

VST 800 Home Arrest Tag
Operational Description

The VST 800 patient Tag is a wristwatch-like unit worn on the wrist of an Alzheimer patient.

The Tag is a battery-operated unit. The tag comprises one Printed Circuit Board (PCB) which includes a RF transmitter module with an integral antenna, and a microcontroller, which controls its operation.

The VST 800 has one RF channel. It is 318.0 MHz carrier with FSK modulated.

The Tag is turned on and off by a nurse, using an electronic key which is temporarily attached to the tag strap.

While turned-on the Tag transmits a 5mSec identification & status signal and then it stops transmission. As a life safety equipment the Tag transmits the next signal about 10 seconds after the last signal transmission – any interruption in the reception of the transmitted signal (which might indicate a lost Alzheimer patient) may put the patient life at risk – the central monitoring system sends an immediate alert to the nurse in-charge, which should take immediate actions to find the lost patient.

If the patient is in distress, he may push a panic button, which is embedded in the wristwatch tag, thus triggering a transmission of a panic signal. The panic signal is comprised of three pairs of 5mSec transmissions (each pair contains one regular power transmission and one weak signal transmission), with 50-200mSec random interval between these six transmissions. Therefore, the panic alert transmission stops after 250-1000mSec (5 intervals between the 6 transmissions X 50 to 200 mSec).