MAXSYS™

INTEGRATED SYSTEMS TECHNOLOGY

ENGINEER'S SPECIFICATIONS

Burglar Alarm System

Base System Panel

The security control panel shall have a total capacity of 128 zones. The base panel shall have a capacity of 16 hardwired zones and 112 addressable zones on two addressable loops. All zones shall be fully supervised and programmable. The panel shall be complete with integral power supply and supervised battery charger, auxiliary power for powering security detection devices, programmable switched auxiliary power supply for 4-wire smoke detectors, integral supervised digital alarm communicator, supervised bell/siren output, and two general purpose programmable outputs which can be programmed as general purpose outputs or as the system's addressable loops.

Combus

The system shall be complete with a standard, non-shielded, 4 conductor station wire bus (Combus) for powering and communicating with remote hardwired system expansion modules and devices. The Combus shall be composed of up to 4 legs, with each leg up to 1,000 ft (305 m) long.

Zone Expansion

The panel shall be expandable to a maximum of 128 zones by adding standard hardwired 8 and 16-zone modules connected to the base panel via the Combus, by adding up to 112 addressable detection devices to one or both of the addressable loops on the base panel, and by adding up to 8 distributed wireless receiver modules to the combus for up to 64 wireless zones. The system shall be capable of expansion using hardwired, addressable, and wireless in any combination that suits the application.

User Codes

The system shall support 1,500 user codes, selectable as either 4 or 6 digits. For access control, user codes shall be assignable to 1 of 64 access levels. User codes shall be assignable to one or multiple partitions.

Partitions

The system shall be programmable for up to 8 fully independent partitions. Each partition shall have its own account code. Keypads shall be assignable as 'partition' keypads or 'global' keypads. Each zone in the system shall be assignable to one or more partitions.

Hardwired System Keypads

The system shall accommodate up to 16 hardwired LCD keypads which are powered from the base panel via the 4-wire communications bus. LCD keypads shall have a display capacity of at least 32 alphanumeric characters with adjustable brightness and contrast. Keys shall be backlit for low light ease of use. Keypads shall include individual 'Armed', 'Ready', and 'Trouble' indicators, three keypad-activated alarm keys, and five programmable function keys. Keypads shall be available with red bezels as required for fire systems.

Wireless Security & Control

Wireless control devices shall include up to 4 wireless keypads (in addition to hardwired keypads), and up to 16 wireless keys for remote arm/disarm. Security devices shall include up to 64 wireless detectors including panic pendants, each of which occupies one wireless zone.

Central Station Reporting

The system shall provide high speed 10/20 bps 1400/2300 Hz handshake, Contact ID and SIA reporting formats and shall be capable of being programmed to call up to 3 telephone numbers. The system shall also allow communication to a pager. The telephone numbers shall be programmable for backup dialing should the primary number fail. The system shall be programmable for split reporting so that alarms/restorals, openings, closings, and miscellaneous events can be sent to different telephone numbers. The system shall report a separate account code for each partition and for non-partition (system) events. The system shall be capable of reporting all alarms, trouble, and system status information by combinations of all communication methods installed, including: digital communicator, cellular transmitter, long range radio, Cellemetry, Mobitex, and DVACS.

System Printer

The system shall include a serial output module for a hard copy printer installed anywhere along the Combus. All system events, alarms, and restorals shall be printable and each event shall include the partition, date, and time.

System Event Buffer

The system shall have a 3,000-event buffer. All events shall be printable from the system printer. The 2,800 most recent events shall be viewable by keypad LCD display. All events shall be viewable by local or remote PC.

Power Supply/Relay Output Modules

The system shall be capable of including up to 64 fully programmable output relays with Form 'C' contacts rated 2A at 30 V_{DC}. Relays shall be added in modules of 4 and may be located anywhere on the Combus. Each module shall include a supervised 350 mA 24 V_{DC} battery charger, and integral power supply to provide up to 1.0A of auxiliary power at 12 V_{DC} to power direct-connected devices or repower the Combus.

Low Power Outputs

The system shall be capable of including up to 144 low power outputs, with each output able to supply 50 mA at 12 V_{DC}. Outputs shall be added in increments of 16 and may be added anywhere on the Combus.

Remote Annunciation

The system shall be capable of remote zone alarm and system status annunciation, up to 144 points, by adding 32 and 64 point annunciators anywhere on the Combus. Annunciators shall be capable of being flush mounted. The annunciators shall provide point and graphic annunciation capability.

Access Control

The system shall support 16 dual reader access control modules for a total of 32 readers. Each access control module shall be complete with an integral power supply and supervised battery charger, and shall provide full standalone operation if communication with the base panel is lost. Access control modules shall include non-volatile memory to retain all schedules and programming information even if AC and battery power are lost, and shall be capable of being added to the system anywhere on the Combus.

Access control modules shall accept proximity readers, magnetic stripe readers, and 26 bit Wiegand readers. Readers shall be capable of being located up to 500 feet (152.4 m) from the modules. Each access module shall have the following inputs and outputs per reader: request-to-exit detector input, postpone arm pushbutton input, arm pushbutton input, door contact input, door strike output, and outputs for reader LED and buzzer.

Access control shall allow users to arm or disarm the security system while locking or unlocking the doors from outside the protected space. Users may use a valid card to disarm the system automatically while unlocking the door, to arm

the system in combination with the arm pushbutton while locking the door, and to postpone autoarm in combination with the autoarm pushbutton. Access control software shall be an integral component of the base panel software and shall provide the following functions: capacity for 1,500 cards, 64 access levels, 99 seven day schedules with 4 intervals per schedule, holiday scheduling for a two year period, and individual door unlock schedules with automatic Daylight Saving Time adjust for all schedules. Access control functions shall be fully programmable through any system keypad, either locally or remotely, using any PC and the upload/download software.

The system shall be capable of premise telephone entry control of up to 32 doors. System shall have an entry interface at each door with a fast scrolling directory accommodating up to 1,500 names with 12-digit phone numbers.

All access control transactions shall be recorded in the system event buffer.

Voice-Assisted Status & Control
The system shall be capable of providing system status and control via any local or remote DTMF (tone) telephone. System status information shall be provided by voice. The system shall include a word library and allow custom words for zone labels.

Automation
The system shall be complete with an automation control module capable of controlling 32 X-10 automation devices by event and by schedule. The system shall include 16 schedules to control automation devices. Automation shall be controllable via any keypad and local or remote DTMF (tone) telephone.

Scheduling
The system shall provide for 99 date schedules with 4 intervals per schedule, 4 holiday schedules with 2 years of scheduling capacity, 99 open/close suppression schedules, 50 arm/disarm schedules, 50 smoke detector test schedules, and 16 automation schedules. All schedules shall be programmable via the LCD keypads and via downloading either locally or remotely.

Ground Fault Detection
The system shall include an integral ground fault detector capable of detecting a single ground fault on any extended conductor in the system.

Supervision
Each zone in the system shall be supervised. The base panel and any remote panel with its own AC input shall be supervised for AC loss. Batteries for the base panel and all remote panels shall be supervised for low power and be short circuit-protected. Each addressable device and each wireless input device shall be supervised for the device's presence. The Combus shall be supervised for low voltage and the presence of each enrolled module and keypad. All alarm communication methods employed by the system shall be supervised.

False Alarm Prevention
The system shall include the following false alarm prevention features: audible exit delay, arm/disarm bell squawk, audible exit fault, urgency on entry delay, no entry arming/disarming, swinger shutdown programmable by zone, transmission delay by zone, AC fail, TLM trouble and low battery trouble transmission delay, recent close code transmission, police code (cross zone) transmission, opening after alarm transmission, and arming/disarming from outside the protected space using access control.

System Software
The base panel shall come complete with all the software to implement every system feature and allow the addition of every expansion or functional module without changes or addition to the basic software.

System Programming
The system shall be fully programmable via the LCD keypads.

Separate PC-based upload/download software shall allow programming and operation from a directly connected local computer, or from a remote computer via a telephone line or LINKS cellular communications equipment. Remote access shall be controlled by the owner to prevent unauthorized access.

The system shall include Windows®-based system administration software and a data port for use in system integration programming.

All system programming shall be maintained in non-volatile memory so that program information is maintained even if all AC and battery power are removed.

Intercom Audio Interface
The system shall be complete with an intercom audio interface capable of supporting 15 intercom stations.

Local intercom functions shall include page/answer, do not disturb, doorbell answer, and door strike release.

A listen-in broadcast function shall allow any station to be programmed as a broadcast station that may be listened to by all other interior stations on the system.

Intercom stations shall be programmable to allow answering of phone calls received on a premise voice line and shall support call waiting and allow transfer to in-house phones.

Intercom stations shall be programmable as sounders for burglar and fire alarms.

Intercom stations shall be mounted beside keypads to act as speakers for system audio user help voice prompts and system status reports.

The system shall include 2-way intercom stations to accommodate listen-in monitoring and alarm verification by the Central Station.

UL Listed Commercial Fire Alarm System

The UL Listed commercial fire alarm version of the system shall have all the capabilities of the alarm system described above with the following changes and additions:

The base system panel shall be supplied in a red enclosure and be complete with a 16 VAC 40VA transformer and a fire module complete with 1 Class 'B'/Style 'B' two-wire smoke detector zone accommodating 30 12 VDC smoke detectors, 1 Class 'B'/Style 'B' waterflow zone, 2 supervised communicator outputs, terminal connection for house telephone, 1 fire alarm-actuated relay with Form 'C' contacts rated 2 A @ 30 VDC, and one fire trouble-actuated relay with Form 'C' contacts rated 2 A @ 30 VDC.

All zones shall be programmable as fire zones. Addressable loops shall accommodate 112 smoke detectors programmed as standard fire zones or auto-verify fire zones. Hardwired fire zones shall be programmable as standard fire zones, auto-verify fire zones, waterflow zones, or fire supervisory zones.

All zones shall be supervised for open circuit and ground fault. Addressable loops shall support supervised inputs for heat detectors and pull stations.

System shall support 4 dual bell output panels on the Combus, each complete with red enclosure, 2 supervised Class 'B'/Style 'Y' bell outputs, supervised 350 mA 24 VDC battery charger, and 28 VAC 170VA power transformer. Bell outputs shall be supervised for short circuit, open circuit, and ground fault.

Fire bell outputs shall be rated for 1.8 A @ 24 VDC each and be programmable as steady, temporal pattern, CA pattern, or pulsed. Each bell output shall also be programmable as a fire strobe output, which will remain energized until the system is reset.

Fire alarms shall autoscroll on all system LCD keypads, and fire silence and reset shall be limited by programming to specific access codes.

System software shall include the following test functions: fire drill, fire inspector's test, scheduled smoke detector tests, and annunciator lamp test.

Power supply/relay output modules shall be in red panels complete with a supervised 350 mA 12 VDC battery charger, 16 VAC 40VA transformer, and integral power supply to provide up to 550 mA of auxiliary power at 12 VDC to power direct-connected devices or repower the Combus.

The system shall support fire-specific annunciators, each providing annunciation of 10 fire zones, 2 fire supervisory zones, 1 common bell zone trouble, 1 common fire zone trouble, 1 common system trouble, and 1 AC 'ON' indicator.

Listings

The system shall meet UL and ULC standards as required by governing authorities for the type of application.

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