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# The Air Source® C.A.R.T.

## CONTINUOUS AIR RESOURCE TRANSPORT

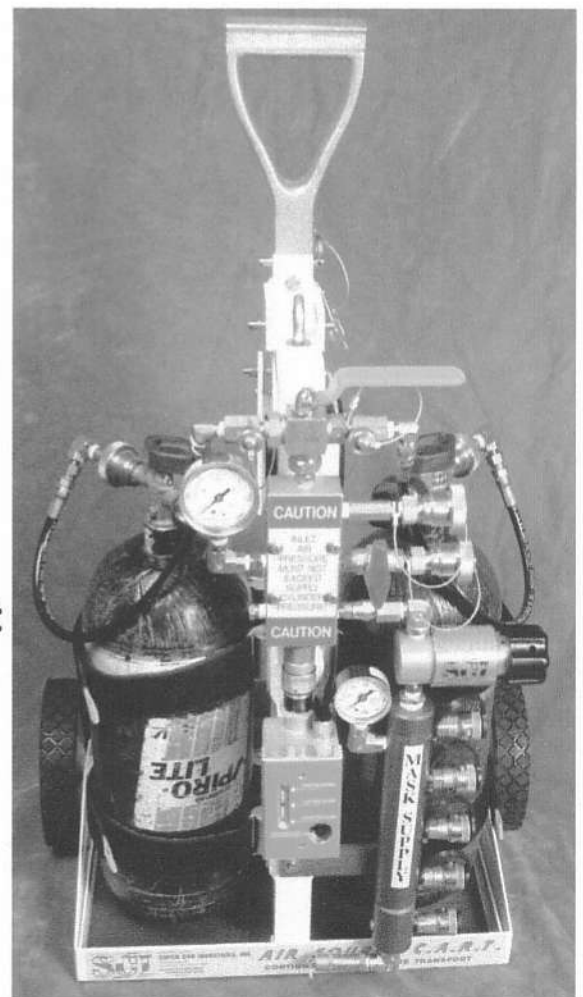
### *Operating and Maintenance Instruction Manual*

*THE AIR SOURCE® C.A.R.T.  
Model F-ASC-001-001*

*THE AIR SOURCE® C.A.R.T.  
Model F-ASC-SCUBA*

**“F” SERIES**

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Revision 3  
April 3, 2006

## PRODUCT DEDICATION

I would like to dedicate the development of the Air Source® C.A.R.T. to two individuals who became my mentors, teachers, confessors, and best friends. This product is dedicated to Chief James Hughes (March 5, 1940 - August 20, 1990). Jim served as Chief of the Bristol Borough fire fighting forces from 1970 through 1974. Jim's devotion to the volunteer fire service was an inspiration to all of us young officers in the fire service. His logic, fairness, and professional approach to all problems within the fire service molded many young people into exceptional fire officers. Jim is sorely missed by many, but forgotten by none. His untimely death from cancer on August 20, 1990 at the age of 50 shocked and saddened all of us who knew, loved and respected him. The second individual that this product is dedicated to is Chief William Mulholland. Bill dedicated over 30 years of his life to the American Fire Service, and served in just about every capacity in the fire service that one can imagine. As Fire Chief of the Falls Township Fire Company No. 1, Bill supervised all of the fire fighting forces that participated in the K-Mart Distribution Center fire of June 21, 1982. This 1.1 million square foot warehouse fire kept firefighters on location for a week. Bill served on many Bucks County, Pa. fire service committees and boards and assisted in the expansion of all fire related county agencies such as the fire school, communications system, EMS program, and 911 emergency response implementation. Bill also served as a Director in the Eastern Division of the IAFC, and in January 1992 was seated as the President of the Keystone State Fire Chiefs Association. Bill also served in many capacities in the Eastern Division of the International Association of Fire Chiefs, ultimately serving as President immediately prior to his death. Bill's undying devotion to the safety and well-being of all firefighters is an inspiration to all of us. Bill's untimely passing on July 3, 1993 will leave a great void in the volunteer fire service community.

**"Friendships multiply joys and divide griefs." -- Henry George Bonn (1796-1884)**

## ABOUT THE INVENTOR OF THE AIRSOURCE® C.A.R.T.

The Air Source® C.A.R.T. was designed and built by Joseph M. Nelson, Sr., who serves as the President and Chief Executive Officer of Super Can Industries, Inc. Joe has been a volunteer firefighter for 26 years with the Bristol, Pa. fire service. For 19 of those 26 years, Joe served as Fire Chief of the Bristol Volunteer Fire Co. No. 6, and was the driving force behind the formation of the Dive Rescue Team. In his 26 years as a volunteer firefighter, Joe served in all aspects of fire fighting including engine companies, rescue companies, ladder companies, tactical foam companies, and dive rescue operations. In April of 1991, Joe retired as a Fire Chief to devote his time and energy in designing and marketing new innovative products for the fire service. The Air Source® C.A.R.T. is the first of these endeavors.

## SPECIAL ACKNOWLEDGMENTS

I would like to take the time to thank all of my fellow firefighters whose opinions, experience, comments, and suggestions brought the Air Source® C.A.R.T. from a concept into a reality. A special thanks to the dedicated officers and members of the Philadelphia Fire Department's Heavy Rescue 1. These highly motivated, dedicated individuals, under the command of Captain William Schweizer, assisted in every stage of the research and development of the Air Source® C.A.R.T. It is always a pleasure to work with people who are dedicated to their career, and the members of Heavy Rescue 1 exemplify the meaning of the word "professional".

## SPECIAL NOTES

The Air Source® C.A.R.T. was designed with every possible safety consideration. From the self-arming alarm system to the personnel locator system, we kept the firefighter and rescuer in mind. Our concerns for the safety and well-being of firefighters and rescuers is due to the fact that we also are firefighters. We have faced the same situations and conditions that you will face in the future. It is our belief that Murphy was an optimist when he wrote, "ANYTHING THAT CAN GO WRONG, WILL". In our experience on difficult operations, we discovered that "EVERYTHING THAT COULD GO WRONG, DID GO WRONG."

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## 1.0 INTRODUCTION

Super Can Industries, Inc. has designed and manufactured a superior product in the Air Source® C.A.R.T. We firmly believe in the design, safety and features of the Air Source® Cart and the benefit that the Cart will bring to air line extension breathing operations. It is our intent not only to deliver quality products, but to support and assist our users in all aspects of the Air Source® C.A.R.T.'s operating and maintenance requirements, so that you may fully understand the product as we do.

The Air Source® C.A.R.T. is a Continuous Air Resource Transport that is designed to be an independent and continuous source of breathing air to pressure demand air line respirators.

The Air Source® C.A.R.T. can also be supply air for pneumatic tools in an emergency, provided the air pressure needed to operate the pneumatic tools operate within the 75 to 120 psi range.

### 1.1 IMPORTANT INFORMATION

This Operating and Maintenance Instruction Manual contains important information and must be completely read and understood by all persons who may use or maintain this apparatus.

The Air Source® C.A.R.T. should be used or maintained only by trained persons who know and understand the instructions contained within this manual.

Warnings, Cautions, and Notes used in this manual have the following significance:

#### **!!! WARNING !!!**

**Procedures and techniques that will result in personal injury and / or death if not carefully followed.**

#### **!! CAUTION !!**

**Procedures and techniques that will result in damage to the equipment if not carefully followed.**

#### **! NOTE !**

**Procedures and techniques that are considered important enough to emphasize.**

#### **!!! WARNING !!!**

1. Do not use the Air Source® C.A.R.T. until the instruction manual has been read and understood.
2. Do not use the Air Source® C.A.R.T. to supply breathing air to respirators without a trained and qualified attendant positioned at the C.A.R.T.
3. Do not use the Air Source® C.A.R.T. to supply respirators used in IDLH (Immediately Dangerous to Life and Health) atmospheres unless the supplied air respirators have an emergency back up supply cylinder of sufficient duration to make an emergency egress. An IDLH atmosphere is any environment that poses an immediate hazard to life or produces immediate irreversible debilitating effect on health.
4. Use of the Air Source® C.A.R.T. to supply air to a Pressure Demand Resuscitator does not convert the respirator into the equivalent of a self contained breathing apparatus (SCBA), or an emergency escape breathing apparatus (EEBA).
5. At all times the Air Source® C.A.R.T. must be used in compliance to all local, state, and/or federal regulations regarding the use of supplied air respirators and/or other applicable standards.

### 1.2 AIR SOURCE ® C.A.R.T. OVERVIEW

The Air Source®, Series of Continuous Air Resource Transports (C.A.R.T.), was designed and developed to fill a void in the fire and rescue service for a source of continuous air supply for rescuers at the scene of a confined space rescue. In the design and developmental stages, many other uses for the Cart were recognized and utilized. The Cart has been used to supply multiple air tools such as air chisels, air bags, and air-powered cutoff tools, etc. at rescue scenes. It has been used to supply Hazardous Material Suits and SCBA at Haz Mat incidents. The Air Source C.A.R.T. can be used whenever a continuous available source of medium pressure (115 psi) is needed. The Cart is sold without cylinders so that the customer may utilize their own existing inventory of SCBA cylinders. Cylinders are an available option from Super Can Industries, Inc. and their authorized distributors. In the research and development of the Air Source® C.A.R.T., which took 18 months, we tried to simulate every possible scenario that a rescuer could come in contact with, and address those issues. This product was designed by firefighters -- not engineers -- and it was designed to protect our most valuable asset, the firefighter.