

# Architect and Engineering Specification

## Model 227-003 S.M.A.R.T. Tough Telephone

Phone shall operate on a standard analog phone line. It shall be powered solely from the phone line and not require a battery or external power source. The phone shall be capable of either auto-dial or ring-down operation. A call is initiated by lifting the handset. A receiver volume control shall be provided on the front panel. The phone shall be tone dialing.

The phone shall be capable of being monitored and configured by the GAI-Tronics Telephone Management Application (TMA) running on a remote computer. The computer shall connect to the phone through the telephone network using a voice grade phone line modem. To establish connection, the phone shall call the computer at a preset time or the computer shall call the phone. The phone shall be capable of reporting the following information to the TMA Computer:

- **Call Log** – A report of the phone activity since the last call log report. The type of call, date, start time, number dialed and duration of each call shall be reported.
- **Handset Cord Integrity** – An open circuit on the handset cord.
- **Phone Line Interrupt** – A loss of phone line power causing the phone to be inoperable. The event shall be reported to the TMA computer during its scheduled maintenance call when the line power is restored.
- **Microprocessor Self Test** – Phone detects corruption in its operating memory during the diagnostic self-testing.

Any user-initiated call shall override an in-process maintenance call to 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 when handset is lifted (up to 24 digits)
- **Call time-out** to limit the time a call can be in-progress. (1-166 minutes or forever)
- **Three number rollover** – Continuous until call is answered.
- **Mute Before Dial** disables the microphone until the call is connected (ON or OFF)
- **Receive levels** (Receiver gain).
- **Maintenance Call-in** – The time of day the phone will automatically call the monitoring computer.
- **Solid state switch** – Remote activation of peripheral devices

The phone housing shall be vandal resistant, weatherproof to NEMA 3R and shall withstand corrosive environments. The housing shall be constructed of cast aluminum with a minimum of 0.25" uniform wall thickness. The door shall have a spring return that self-latches when released from a 90 degree open position. The door hinge shall not be exposed when the in the closed position. A stainless steel panel (containing the handset and volume control press button) shall be removable from the rear section of the housing to access the phone electronics. The panel shall be secured to the housing with tamper-resistant hardware. The housing shall be oval shaped 13.5"x 9.7"x 6.1" (HxWxD) and painted with gray epoxy paint. The phone shall weigh 18 pounds.

The handset shall be "G" style with a hearing aid compatible receiver and with noise canceling microphone. The handset shall be secured to the front panel with a 15" armored cord containing an internal lanyard cable having minimum pull strength of 800 lbs. The handset cradle shall be heavy-duty, chrome plated with a non-movable, magnetic type hook-switch. The phone shall contain a front panel ringer with REN of 1.5 or less. The phone shall be supplied with a 7' modular cable (RJ11C type) for connection to the incoming phone line.

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The phone shall have an operating temperature range of  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  and relative humidity to 95% non-condensing.

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.

The phone shall be manufactured by **GAI-Tronics Corporation as Model 227-003.**