



An Economical, versatile video system used for tactical surveillance in many different scenarios. Developed for the responders that demand total flexibility and portability.



FEATURES

- ❖ Transmitted signals are scrambled for security
- ❖ Receivers have 8 channels
- ❖ System can accept feeds from VCRs, drop cameras, robots, etc. and retransmit these signals to the first responders/commanders
- ❖ Vest is designed to be worn over a suit, or worn with a re-breathing system
- ❖ Inputs to displays can be either RF or Direct video

AVAILABLE MODULES

- ❖ Drop Cameras with audio pick-up, transmitters and direct video output
- ❖ Vest with Battery Pack, 4" LCD screen and 8-channel receiver
- ❖ Reel with 500' of 4 conductor shielded cable for direct video feed
- ❖ Extendable pole to accommodate different CCD cameras
- ❖ Zoom camera or IR camera
- ❖ Tactical Display that can run on AC, Internal Batter or Lighter plug



Tactical Surveillance System

The Tactical Surveillance System is a modular “plug and play” system wherein different modules can be used dependant on the circumstance. The basic system comprises of 4 Drop Cameras, a Tactical Command Display unit, a Tactical Vest with an embedded TFT LCD 4” viewing screen connected to a self contained receiver, a transmitter and a 12 volt battery pack.

The receiver is an 8 channel receiver operating in the 2.4Ghz range. However, the frequencies of operation have been manipulated so that they cannot be monitored by any off the shelf equipment. No standard 2.4 Ghz transmitter will interfere with the operation of the system either. A total of 8 cameras can be deployed. Different camera packages have been developed for different applications and will be described later. The Drop Cameras all have self-contained transmitters and battery packs. The power supplies are designed to operate from dark to dark so that a camera deployed by stealth in the dark will not require a battery change during daylight hours.

The Transmitters have basic scrambling of the video and audio in order to prevent unwanted eavesdropping by media or others. Also included in the basic system is a remote transponder with 500' of cable. This is used for instances where the command post is set up outside the perimeter cordon and it cannot monitor all of the deployed cameras. It can also be used to extend two way audio and video transmission from subject matter experts outside the clean dirty line at CBRN incidents to the response team members working in close proximity to the device. All parties can exchange real time video and audio amongst themselves.

Audio is incorporated into the receiver mounted on the vest. An earpiece is supplied from the receiver mounted on the back of the vest. The earpiece volume, as well as the receiver channel change and system power is all controlled from the panel of the flat screen monitor located on the front of the vest. This facilitates bi-directional communication between the responder and anyone else that chooses to communicate through the Tactical Video System.

The responder wearing the vest can receive video and audio feeds via the Tactical Command Unit. For example, if the subject matter experts for a CBRN threat are located at a center distant from the actual site, this system will allow the responder to communicate directly with the center and will allow the center to see exactly what the responder is looking at. Any detailed information regarding render safe issues can be delivered directly to the responder while the experts or command center can watch in real time what is transpiring.

At hostage and barricaded persons incidents, mug shots of perpetrators, floor plans and other video info from the command area and telephoto shots from the snipers can be sent directly to the assaulters without having to recall them for a briefing. Pole cameras equipped with transmitters can supply video to all responders equipped with receivers and not just to the person carrying the pole camera. Additionally, by using one of the video transmitters on an explosives disposal robot, all tactical members equipped with vest mounted receivers will be able to watch all video feeds from the robot without having to obtain a feed from the operator of the robot. This is particularly useful at hostage and barricaded persons incidents or at hazardous devices incidents where the robots act as mobile camera feeds.

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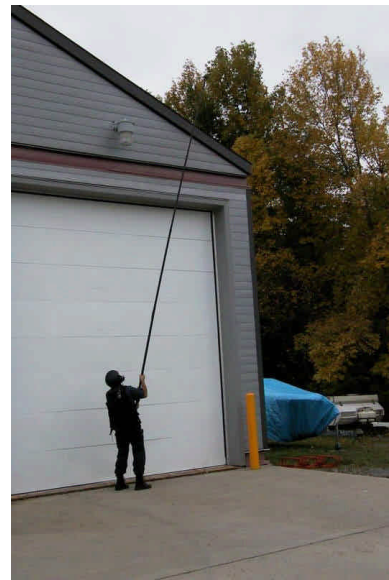
Tactical Command Unit



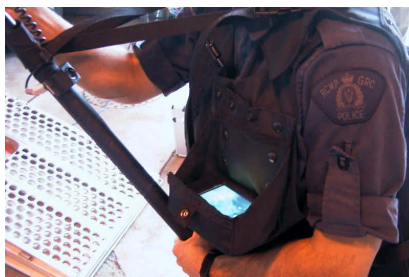
Reel Assembly



**Tactical Vest with Viewing Screen
and Receiver/Transmitter**



**Responder with pole camera
(Optional)**



Tactical Vest with 4' Viewing screen

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**Pole with Under Vehicle Camera
(Optional)**



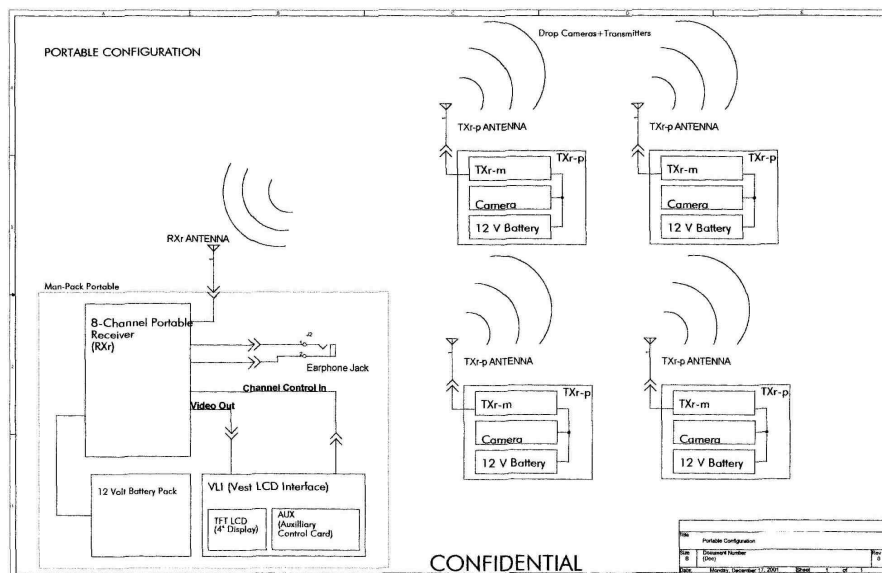
**View underneath a
vehicle using the
camera attachment to
the pole**



Transmitter



Drop Cameras



Portable Surveillance System Block Diagram

Equipment List (Basic System)

Qty	Description
4	Drop Camera complete with transmitters, battery pack and colour camera.
1	Tactical Command Display Unit. Will include 12" TFT LCD display, TFT converter, transmitter, transmitter power amplifier, 8 channel receiver, 12 volt battery coupled to a 12 volt battery charger. The transmitter will have scrambling on both the audio and video. The display unit is capable of receiving and re-transmitting auxiliary video streams. The Command unit can be run from a vehicle cigarette lighter receptacle, an internal battery, or 115Vac.
1	Tactical vest complete with an 8 channel receiver, 4" TFT LCD viewing screen, and 12 volt battery pack. All component parts are encased in fabric pockets and attached by means of Velcro.
1	Reel assembly with 500' of cable and a remote antenna to facilitate communication in areas where free RF transmission is obscured.
1	Transmitter that can be vest mounted for audio or video. (Transmission is scrambled)
1	12Vdc Battery charger

General Electrical Specifications

Power output	35 milliwatts antenna feed power
RF Range	>300 meters
Frequency output	2.400GHz – 2.4835GHz
Modulation Method	Wideband FM and can accept NTSC, PAL, EIA, CCIR video standards
Signal	Scrambled for security
Channel	Each channel will have both video and an audio subcarrier of approximately 50KHz
Power Requirements	System is based on 12VDc

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