

Architect and Engineering Specification

Model 298-003 S.M.A.R.T. Flush Mount Emergency Telephone

The phone shall operate on a standard analog phone line. It shall be solely powered from the phone line and shall not require battery or external power. The telephone shall be rated for outdoor installation. The phone shall be auto-dialing and capable of automatically answering incoming calls. The phone shall provide an auxiliary switch output for activation of peripheral equipment when the **HELP** button is pressed. The phone shall have automatic line level compensation for optimum performance.

Calls shall be initiated by using either the **HELP** button or the **CALL** button. The **HELP** button shall always override all other operations to auto-dial the pre-programmed number immediately. Pressing the black **CALL** button shall take the phone off-hook and allow the user to dial local numbers by using the metallic weatherproof Braille keypad. Pressing the black **CALL** button a second time shall end the call and put the phone on-hook. When calls are connected, communication shall be hands-free, speakerphone operation. The phone shall be compliant with the Americans with Disabilities Act (ADA) and provide the following features:

- Visual indicator when the call is received (programmable options)
 - Automatic LED activation. The LED indicator flashes after the emergency button is pressed to indicate that the call is being connected. The LED indicator lights steady when audio is detected to provide positive confirmation that the connection is complete. Visual indicators that indicate call connected based on time delay, color change or that do not remain steady lit after connection shall not be acceptable.
 - An alternative for lighting the LED indicator steady shall be available by the called party pressing the DTMF # (or*) to acknowledge the connection.
 - Phone location identification by transmitting DTMF digits corresponding to the phone's identity.
- Call disconnect control by called party
- The **HELP** button with Braille tag shall be equipped with a large red "palm" button for easy activation. Push-buttons that do not provide a tactile feel when activated will not be acceptable.

The phone shall be capable of being monitored by a remote computer equipped GAI-Tronics Telephone Management Application running on Microsoft Windows 2000 or Windows XP, Professional or Home edition. To establish a monitoring connection, the phone shall call the computer at a preset time or the computer shall call the phone. The computer shall use the Telephone Management Application (TMA) software package to monitor and configure the phone. The phone shall be capable of reporting the following information to the TMA Computer:

- **Call History Log** – A record of the phone's most recent 30 telephone calls. The type, date, start time, and duration of each call shall be reported.
- **Stuck Contact** – A mechanical malfunction of the **HELP** push-button, call push-button or a keypad switch being stuck in the closed (pressed) position.
- **Phone Line- Interrupt** – A loss of phone line connection. This event shall be reported to the TMA computer during the scheduled maintenance call after the line connection is restored.
- **Micro Processor Self Test** – Phone detects corruption in its operational memory during the diagnostic self testing.

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The phone shall dial up to three different stored numbers (Three number roll over) when the **HELP** button is activated to ensure the calls are answered. If the first number dialed is busy or does not answer, the second and third numbers shall be dialed as required. The phone shall attempt to establish a connection by repeating the dialing sequence a configurable number of times, as set by customer through TMA software. Likewise, the phone shall store three telephone numbers associated with calling the TMA computer to report health information.

The telephones maintain a record of all calls both received and originated at the phone in a call log. The call log is stored in the phone's non-volatile memory so that an interruption of phone power does not cause the loss of call log data. If configured in the TMA, the call log data will be retrieved on every call-in maintenance call, every poll call, or both. Additionally, TMA shall be configurable to retrieve a limited number of records in order to restrict the duration of maintenance calls, if desired by the customer.

The SMART Phone will store a maximum of 31 call log records before beginning to overwrite the oldest call data (a sensor will report when the limit is being approached). The SMART Telephone will store the following call information:

- Call type (voice or maintenance)
- Call direction (incoming or outgoing)
- Call date
- Call time
- Call duration
- Answer delay (voice calls only)
- Abandonment reason (if applicable, what prevented the call from being connected)
- Termination reason (what ended the call)

This information is stored for every call attempt whether the call is actually successful in connecting or not. A user-initiated call (i.e., pressing the **HELP** button) shall override any in-process maintenance call with the TMA computer. The maintenance call shall be terminated and the phone shall process the user call.

The phone shall contain a microprocessor and non-volatile memory for storage of its parameters. The phone shall be remotely programmed from the TMA computer. The following phone operating parameters shall be programmable:

- **Auto-Dial Number** is the number dialed by the **HELP** button (up to 24 digits) with rollover on busy or no answer to two additional phone numbers.
- **Auto-answer** automatically answers an incoming call.
- **Call time-out** to limit the time a call can be in-progress. (1-500minutes)
- **Maintenance Call-in** –The time of day that the phone will automatically call the monitoring computer.
- **Silent Monitoring** - The phone shall remain silent during monitoring or data calls. Phones that are not silent during this time shall not be acceptable.

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The phone shall incorporate two normally open “sensor” inputs for monitoring externally supplied voltage-free contacts. Upon detecting sensor activation, the phone shall call the TMA computer and report the current sensor condition. The phone’s health status, date and time shall be reported.

The phone shall be weatherproof rated to NEMA 3R with an operating temperature range of –40°C to +60°C and relative humidity to 95% non-condensing. The phone shall be a flush mount design with 12x10” (HxW) 14 gauge stainless steel faceplate and a 10x7.6x4” (HxWxD) #16 gauge cold rolled steel back box. All mounting hardware shall be tamper-resistant.

The telephone and software shall be designed and developed by the manufacturer.

Telephone manufacturer shall be ISO 9001 Certified.

Phone shall be registered under FCC regulations, 47 CFR, part 68 and comply with UL/CSA 60950.

Telephone shall be manufactured by **GAI-Tronics Corporation as Model 298-003.**