VERSUS TECHNOLOGY, INC.

Description of the VER-1900 Badge

The VER-1900 Infant Badge contains a low power RF transmitter chip which is controlled by an ASIC. The frequency synthesizer for generation of the RF output carrier is received from a low frequency external crystal. An output clock from the RF chip runs the ASIC device, when an RF transmission needs to be generated the data is sent to the RF chip. The modulation used by the radio frequency chip is on/off key at 433.9MHz. The ground plane for the RF signal is contained in one of the four layers of the printed circuit board. The RF antenna is a PCB loop antenna, which is attached to the RF PCB by wires.

Versus Technology Inc. “Infant Badge” model number VER-1900 is an infrared transmitting badge with a RF supervisory signal. The badge is a low power long lasting IR/RF transmitter that incorporate a three-volt lithium battery.

Both infrared and RF signals are independent of each other. Both infrared and RF signals contain recognition code to identify the badge, along with motion status, battery status, and switch information.

When an alarm is activated by one of two inputs the badge transmits a different code that identifies an alarm has occurred along with the badges recognition code. There are two ways that the badge can be set in an alarm state; 1.) The first type of alarm is when a band on the badge is cut, this alarm will continue to transmit until the proper personnel deactivate the badge. 2.) The second type of alarm is a proximity alarm, when the badge enters a restricted area an alarm input is set. Upon exiting the restricted area the badge alarm input is cleared and RF transmissions are ceased.