Search and Rescue.

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Using the department’s own personal laptop computer (PC compatible) and proprietary SEMS II software, information from each active firefighter is received and monitored through an easy-to-read, easy-to-use interface that serves as the base station for SCBA users on scene, allowing the incident commander to:

- Continuously monitor air pressure, time on scene, PASS alarm status
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IT’S ABOUT ACCOUNTABILITY IN ACTION.

On scene personnel accountability is one of the most important safety elements of any fire emergency operation. Fire ground accountability, fire scene management, and personal safety for firefighters are always key for any emergency standard operating procedure.

Scott’s SEMS II is a remarkable accountability system that puts the incident commander at every firefighter’s side, displaying information vital to personal safety in volatile and dangerous situations, while providing a continuous link of communications to the command station. And with the integrated personnel locator, it provides the peace of mind that a slowed or trapped firefighter can be quickly found.

SEMS II is a highly functional, programmable ID accountability system with these distinct, yet interconnected functions. These functions provide the highest level of personal safety to the Firefighter and an advanced system of personnel accountability to the incident command center.

**PAK-ALERT PERSONAL ALERT SAFETY SYSTEM (PASS) DEVICE.**
A personal alarm system for a downed or trapped firefighter.

**SEARCH AND RESCUE.**
Because it is integrated with Scott’s revolutionary Pak Tracker Firefighter Locator technology, SEMS II is a vital element in the ability to search and rescue downed or trapped firefighters.

**PERSONNEL ACCOUNTABILITY SYSTEM.**
Operates as a two-way, visual audible method of communications and monitors the assignment and status of over 100 firefighters on scene. Two levels of accountability:
1. Equipment - Identity personnel by SCBA/seat position or
2. Personal - Identity personnel individually with RFID Cards.

**PAK-ALERT PASS DEVICE A GENERATION AHEAD.**
Each SEMS II System includes a wireless transceiver, built into the PASS device, that transmits critical information between the firefighter and base command when the PASS unit is automatically or manually activated. The incident commander receives transmissions from each activated SEMS II unit regarding the SCBA cylinder pressure level, firefighter immobility, evacuation, and link status from firefighters on scene.

Firefighters wearing an active SEMS II System have audible and visual indicators including “down firefighter signal” confirmation and range status. Firefighters also have the ability to reset their own PASS device.

**MULTIPLE SENSORS.**
• Built-in real-time monitor
• Radio Range
• Air Pressure Gauge
• Motion detector with lack of motion alarm

**THE SIGHT AND SOUND OF SAFETY.**
• Audible and visual alarms
• True redundancy averts failure
• Minimum 2-hour transmission of man down signal
• Emergency manual override

**SENSOR MODULE.**
The Pak-Alert SEMS sensor module offers SCBA users the added safety of dual audible and visual alarms. In the event one piezo is blocked, the other continues to emit sound. Flashing LEDs provide visual warnings. Alarms sound and continue to signal and transmit the presence of an incapacitated firefighter for a minimum of two hours.

**USER FRIENDLY CONSOLE.**
The display on the “glove-friendly” shoulder console utilizes easy-to-read icons to identify condition of the SCBA, receive direction from the command center, or provide warnings to the firefighter. Activation and reset buttons are easily operated even with gloved hands and feature a mechanical gauge. The manual alarm system can also be activated when a firefighter is simply disoriented or in need of emergency assistance.

**PASS ALARM.**
Identifies a PASS signal that has been sent to the command base either manually or automatically. Also identifies that the distress signal has been acknowledged by the command center and assistance is on its way.

**EVACUATION ICON.**
Identifies when an evacuation call from the command center has been sent or when a self-evacuation has been initiated.

**RANGE.**
Shows that the firefighter is in or out of range to be recognized by the command station or that the command center is not operational.

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- **MESH NETWORKING**
  - SEMS II System utilizes patented mesh networking—the technology that allows continuous communication by hopping between “nodes” until a destination is reached. More simply, all activated SEMS II units communicate to the incident command computer both directly and through other operating units. This forms a communications “mesh network” to the base station, extending the range for the furthest SCBA.

- **ACCOUNTABILITY ADVANTAGES**
  - Air-Pak SCBA in “on” condition signals base station
  - Automatic tag login
  - Uses 2.4 GHz radio frequency allowing for strategic plans of attack
  - Continuous monitoring

INTEGRATED PERSONAL ALERT SYSTEM WITH TRANSCEIVER AND LOCATOR TECHNOLOGY

- Transceiver sends and receives information from the command center computer
- Simultaneously displays 100+ firefighters on scene
- Provides immediate firefighter safety
- Non-verbal communication affords with accountability of single or multiple firefighters
- Pak Tracker Firefighter Locator technology built-in for search and rescue operations

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