RESCUE VICTIM LOCATION

PORTABLE VIDEO SYSTEMS
**OUR MISSION**  
Zistos is committed to the design and manufacture of cutting edge video and audio tools for victim location and disaster scene surveillance. These highly specialized tools are designed specifically for the needs of Technical Search and Urban Search & Rescue operations.

Our tools are optimized for use in real world situations. They are rugged, easy to deploy and simple to use. The tools allow rescue personnel to look and listen for victims that might be trapped in environments that are inaccessible or too hazardous to enter.

**UNPARALLELED SUPPORT**  
Zistos prides itself in providing customer support second to none. From sales support, to expediting repairs, to customized engineered systems, Zistos is there to help in any and every way possible. Our systems are in use throughout the world by first responders and rescue personnel.

From state and local departments to large military and federal agencies, our equipment fills the need for a comprehensive, yet affordable, suite of victim location and disaster scene surveillance tools

**PRODUCT APPLICATION**

Zistos victim location tools enhance the abilities of rescue personnel to locate individuals that may be trapped following a disaster.

**EXPANDABLE.**  
Add options such as a videoscope to the system at any time, as the need develops or as the budget allows. There is no need to purchase all of your equipment at once.

**CHOICES.**  
Monitor, pole and camera options allow you to choose the ideal configuration for your needs. Choose the size and type of pole. Choose one of the low-light B/W cameras, videoscopes, thermal cameras, zoom cameras or color cameras.

**RUGGED.**  
All system components are ready for harsh environments, being either waterproof or weatherproof and able to operate in an extended temperature range.
**MODULARITY** VisionFlex® is a design philosophy developed by Zistos that forms the foundation for all of our portable video products. The focus is complete flexibility and compatibility; tools designed from year to year work together. Zistos tools are modular — allowing cameras, poles and displays to be field-configured, as needed, for the situation at hand. Systems can be expanded or updated at any time.

**VisionFlex Features & Benefits:**
- **It's more cost effective.** No need for multiple systems for various configurations. All system components and accessories are modular and fully interchangeable.
- **It won't become obsolete.** As new components are introduced they can be added to existing systems without the need to purchase a whole new system.
- **It's more serviceable.** A redundant camera can easily replace a damaged one on the spot, whereas a dedicated system is rendered useless in a time of need.

Easily switch between our different pole types and camera types, such as color, thermal imaging, low-light B/W, zoom or videoscopes.

**ACCESS.** Our portable video systems are designed to provide rapid visual and audio access in areas that are hazardous or inaccessible. Pole cameras can be inserted into void spaces in rubble to look and listen for signs of life.

**PORTABLE.** The body-worn system is easily deployed in any environment. Long poles provide access into deep voids from outside the collapse, short poles are well-suited when climbing into confined spaces.

**VERSATILE.** Wear the 5” WalkAbout Monitor on the chest for easy viewing or detach it for others to see. If necessary, the video image orientation controls can rotate the image so that others can view the proper image orientation when the monitor or camera are upside down.
THE CORE COMPONENTS OF

System Components

Display Options

5” Chest-mounted Standard WalkAbout (WM-4-MON)
- Easy to use single piece
- Large 5” chest mounted screen
- Rugged and weatherproof
- Optional

5” Chest-mounted Split WalkAbout (WM-LCD)
- Large 5” chest-mounted screen
- Low profile when on chest
- Rugged and weatherproof
- Standard in all systems

Pole Options

3 ft Articulating Pole - allows access in confined spaces - optional

Telescoping Articulating Poles - available in 6ft, 9ft, 14ft and 20ft lengths - 9ft standard

Telescoping Gooseneck Poles - ranging from 5ft to 20ft - optional.

Baton - optional.

Chest-mounted display allows pole to be maneuvered without moving display.
The 1ft flexible gooseneck can be positioned as needed.

Articulating Head enables camera to pan 180º by twisting the handle.

Detents and markings indicate camera position

Audio modules allow rescue personnel to detect the critical, faint sounds of trapped victims. They attach between any pole and any camera. Two models are available:

The Talkback Audio Module (AAM-TB) provides 2-way communication between rescue personnel and a trapped victim.
- Full 2-way communication with victim; listen and talk
- Audio processor circuit to amplify low-level sounds and compress high-level sounds
- Omnidirectional microphone
- Weather resistant enclosure
- Supplied with rugged headphones with full ear cups, a push-to-talk microphone and an integrated volume control

The optional listen only Audio Module (AAM) provides a means for rescue personnel to listen for trapped victims.
- Audio processor circuit to amplify low-level sounds and compress high-level sounds
- Omnidirectional microphone
- Weather resistant enclosure
- Supplied with two pairs of ‘ear buds’ with an integrated volume control

The LLC-1.4 is our standard white light illuminated, waterproof (to 100ft), color camera included in every rescue system. Its small size and low-light sensitivity are ideal for victim location in confined spaces.

The optional WPC-3.5 is a wide angle, white light illuminated, waterproof, color camera. The WPC-3.5 provides much more illumination than the LLC-1.4, and together with the wide angle lens, is ideal when searching larger areas.

Camera Options
Optional Cameras

**Thermal**
The Thermal Camera (THC-36) offers thermal imaging in a cost-effective design. Although it does not have the small size and B/W mode of the Dual Mode Thermal Camera, it is still well suited for victim location.

**Features:**
- Detects heat signatures through smoke or fog
- 320 x 240 resolution thermal sensor
- FOV of 36° H x 27° V - Detects human activity up to 250'
- 2.5”sq (64mm) x 3.7” (94mm) long weather-tight housing
- Attaches to any articulating or gooseneck pole or a cable

**Zoom**

The Zoom Camera (WPC-2.5Z) magnifies details in the image as needed with a simple zoom in/out control switch. In addition to its victim location applications, it can also be used to read labels from a distance on containers or drums containing potentially hazardous or unknown materials.

**Features:**
- Full 10x optical zoom
- White light illuminated
- Waterproof design

**Ultra Low-Light**
The Ultra Low-Light Camera (ULC-3.5IR) utilizes a high gain CCD with frame integration. Its advanced camera technology offers capability approaching that of night vision goggles. The camera generates true monochrome video images in low-light/no light conditions. It is useful for searches in large dark areas or void spaces.

**Features:**
- Infrared illuminated
- B/W for maximum low-light sensitivity
- Waterproof design

Dual Mode Thermal Camera

Locate trapped victims quickly and easily with thermal imaging. The Dual Mode Thermal Camera (THC-50D) is our premier camera, providing both a thermal image and an illuminated high resolution B/W image in one camera.

Use the thermal camera mode to easily locate a heat signature. Then switch to the illuminated B/W mode to view the detailed image, simply by turning on the illumination control on the WalkAbout.

Wireless Options

Transmit to another team member or command post. With an optional transmitter and receiver pair, one team member can transmit both video and audio to a second team member and/or a command post. Up to four team members can transmit to a command post simultaneously.

Transmit to a PC equipped with the ToughGrabber option to setup a PC-based command post. The battery-powered ToughGrabber, along with a battery-powered laptop, make for a field deployable command post to view live video and store images or videos for later retrieval.

Consult the factory for more information.
Articulating Videoscopes

Gain access into rooms or compartments through small openings. Videoscopes gain access into rooms or compartments with as little as a 6mm diameter opening. The 4-way articulating, high resolution CCD camera in the tip provides a crisp image, far superior than that of fiberscopes or borescopes.

Features:
- Available in a low light sensitive, 8mm diameter B/W model (VSK4-BWV) or a 6mm diameter, color model (VSK4)
- CCD camera in the tip provides a high resolution image
- 4-way articulation maneuvers the camera in any direction, with locking levers to hold the position
- 1.5M length standard, lengths up to 6M are available
- Both models include a battery-powered light source, a guide tube and a rugged waterproof carry case

Fiberscopes & borescopes are also available.

Rescue Reels

The Rescue Reel facilitates victim location and extrication by providing video/audio access into long vertical drops such as elevator shafts, wells, etc.

Features:
- 330 feet (or 150 feet) of ultra low loss video and audio signal transmission cable spooled onto one compact reel
- Portable yet extremely rugged to withstand the rigors of rescue missions
- Provides a lengthy hard-wired connection between any Zistos camera and monitor
- The Rescue Reel provides constant video and audio signals to monitor even while cable is being spooled on or off reel.

MODELS AVAILABLE
- RR-330 330ft (100M) cable
- RR-330C 330ft cable with WPC-3.5 color camera
- RR-150 150ft (45M) cable
- RR-150C 150ft cable with WPC-3.5 color camera

Portable Network Surveillance Cameras

Instantly set-up wireless IP-based video surveillance. The PNSC is a portable, weatherproof, self-contained unit incorporating an infrared illuminated day/night PTZ (Pan/Tilt/Zoom) camera on a pole, a large capacity lead acid battery and a wireless network transmitter. Transmit to a PC with a wireless connection. Internal radiation sensor/alarm available as an option. Available with a powerful white light illuminator that can provide supplemental illumination for disaster scenes.

Features:
- Complete turn key solution
- Rugged, weatherproof design
- No external power or wires required
- Infrared illuminated day/night PTZ (Pan/Tilt/Zoom) camera
- Optional gamma radiation sensor
- White light available

Applications:
- View live video from scene remotely in a command vehicle
- Disaster scene security

Software enables multiple views of all PNSC’s in configuration.
Rescue System Part Numbers:

All systems can be customized to suit individual needs and budgets. Consult your reseller or the factory.

RESCUE SYSTEM
WS-RS-A9T includes:
- WM-LCD Split WalkAbout
- AP-T9 9ft articulating pole
- LLC-1.4 Color Camera
- AAM-TB Talkback Audio Module

TASK FORCE RESCUE SYSTEM
WS-TFRST includes:
- WM-LCD Split WalkAbout
- AP-T9 9ft Telescoping Articulating Pole
- AP-F3 3ft Articulating Pole
- LLC-1.4 (2) Color Cameras
- AAM-TB Talkback Audio Module
- D-BAT (2) D Cell Battery Adapters

Both systems include: BAT-2 (2) rechargeable batteries, A-CASE Hard waterproof carry case, WBC Battery charger & wall-mount power supply, WUH Universal Harness, Sunshade, Vehicle adapter cable for charger and A/V output adapter cable.

1: Add a ‘-P’ to specify a PAL system.

Add to the Rescue System with the following options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Model</th>
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<tbody>
<tr>
<td>Dual Mode Thermal Camera</td>
<td>THC-50D</td>
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<tr>
<td>Thermal Camera</td>
<td>THC-36</td>
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<tr>
<td>Videoscope Kit</td>
<td>VSK4-BW (B/W) or VSK4 (color)</td>
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<td>Rescue Reel</td>
<td>RR-330</td>
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<td>Articulating Pole (3 ft)</td>
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<td>Baton (2 ft pole)</td>
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<tr>
<td>Wireless options or ToughGrabber</td>
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|                         | Consult the factory

Many other options available, consult the website or factory for more information.

2: Each supplied in separate case.

RESCUE SYSTEM
SPECIFICATION SUMMARY

Case:
- WS-RS-A9T: 37 lbs. (17kg)
- WS-TFRST: 42 lbs. (19kg)

Display:
- WalkAbout Monitor: Chest-mounted or hand-held; Weatherproof; 5” LCD; Resolution of 960 x 234

Camera:
- LLC-1.4: White light illuminated (9 LEDS); Waterproof to 100ft; 270K pixels (320K PAL); .01 lux; 53° FOV
- WPC-3.5: White light illuminated (24 LEDS); Waterproof to 33ft; 380K pixels (438K PAL); .1 lux; 79° FOV

Audio Modules:
- Listen only: Highly-sensitive, omni-directional microphone; weatherproof; 1.2” dia x 2.5”L module; supplied with (2) sets of “earbuds”
- Talkback: Highly-sensitive, omni-directional microphone; weatherproof; 1.75” dia x 3”L module; supplied with headphones with boom microphone and in-line “push-to-talk” switch

Battery:
- BAT-2: Rechargeable 7.2V NiMH; 2 hr charge time, 2 hr run time (illumination off)
- D-BAT: Holds 8 alkaline D-cells in pouch; 5 hr run time

Pole:
- AP-T9: 4ft (1.2M) collapsed; 9ft (2.7M)
- AP-F3: Fixed length of 3 ft (1M);
  Articulation range of +/- 90° on both

Operating Temperature:
-4F to +122F (-20C to +50C)