



SCOTT SCBA Pak-Tracker™ Firefighter Locator System

Fauquier County Fire and Rescue



Objectives:

- Describe what the Pak Tracker is.
- Demonstrate how to change and charge the batteries in both transmitters and receiver.
- Demonstrate how to power on/off both transmitters and the receiver.
- Demonstrate how to operate the transmitters and the receivers.
- Demonstrate how to scroll, lock and unlock a specific transmitter.
- Demonstrate how to operate the transmitters and the receivers.



Radio Frequency Interference (RFI)

When any electronic device is adversely affected by radio waves, RFI is said to have occurred.

All electronic devices are subject to RFI.

Protect the receiver from RFI by keeping radio antennas at least 6 inches away from receiver and SCBA console and sensor module.



Radio Frequency Interference (RFI)

Unlike ultrasonic or infrared-based tracking systems whose signal can be scattered, deflected or blocked, the Pak-Tracker™ operates on high frequency radio waves that more effectively penetrate dense smoke and structural barriers like walls or floors.



Powering the Pak Tracker system



Integrated Transmitter- Two 9 volt batteries
(Duracell ProCell)

Personal Transmitter- Three AAA batteries
(Duracell ProCell)
(400 hrs activated in locator mode approx.)

Hand Held Receiver- NiMH (Nickel-Metal Hydride)
rechargeable battery
(12 hrs non-tracking, 6 hrs tracking mode approx.)

The above is dependant on fully charged batteries
Low battery indicator will activate @ 20% life remaining



Features:

High Frequency 2.46 GHz RF Signal

Provides a more direct path to an activated transmitter

Extended Search Distance

Approximately 900 feet (300 meters) line of sight distance

Dual Audible and Visual Alarms

Continue to signal the presence of an incapacitated user for minimum of up to 16 hours at full sound level with new batteries



Features:

Dual component system

Transmitters

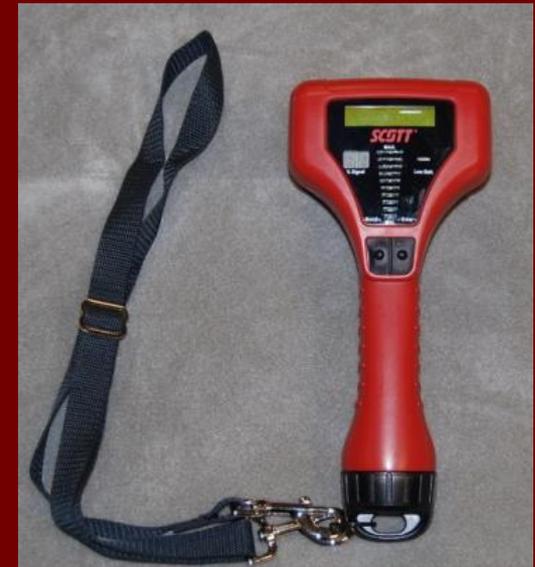


Integrated



Personal

Hand Held Receiver



Features:

% Signal Strength

Scroll/unlock
button

Enter/Lock button

Power on/off by
simultaneously
push & holding both
buttons



Two Line
LCD screen

Low Battery indicator

Enter/Lock button

Battery

Battery Cap
(screw on/off)

Carry Lanyard



Features:



% Signal Strength Indicators



Operation: Powering the receiver on and off.

- Simultaneously push and hold the scroll and enter button until unit turns on.
- A series of dashes will appear unless there are transmitters in alarm, those transmitter ID's will appear instantly.
- Simultaneously push and hold the scroll and enter button until unit turns off





Operation



■ Once the receiver is powered on, one of a few windows will appear.

- 2 Transmitters are in alarm and signal strength
- 1 Transmitter was in alarm, but has reset
- Receiver is on and there are no transmitters in alarm
- There are more than 2 Transmitters in alarm
- 1 Transmitter is in alarm

FXC00770 47
FXCOT-29 41

00137439 --
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FXC00770 47
FXCOT-29 41

00137439 89
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Operation

If there are two or more receivers displayed, you must press the scroll button firmly or press and hold the scroll button until the receiver ID you wish to track/search for is at top



If there are transmitters in alarm prior to the receiver being turned on, they will appear in the LCD screen as soon as it has powered up.





Operation:

Locking on a transmitter

Firmly press the enter button once to lock on a transmitter.

The ID you selected will be the only one listed. "SEARCHING" will appear and all three Signal indicators will start operating.





Operation



Unlocking the Receiver:

Firmly press the scroll button once to unlock the selected transmitter.





Operation Hand Held Transmitter

Pull the magnetic lanyard from the transmitter to activate the motion sensor. If transmitter remains motionless for 30 seconds, it will go into alarm. Reset to motion sensor mode by depressing both red buttons simultaneously, twice.



The hand held transmitter can be manually put into alarm mode by firmly depressing both red buttons simultaneously, once.





Operation: Changing Batteries

- Remove the 4 screws holding the back plate on to replace the batteries
- Replace with 3 AAA DuraCell ProCell batteries.





Operation



If transmitter remains motionless for 30 seconds it will go into alarm.
Firmly press yellow button on side of console to reset.

The Integrated SCBA transmitter can also be manually put into alarm mode by depressing the red button firmly.





How to use the Pak Tracker



Signal strength must be interpreted with all other available information such as:

Training and knowledge in systematic search and rescue techniques.

Sense of sight (watch where you are going).

Sense of sound (listen for activated PASS device).

Knowledge of the building layout and building materials.

There may be multiple signal paths, we must determine which one to follow.



Operating the receiver

Six Sided approach- Read, Interpret and Follow
(momentarily pause to allow the receiver to attain signal)

****DO NOT** rely solely on the reading from the hand-held receiver to locate the activated transmitter******

READ – Hold the Hand-Held Receiver and point at features such as doors, windows, or hallways. Look for the highest relative signal strength as shown in the display on the Hand-Held Receiver. It is important to note that the Pak-Tracker™ uses a directional signal so the Hand-Held Receiver should always be pointed in the direction of the intended search.

INTERPRET – Decide where the strongest signal appears to be coming from and how best to get there.

FOLLOW – Move toward the strongest signal while continuing to **READ**, **INTERPRET**, and **FOLLOW**.



Alternative use for Hand Held Transmitter



Marking Exits- Hand held units may be programmed to display up eight characters. The H/H transmitter may then be placed at the opening where a Company entered the structure. Once the transmitter goes into alarm it will display on their receiver and aide them in locating the exit.





Alternative use for Receiver



Guiding a Firefighter- If the FF is ambulatory and unable to locate a way out of an area, the receiver may be used to aid in this task.

Once the receiver is locked on a transmitter, hold receiver still while the person moves. Watch the signal strength indicators and as they lessen, order the FF to stop and change direction until the signal strength increases.



Summary



This is another tool for our Fire and Rescue toolboxes, however this should not steer us away from our basic firefighting and survival skills.

If we train the way we are going to fight, always starting with the basics and building up from there, then hopefully the only time that we will use these tools will be during training evolutions.