

## Physical Description:

The M20A1 SCPE is a lightweight, low cost\* system that provides NBC collective protection for existing structures. It consists of a large, cylindrical shaped **Room Liner** designed to be pressurized inside a room or building. A **Support Kit** contains a motor blower for pressurization and flexible air ducts to direct the air. A **Hermetically Sealed Filter Canister (HSFC)** is provided to filter ambient air before it is ducted into the liner. A collapsible **Protective Entrance (PE)** attaches to the pressurized liner and serves as an airlock for personnel entry/exit. A **Recirculation Filter**, located inside the Room Liner near the PE, provides an extra margin of agent filtration. The system comes with two packaged spare Room Liners. Room Liners can be interconnected with an adapter to enlarge the protective area (with the addition of a Support Kit and HSFC per additional liner). A single packaged M20A1 SCPE system weighs about 500 lbs and requires 40 cu. ft.

## Use/Function:

The M20A1 SCPE provides collective protection for up to ten individuals against NBC agents when deployed inside a room or building by means of a 0.6 inches water gage overpressure provided by a 200 CFM filtered airflow. The M20A1 SCPE is a clean air shelter that allows personnel to perform their duties unencumbered by individual protection equipment. The M20A1 SCPE can be used as a command and control post, or as a rest and relief shelter.

## Background:

The basic M20 SCPE was developed and type classified in Jun 86. A Pre-planned Product Improvement (P3I) Program generated the M20A1 SCPE and six M28 SCPE configurations. The M20A1 SCPE replaces the M51 Shelter, and fills the gap between the basic M20 system and the Chemical – Biological Protected Shelter (CBPS). The M20A1 SCPE has the same mission profile as the basic M20 and will replace it by attrition.

\* Pricing is dependent on quantities ordered. Contact Item Manager for availability and pricing information.

## M20A1 SCPE Ordering Data

### System:

M20A1 SCPE ..... 4240-01-330-7806

### System Components:

Room Liner Package (3 liners) ..... 4240-01-331-0170  
Protective Entrance ..... 4240-01-331-2938  
Support Kit \*  
Support Kit Case ..... 4240-01-363-3772  
Motor Blower Assembly ..... 4240-01-330-8885  
Maintenance Kit ..... 5180-01-331-2921  
Repair Tape ..... 7510-01-473-3996  
Repair Patches ..... 4240-01-467-4611  
Power Cable Assembly ..... 6510-01-363-2154  
Cable Adapter (110 VAC) ..... 6150-01-363-2153  
Cable Adapter (220 VAC) ..... 6150-01-463-7028  
Hose Assembly, 7 ft. .... P/N 5-19-11444  
Hose Assembly, 5 ft. .... P/N 5-19-11443  
Extension Light ..... P/N 5-19-8158  
Gasket, Hose Adapter ..... 5330-01-350-4593  
Gasket, Filter Adapter ..... 5330-01-338-4134  
Hose Clamp ..... MS35842-15  
Filter, Gas-Particulate (HSFC) ..... 4240-01-366-6243  
Recirculation Filter ..... 4240-01-348-5257  
Filter Element ..... 4240-01-332-2068

\* Support Kit is not provisioned as a major system component.

### Technical Manuals Available

TM 3-4240-313-10 Operator's Manual: Simplified Collective Protection Equipment, M20A1  
TM 3-4240-313-20&P Organizational Maintenance Manual Including Repair Parts and Special Tools List: Simplified Collective Protection Equipment: M20A1

### For Additional Information, Contact:

Item Manager: Soldier, Biological and Chemical Command  
Attn: AMSSB-HB (RI), Rock Island, IL 61299-7390  
Phone: (309) 782-4265 or (309) 782-5455

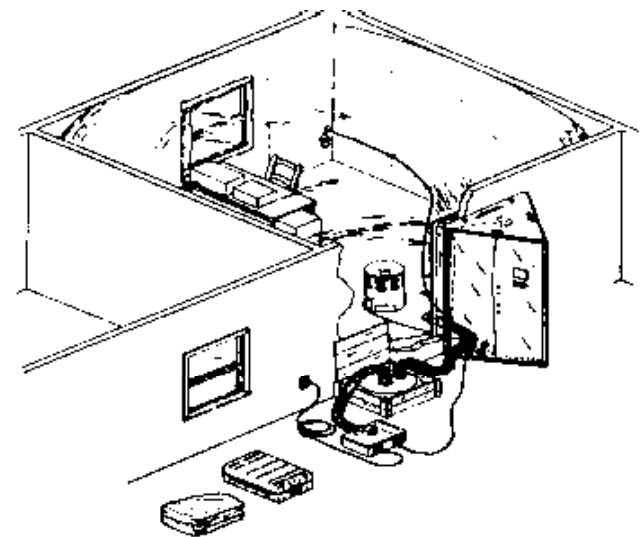
Materiel Developer: Edgewood Chemical Biological Center  
Attn: AMSSB-REN-P, APG, MD 21010-5424  
Phone: (410) 436-5767 or (410) 436-5512

### Or Email:

colproteam@sbccom.apgea.army.mil



## M20A1 Simplified Collective Protection Equipment (SCPE)



**NBC protection for  
Command & Control  
and Rest & Relief  
operations**

## System Characteristics:

- Transportable by truck or aircraft.
- System weight / cube: 500 lbs / 40 cu. ft.
- System components are two-man portable.
- Can be used in existing structures or rooms.
- Easily assembled and maintained.
- Liquid chemical agent resistant room liner provides 200 sq. ft. of useable floor space.
- Collapsible, pressurized PE allows for entry/exit of personnel into or from the protective area without introducing contaminants.
- Differential pressure gages indicate pressure in Room Liner and PE for operation and entry/exit.
- Interior lights illuminate Room Liner and PE.
- Power cable connects to standard generator set. Also operates on 110 VAC / 60 Hz or European 220 VAC / 50 Hz power with adapters.
- Motor Blower Assembly provides 200 CFM airflow through HSFC to the Room Liner and PE.
- Blower motors have 550 hours operating life.
- Can be operated in a bypass mode without HSFC when system is used for training.
- Support Kit includes motor blower assembly, air ducts, power cables/adapters, and repair tape and patches for system set-up and maintenance.
- Recirculation Filter provides ~500 CFM airflow to minimize contamination transfer during entry/exit.
- Protective area can be enlarged by connecting Room Liners in tandem. A Support Kit and HSFC are required for each additional Room Liner.
- 5-year extendable shelf-life.

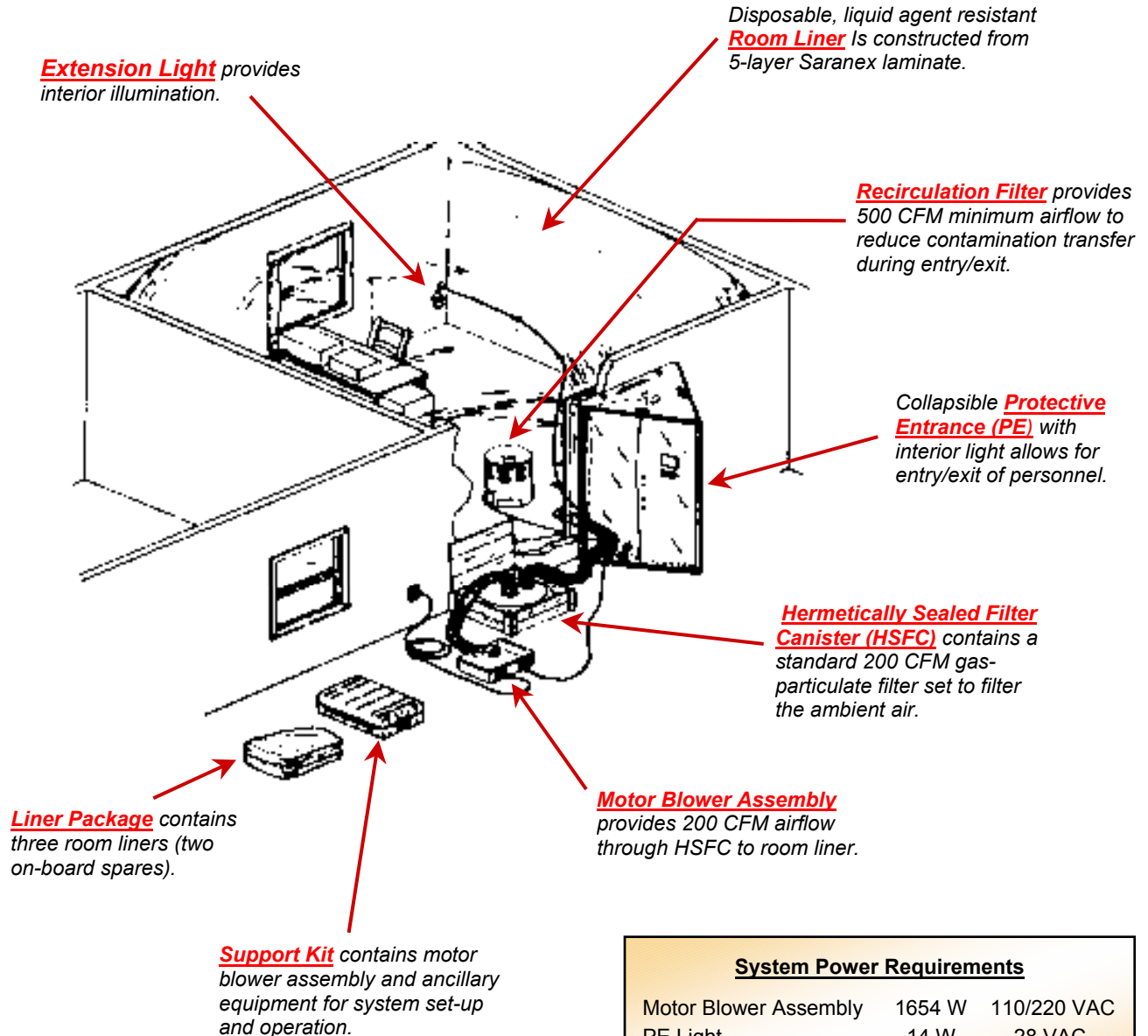
## Mission Capabilities:

- Can be erected (or struck) in 30 minutes or less by two persons in MOPP IV.
- 3-minute PE purge time for entry/exit.
- 3 Disposable Room Liners are provided for initial set-up and two moves during a 72-hour mission.
- Single gas-particulate filter (HSFC) needed for a 72-hour mission.

## Special Limitations: M20A1 does not provide

- Environmental control equipment, however, interface adapters are available as MTOE items.
- A portable source of electrical power (generator).
- NBC detection/warning devices.
- Protection from nuclear radiation, though it does provide protection from radioactive particles.
- Protection from carbon monoxide exhaust gases.

# M20A1 SCPE Components and Features



### System Power Requirements

Motor Blower Assembly	1654 W	110/220 VAC
PE Light	14 W	28 VAC
Extension Light	100 W	110 VAC
Recirculation Filter	300 W	110 VAC