# ENGINEERING SPECIFICATIONS SENSAPHONE® MODEL 4100

#### I. General

The Automatic dialer shall be a self-contained microprocessor controlled system capable of monitoring up to 4 dry contact input channels, temperature, AC power, and high sound. The system shall have one output. The system shall be configured for operation by the user by means of the built-in keypad.

Upon detection of an alarm or status change, the system shall commence dialing telephone numbers sequentially from a user-programmed list and deliver an English voice-synthesized message indicating which input is in alarm. The system will continue to call telephone numbers in succession until a positive acknowledgment of the alarm message is received.

Acknowledgment is accomplished by depressing tone keys from the called telephone, or by calling the system back within a programmed time period. The alarm may also be acknowledged using the local keypad. In addition, the system shall be able to receive incoming telephone calls. Upon answering, the system shall recite a status report.

The system shall be FCC and DOC registered for direct connection to the telephone network. The system shall have a one year warranty from the manufacturer. The system shall be a Sensaphone® Model 4100 by Sensaphone, Inc., or approved equal.

## II. I/O Channel Attributes and Features

#### A. Inputs

The system shall come standard with 4 dry contact inputs. The input channels shall be user-configurable as NO or NC digital dry contact using 5mA loop current.

The system shall have the following built-in monitoring features:

- 1. AC power failure detection
- 2. Temperature using pre-wired remote temperature sensor (-20° F to 150° F)
- 3. Sound level monitoring
- 4. Low battery detection (status only, no dialout)

All monitored channels, including built-in monitoring features, shall allow keyboard programming of pertinent operational data including, but not limited to:

- 1. Input type (NO/NC)
- 2. High and Low limits (temperature)
- 3. Enable/disable for each channel to dialout for alarm

## B. Output

The system shall have one built-in 5 Volt logic signal output. The output shall switch automatically.

#### **III.** Communications Features

# A. Telephone Specifications

The system shall connect to a standard 2-wire telephone line using pulse or tone, with loop start only. The system shall recognize ringer frequencies from 16 to 60 Hz. No leased or dedicated lines shall be required. They system shall also be compatible to be used on the same telephone line as other answering devices.

# B. Telephone Numbers

The system shall be capable of dialing up to 4 telephone numbers, 32 digits each. The telephone numbers may be programmed to dial out in pulse or tone.

## IV. Programming

The System shall contain an integral, sealed, alphanumeric keypad for the purpose of locally programming all system data. Programming is assisted by synthesized voice guidance.

## V. Remote Operation Features

#### A. Status Report

The system shall allow the user to call into the unit at any time using any standard telephone to obtain a full status report of all monitored channels including present temperature and listen-in to on-site sounds. The status report shall be articulated using the resident voice-synthesized English vocabulary.

### B. Acknowledgment

An alarm on any monitored channel may be acknowledged remotely by pressing tones on a touchtone telephone keypad or by calling the system back within a specified time period. An alarm may also be acknowledged locally using the built-in keypad.

#### VI. Enclosure and Environmental

## A. Power

The system shall be provided with a UL listed 12V AC power transformer that the user may plug into a 115V AC outlet, +20%, 60HZ.

#### B. Enclosure

The system shall be housed in a NEMA-1 steel enclosure and shall be internally constructed to facilitate field upgrades, repair, and maintenance. NEMA-4 option available.

## C. Battery Backup

The system shall have a built-in 1.9 AH gelled electrolyte rechargeable battery. This battery shall support approximately 22 hours of continued system operation in the absence of AC power.

D. Electrical Protection

Power and telephone connection shall have internal spike and surge protection using metal oxide

varistors. The dry contact inputs shall be optically isolated.

E. Additional Electrical Surge Protection

Additional Power and Telephone line surge protection shall be available from the manufacturer. When so installed, the system shall be fully warranted against any damage caused by transient

surges entering the system through Power or Telephone lines.

F. Environmental

The system shall function over an operating range of 32° F - 120° F at up to 0 - 90% RH, non-

condensing.

G. Maintenance

The system manufacturer shall have in-house service facilities and technical assistance available

during normal business hours (EST).

Specifications subject to change without notice.

SENSAPHONE, INC.

901 Tryens Road

Aston, PA 19014

Phone: 610.558.2700 Fax: 610.558.0222

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