



**Fan-supplied Positive-pressure Breath-responsive Respirator**



**SE400 Advanced Functions**  
*Supplementary User Instructions*



600007 B  
Nov 2011

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## ABOUT THESE USER INSTRUCTIONS

These user instructions describe the additional features that are available on “Advanced” models of the SE400 range. They are intended as a **supplement** to, and should always be read **in conjunction** with, the *SE400 User Instructions (600006)* or *SE40 User Instructions (100423-01)*.

### Warning

Refer to the SE400 or SE40 user instructions for information on the safe use of the respirator. Incorrect use of the respirator may result in personal injury.

### Advanced features

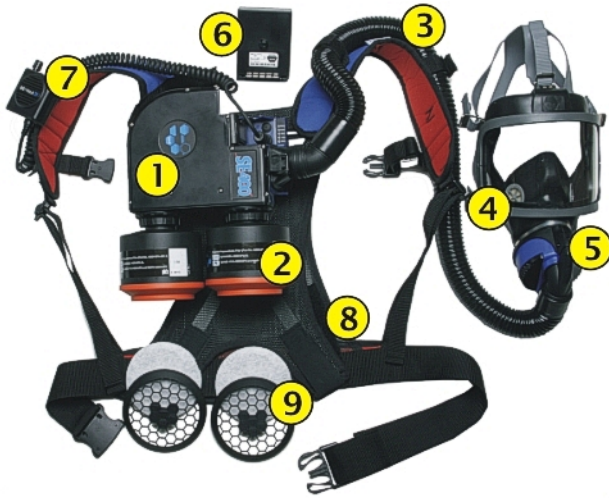
Advanced models of the SE400 range have additional features. These features do not affect the level of protection of the respirator, but provide enhanced management and monitoring for the user.

The advanced features are:

- Measurement of total volume of air flowing through the filter media
- User-configurable filter end-of-life warning
- User-configurable warnings for the Self-Test function
- User-configurable warnings for missing filter media
- Logging and downloading of important data on the operation of the SE400, including the nature of any events and the time they occurred
- Real-time monitoring of mask pressure and pressure drop across the filter media when connected to a PC
- Configuring of the SE400 to suit the user’s needs
- *SE-Data*, a comprehensive personal protection management tool, including an extensive database of hazardous substances (supplied with the SE400 CD-ROM)

## Main components

A comprehensive list of components is given in the respirator user instructions.



1. Fan unit (SE400AT-2 shown)
2. Filtration media
3. Breathing hose
4. Facepiece
5. Demand valve
6. Battery
7. SE-Talk speaker unit
8. Back pack
9. Prefilters and prefilter holders

## Features



1. ON/OFF button
2. Status lights panel
3. Communication socket



4. Threaded connectors for filtration media
5. Threaded nuts for attachment to SE-shield protective suits



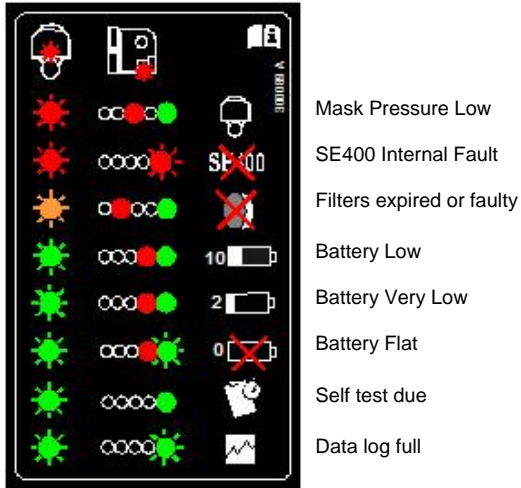
6. Warning light

## OPERATION

### ***Warnings label on fan unit***



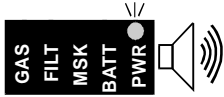



The SE400 fan unit is fitted with a label which summarises the warning conditions likely to be encountered during operation. Advanced models have an expanded warnings label.

#### **Advanced label**



## Additional warnings during operation

Listed below are warnings for Advanced models in addition to the warnings listed in the SE400 and SE40 user instructions.

Warning light	Status lights and buzzer	Condition	What to do
GREEN		PWR steady GREEN Buzzer sounds once per minute	Self-Test required * See supervisor Perform Self-Test
GREEN	<b>MOTOR RUNS AT FULL SPEED!</b> 	PWR steady GREEN Buzzer sounds once per minute	Self-Test required * See supervisor Perform Self-Test
GREEN	<b>MOTOR DOES NOT START!</b> 	PWR steady GREEN	Self-Test required * See supervisor Perform Self-Test
ORANGE		FILT steady RED <b>MOTOR SHUTS DOWN!</b>	Missing or faulty filter media detected Keep respirator on your face. Move immediately to safe area **. Inspect and replace filter media
ORANGE		FILT steady RED Buzzer sounds once per minute	Filter media have expired Move to safe area ** Replace filter media and reset filter life
GREEN		PWR indicator flashing GREEN	Data log full See supervisor Download data log

\* The type of Self-Test warning depends on how the SE400 is configured. For more information see section “Menu Mode”.

\*\* “Safe area” refers to an uncontaminated area.

## **MENU MODE**

Menu mode is operated using the ON/OFF button on the fan unit while observing the status lights panel.

In addition to the standard Self-Test functionality, Advanced models have the following functions accessible through the menu mode.

### ***Filter life warning***

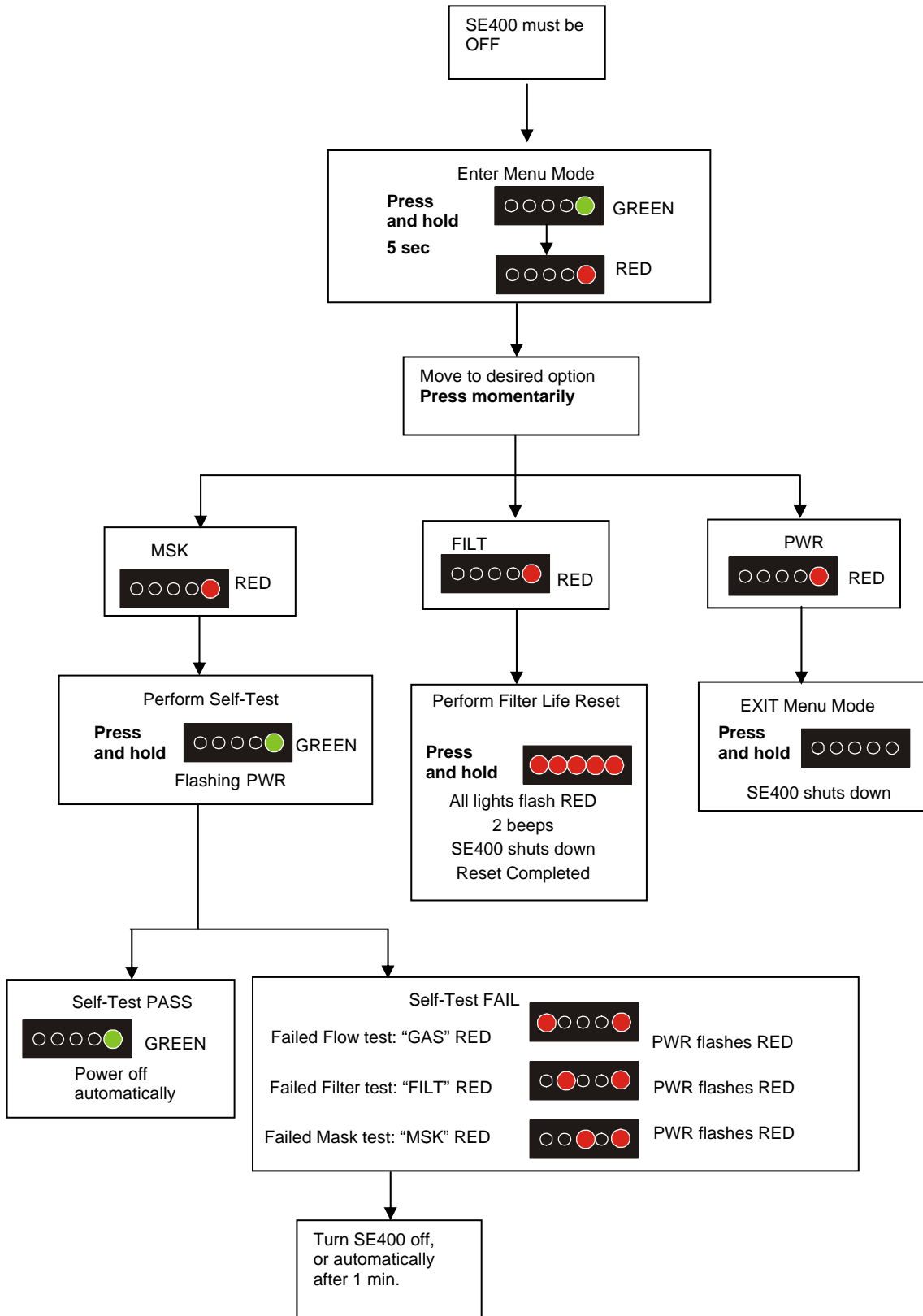
The SE400 has a filter life warning function. It warns the user when the filter media are due for replacement.

The filter life warning can be configured by the user. For more information refer to section *SE-Win Configuration and Management*.

To perform a filter life reset:

1. Enter menu mode, then select Filter Life Reset by following the Menu Mode flow chart
2. All status lights flash RED and the SE400 beeps twice and shuts down. The filter life reset is completed.

## Menu Mode Functions



## SE-WIN CONFIGURATION AND MANAGEMENT

The advanced SE400 models have powerful configuration and management capabilities. These capabilities can be accessed via a PC running SE-win software.

The SE-win software and user instructions can be found on the SE400/SE40 CD-ROM, and are also available for download from the S.E.A. website, at [www.theseagroup.com.au](http://www.theseagroup.com.au)

For comprehensive instructions on the use of SE-win, refer to *SE-win user instructions 300346-02*.

Data cable DC-A is required for connecting the respirator to the serial port of a PC. If no serial port is available, a USB adapter may be used to create a virtual serial port.

### ***SE-win functionality***

SE-win has the following functionality:

- Logging and downloading of important data on the operation of the SE400, including the nature of any events and the time they occurred.

The data logger is a powerful tool for analysing the operating patterns of SE400 users in the workplace, and can assist in the development of safer work practices.

Data logs can be downloaded and then printed out and/or saved to a file.

The data logging function can be turned on or off, as can the “data log full” warning.

The events logged are:

- Power on and power off
  - Selection of emergency mode
  - All alarms and warnings
  - Self tests, and whether passed or failed
  - Filter life resets
  - Data log downloaded
- Customising the settings of the Filter End Of Life (FEOL) function. There are a number of optional filter life modes, and the warning function can be turned on or off (the factory default is OFF).
  - Customising the settings of the Self-Test function. There are a number of optional warning modes, and the warning function can be turned on or off (the factory default is OFF).
  - Changing time and date settings of SE400
  - Real-time monitoring of the following parameters during use:
    - mask pressure
    - pressure drop across the filters
    - flow rate and volume through the filters

The respirator must be connected to a PC during monitoring.

## TROUBLESHOOTING

Listed below is troubleshooting information for Advanced models in addition to the troubleshooting information provided in the SE400 and SE40 user instructions.

Status lights	Possible causes	What to do
FILT indicator steady RED	None or only one set of filter media fitted	Fit filter media according to user manual
	Filter media not fitted properly	Fit filter media according to user manual
	Wrong filter media fitted	Fit SEA filter media marked for use with the SE400
	Filter media clogged	Change filter media
	Pressure sensor out of calibration or an internal fault in the SE400 electronics	Send the unit to nearest SEA service for repair and/or calibration
GAS indicator steady RED	None or only one set of filter media fitted	Fit filter media according to user manual
	Filter media not fitted properly	Fit filter media according to user manual
	Wrong filter media fitted	Fit SEA filter media marked for use with the SE400
	Filter media clogged	Change filter media
	Demand valve not correctly assembled	Assemble the Demand valve according to the user manual
	Air flow sensor out of calibration or an internal fault in the SE400 electronics	Send the unit to nearest SEA service for repair and/or calibration

## SE-DATA

SE-Data is a comprehensive personal protection management tool, designed to help organisations develop and implement a company-wide personal protections program. It includes an extensive database of hazardous materials.

Contact The S.E.A. Group for more information.



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Rev B per CN 1276