



Search.  
Detect.  
Rescue.



## LifeLocator® TRx

The hours following a natural disaster are critical in terms of getting first responders deployed and operational onsite as quickly as possible. The first hours are particularly critical for the Search & Rescue teams tasked with locating victims trapped under collapsed debris.

The LifeLocator® TRx is a portable rugged device that detects the presence of life under collapsed structures as a result of natural disasters. Using the principles of ultra wideband (UWB) ground penetrating radar, the LifeLocator TRx can detect movement in up to twelve meters of debris and breathing in up to ten meters.



- 1 GSSI twin-receiver sensor
- 2 Rugged design
- 3 Ergonomic design
- 4 WiFi antenna
- 5 Control unit
- 6 Easy-to-use graphic interface



### Search Optimization

The LifeLocator quickly distinguishes the presence of live victims in support of the rescue effort. Near instantaneous detection of breathing.

### Ease of Use

The user selectable graphical interface uses icons to indicate detected motion and breathing. First responders can become proficient in LifeLocator operation in a few hours.

### Portable

The LifeLocator is portable and is readily deployable by a single individual.

### State-of-the-Art

Twin receivers in the system provide superior data collection and increased detection confidence.

### Proven Results

The LifeLocator is a field-tested solution that has saved lives in the aftermath of the Sichuan Province and Haiti earthquakes.



# LifeLocator TRx

## Solutions



The LifeLocator uses UWB technology to greatly improve the odds of rescue following structural collapses due to weather, fire or catastrophic attack, avalanches, flash floods, earthquakes or other natural disasters.

The LifeLocator is ideally suited for life rescue, locating victims by sensing even the minor movements of shallow breathing. The sensor detects signals that are relayed in real-time to a control unit. The information allows rescue personnel to accurately and rapidly determine the distance to the victim.

A key advantage of the technology is that it is not misled by scent drift or from the scent of the deceased. It does not require line of sight or the complete silence that challenges video and audio monitoring search and rescue tools. Ease of mobility and placement over treacherous ground further enhances the system's in-field effectiveness.

The LifeLocator TRx represents the fourth generation LifeLocator from GSSI and employs dual receivers to increase survey effectiveness and accuracy.

### System Includes

#### Sensor:

Three (3) Li-ION batteries  
Battery Charger

Choice of Toughpad FZ-G1 or  
Toughpad FZ-M1 Control Unit

One (1) Li-Ion Long Life Battery  
Battery Charger

Rugged transit case

User Manual



LifeLocator TRx with  
Panasonic Toughpad FZ-G1



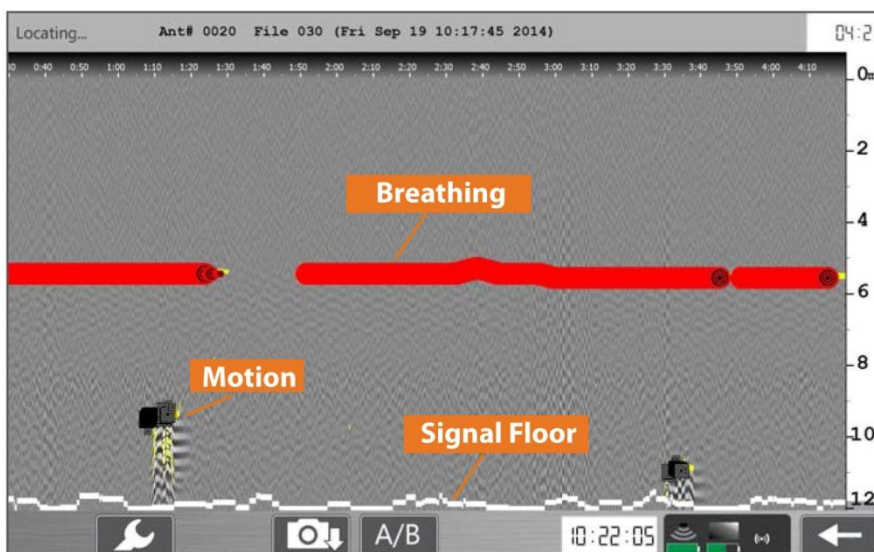
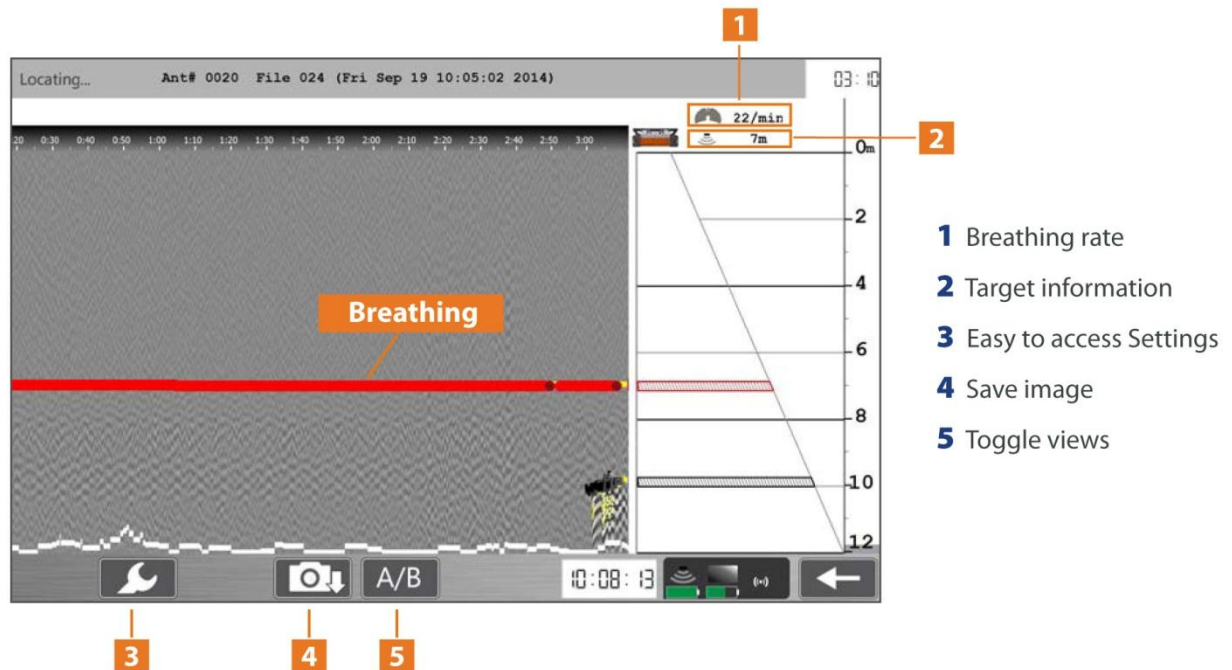
# LifeLocator TRx Detection Modes





## Locate View

The LifeLocator TRx has several modes to view the data. Locate view allows the users to identify life detection through a simplified display. Motion detection is illustrated by black squares and breathing detection is shown as red circles. The stronger the detection confidence, the larger the shapes appear.

The graph also displays the approximate distance to the target, note the representation of the sensor and the distance of the moving and breathing target beneath. Additionally, the lung icon indicates the target's breathing rate.



-  Motion detected
-  Breathing detected

## Expanded View

Expanded view allows the user to view and interpret the raw data. An additional feature includes detection icons to indicate breathing (red circles) and motion (black squares) in the same view.

Yellow highlights indicate areas of interest. The white line represents the estimated signal floor. Users can toggle between Locate view and Expanded view with one button on the control unit

# LifeLocator® TRx Specifications

LifeLocator TRx System	
Motion Detection	Up to 39 ft (12 m)
Breathing Detection	Up to 33 ft (10 m)
Detection Volume	64,000 cubic feet (1,810 cubic m) / 3 minutes
Wireless Range	Up to 200 ft (60 m)
Display Mode	Locate and Expanded View
Operational Mode	External Panasonic Toughpad M1 or Panasonic Toughpad G1 tablet
Transmit Rate	800 KHz , 250 KHz (CE requirements)
Software Features	Intuitive user interface, Screen capture functionality, EM Noise Protection, Near instantaneous detection of breathing*, Breathing rate indicator, Sensor movement protection, WiFi signal strength indicator
Languages	English
Dimensions	18.27" (L) x 18.27" (W) x 7.48" (H), 46.41 x 46.41 x 19 cm
Weight (with batteries)	28 lbs (12.7 kg)
Battery	Lithium-Ion
Battery Life	Up to 12 hours, hot-swappable
Durability	IP 65
Panasonic Toughpad FZ-M1	
Durability	MIL-STD-810G design (4' drop, shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature shock, humidity, explosive atmosphere) IP65 certified sealed all-weather fanless design
Software	GSSI Lifebeat™, Windows® 8, Panasonic Utilities
CPU	Intel® Core™ i5-4302Y vPro™ Processor
Memory	8 GB SDRAM (DDR3-1333 MHz)
Display	7" WXGA 1280 x 800 with LED backlighting
Battery	Li-Ion Long life battery, 7.2V, typical 7100mAh, minimum 6800mAh
Battery Operating Life	16 hours
Battery Charging Time	4.5 hours off, 5 hours on
Dimensions	7.98" (L) x 5.20" (W) x 0.71" (H), 20.27 x 13.21 x 1.80 cm
Weight	1.2 lbs. (0.54 kg)
Accessory	Rotating hand strap with stylus holder
Panasonic Toughpad FZ-G1	
Durability	MIL-STD-810G design (4' drop, shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature shock, humidity, explosive atmosphere) IP65 certified sealed all-weather design
Software	GSSI Lifebeat™, Windows® 8, Panasonic Utilities
CPU	Intel® Core™ i5-3437U vPro™ Processor
Memory	4 GB RAM and 128 GB Memory
Display	10.1" WUXGA 1920 x 1200 with LED backlighting
Battery	Li-Ion Long life battery, 10.8V, typical 8700mAh, minimum 9300mAh
Battery Operating Life	18.5 hours
Battery Charging Time	3 hours off, 4 hours on
Dimensions	10.6" (L) x 7.4" (W) x 0.8" (H), 26.92 x 18.8 x 2.03 cm
Weight	3.0 lbs (1.36 kg)
Accessory	Rotating hand strap with stylus holder

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