

USER MANUAL

EXHIBIT 3

DEC 30 1998

1-800-MILITARY

Introduction

The G.E.M.S. system consists of a personal alarm that is affixed to ones clothing and will sound a loud audio alarm and transmit an emergency radio message to a remote receiver if the wearer of the alarm becomes immobilized, or activates the manual call for help button. The T PASS™ combines two new technologies, namely the license free spread spectrum radio bands and the Super Pass (Personal Alert Safety System) technologies. The combination of these technologies results in a NEW safety device that will radio to a command receiver that an emergency situation exists and at the same time sound a loud audio alarm. The loud audio alarm (over 100 dBA) permits ease in locating the person in trouble. The effective radio signal range is typically one half mile but is dependent upon environmental conditions. No F.C.C. license is required for operation.

Operating Instructions

Always test the T PASS™ prior to each use. To turn the unit on / off, simultaneously depress both buttons located on sides of unit. This feature safeguards against accidental turn off. When activated, an acknowledgment click sound will be heard and the T PASS™ will display a bright, flashing, wig-wag type display. Unit is now in the automatic mode. If the wearer should become motionless for a period of time that exceeds 20 seconds, a 8 second pre-alert ticking will be heard. If no movement is detected, the T PASS™ will go into a loud audio alarm and transmit an emergency radio message. The audio alarm can be heard one half mile or greater, is easily recognized and provides an audio beacon that permits pinpointing the exact location of the person in distress. While T PASS™ is in the off or automatic mode the emergency alarm can be manually activated by depressing the elongated button located on the front of unit. Note: The alarm will continuously sound and can only be turned off by depressing both side buttons simultaneously. The radio transmission should not be relied upon as the primary emergency alarm.

For those models equipped with temperature sensing, a rapid ringing tone, that is different from the emergency distress signal, will be observed. Approximate times for the temperature alarm to respond are:

- 300 ° F - 2 to 4 minutes
- 250 ° F - 4 to 5 minutes
- 200 ° F - 5 to 6 minutes

Your unit is equipped with temperature sensing if the serial number (located in the battery compartment) ends with an "H". Red push buttons also identify a temperature sensing unit.

The ideal wearing position of the T PASS™ is to clip it to a belt, although the unit may be attached to an outer garment.

T PASS™ Battery Installation / Replacement

Remove the battery cover (4 screws located on back panel), and remove the existing battery. Connect the new battery and press the reset switch. Pressing the reset switch after battery replacement will enhance battery life. Replace back cover, ensuring that the 4 screws securing the back are tightened. Do not overtighten the screws when replacing the back. Over tightening will cause deformation of the back, possibly damage the back and case.

WARNING!

Always use one of the 9 Volt alkaline batteries specified below. DO NOT USE battery types marked heavy duty or extended life. To reduce risk of ignition of a flammable atmosphere, batteries must only be changed in an area known to be nonflammable.

When the battery has been exhausted to 20% remaining capacity, an audible ticking sound will be heard. This sound warns one hour operating time remains on the battery and replacement is necessary.

Suggested battery type is: Duracell MN1604. Under normal use batteries should last approximately 3 months. Grace Industries, Inc. recommends battery replacement every 2 - 3 months or when the battery is depleted to 7.5 Volts D.C.. Grace Industries, Inc. assumes no liability for mechanical, electrical or other types of battery failure.

WARNING!

Warning - Substitution of components may impair intrinsic safety.

T PASS™ Maintenance

The T PASS™ requires minimum maintenance and will provide years of service.

Please observe the following guidelines:

- At the end of each use, clean unit with a damp cloth and water. Do not use cleaning solvents.
- Inspect unit for any physical damage.
- After cleaning, test unit for operation as specified in the operating instructions.
- Store T PASS™ in a dry ventilated area at temperature consistent with battery makers recommendations.
- Units contaminated by chemical or radioactive materials must be disposed of or decontaminated in accordance with all applicable regulatory standards.
- Do not apply paint to the case.
- Replace the battery every 1 - 3 months.

Although T PASS™ meets all current NFPA specifications, there is no inherent guarantee against T PASS™ failure. Even the best designed PASS cannot compensate for either abuse or lack of a PASS training and maintenance program.

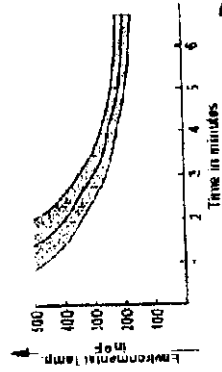
Failure to ensure that the T PASS™ and the Base Receiver are fully operational before using the unit, may expose the user to serious injury or loss of life.

For T Pass™ with Temperature Sensing Option

Note: For T PASS™ equipped with temperature sensing, only the pass portion of the device is NFPA compliant. As of this writing, there is no NFPA mandate established regarding temperature sensing.

T PASS™ temperature alarm (rapid ringing tone) should not be regarded as an absolute measure of existing temperatures and may sound an alarm earlier or later with regards to integrated time temperature sensing. The time variation is dependent upon where unit is worn and the environmental conditions present at the fire scene.

HEAT ALARM RESPONSE CURVE



T PASS™ HP SPECIFICATIONS

RADIO: Ultra efficient spread spectrum 920 MHz band. These radios work where others won't, through steel walls, tanks, etc. No F.C.C. license is required. Improved signal effectiveness for greater reliability.

ALARM - TRANSMISSION: Alarm radio signal is transmitted for 30 seconds per minute. Audio alarm will sound for 2 - 3 hrs.

AUDIO OUTPUT: 100 dBA + attention getting sound signature in alarm mode.

DIMENSIONS: Only 2" wide x 3 1/4" high x 1 7/8" deep.

WEIGHT: 8 ounces with battery.

VISUAL: High Intensity L.E.D.s pulse on & off when alarm has been activated and is transmitting the emergency call for help.

POWER: 9 Volt alkaline battery.

CONTROLS: Electronic push buttons (NO mechanical devices).

CASE: Housed in a high strength polycarbonate case.

ANTENNA: Robust design which aids in signal propagation. Easily replaced by unscrewing.

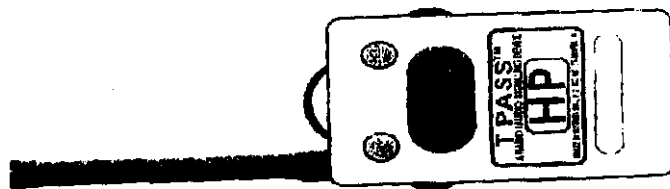
RANGE: Dependent upon environmental conditions.

Limitations

T PASS™ is designed to meet the design and performance requirements for personal alert safety systems (PASS) to be used by fire fighters engaged in rescue, fire fighting and other hazardous duties as defined in the NFPA 1982 Standard on PASS for Fire Fighters 1993 edition.

T PASS™

User's Information For High Power



Type "A" T Pass™
Products for Life Safety

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Phone (412) 982-5201 • Telex (412) 982-3617

SAFETY CERTIFICATIONS

Certified Intrinsically Safe
UL913 for use in Class 1, Division 1, Group
A, B, C and D Hazardous Locations.

NFPA Specifications: Meets all current NFPA
specifications, NFPA 1852, 1993 Edition.

WARRANTY

Grace Industries, Incorporated warrants your T PASS™ to be free from defects in workmanship and materials for a period of one year from the date of purchase. This warranty is valid only when the returned T PASS™ is accompanied by a sales slip or other proof of purchase. Grace Industries, Inc. will not repair or replace any merchandise that has been damaged because of accident, misuse or abuse of the consumer. This warranty is void if any attempt to repair or replace parts were made or attempted by other than qualified Grace Industries, Inc. personnel. This warranty is void if any of the sealed compartments are opened or tampered with. Send all returned merchandise prepaid and accompanied by proof of purchase to: Grace Industries, Inc., Repair Division, 305 Bond Mill Road, Fredonia, PA 16124. Grace Industries, Inc. shall not be liable for any direct, incidental or consequential loss or damage arising out of the failure of the device to operate.

The sole and exclusive remedy under all guarantees or warranties, expressed or implied is strictly limited to repair or replacement as herein provided. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF FITNESS AND MERCHANTABILITY, ARE HEREBY LIMITED IN DURATION TO A PERIOD ENDING ONE (1) YEAR FROM THE DATE OF PURCHASE. The warranty and liability set forth in the plan paragraphs are in lieu of all other warranties, expressed or implied, in law or in fact, including implied warranties of merchantability and fitness for a particular purpose. Some states do not allow limitations on how long an implied warranty lasts so the above limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

NOTE: The information contained in this booklet is believed to be accurate and reliable. Grace Industries, Inc. provides this information as a guide only.

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High Power T PASS™ Features and Labeling

