



> > > RESPIRATORY PROTECTION

SPERIAN PATHFINDER™

SPERIAN FIRE



EVERY SECOND COUNTS



The Best Tool for a Worst-Case Scenario

A distress call from a fellow firefighter is the last thing you want to hear on the radio. A team member needs help, and every second counts.

heard, but thick smoke makes it impossible to see even a few feet ahead. A team member needs their help, and every second counts. Rather than opening every door and searching every room, the Sperian Pathfinder allows the rescue team simply to glide the Tracker™ along doorjamb or scan the room from the doorway looking for a signal. Rooms can even be scanned for a signal through exterior windows of the structure looking

With the Sperian Pathfinder™ in hand, the Rapid Intervention Team (RIT) enters the structure, following hose lines. The signal from a Personal Alert Safety System (PASS) device can be

heard for a signal from the Sperian Pathfinder beacon inside.

The Tracker picks up the signal from the Sperian Pathfinder beacon installed on the Warrior® SCBA. Rescuers are quickly guided through the peril by locator lights and audible alarms from the IntelliPASS™. Firefighters steer clear from walls and dead ends and are led directly on the path to their fellow firefighter, then all are safely guided out.



Sperian Pathfinder™ – A Fast Approach to Team Member Location

The Sperian Pathfinder firefighter locating system, with PULSE® ultrasound technology, marks a new era in rapid intervention techniques.

Its goal is simple – to reduce the time it takes a rescue team to reach a firefighter in trouble.

Even in the most stressful situations, reliability and simplicity are evident in the Sperian Pathfinder's three components.

1

Beacons on the front and back IntelliPASS™ modules of Sperian SCBAs become active once the PASS has been activated, whether manually or automatically.

2

Auxiliary and exit beacons, left like breadcrumbs by the in-bound rescue team, mark the path to a safe exit.

3

The Tracker,™ a handheld device, detects the ultrasonic frequencies of the PASS beacons, the auxiliary beacons, and the exit beacons and clearly indicates the path rescuers should take for both rescue and exit.

PULSE – short for **Personnel Ultrasonic Locating Safety Equipment** – is what makes the Sperian Pathfinder so effective and reliable. Like sonar, ultrasound is unique in its ability to map out the shortest, most direct path to a firefighter or an exit.

On the front and back of the Warrior® and Survivair Panther® SCBAs, Sperian Pathfinder beacons are installed and transmit high-frequency sound waves – waves that are reflected by walls. They travel, like smoke does, through openings – hallways, windows, doors – for a way out of a structure. The Tracker senses these crucial ultrasound signals and leads a RIT team toward the activated beacons, using visual and audible indicators.

Activating the Sperian Pathfinder is Simple

There are no complex sequences to remember, just **two easy ways** to activate the Sperian Pathfinder:

- 1 The firefighter presses the manual activation button on the IntelliPASS unit, or...
- 2 The PASS goes into alarm without any movement from the downed firefighter.

Once activated, the Sperian Pathfinder beacons on the front and back of the SCBA are activated and emit the ultrasound signals.

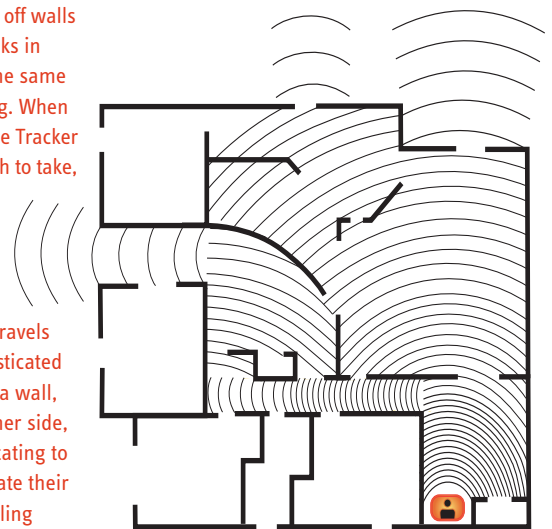
Signals Can Be Seen and Heard

The Sperian Pathfinder takes no chances when it comes to leading rescue teams to their missing team members. The Tracker uses two indicators:

- The **visual alarm** is a vertical column of LEDs which light up incrementally as the signal strength increases. Should the team turn the wrong way, the LEDs decrease accordingly, indicating to change direction.
- The **audible alarm** increases and decreases in volume just as with the visual alarms.

Why Ultrasound is Superior

- Ultrasound signals reflect and bounce off walls and travel through openings and cracks in windows, doorjams and hallways, the same way smoke travels through an opening. When firefighters are led to a wall, aiming the Tracker to the right or left tells them which path to take, based on the signal strength of the ultrasound signal emitted from Sperian Pathfinder beacons on the IntelliPASS.
- Radio frequency, on the other hand, travels through solid objects and lacks sophisticated accuracy. Firefighters could be led to a wall, with a fallen team member on the other side, but the radio frequency signal is indicating to the user to go through the wall to locate their missing team member, without revealing how to do so.



The advantage of ultrasound technology over radio frequency (RF) is clear.

ULTRASOUND

SPERIAN PATHFINDER™

Sperian Pathfinder

- Time-saving technology helps you get to missing team members fast
- Lightweight and easy to use
- Exit and auxiliary beacons act as “bread crumbs,” safely leading you out the way you came in
- Action ready and field-tested
- Seamless upgrade to the Warrior® SCBA

Audible annunciator

Directional ultrasound receiver

Mute switch

LED bar graph for signal

Mode switch and LEDs

LED bar graph for battery

Gear Keeper® to keep attached to SCBA backpack



SPECIFICATIONS

Beacon Specifications

Type	360° omni-directional ultrasound transmitter
Weight	9.68 oz. (includes front-mounted beacon, back-mounted beacon, and DoublePASS module)
Frequency	Approximately 40 KHz
Battery	9-volt alkaline
Battery Life	100+ hours in sensing mode; minimum of 1 hour in transmission mode

Tracker Specifications

Type	15° directional ultrasound receiver
Size	9" x 5" x 3.5"
Weight	14.5 oz. with batteries
Material	Ultem® thermoplastic
Displays	High-intensity LEDs
Batteries	Four AA alkaline
Battery Life	16–25 hours, depending on number of lighted LEDs

Sperian Pathfinder System Specifications

Range	Approximately 100–120 ft. line-of-sight; range will vary and may be reduced by obstructions
Patent	U.S. 6,504,794 issued January 7, 2003; other patents pending

ORDERING INFORMATION

Part Number	Description
976050	Sperian Pathfinder upgrade kit with DoublePASS for Warrior SCBA
961999	Tracker kit
963000	Exit beacon
963001	Auxiliary beacon

Part numbers for the Sperian Pathfinder installed in a configured Warrior SCBA depends on the pressure and low air alarm chosen. Contact your local Sperian distributor for further information.

WARNING! This document provides only an overview of the respiratory products shown. It does not provide important product warnings and instructions. Sperian Respiratory Protection recommends all users of respiratory equipment undergo thorough training and that all warnings and instructions provided with the products be thoroughly read and understood prior to use. Failure to read and follow all product warnings and instructions may result in serious personal injury, illness or death.

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