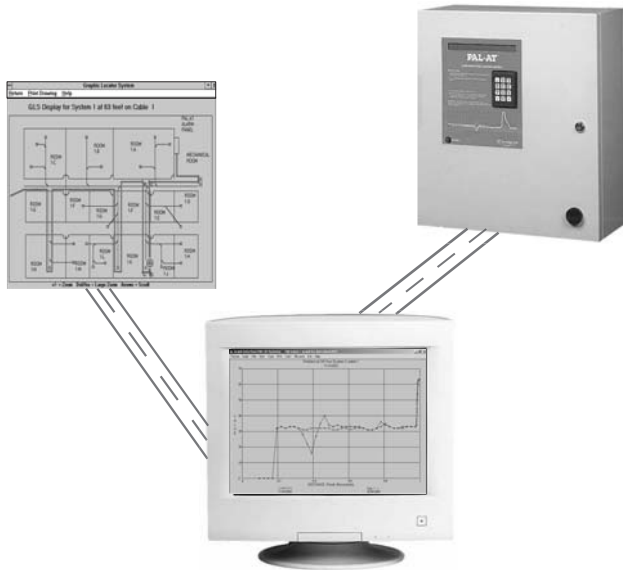




PERMALERT

Environmental Specialty Products

**Communication Options
for PAL-AT® and LiquidWatch®
Leak Detection Systems
PALCOM® Software
Product Data**



PRODUCT FEATURES

- Automonitor up to 254 PAL-AT and LiquidWatch systems
- Remote Keypad - View LCD screen and enter keypad data for any remote leak detection system
- List Archive - Download a list of events from any system
- Graph Data - Capture and plot system real time data (TDR Traces) from any PAL-AT system
- Graphic Locator System (GLS) - Display and print leak location on a site CAD drawing
- Interface Options Available - RS-232, phone modems, short-haul modems and ethernet network modems
- System Requirements - Microsoft Windows 98, ME, NT, 2000 or XP - RS-232 port or ethernet connection

PALCOM/GLS is an interactive remote monitoring software package designed to monitor PermaAlert's PAL-AT cable leak detection system and LiquidWatch probe leak detection system. PALCOM enables an operator to monitor events on up to 254 systems from one location.

Automonitor sequentially monitors all leak detection systems and displays the status of each system 24/7. If an event occurs, PALCOM flashes a visual message and "Beeps" until an operator responds. The operator can then "update" and view/print a list of all new messages received from the system(s). (Automonitor only monitors the system for three (3) hours when using PALCOM Lite.)

Remote Keypad enables an operator to view the LCD display and operate all functions of a system by using the computer instead of being at the alarm panel.

List Archives enables an operator to view and print a list of all archived events, or history, from any system. Messages are in simple text files that can be copied and pasted into report documents.

Graphic Locator System (GLS) displays a CAD drawing of an installation on the computer screen. The location of a problem on a sensor cable or

probe is identified by a flashing icon on the screen. This indicates to an operator the location of the event without the inconvenience of referring to a reference drawing.

Graph Data feature is only used with the PAL-AT system. It captures and plots "map" data. The graphs are similar to TDR (time-domain reflectometry) traces and can be interpreted by trained personnel who are familiar

with the characteristics of the PAL-AT system.

Interface Options

PALCOM can communicate with PAL-AT or LiquidWatch systems through the computer's RS-232 port via phone lines or 2-twisted pair communication cable. An ethernet network modem is also available to connect the alarm panels to PALCOM running on a network computer.

The following options are available:

Model	Part	Description
SHS-1	8027830	Short haul modem with cable to connect to PALCOM computer
SHS-2	8027835	Short haul modem with cable to connect to PAL-AT panel
SHS-2-LW	8027837	Short haul modem with cable to connect to LiquidWatch panel
PM-1	8027824	Phone modem with cable to connect to PALCOM computer
PM-2	8027826	Phone modem with cable to connect to PAL-AT panel
PM-2-LW	8027828	Phone modem with cable to connect to LiquidWatch panel
PM-2-INT	8068485	Internal phone modem for PAL-AT panel
TPC	8017695	Standard 2-twisted pair communication cable for short haul modems
PTPC	8017720	Plenum rated 2-twisted pair communication cable for short haul modems
NWM-2	8027838	Ethernet modem with cable to connect to PAL-AT panel
NWM-2-LW	8027839	Ethernet modem with cable to connect to LiquidWatch panel



PRODUCT FEATURES

- Configured as Modbus slave to communicate with host using Modbus RTU protocol
- Interface PAL-AT leak detection system with Modbus RTU
- Baud rate and format configurable
- Modem RTS - for 202-type modem or radio
- Modbus function code 3 operation
- PLC09 Modbus converter and cable to PAL-AT included
- Built-in power-up diagnostics with LED indicator

The Modbus RTU Interface will connect any PAL-AT system to a Modbus network, using Modbus RTU protocol. Each PLC09 Modbus converter has battery back-up RAM for configuration data.

Model	Part	Description
MODRTUP	8027850	Modbus RTU Interface

The information contained in this document is subject to change without notice. PermaAlert Environmental Specialty Products believes the information contained herein to be reliable, but makes no representations as to accuracy or completeness.

PermaAlert ESP offers a sole and exclusive one year warranty from date of shipment as is stated in the Standard Terms and Conditions of Sale for these products. In no event will PermaAlert ESP be liable for any indirect, incidental, or consequential damages.

**PermaAlert ESP · 7720 North Lehigh Avenue · Niles, IL 60714
(847) 966-2190, Fax (847) 470-1204, www.permalert.com**