

ILC Dover Sentinel CBRN Cap 2 Systems

The Sentinel XL® CBRN Cap 2 Systems are the only NIOSH-approved Cap 2 CBRN PAPRs and therefore they have been tested to withstand the harshest threats to support decon operations and infectious disease applications such as: military warfare agents, biologic threats, industrial chemical threats, and nuclear particulate threats.



*Complete Sentinel XL CBRN
Back-pack Bag Configuration (Deluxe)*



*Complete Sentinel XL CBRN
Duffle Bag Configuration (Standard)*

There are three complete CBRN Cap 2 Systems (three battery options)

- Option (1): Alkaline battery system for 5 alkaline batteries—batteries not included
- Option (2): NiMH battery system with charger

Users can also choose from two mounting configurations

- Option (1): Deluxe, which is a NIOSH approved backpack configuration that allows for hands-free deployment.
- Option (2): Standard, which utilizes the Sentinel Quick-Loc Waist Belt that is easily decontaminated - come with heavy duty duffle bag.

*All CBRN systems come complete with
CBRN Hood, blower, CBRN breathing tube, flow meter,
and 3 CBRN chemical cartridges.*

ILC Dover Sentinel CBRN Cap 2 Systems

Special Features

- Cap 2 NIOSH-approved loose-fitting CBRN PAPR
- Manufactured in the U.S.
- Unique lay-flat butyl-hood design
- NiMH batteries eliminate “memory effect” associated with NiCd batteries
- Field-replaceable antimicrobial head strap
- Deluxe backback configuration: Optional NIOSH-approved and allows for hands-free deployment
- Standard Quick-Loc Belt configuration: Quick-Loc Belt comfortably supports the blower and provides tactile feedback upon blower engagement
- Rugged dual-chamber blower design for increased durability
- Systems are ergonomically designed
- Integral battery pack eliminates snagging potential and improves decontamination
- Low voltage alarm (audible and visible) for increase safety
- Comes with your choice of 2 battery configurations
 1. NiMH and charger
 2. Unique alkaline battery pack option lets you use 5 standard D-cell batteries (batteries not included)
- Latex-free
- All CBRN systems come with 3 CBRN Cartridges
- Conversion kits are available and provide all the necessary components to allow conversion to a HP or HP BioShield configuration
- Filters and cartridges easily attach to blower



The Sentinel CBRN Cap 2 Conversion Kit Includes:

- Unique lay-flat butyl hood assembly with integrated breathing tube
- 3 CBRN filter cartridges
- CBRN Cap 2 User's Manual

ILC Dover Sentinel CBRN Cap 2 Systems Performance Data

CBRN PAPR Performance Data

HD SMARTMAN Testing

TN Test #	Date	Test Duration (min)	Cummulative CT Values (mg-min/m3)	Pass/Fail
HD-1	4/19/07	480.00	0.000	Pass
HD-2	4/23/07	480.00	0.000	Pass
HD-3	4/24/07	480.00	0.000	Pass

Live Agent Data in SMARTMAN Test Chamber

TN Test #	Date	Test Duration (min)	Cummulative CT Values (mg-min/m3)	Pass/Fail
GB-1	4/19/07	480.00	0.000	Pass
GB-2	4/23/07	480.00	0.000	Pass
GB-3	4/24/07	480.00	0.002	Pass

Sentinel XL CBRN Filter Performance

Gas or Vapor	Test Concentration	Breakthrough Allowable (ppm)	Preconditioning	Test Flow Rate	Observed Service Life (min)	Service Life Requirement (min)	Pass/Fail PASS
Ammonia	1250	12.5	25%RH 80%RH	57 57	47.5, 52 >45	30	Pass
Cyanogen Chloride	150	2	25%RH 80%RH	57 57	>60 >60	30	Pass
Cyclohexane	1300	10	25%RH 80%RH	57 57	>60 55, >60	30	Pass
Formaldehyde	250	1	25%RH 80%RH	57 57	>60 >60	30	Pass
Hydrogen Cyanide	470	4.7*	25%RH 80%RH	57 57	>60 >60	30	Pass
Hydrogen Sulfide	500	5	25%RH 80%RH	57 57	>60 >60	30	Pass
Nitrogen Dioxide	100	1 ppm NO ₂ or 25 ppm NO	25%RH 80%RH	57 57	>60 >60	30	Pass
Phosgene	125	1.25	25%RH 80%RH	57 57	>60 >60	30	Pass
Phosphine	150	.30	25%RH 80%RH	57 57	>60 >60	30	Pass
Sulfur Dioxide	750	5.00	25%RH 80%RH	57 57	43, 56 >45	30	Pass

* Sum of HCN and C₂N₂

ILC Dover Sentinel CBRN Cap 2 Systems Specifications

Sentinel Blower	
Material:	Rugged, sealed nylon protective shell, with floating polycarbonate internal blower assembly — dual chamber provides enhanced durability
Weight:	1.0 lb (without battery) Nominal Flow Rate: 195 lpm
Noise Level:	<75 dB
Low Voltage Alarm:	Flashing LED and buzzer
Cartridge interface:	40 mm (military/NATO style) integration with integral blower gaskets
CBRN Hood	
Configuration / Design:	“Lay flat” design with replaceable head strap
Material:	Butyl coated fabric
Seams:	Sewn and taped
Head strap:	Cushioned/antimicrobial with five adjustment positions — supports a wide range of wearers
Exhaust System:	Single silicone valve — M40 style with plastic valve cover
Sizing:	Single size - No fit testing required
Hose:	Flexible, reinforced with butyl sheath — integral part of butyl hood.
Securing Feature:	Adjustable draw cord
Chemical Cartridge	
NIOSH Protections:	CBRN Cap 2
Package:	Hermetically sealed, foil pouch, sealed
System Usage:	3 each
Rechargeable Battery Pack (Standard NiMH)	
Configuration:	Sealed external cover with blower connector
Battery Mount:	Direct snap-on to blower
Weight:	1.65 lbs
Nominal Life:	8 hours
Charge / Discharge Cycles:	500
Recharge Time:	5 hours
Alkaline Battery Pack	
Configuration:	Internal receptacles hold D cell batteries with external sealed cover
Battery mount:	Direct snap-on to blower
Weight:	1.95 lbs
Nominal Life:	10 hours (per five Duracell® batteries)
Charger	
Type:	AC/DC for sealed NiMH Battery
Current:	2 amps