z94.4 requirements. See the table below for more information regarding the APF.

HEADPIECE SERIES	P/N	DESCRIPTION	SWPF TEST RESULTS*
Primair 100 Series	PA111	Hood assembly with bib	>10,000 fit factor APF = 1000
	PA121	Hood assembly, Coated, with bib	
	PA131	Hood assembly with collar	
	PA141	Hood assembly, coated, with collar	
Primair 200 Series	PA201E01	Hood assembly with hard hat	
	PA231E01	Hood assembly with hard hat and flame-resistant covers	

**All hoods tested with PA700 Series PAPR. Testing conducted by Honeywell Industrial Safety.*

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. If such testing is absent, helmets/hoods are to be treated as loose-fitting facepiece respirators, and should receive an APF of 25.

For more information
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Major Components

Blower

The PA710 blower is the heart of the PAPR. It draws contaminated air through the filter cartridge and pushes a continuous flow of clean air to the user. Every system is programmed and calibrated at the factory to provide a steady and measured flow of air, even as the filter cartridge becomes saturated with contaminants.

The blower also includes an intelligent alarm system that alerts the user when the battery charge or air-flow level is low. The system uses audible, visual and vibratory notifications to effectively and clearly communicate alarm status, even in loud, harsh conditions.

Battery and Charger

The PA710 blower is powered by a rechargeable lithium-ion battery pack. The PA720 battery pack can power the PAPR system for an entire 8-hour work shift*. It slides and locks into the blower unit, greatly reducing the risk that it will fall and break. The PA720 battery pack also features an on-board, state-of-charge display, which allows the user to evaluate the amount of remaining charge in the pack, without installing it into the blower.

The PA724 smart-charger system can re-charge a fully depleted battery in approximately 4.5 hours. In addition to charging, it continuously monitors the health of the battery pack and can alert the user to a potential problem via an LED display panel.

**Typical expectations based on laboratory testing. Actual battery run time and battery service life is dependent on many factors including working environment, charging conditions, filter cartridge type and headpiece type.*

Belt Assembly

The PA700 series belt assemblies have been designed with all-day comfort in mind. The ergonomic shape and choice of materials help distribute the weight of the PAPR evenly on the worker's body and keep it from slipping. The optional comfort pad can be snapped on, providing even more cushioning support.

Breathing Tubes

The all-new PA031 and PA031L breathing tubes work exclusively with the new PA700 series PAPR system. They feature simple, twist and lock connectors, a light-weight and highly flexible hose material and a swiveling connection to prevent the hose from twisting or binding.

Cartridges & Filters

The PA700 Series PAPR is approved for use with the PA7HE HEPA filter cartridge. The cartridge securely installs into the blower with a simple ¼-turn twist and lock system. It is 99.97% efficient and exceeds NIOSH requirements for service life.

Ordering Information

A complete NIOSH approved powered air purifying respirator includes a blower, battery pack, battery charger, belt, flow meter, breathing tube, filter cartridge and headpiece.

To simplify the ordering process, the major components of the PA700 Series PAPR can be purchased as a kit. Unless otherwise noted, breathing tubes, filter cartridges, filter cartridge covers and headpieces are sold separately.

STEP 1: SELECT YOUR PA700 SERIES PAPR BLOWER ASSEMBLY

PA701HE	Assembly includes blower, battery, battery charger, comfort pad, and nylon belt and **free starter kit** (P100 HEPA filter and optional filter cover)
PA701	Assembly includes blower, battery, battery charger, comfort pad, and nylon belt
PA701D*	Assembly includes blower, battery, battery charger, comfort pad, and PVC belt

STEP 2: SELECT YOUR HOOD OR FACEPIECE

PA100 Series Head Covers & Hoods	PA200 Series Hoods	Half Masks	Full Facepieces	Welding Full Facepieces
PA111	PA201E01	770030S, M, L*	760008A, S*	760008AW, SW*
PA121	PA231E01	550030S, M, L*	54001, S*	54001W, SW*
PA131				
PA141				
PA101S, M*				

STEP 3: SELECT YOUR BREATHING TUBE

PA031	Straight Breathing Tube for Primair Hoods, 34"
PA031L	Straight Breathing Tube for Primair Hoods, 40"
PA034*	Y-Shape Breathing Tube for tight fitting facepieces, 34"
PA034L*	Y-Shape Breathing Tube for tight fitting facepieces, 40"

STEP 4: SELECT YOUR CARTRIDGE OR FILTER

PA7HE	P100 HEPA** Filter

NOTE: Cartridge/Filter Combinations pending NIOSH approval

STEP 5: SELECT YOUR ACCESSORIES

PA75A1	Comfort Pad
PA71A1	Filter Cover/Shower Cap
CA113	Fabric Cover for straight breathing tubes (for use with PA031 and PA031L)
CA114*	Fabric Cover for Y-shape breathing tubes (for use with PA034* and PA034L*)
7003	Refresher wipes, with alcohol
7003A	Refresher wipes, alcohol free
80995	Cleaner/Sanitizer, 10oz bottle (not available in Canada)

**Pending NIOSH approval*

***HEPA (High Efficiency Particulate Air-Purifying), 99.97% minimum filter efficiency for all particulates.*

Technical Specifications

COMPONENT AND ATTRIBUTE	SPECIFICATION
Operating Conditions	
Temperature	+10°F (-12°C) to +118°F (+48°C) (Note: A low-battery alarm will be triggered if the internal temperature of the battery reaches 48C)
Humidity	20 – 90% R.H. (non-condensing)
Altitude	0 – 10,000 ft above sea level
Ingress Protection	IP65 with battery, breathing tube, filter cartridge and cartridge cover installed
Explosive Environments	The PA700 series is not suitable for potentially explosive environments.
Storage Conditions	
Temperature	Daily: -4°F (-20°C) to +95°F (+35°C) Ideal: 40°F (5°C) to 68°F (20°C)
Blower	
Housing Material	PC/ABS
Weight	1.77lbs (805g)
Air-Flow (loose-fit configurations)	7.2CFM (205lpm) Nominal – Default 7.8CFM (220lpm) Nominal – Medium 8.3CFM (235lpm) Nominal – High
Air-Flow (tight-fit configurations)	5.5CFM (155lpm) Nominal
Alarms	Audible, Visual and Vibratory (See user-instructions for details regarding alarm triggers and sequencing)
Motor Life	>10,000 hours (est.)
Noise Level	<75 dBA (average measured at the ear)
Battery Pack	
Materials	Housing: PC/ABS Latch: Nylon Gasket: Open-cell silicone foam
Weight	0.9lbs (410g)
Chemistry	Lithium-Ion
Capacity	10.9V, 6700mAh, 73wH
Run-time	≥8hr (average)*
Safety	Short circuit/Overload/Over voltage/Over temperature protection
Service Life	Minimum 500 charge/discharge cycles while maintaining at least 70-80% of the original capacity*
Shipping	UN38.3 certified for air-transportation (Always consult a logistics professional for information regarding proper shipment of li-ion battery packs)

Battery Charger	
Time to full charge	<4.5 hours in ideal charging conditions (See user-instructions for further details)
Display	Real-time battery charge and health monitoring (See user-instructions for further details)
Power Input Requirements	Power Supply: AC 100-240V, 1.5A 50-60Hz Single-bay Charger: DC 19.0V, 2.37A
Breathing Tubes	
Length	PA031: 34” PA031L: 40”
Materials	Connectors: ABS Corrugated Hose: Polyurethane O-Rings: Buna-N, Silicone
Belt and Comfort Pad	
Materials	Straps: Woven Nylon Back/Hip Support: Thermoplastic Polyurethane, PC/ABS Comfort Pad: Closed Cell Polyethylene Foam, Nylon Fabric (TPE Coated) Hardware: Acetal
Adjustment Range	28 – 60” (71-152cm) circumference
Filter Cartridge	
Shell Material	Polystyrene
Particulate Filter Media	Hydrophobic, high efficiency particulate media ≥99.97% efficient

**Typical expectations based on laboratory testing. Actual battery run time and battery service life is dependent on many factors including working environment, charging conditions, filter cartridge type and headpiece type.*

Additional Ordering Information

SKU	DESCRIPTION	QTY/ CASE	LENGTH IN (CM)	WIDTH IN (CM)	HEIGHT IN (CM)	WEIGHT LB (KG)
PA700 PAPR Assemblies						
PA701HE	PAPR Starter Kit w HEPA	1	-	-	-	6.0 (2.7)
Breathing Hoses						
PA031	Breathing Tube, Loose Fit	10	19.0 (48.2)	9.5 (24.1)	9.5 (24.1)	3.5 (1.6)
PA031L	Breathing Tube, Loose Fit, Long	10	19.0 (48.2)	9.5 (24.1)	9.5 (24.1)	4.0 (1.8)
Filter Cartridges						
PA7HE	HEPA Filter Cartridge (5/Box)	20	11.0 (27.9)	11.0 (27.9)	8.5 (21.6)	11.0 (5.0)
Accessories						
PA75A1	Comfort Pad	-	-	-	-	-
PA71A1	Cartridge Cover, Sm	-	-	-	-	-
Replacement Components						
PA710	PA700 Series Blower (blower-only)	5	14.5 (36.8)	9.5 (24.1)	11.0 (27.9)	12.0 (5.5)
PA720	Battery Pack, Standard Capacity	1	6.5	3.0	2.5	1.3 (0.6)
PA724	1-bay charger kit, N. America	1	-	-	-	1.3 (0.6)
PA722-3A	Power Kit, 1-bay charger, N. America	1	-	-	-	0.8 (0.4)
PA751	Standard belt, woven nylon	-	-	-	-	-
CA132	Air Flow Meter	1	No shipping carton specified for this item			

Note: Additional packaging information pending.

Limited Warranty

HONEYWELL INDUSTRIAL SAFETY warrants the Honeywell North Primair 700 Series 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 Honeywell's factory. Honeywell's obligation under this warranty will be, at Honeywell's option, to repair or replace without charge the Honeywell North Primair 700 Series PAPR or any of its components found by Honeywell 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 Honeywell North Primair Series 700 PAPR new from Honeywell or an authorized Honeywell Distributor, and (ii) not more than three (3) months after the end of the warranty period.

2) The Honeywell North Primair 700 Series PAPR or component is found by Honeywell 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 Honeywell North Primair 700 Series PAPR or component is returned freight prepaid to Honeywell, either to its factory or to a Honeywell authorized service center and is thereafter returned to the owner freight collect.

4) This warranty does not apply (i) to any Honeywell North Primair 700 Series PAPR or component found by Honeywell to have become defective as a result of any accident, alteration, misuse, abuse, or servicing with parts not approved by Honeywell; (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 INDUSTRIAL SAFETY.

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 HONEYWELL RESPIRATORS WITH PARTS NOT APPROVED BY HONEYWELL WILL VOID THIS WARRANTY AND NIOSH APPROVAL FOR THE RESPIRATOR. 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 HONEYWELL INDUSTRIAL SAFETY.